



# MERCED COLLEGE

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[www.mccd.edu](http://www.mccd.edu)

## Accredited by Western Association of Schools and Colleges

This catalog is published for informational purposes. Although every effort has been made to ensure its accuracy, it is not to be considered an irrevocable contract between the student and Merced College. The college reserves the right to change provisions and descriptions at any time while taking precautions that such changes do not adversely affect enrolled students. Students are advised to consult the current Schedule of Classes and college counselors for supplementary information.

# FROM THE PRESIDENT



Welcome to Merced College where students are our focus! Merced College is committed to helping you achieve your educational and career goals. Our committed faculty, classified professionals, and leadership work hard to ensure access and success for all students.

Since first opening our doors in 1962, thousands of students have pursued and achieved their academic and professional goals. With nearly 16,000 students enrolled, we provide cutting edge and innovative programs to prepare society ready graduates with both regional and global perspectives.

We put students first whether we are providing academic counseling, teaching in the classroom, maintaining our beautiful campus and facilities, or assisting with student support programs and services. With more than 135 associate degrees and certificate programs, guaranteed transfer agreements with four-year institutions, and comprehensive career technical education programs,

Merced College is prepared to equip you for the career of your choice.

Merced College is accredited with the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges. A number of our specialized programs maintain their own professional accreditation as well.

At Merced College, we honor and pursue our mission, institutional philosophy, and core values and beliefs. We also pursue the goals of our current strategic plan, striving always to improve our institutional effectiveness and our learning outcomes for students.

We are glad that you have discovered Merced College as a place where you can continue on your individual path to a better future through education. Every member of the college community is here to support you in reaching your academic goals.

It is my sincere hope that you find a home at Merced College. Please let our dedicated team of professionals know how we can best meet your needs. I look forward to seeing you when you are on campus.

Sincerely,  
Chris Vitelli, Ed.D.  
Superintendent/President

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# ACADEMIC SCHEDULE 2022-2023

## SUMMER 2022

### SUMMER 2022 dates for first 4-week classes

Summer and Fall 2022 Semester Registration Begins.....	April 13, 2022
SUMMER 2022 <b>1st 4-Week</b> SEMESTER BEGINS .....	May 23, 2022
Adds Require Instructor's Signature beginning first day of the term .....	May 23, 2022
Refund Deadline for all classes, you must drop before 10% of the class meetings.....	before 10% of the class meetings
Last Chance to Drop with No Entry on Transcripts for 4-week Classes .....	You Must Drop Before 20% of the Class Meetings
Instructional Dean signature required.....	May 31, 2022
Pass/No Pass Option Deadline for 4-week classes meeting MTWTh.....	June 16, 2022
Last Chance to Drop with a "W" for 4-week classes meeting MTWTh.....	June 6, 2022
End 1st 4-week Summer 2022 Session .....	June 16 2022

## SUMMER 2022

### SUMMER 2022 dates for 3-week classes

Summer and Fall 2022 Semester Registration Begins.....	April 13, 2022
Juneteenth Observed - Campus Closed .....	June 20, 2022
SUMMER 2022 <b>3-Week</b> SEMESTER BEGINS.....	June 21, 2022
Adds Require Instructor's Signature beginning first day of the term .....	June 21, 2022
Refund Deadline for all classes, you must drop before 10% of the class meetings.....	before 10% of the class meetings
Last Chance to Drop with No Entry on Transcripts for 4-week Classes .....	You Must Drop Before 20% of the Class Meetings
Instructional Dean signature required.....	June 23, 2022
Pass/No Pass Option Deadline for 4-week classes meeting MTWTh.....	July 7, 2022
Last Chance to Drop with a "W" for 4-week classes meeting MTWTh.....	June 30, 2022
End 1st 4-week Summer 2022 Session .....	July 7, 2022

## SUMMER 2022

### SUMMER 2022 dates for second 4-week classes

Summer and Fall 2022 Semester Registration Begins.....	April 13, 2022
SUMMER 2022 <b>2nd 4-Week</b> SEMESTER BEGINS .....	July 13, 2022
Adds Require Instructor's Signature beginning first day of the term .....	July 13, 2022
Refund Deadline for all classes, you must drop before 10% of the class meetings.....	before 10% of the class meetings
Last Chance to Drop with No Entry on Transcripts for 4-week Classes .....	You Must Drop Before 20% of the Class Meetings
Instructional Dean signature required.....	July 14, 2022
Pass/No Pass Option Deadline for 4-week classes meeting MTWTh.....	July 14, 2022
Last Chance to Drop with a "W" for 4-week classes meeting MTWTh.....	July 28, 2022
End 1st 4-week Summer 2022 Session .....	August 4, 2022

### SUMMER 2022 dates for 6-week classes

Summer and Fall 2022 Semester Registration Begins.....	April 13, 2022
SUMMER 2022 <b>6-Week</b> SEMESTER BEGINS.....	June 21, 2022
Adds Require Instructor's Signature beginning first day of the term .....	June 21, 2022
Refund Deadline for all classes, you must drop before 10% of the class meetings.....	before 10% of the class meetings
Last Chance to Drop with No Entry on Transcripts for 6-week Classes meeting MTWTh .....	June 23, 2022
For all other classes, you must drop the day before 20% of the class meetings.	
Instructional Dean signature required for 6-week Classes.....	June 28, 2022
Pass/No Pass Option Deadline for 6-week classes meeting MTWTh.....	July 28, 2022
Last Chance to Drop with a "W" for 6-week classes meeting MTWTh.....	July 19, 2022
For all other classes, you must drop the day before 75% of the class meetings.	
Independence Day Observed - Campus Closed .....	July 4, 2022
End 6-week Summer 2022 Session .....	July 28, 2022

### SUMMER 2022 dates for 7-week classes

Summer and Fall 2022 Semester Registration Begins.....	April 13, 2022
Juneteenth Observed - Campus Closed .....	June 20, 2022
SUMMER 2022 <b>7-Week</b> SEMESTER BEGINS.....	June 21, 2022
Adds Require Instructor's Signature beginning first day of the term .....	June 21, 2022
Refund Deadline for all classes, you must drop before 10% of the class meetings.....	before 10% of the class meetings
Last Chance to Drop with No Entry on Transcripts for 7-week Classes meeting MTWTh .....	June 23, 2022
For all other classes, you must drop the day before 20% of the class meetings.	
Instructional Dean signature required for 7-week Classes.....	July 5, 2022
Pass/No Pass Option Deadline for 7-week classes meeting MTWTh.....	August 4, 2022
Last Chance to Drop with a "W" for 7-week classes meeting MTWTh.....	July 21, 2022
For all other classes, you must drop the day before 75% of the class meetings.	
Independence Day - Campus Closed.....	July 4, 2022
End 7-week Summer 2022 Session .....	August 4, 2022

# ACADEMIC SCHEDULE 2022-2023

## FALL 2022

FALL 2022 Semester registration begins .....	April 13, 2022
FALL 2022 SEMESTER INSTRUCTION BEGINS .....	August 15, 2022
Adds <b>require</b> instructor's signature (for 18-week classes).....	August 15, 2022
Refund deadline for 18 week classes.....	August 28, 2022
<i>For all other classes, you must drop the day before 10% of the class meetings</i>	
Graduation and Certificate of Completion applications accepted.....	August 22 - October 14, 2022
Last chance to drop with no entry on transcripts for 18-week classes in person .....	September 7, 2022
<i>For all other classes, you must drop the day before 20% of the class meetings</i>	
Instructional Dean's signature required on adds if effective date is after 3rd week.....	September 6, 2022
Pass/No Pass Option deadline.....	December 16, 2022
FALL 2022 Mid-Session begins.....	October 17, 2022
<i>Adds require instructor's signature beginning first day of the term</i>	
Last chance to drop with a "W" for 18-week classes in person .....	November 10, 2022
OR online.....	November 13, 2022
<i>For all other classes, you must drop the day before 75% of the class meetings</i>	
Final Exams.....	December 12-16, 2022
End of FALL 2022 Semester .....	December 16, 2022

## SPRING 2023

Spring 2023 Semester registration begins .....	October 10, 2022
Spring 2023 SEMESTER INSTRUCTION BEGINS (adds require instructor's signature for 18-week classes).....	January 17, 2023
Refund deadline for 18 week classes.....	January 30, 2023
<i>For all other classes, you must drop the day before 10% of the class meetings</i>	
Graduation and Certificate of Completion applications accepted.....	January 23 - March 17, 2023
Last chance to drop with no entry on transcripts for 18-week classes in person .....	February 8, 2023
<i>For all other classes, you must drop the day before 20% of the class meetings</i>	
Instructional Dean's signature required on adds if effective date is after 3rd week.....	February 6, 2023
Pass/No Pass Option deadline.....	TBD
Spring 2023 Mid-Session begins.....	March 20, 2023
<i>Adds require instructor's signature beginning first day of the term</i>	
Scholarship Application Deadline .....	March 24, 2023
Last chance to drop with a "W" for 18-week classes in person .....	April 26, 2023
<i>For all other classes, you must drop the day before 75% of the class meetings</i>	
Final Exams.....	May 22-26, 2023
End of Spring 2023 Semester .....	May 26, 2023
Memorial Day - campus closed .....	May 29, 2023

## ACADEMIC CALENDAR 2022-2023

## JULY 2022

S	M	T	W	TH	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

INDEPENDENCE DAY - JULY 4

END 3-WEEK SUMMER SESSION  
JULY 7  
START SECOND 4-WEEK SUMMER  
SESSION  
END 6-WEEK SUMMER SESSION  
JULY 28

## AUGUST 2022

S	M	T	W	TH	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

END 7-WEEK SUMMER SESSION  
AUG 4  
FALL 2021 SEMESTER BEGINS,  
AUG 15  
FLEX DAYS, AUG 11-12  
FALL 2021 INSTRUCTION BEGINS,  
AUG 15

## SEPTEMBER 2022

S	M	T	W	TH	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

NO SATURDAY CLASSES SEPT. 3  
LABOR DAY, SEPT. 5  
CENSUS DAY, SEPT 6

## OCTOBER 2022

S	M	T	W	TH	F	S
30	31					1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

END FIRST 9-WEEK SESSION OCT. 14  
MID-SESSION BEGINS, OCT 17

## NOVEMBER 2022

S	M	T	W	TH	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

VETERANS' DAY, NOV 11  
THANKSGIVING BREAK, NOV 24-25  
NO SATURDAY CLASSES, NOV  
26-27

## DECEMBER 2022

S	M	T	W	TH	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

FINALS, DEC 12-16  
END OF SEMESTER, DEC 16  
COLLEGE CLOSED  
DEC 26-JAN 2

## JANUARY 2023

S	M	T	W	TH	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

NEW YEARS DAY, JAN 2  
SPRING FLEX DAYS, JAN 13  
NO SATURDAY CLASS, JAN. 14  
SPRING 2023 SEMESTER BEGINS,  
JAN 17  
MLK DAY, JAN 16  
CENSUS DAY, JAN 30

## FEBRUARY 2023

S	M	T	W	TH	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

CENSUS, FEB. 9  
NON-INSTRUCTION, FEB. 10-11  
LINCOLN'S DAY, FEB 10  
NO SATURDAY CLASSES, FEB 11  
PRESIDENT'S DAY, FEB 20

## MARCH 2023

S	M	T	W	TH	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

MID-SESSION BEGINS, MARCH 20

## APRIL 2023

S	M	T	W	TH	F	S
30						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

GOOD FRIDAY, APRIL 14  
NO SATURDAY CLASSES, APRIL 15  
SPRING BREAK WEEK APRIL 17-21  
NO SATURDAY CLASSES, APRIL 22

## MAY 2023

S	M	T	W	TH	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

FINALS, MAY 22-26  
END OF SEMESTER, MAY 26  
GRADUATION, MAY 26  
MEMORIAL DAY, MAY 29

## JUNE 2023

S	M	T	W	TH	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

JUNETEENTH HOLIDAY (6/19)  
SUMMER 23( 4-WEEK) SESSION,  
JUNE 5-JUNE 29  
SUMMER 23 (6-WEEK) SESSION  
JUNE 12-JULY 20  
SUMMER 23 (8-WEEK) SESSION  
JUNE 12-AUG 3  
CENSUS DAY (1ST 4-WEEK  
SESSION), JUNE 8  
CENSUS 6-WEEK, JUNE 19  
CENSUS 8-WEEK, JUNE 21



# MERCED COLLEGE

## BOARD OF TRUSTEES

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President

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Member

**JOE GUTIERREZ**  
Vice President

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Member

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Clerk

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B.S., University of Florida;  
M.Ed., Harvard University  
Ed.D., Arizona State University

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Assistant Superintendent/Vice President, Administrative Services  
A.A., Merced College  
B.S., California State University, Fresno

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B.A., University of California, Santa Barbara  
M.A., California State University, Stanislaus  
Ed.D., California State University, Stanislaus

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B.S., California Polytechnic State University, San Luis Obispo  
M.A., California State University, Chico

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B.A., Sonoma State University  
M.M., University of Southern California

**VALERIE ALBANO, PH.D.**

Dean, Allied Health, Public Safety, and Child Development  
B.S., University of Washington  
Ph.D., University of Southern California

**BROOKE BOEDING, ED.D**

Dean, Student Services  
A.A., Copper Mountain College  
B.A., M.S., California State University, Fresno  
Ed.D., California State University, Stanislaus

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Dean, Business, Economic/Workforce Development, and Adult Education  
B.S., M.B.A., California State University, Stanislaus  
M.A., Fresno Pacific University  
Ed.D., California State University, Stanislaus

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B.S., Minnesota State University  
M.S., St. Cloud State University  
Ph.D., University of Kentucky

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Dean, English and Humanities  
B.A., University of St. Thomas  
M.A., Loyola Marymount University

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Dean, Science, Math, and Engineering  
B.A., University of California, Berkeley  
M.A., Humboldt State University  
Ph.D., University of California, Berkeley

**ROBERT CASEY**

Associate Dean Athletics and Kinesiology  
B.S., Huron University  
M.A., Colorado Technical University

**JESSICA MORAN**

Dean, Los Banos Campus and Off-Campus Centers  
B.A., University of California, Berkeley  
M.B.A., California State University, Stanislaus  
M.A., Brandman University

**JOSE SERENA**

Dean, Student Equity and Success  
B.S., American InterContinental University  
M.A., California State University, Stanislaus

**DEE SIGISMOND, PH.D.**

Dean, Institutional Effectiveness  
B.S., Eastern Washington University  
Ph.D., University of Nevada, Reno

**GREGORY SOTO**

Dean, Student Services (Dual Enrollment, Outreach,  
Admissions and Records, and Guided Pathways)  
A.A., Merced College  
B.A., Sonoma State University  
M.A., St. Mary's College of California

**BRYAN TASSEY**

Dean, Career Technical Education  
A.S. Merced College  
B.S., M.S., California Polytechnic State University, San Luis Obispo

## DIRECTORS

**RAUL ALVAREZ**

Acting Assistant Director, Facilities, Events and Operations  
A.A., Merced College

**BRIAN DEMOSS**

Acting Director, Enterprise Application Services

**TOMASIA DRUMMOND**

Director, Student Success  
A.A., Modesto Junior College  
B.A., Chapman University  
M.S., University of La Verne

**LOUIS FOY**

Assistant Director, Equity and Support Centers  
B.A., Biola University  
M.A., New Mexico Highlands University

**KIM FREITAS**

Associate Director, Business and Fiscal Services  
B.S., University of Phoenix

**AUTUMN GARDIA**

Director, Special Projects and Grants  
B.A., M.B.A., California State University, Stanislaus

**JOANNA GRIMES**

Temporary Director, Instructional Special Projects and Services  
B.A., M.A., California State University, Stanislaus

**CHARLES HERGENRAEDER**

Director, Purchasing and Risk Management  
B.A., Fresno Pacific University  
M.B.A., University of Phoenix

**ESTELINA JONES**

Director, DSPS, Veteran Services, and Student Health Services  
A.A., Merced College  
B.A., California State University, Stanislaus  
M.S., California State University, Fresno

**MICHELLE JOSEPH**

Director, Child Development Center  
A.A., Merced College  
B.A., M.A., California State University, Stanislaus

**JASON JUDKINS**

Director, Financial Aid  
A.A., Southwestern Community College  
B.S., Alliant University  
MBA, California State University, San Bernardino

**JAMES LEONARD**

Director, Communications & External Relations  
B.A., California State University, Stanislaus

**JEANETTE MARTIN**

Acting Director of Admissions, Records and Follow-Up Services  
A.A., Humphrey's College and Merced College  
B.A., M.B.A., Southern New Hampshire University

**MARCUS METCALF**

Senior Director, Capital Projects and Facilities  
B.S., California Polytechnic State University, San Luis Obispo  
M.A., Northern Arizona University

**WILLIAM RESENDES**

Director of Technology Infrastructure and Architecture  
B.S., Capella University

**T. JAZMIN SERRANO**

Acting Director, Student Services, Los Banos  
M.S., California State University, Fresno

**FRANCISCO TOSTADO**

Director, EOP&S, Care, Nextup, and CalWorks  
B.A., California State University, Sacramento  
M.A., San Jose State University

**ANDRE URQUIDEZ**

Director, Business and Fiscal Services  
B.S., California State University, Sacramento

**LISA VEENSTRA**

Assistant Director, Maintenance and Transportation  
Graduate, Golden Valley High School



# GENERAL DISTRICT INFORMATION

## The History of Merced County

Prior to the discovery of gold in California, the San Joaquin Valley was pristine. Wild clover grew taller than a horse's head. Streams teemed with salmon, bass, and trout. Grizzly bears and antelope roamed far and wide. The early inhabitants of the valley, the Northern Valley Yokuts, estimated to number around 30,000, roved the entire valley floor. During an 1806 expedition, Ensign Gabriel wrote of finding a welcoming river to quench the expedition's thirst. He named it El Río de la Nuestra Señora de la Merced, The River of Our Lady of Mercy, known simply today as the Merced River. The valley landscape changed rapidly when gold prospectors overran the area on their way to the gold fields.

When California achieved statehood in 1850, Mariposa County covered much of the valley, extending to a mutual boundary with San Diego and Los Angeles counties. In 1855, lowland farmers decided they did not have much in common with the miners of the foothills and mountains and petitioned to have a section split off to form a new county. When the petition was granted, Governor John Bigelow formed Merced County on April 19, 1855. According to the 1857 tax assessment rolls, the new county hosted a population of 277 with the first county seat located in Snelling. Once the railroad came through the county, much of the business and the county seat moved to the new town of Merced, which was incorporated in 1889.

Since that day, growth and change has continued in Merced County.

## District and Organization

The Merced Community College District (District) is composed of most of Merced County, the area including the Chowchilla Union High School District in Madera County, the Dos Palos Joint Elementary School District in Fresno County, and the Los Banos Unified School District. The District is governed by a seven-member elected Board of Trustees. The main campus is located on M Street in Merced. The Los Banos Campus is located on Highway 152 in the City of Los Banos.

## The Beginnings of the College District

Merced College is a California public community college operated by the Merced Community College District, which was formed by a vote of the people of the Le Grand and Merced Union high school districts on February 27, 1962. The District became effective for all purposes on July 1, 1963. The District, which included the eastern half of Merced County at that time, consisted of the areas served by these two high school districts. The Board of Trustees consisted of five elected-at-large members.

In later years, the Board of Trustees was expanded with two additional trustees, one to specifically represent the Dos Palos/Los Banos area and one to represent the Chowchilla area. Elections were also changed from at-large elections to District elections. Thus, the Board now numbers seven trustees, each elected within a specific area of the District.

## Philosophy

A democratic society functions best when its members are educated and active participants. To encourage this participation, Merced College provides educational opportunities for all who qualify and can benefit. This education involves having a respect for and awareness of all cultures, as well as the dignity and worth of all individuals.

Merced College is dedicated to the pursuit of excellence. The leadership and educational services provided by the College reflect and enhance the cultural, economic, and social life of the community and respond to its changing needs and interests. Recognizing that learning is a life-long

process, the College provides preparation for a complex and changing society while maintaining high academic standards. The College also fosters individual learning and critical thinking to enhance awareness of the interrelationship and interdependence of all persons.

## Vision

Merced College will provide transformative and empowering educational experiences to meet student and community needs.

## Mission

Growing our community through education and workforce training:

- Lifelong learning
- Basic skills
- Career technical education
- Transfer
- Degree/Certificate program

Ensuring student success through equitable access, continuous quality improvement, institutional effectiveness, and student achievement.

## Core Values

### Student Success

We focus on student access and success.

### Supportive Environment

We promote an atmosphere of trust where communication and teamwork cultivate a rich environment for teaching and learning.

### Proactive

We utilize agility, innovation, and responsible risk-taking to create our preferred future.

### Partnering

We actively engage with the community and community partners to respond to cultural, educational, economic, and technological needs.

### Diversity

We embrace diversity and equity as community strengths and celebrate these qualities in our institution.

### Self-Reflection

We strive for continuous improvement based on data-driven self-reflection, objective assessment, and dialogue.

# Institutional Student Learning Outcomes

(Adopted, April 3, 2007 and reviewed April 2010)

**Communication: Use language and non-verbal modes of expression appropriate to the audience and purpose. (GE Breadth Areas A and C)**

Examples: Students will be able to:

1. Compose coherent written communication appropriate to the audience
2. Read and analyze written communication appropriate to the subject
3. Construct and deliver oral communication appropriate to the audience
4. Comprehend, analyze, and utilize aural and visual communication in its various modes.
5. Design and deliver presentations appropriate to the audience

**Computation: Use mathematical skills and various aspects of technology appropriate to the task. (GE Breadth Areas A and B)**

Examples: Students will be able to:

1. Analyze and apply mathematical concepts to an appropriate task
2. Appraise various aspects of technology and apply them to an appropriate task

**Cognition: Use critical thinking skills to analyze, synthesize, and evaluate ideas and information. (GE Breadth Areas A, B and C)**

Examples: Students will be able to:

1. Evaluate information and incorporate it into appropriate tasks
2. Analyze information, develop an opinion, and support it
3. Examine, create, and/or evaluate materials and objects by using aesthetic criteria.
4. Analyze and solve problems using logical and creative methods
5. Assess the impact of science and technology on the world

**Global and Community Consciousness and Responsibility: Demonstrate understanding of different cultures and knowledge of historical eras and importance of community involvement. (GE Breadth Areas D)**

Examples: Students will be able to:

1. Distinguish and understand diverse cultures
2. Evaluate historical knowledge and relate it to current issues
3. Recognize the impact of local, national, and global involvement

**Personal Development and Life-Long Learning: Demonstrate self-management, maturity, and growth through practices that promote physical, mental, and emotional well-being. (GE Breadth Area E)**

Examples: Students will be able to:

1. Analyze and apply interpersonal skills
2. Demonstrate an understanding of life long learning
3. Relate a healthy lifestyle and wellness to personal choices
4. Evaluate and adhere to professional and academic ethical standards

- Diagnostic Medical Sonography: Commission on Accreditation of Allied Health Education Programs - <https://www.caahep.org/>
- Diagnostic Medical Sonography: Joint Review Committee on Education in Diagnostic Medical Sonography - <http://jrcdms.org/>
- Diagnostic Radiologic Technology: California Department of Public Health, Radiation Health Branch - <https://rhubxray.cdph.ca.gov/>
- Diagnostic Radiologic Technology: Joint Review Committee on Education in Radiologic Technology - <https://www.jrcert.org/>
- Nursing Assistant: California Department of Public Health - <https://www.cdph.ca.gov/>
- Registered Nursing Program: Board of Registered Nursing - <https://www.rn.ca.gov/education/rnprograms.shtml>
- Vocational Nursing Program: Board of Vocational Nursing and Psychiatric Technicians - <https://www.bvnpt.ca.gov/>

## Diagnostic Medical Sonography Program

Commission on Accreditation of Allied Health Education Programs (CAAHEP) - [caahep.org](https://www.caahep.org/)

Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS) - [jrcdms.org](http://jrcdms.org/)

## Diagnostic Radiologic Technology Program

Joint Review Committee on Education Radiologic Technology (JRCERT) <https://www.jrcert.org/>

California Department of Public Health – Radiologic Branch (CDPH)

## Nurse Assistant

California Department of Public Health (CDPH) - [cdph.ca.gov](https://www.cdph.ca.gov/)

**Registered Nursing** Board of Registered Nursing (BRN) - [rn.ca.gov](https://www.brn.ca.gov/)

## Vocational Nursing

Board of Vocational Nursing & Psychiatric Technicians (BVNPT) [bvnpt.ca.gov](https://www.bvnpt.ca.gov/)

# Merced College Foundation

The Merced College Foundation is a non-profit organization formed in November 1973. The mission of the Foundation is to provide support to Merced College by administering and awarding scholarships to students, accepting and acquiring gifts, bequests, endowments, and real and personal property as sources of income for the Foundation, and to serve as the organization through which special projects desired by the College can be developed and administered. For more information, call the Foundation office at (209) 381-6470.

# Accreditation

Merced College is fully accredited by the Accrediting Commission for Community and Junior Colleges (ACCJC), under the Western Association of Schools and Colleges (WASC), an institutional accrediting body recognized by the Commission on Recognition of Postsecondary Accreditation and the U.S. Department of Education. Merced College is also approved by the State Department of Education to train veterans under provisions of the G.I. Bill of Rights, and by the United States Immigration Service. The College offers a lower division program consisting of courses parallel to those of four-year colleges and universities, the credits of which are transferable to all other accredited colleges and universities.

# Accrediting Agencies

Merced College and its various academic programs are accredited by the following agencies.

- Automotive Technician: Automotive Service Excellence (ASE) Education Foundation - <https://aseeducationfoundation.org/program-accreditation>

## The Merced Campus

The Merced Campus is located one mile north of Olive Avenue in Merced, on the east side of M Street. Originally consisting of 110 acres presented as a gift to the College by the C-H-M and the Yosemite Land & Cattle Companies through the efforts of Merced city officials, the campus expanded to 269 acres with additional purchases of adjacent land.

Classes began on September 10, 1963 at a temporary site located at the Merced County Fairgrounds. Classes at the permanent campus began in the summer of 1966. The new campus was completed in spring 1967 and dedication ceremonies were held on April 23, 1967.

The Administration Building, the Science Building, and a temporary library facility were the first main buildings constructed. The Student Union was completed in November 1967. Since that time, facilities were added, including a gymnasium, an automotive shop, agriculture facilities, and technical labs for drafting, engineering, and vocational nursing. The Leshner Library and the Theater were completed for use in fall 1972.

Over the next 30 years, many facilities were completed or modified to meet current needs. The Child Development Center was completed in spring 2002, expanding the outer perimeter of the College's educational facilities northward.

In 2002, voters passed a \$53.5 million bond measure for the Merced Campus (Measure H). The following projects have been completed: the North Loop Road, a campus wide energy retrofit, the Learning Resources Center, the Science Building renovation, the Business Resource Center, the Leshner Building renovation, Administration Building renovation, Student Union Building renovation, and the Allied Health Complex Project. In 2012, the Theater was renovated to provide ADA access to the Theater Basement. Future planned projects include the Construction of the Agriculture and Industrial Technology Building will begin during the 2020-2021 academic school year.

## The Los Banos Campus of Merced College

The Los Banos Campus, an educational center 40 miles west of the Merced campus, serves the people of Los Banos, Dos Palos, and the surrounding areas. It began as a full-service campus in September 1971 in rented facilities. In 1973, the Los Banos Unified School District's voters approved joining the District and the Dos Palos Joint Elementary School District's voters approved moving from the West Hills Community College District to the District in 1978. The Los Banos Campus was formally approved by the California Community Colleges Chancellor's Office as an educational center in 1979.

In 1982, thanks to a donation of 10 acres by Richard Menezes, the campus moved to a site on Mercey Springs Road with modular buildings providing educational opportunities and serving as a cultural and intellectual center for the residents of the Westside of Merced County.

Thanks to a donation of 125 acres by Larry and Georgeann Anderson and to the passage of a local bond measure, construction of a new campus began in 2005. The new campus, located on Highway 152 on the western boundary of Los Banos, opened in 2007.

The campus offers a variety of programs for day and evening classes and provides a wide range of academic, vocational, and noncredit classes, enabling a student to stay in Los Banos and take all the courses necessary for an associate degree and fulfill all the breadth requirements of four-year state colleges. Los Banos Campus students may also complete several certificate programs.

Admission and registration procedures are the same as those for the Merced campus. For further information, contact the Los Banos Campus at 22240 Highway 152, Los Banos, CA 93635, or by calling (209) 826-3495

## Off-Campus Programs

In addition to extensive day and evening programs at the Merced and Los Banos campuses, Merced College schedules classes at other sites throughout the District, including Delhi, Dos Palos, Livingston, and Mariposa. Consult the current Schedule of Classes for class offerings and locations. For more information, contact Dean Murrell Green at (209) 384-6067.

## CVHEC

Merced College is one of the member institutions of the Central Valley Higher Education Consortium (CVHEC). Members represent accredited, non-profit and private colleges and universities in the Central Valley from Bakersfield to Stockton. The goal of the consortium is to increase the number of students prepared for, enrolling in, and graduating from college.

## General Information

### Educational Opportunities

Founded in 1962, Merced College offers students an opportunity to obtain an associate degree or to transfer academic credits to the California State University or the University of California. The College offers vocational certificates in various programs and serves all students who live within the District.

### Admission to Merced College

Each candidate should have a high school diploma or equivalent, or should be a minimum of 18 years old, and should be able to take advantage of the instruction offered.

### Registration at Merced College

The Office of Admissions and Records has the responsibility to admit and assist with the registration of all eligible students. Prospective students should follow these general guidelines for admission and registration.

1. Complete orientation, the Placement Questionnaire, and Student Planning Session
2. Participate in the orientation, Placement Questionnaire, student planning/advising.
3. Register online or in person for classes and pay fees.

Detailed information regarding this process is available online.

- [mccd.edu/getstarted/apply.html](http://mccd.edu/getstarted/apply.html)

### Student Services

Counseling services are available to assist students in the selection of appropriate courses and to provide other course-related assistance and referrals. Financial aid is available to all eligible students. Many grants and/or scholarship can help pay for educational expenses. For more information regarding these and other student services go to <http://www.mccd.edu/resources/index.html>.

## Información en español

### Oportunidades Educativas

Fundada en 1962, El Colegio Comunitario de Merced ofrece a los estudiantes la oportunidad de obtener un grado de asociado o la transferencia de créditos académicos a la Universidad Estatal de California o la Universidad de California. El Colegio ofrece certificados vocacionales en diversos programas y sirve a todos los estudiantes que viven dentro del Distrito.

### Inscripción en El Colegio Comunitario de Merced

La Oficina de Admisiones y Archivos es responsable por la admisión y asistencia en la inscripción de todos estudiantes que califican para admisión. Futuros estudiantes deben de seguir las directivas generales sobre admisión y inscripción:

1. Cumpla la aplicación de admisión a [www.openccapply.net](http://www.openccapply.net)
2. Participe en la orientación de estudiantes nuevos; el cuestionario de colocación; y planeación y consejos académicos estudiantiles.
3. Regístrese en el internet por clases y el pago de matrícula

Información detallada tocante estos procesos está disponible en el internet:

- [mccd.edu/getstarted/apply.html](http://mccd.edu/getstarted/apply.html)

### Servicios Estudiantiles

El Colegio ofrece servicios de consejos para ayudar estudiantes elegir clases apropiadas y a proveer asistencias relacionadas a clases. También se ofrece asistencia financiera a estudiantes que califican. Hay muchas becas que ayudan con los gastos educativos. Si necesita más información tocante todos estos servicios, contacte el Colegio Comunitario de Merced a: <http://www.mccd.edu/resources/index.html>

## Information in Hmong

### Qhov Zoo Ntawm Kev Kawm Ntawv

Teeb tsim thaum 1962, Merced College muaj kev kawm ntau yam rau cov tub ntshais kawm ntawv kom tau ib daim Associate in Arts (AA) los yog Associate in Science (AS) degree, lossis xav tshais mus kawm ntawv rau University of California (UC), California State University (CSU). Merced College muaj ntau hom certificates rau ntau yam txuj ua hauj lwm, thiab pab cov pejxeem nyob cheeb tsam hauv lub nroog.

### Kev Tuaj Kawm rau Merced College

Txhua leej tub ntshais kawm ntawv yuav tsum muaj ib daim high school diploma los yog ib daim ntawv ntau nqi li ntawd, lossis muaj hnub nyooog 18 xyoo rov saud thiab muaj peevxwm to taub txog txoj kev cob qhia los ntawm tsoom xibfwb.

### Sau Npe Kawm Ntawv nyob Merced College

Qhov chaw ua hauj lwm Office of Admissions and Records (A&R) lub luag hauj lwm yog pab thiab txais cov tub ntshais kawm ntawv uas muaj feemcuam raws cai tuaj kawm. Cov xav tuaj kawm ntawv yuav tau ua raws cov txheejtxheem txais tos thiab sau npe kawm ntawv.

1. Sau thiab teb raws daim ntawv application for admission hauv [www.openccapply.net](http://www.openccapply.net)
2. Mus koom sau npe kawm hauv orientation, xeem assessment, thiab teev student planning/advising.
3. Sau thiab zwm online kom tau cov chav kawm thiab cov nqi.

Yog xav tau ntau txheej xov information ntawv, tshawb tau hauv online.

- [mccd.edu/getstarted/apply.html](http://mccd.edu/getstarted/apply.html)

### Kev Pab Tub Ntxhais Kawm Ntawv

Peb muaj kev tuav xam pab cov tub ntshais kawm ntawv los xaiv txhua yam txuj uas lawv xav kawm nrog kev txhawb nqa thiab qhia lawv mus rau lwm qhov chaw pab. Muaj kev pab nyiaj ua nqi kawm ntawv, Financial Aid, rau cov tub ntshais kawm ntawv kws muaj feemcuam tau. Muaj ntau hom nyiaj tseemfwm thiab/lossis nyiaj paj tshab los pab them tej nqi kawm ntawv thiab. Yog xav tau xov ntawv txog tej kev pab nov, nej tshawb ntawv tau rau <http://www.mccd.edu/resources/index.html>.



# COLLEGE POLICIES, REGULATIONS AND PROCEDURES

## Academic Freedom

Since the vitality of a society is energized and sustained by ideas, and since the nature of a college involves the examination and discussion of those ideas, a policy of academic freedom protecting such free examination and expression historically has been deemed necessary.

To this end, the Merced Community College District is committed to free discussion and open inquiry. We recognize that the freedom to think, to read, to speak, and to question is necessary for the development of an informed citizenry.

This freedom shall be integral to the philosophy of this District and is guaranteed to students, faculty, administration, and staff. This freedom is both a right and a responsibility. As a right, it assures unimpeded research, study, and inquiry. It also assures the right to free expression in both public and private settings, including the right to disagree.

As a responsibility, it obligates members of the college community to present, discuss, and interpret ideas, knowledgeably, fairly, and objectively, with openness to the ideas of others, with the intention to stimulate independent thinking, and with sensitivity to the special situations of students.

To ensure these principles of intellectual freedom, the administration and the Board of Trustees will demonstrate their support by actively working to foster this freedom.

<https://go.boarddocs.com/ca/mccd/Board.nsf/Public#>

## Academic Honesty

Academic dishonesty is a violation of the Standards of Student Conduct (Board Policy 5500). The College has the responsibility to ensure that grades assigned are indicative of the knowledge and skill level of each student. Acts of academic dishonesty make it impossible to fulfill this responsibility.

Academic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, and misuse of College computers and software. Disciplinary actions may include an oral reprimand, a failing grade on all or part of a particular paper, project, or examination, or the assignment of an "F" grade in cases where the dishonesty is more serious, premeditated, or a repeat offense. Serious or repeated offenses may also result in suspension from the College.

The Academic Honesty procedure was developed by the Merced College Academic Senate and is administered by the Office of the Vice President of Student Personnel (Board Policy 5540). Copies are available from the Office of Student Personnel.

## Conduct

The Merced College Standards of Student Conduct, as approved by the Board of Trustees, is available online. Policies affecting student conduct may be found under the links related to Board Policies and Procedures 5500. Copies also may be obtained from the Office of Student Personnel. Merced College students are expected to conduct themselves in an exemplary manner. Students are prohibited from using or possessing drugs or alcoholic beverages on the campus or at any school function held on or off campus. Students not following standards of student conduct may experience a range of disciplinary actions.

The following conduct shall constitute good cause for discipline, including but not limited to the removal, suspension or expulsion of a student.

- Causing, attempting to cause, or threatening to cause physical injury to another person.

- Possession, sale or otherwise furnishing any firearm, knife, explosive or other dangerous object, including but not limited to any facsimile firearm, knife or explosive, unless, in the case of possession of any object of this type, the student has obtained written permission to possess the item from a district employee, which is concurred in by the college president.
- Unlawful possession, use, sale, offer to sell, or furnishing, or being under the influence of, any controlled substance listed in Chapter 2 (commencing with Section 11053) of Division 10 of the California Health and Safety Code, an alcoholic beverage, or an intoxicant of any kind; or unlawful possession of, or offering, arranging or negotiating the sale of any drug paraphernalia, as defined in California Health and Safety Code Section 11014.5.
- Committing or attempting to commit robbery or extortion.
- Causing or attempting to cause damage to district property or to private property on campus.
- Stealing or attempting to steal district property or private property on campus, or knowingly receiving stolen district property or private property on campus.
- Willful or persistent smoking in any area where smoking has been prohibited by law or by regulation of the college or the District.
- Committing sexual harassment as defined by law or by District policies and procedures.
- Engaging in harassing or discriminatory behavior based on disability, gender, gender identity, gender expression, nationality, race or ethnicity, religion, sexual orientation race, sex, (i.e., gender) religion, age, national origin, disability, or any other status protected by law.
- Engaging in intimidating conduct or bullying against another student through words or actions, including direct physical contact, verbal assaults, such as teasing or name-calling; social isolation or manipulation; and cyberbullying.
- Willful misconduct which results in injury or death to a student or to college personnel or which results in cutting, defacing, or other injury to any real or personal property owned by the District or on campus.
- Disruptive behavior, willful disobedience, habitual profanity or vulgarity, or the open and persistent defiance of the authority of, or persistent abuse of, college personnel.
- Cheating, plagiarism (including plagiarism in a student publication), or engaging in other academic dishonesty.
- Dishonesty; forgery; alteration or misuse of college documents, records or identification; or knowingly furnishing false information to the District.
- Unauthorized entry upon or use of college facilities.
- Lewd, indecent or obscene conduct on District-owned or controlled property, or at District-sponsored or supervised functions.
- Engaging in expression which is obscene; libelous or slanderous; or which so incites students as to create a clear and present danger of the commission of unlawful acts on college premises, or the violation of lawful District administrative procedures, or the substantial disruption of the orderly operation of the District.
- Persistent, serious misconduct where other means of correction have failed to bring about proper conduct.
- Unauthorized preparation, giving, selling, transfer, distribution, or publication, for any commercial purpose, of any contemporaneous recording of an academic presentation in a classroom or equivalent site of instruction, including but not limited to handwritten or typewritten class notes, except as permitted by any district policy or administrative procedure.

Students who engage in any of the above are subject to the procedures outline in AP 5520 title Student Discipline Procedures.

The Student Code of Conduct (Board Policy 5500) also may be found on the Merced College web site under the link for Board of Trustees.

## Copyrighted Materials, Including Music, Video and Printed Materials

The District supports the Higher Education Opportunity Act and Digital Millennium Copyright Act, which outline efforts to eliminate the illegal distribution of copyrighted material. Under the law, college administrators may be obligated to provide copyright holders with information about users of the District's information network who have violated the law. Accordingly, students are prohibited from using the information network to illegally download and/or share music, video and all other copyrighted intellectual property. Illegal forms of downloading and file sharing as well as the unauthorized distribution of copyrighted materials are violations of the law and may subject offenders to academic sanctions from the College as well as criminal and civil penalties, including a lawsuit brought by the Recording Industry Association of America (RIAA). In addition to being illegal, file sharing drains the District's network bandwidth, which slows computer connections for students and employees who are using the network for legitimate academic purposes and ultimately creates an unnecessary financial burden to the College. The District has developed policies with consequences to ensure that students properly use the information network and respect music and other forms of intellectual property as well as conduct responsible use of the Internet. These policies are available from the President's Office or from the Learning Resources Center.

## Campus Police

### Crime Awareness and Campus Security

The Merced Community College District Campus Police Department would like to welcome all students, faculty, staff, guests, and visitors to the Merced Community College District campuses. The Merced Community College District Police Department is a California Commission on Police Officers Standards and Training (P.O.S.T.) certified police agency with highly trained officers and support personnel. We are committed to the highest standards of professionalism and service. Campus Police strives to provide an atmosphere of safety that will enable the college community to focus on providing the highest quality and level of education and learning.

As members of the college community, Campus Police is dedicated to the preservation of public safety by providing innovative and progressive service and shares the responsibility of ensuring and maintaining a safe, healthy, and engaging educational learning environment where everyone can enjoy the challenges and rewards of obtaining or providing an education free from fear, harassment, or discrimination in partnership with the community. The safety and wellbeing of all members of the college community is the primary concern and responsibility of the officers and staff of Merced College Campus Police.

Cameras are in place throughout campus to assist with District and public safety. Code Blue emergency call boxes are also available at various locations throughout campus. The District encourages all staff members and students to download the smart phone app "Campus Shield" on their mobile device. The app, which is free to download from either the Google play or Apple App Store, allows users to make an emergency call straight to campus police, submit tips for crimes or suspicious activity, request a safety escort or review campus emergency procedures.

- Free for anyone: students, faculty, staff and visitors
- iOS and Android compatible
- Summons Emergency Services by telephone with a single button
- Submit non-emergency reports including a picture and a video
- Submit anonymously
- Instantly notify pre-identified contacts of your safety and location

### Parking

There are approximately 2,098 regular and 90 disabled parking spaces available for students to use. Parking lot locations are indicated on the campus map on page 255 Please note that Lot P8 (west side of campus) is

designated for staff use only. There are also plenty of parking spaces in Lot P1 (Allied Health Parking Lot), and Lot P2 (Public Safety Complex), which is near the new Allied Health Complex. Please note that the east side of University Avenue is for pedestrian use only.

Bikes are to be secured in designated bike racks and NOT to hand rails, trees or outside of a classroom. For more information, please review Board Policy 6750, Section 16. Furthermore, violations will be subject to impound.

#### Bike Rack Locations (BR):

- Gym - North
- Gym-Southwest Corner
- Pool-Southeast by FHA
- Tennis Courts-Middle
- Vocational Bldg-East
- Central Plant-West
- Plant Science-Southwest
- Child Development Center-Front
- Downey Center-Front
- Allied Health Center-Southwest
- Science Bldg-North
- Services Bldg-West
- IAC-Southwest
- Fitness Lab-East
- Pool-Northwest
- Public Safety Complex-Northwest
- Science-South

#### Skateboard Rack Locations:

- Administration Building
- Downey Center

#### Motorcycle Parking (M):

- S/E Corner of Parking Lot P9
- S/E Corner of Parking Lot P10
- N/E Corner of Parking Lot P5
- West side of Parking Lot P2

**PARKING on campus is by permit only.** This includes all streets and parking lots on campus. Permits must be properly displayed at all times. Fall/Spring semester permits cost \$30 per auto and \$15 for Summer semester and are available to purchase online through the Parking Management Bureau at [www.myCampusPermit.com](http://www.myCampusPermit.com). Day permits cost \$2 and may be purchased at the grey permit dispensers located in parking lots throughout campus. Day permits shall be placed "This side up" on the dashboard as directed on the permit and must be displayed in a manner that the permit number is clearly visible and unobstructed. Plastic permits shall be hung from the rearview mirror facing forward. Non-operational dispensers should be reported to the Campus Police Department. (**\*Fees are subject to change**)

**DISABLED PARKING**—Placards or license plates shall be displayed in conjunction with a valid parking permit. Disabled placards will exempt time limits in timed parking spaces but shall be displayed in conjunction with a valid parking permit. Disabled parking regulations are strictly enforced on campus.

PARKING VIOLATION FEES are processed by an outside processing center contracted by Merced College, NOT the Campus Police Department. However, Campus Police may be able to assist in providing information concerning procedures and requirements for paying fees. Vehicle registration will be denied by the DMV for delinquent fines on cited vehicles, until fines are paid. Citations may be contested or paid online at [pmbonline.org](http://pmbonline.org). All designated parking spaces are enforced at all times. Community College Drive North is open from 07:30a until 10:30p weekdays; closed on weekends, holidays and/or any other days the college may be closed.

For Additional Information: Campus Police Office: (209) 386-6600

## Dress

There is no dress code at Merced College, but it is expected that a student's dress will follow community standards.

## Drug and Alcohol Free Campus

Merced College is an alcohol and drug free educational institution. In addition to being a violation of state and federal laws, Merced College Board Policies and Administrative Procedures 3550, Drug-free Environment and Drug Prevention Program, and 5500, Standards of Conduct, make the distribution, possession, use, or being under the influence of alcohol or illegal controlled substances, or offering, arranging or negotiating the sale of any drug paraphernalia [as defined in California Health and Safety Code Section 11014.5], forbidden on campus, at off-campus centers, or at campus sponsored events or activities [except as noted in Board Policy and Administrative Procedure 3560].

The following information is provided to inform the campus community of the disciplinary and/or criminal actions that can result from violations as stipulated in Board Policies and Administrative Procedures 3550 and 5500. Students are asked to review the "Standards of Conduct" section in the College catalog for details regarding legal and disciplinary sanctions for violations of these policies.

As an educational institution, we recognize the importance of providing all members of the college community with information on the effects of alcohol and drug use. Information is available on the Student Health Services website, <http://www.mccd.edu/resources/health/>.

If there are any questions regarding these regulations, please contact the Vice-President of Student Services.

### Disciplinary Actions

In addition to the penalties stated in the Merced College Board Policies and Administrative Procedures 3550 and 5500, the Merced College Police Department will be notified of the offenses and may initiate criminal action with the Merced County District Attorney's Office.

### Health Risks

Use of controlled substances can lead to memory loss, indifference to academic achievement, impaired judgment, overdose, sudden death, liver disease, psychological disorders, and brain damage. Long-term alcohol abuse can cause ulcers, gastritis, pancreatitis, liver disease, cancer, loss of coordination, heart disease, stroke, emotional distress, sexual dysfunction, and other health problems.

Other problems associated with alcohol and other drug abuse include poor academic or job performance; relationship difficulties; a tendency toward verbal and physical violence; financial stress; injuries or accidents; and violations of the law such as driving under the influence and willfully destroying property.

Alcohol and drug abuse have significant consequences for the health and well-being of those who use, as well as those around them. If you or a fellow student has a drug or alcohol related problem, you are encouraged to contact Student Health Services at (209) 384-6045 for assistance with locating available resources within the community.

## Gainful Employment Disclosure Metrics

Federal Department of Education's regulation on Gainful Employment requires each college to provide students with Gainful Employment (GE) disclosure metrics that can be helpful when deciding where to obtain career technical education training. GE information for Merced College can be found by selecting the Gainful Employment Disclosure icon on the Merced College home page or by logging on to the following web site:

[Merced College Gainful Employment](#)

## Nondiscrimination

The Merced Community College District, and each individual who represents the District, shall provide access to its services, classes, and programs, without regard to national origin, religion, age, gender, gender identity, gender expression, race, or ethnicity, color, medical condition, genetic information, ancestry, sexual orientation, marital status, physical or mental disability, pregnancy, or military and veteran status, citizen status, or because he/she is perceived to have one or more of the foregoing characteristics, or based on association with a person or group with one or more of these actual or perceived characteristics.

The District operates in compliance with all applicable laws, regulations, and requirements related to its status as a public educational entity and the receipt of Federal and/or State funds, including but not limited to Title VI of the Civil Rights Act of 1964 and its amendments, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, the Age Discrimination in Employment Act, and the California Fair Employment and Housing Act. In so doing, the District is committed to providing equal opportunities for all individuals in employment and in all programs and activities which it conducts. Therefore, no enrolled student or District employee or applicants for enrollment or employment with the District; or others who might receive the benefits of college activities, programs, and services shall be excluded from participation in, denied benefits of, or be subject to discrimination in any process, position, program, service, or activity, on any basis prohibited by law.

Individuals who believe they have been subjected to discrimination or harassment may initiate a complaint pursuant to the District's Administrative Procedure 3435 (Discrimination and Harassment Complaints and Investigations), which describes the District's rules and procedures relating to unlawful discrimination, including instructions on how to initiate a complaint, how an individual's complaint is processed, and a description of how an individual is notified of the outcome of his or her complaint, including enforcement of corrective action, if necessary.

Individuals who seek information and/or who wish to initiate a complaint for alleged acts of discrimination or harassment are directed to contact the Chief Human Resources Officer/Title IX Officer at (209) 384-6102. A copy of Administrative Procedure 3435, as well as assistance with initiating a complaint for alleged acts of discrimination or harassment, may also be obtained by contacting the Chief Human Resources Officer. The District maintains the confidentiality of all complaints of unlawful discrimination except where disclosure is required by law.

A copy of Administrative Procedure 3435 and other materials are available online at [www.mccd.edu](http://www.mccd.edu).

## Student Equity

The Student Equity and Achievement (SEA) Program was established through the enactment of California Education Code 78222. It is the intent of the Legislature that the Student Equity and Achievement Program support the California Community Colleges in implementing activities and practices that advance the systemwide goal to boost achievement for all students with an emphasis on eliminating the achievement gaps for students from traditionally underrepresented groups through the following:

- Maintain an Equity Plan to ensure equal educational opportunities and promote student success for all students, and traditionally underrepresented groups in particular;
- Provide services needed to assist a student in making informed decisions about their educational goal and course of study in developing an education plan;
- Implement activities and practices pursuant to the California Community College Guided Pathways Grant Program

Merced College Student Equity activities include research and evaluation of programs for underrepresented students, establishing goals and schedules for implementing these programs, and identifying funding sources for these services. Copies of pertinent reports are available upon request from the Office of Institutional Effectiveness or the Office



of Student Equity and Success website: <https://www.mccd.edu/resources/student-equity/index.html>

## Open Enrollment Policy

It is District policy that, unless specifically exempted by statute, every course, section, or class, the average daily attendance of which is to be reported for state aid, wherever offered and maintained by the District, shall be fully open to enrollment and participation by any person who has been admitted to the College and who meets such prerequisites as may be established pursuant to Chapter II, Title 5 of the California Code of Regulations.

## Privacy of Records

All student records of Merced College are kept in accordance with the provisions of the Family Educational Rights and Privacy Act of 1974. Students may request access to academic records which personally identify the student. The student may challenge the accuracy of the record or the appropriateness of its retention. Student consent is needed for the release of records covered by the Act to outside parties (i.e. other schools, prospective employers) except for those agencies entitled to access under the provisions of the Act (i.e. campus officials, federal educational and auditing officers). These provisions apply to records received and used after November 19, 1974.

Copies of the full text of the Family Educational Rights and Privacy Act of 1974 are available in the Admissions and Records office. Particular questions with respect to a student's prerogative under the Family Educational Rights and Privacy Act should be directed to the Registrar.

## Sexual Harassment

### Introduction

Education Code 66281.5(b) requires the adoption of a policy statement setting forth the District's commitment to provide an educational and work environment free from unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct or communications constituting sexual harassment.

### Purpose

It is the intent of the Board of Trustees to deem as unacceptable any form of sexual harassment. Such conduct undermines the integrity of the classroom and/or the employment relationship or work/academic environment. Conduct constituting sexual harassment will not be tolerated in the District. It is understood that this policy is not intended to infringe upon Academic Freedom except to the extent provided by law.

### Description

The policy applies to all aspects of employment and the academic environment, including but not limited to classroom conditions, grades, academic standing, employment opportunities, scholarships, recommendations, disciplinary actions, and participation in any community college activity.

All District employees who violate this policy may be subject to disciplinary action up to and including termination in accordance with applicable college procedures, Education Code sections, and/or collective bargaining agreements. Students who violate this policy may be subject to disciplinary measures up to and including expulsion in accordance with District policies and college procedures. Non-employees, such as sales representatives or service vendors are also covered by this policy and may be subject to corrective measures.

The District is concerned with the rights of the accused as well as the accuser and shall afford due process rights accordingly

### Definitions

**General Harassment:** Harassment based on race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical

condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation of any person, military and veteran status, or the perception that a person has one or more of these characteristics is illegal and violates District policy. Harassment shall be found where a reasonable person with the same characteristics as the victim of the harassing conduct would be adversely affected to a degree that interferes with his/her ability to participate in or to realize the intended benefits of an institutional activity, employment, or resource.

**For Sexual Harassment under Title IX:** Complainants must proceed under BP 3433 Prohibition of Sexual Harassment under Title IX. AP 3433 Prohibition of Sexual Harassment under Title IX, and AP 3434 Responding to Harassment Based on Sex under Title IX.

For other forms of sexual harassment or gender-based harassment, Complainants should follow the procedure for Nondiscrimination (above).

Gender-based harassment does not necessarily involve conduct that is sexual. Any hostile or offensive conduct based on gender can constitute prohibited harassment if it meets the definition above. For example, repeated derisive comments about a person's competency to do the job, when based on that person's gender, could constitute gender-based harassment. Harassment comes in many forms, including but not limited to the following conduct that could, depending on the circumstances, meet the definition above, or could contribute to a set of circumstances that meets the definition:

**Verbal:** Inappropriate or offensive remarks, slurs, jokes or innuendoes based on a person's race gender, sexual orientation, or other protected status. This may include, but is not limited to, inappropriate comments regarding an individual's body, physical appearance, attire, sexual prowess, marital status or sexual orientation; unwelcome flirting or propositions; demands for sexual favors; verbal abuse, threats or intimidation; or sexist, patronizing or ridiculing statements that convey derogatory attitudes based on gender, race nationality, sexual orientation or other protected status.

**Physical:** Inappropriate or offensive touching, assault, or physical interference with free movement. This may include, but is not limited to, kissing, patting, lingering or intimate touches, grabbing, pinching, leering, staring, unnecessarily brushing against or blocking another person, whistling or sexual gestures. It also includes any physical assault or intimidation directed at an individual due to that person's gender, race, national origin, sexual orientation or other protected status. Physical sexual harassment includes acts of sexual violence, such as rape, sexual assault, sexual battery, and sexual coercion. Sexual violence refers to physical sexual acts perpetrated against a person's will or where a person is incapable of giving consent due to the victim's use of drugs or alcohol. An individual also may be unable to give consent due to an intellectual or other disability.

**Visual or Written:** The display or circulation of visual or written material that degrades an individual or group based on gender, race, nationality, sexual orientation, or other protected status. This may include, but is not limited to, posters, cartoons, drawings, graffiti, reading materials, computer graphics, or electronic media transmissions.

**Environmental:** A hostile academic or work environment may exist where it is permeated by sexual innuendo; insults or abusive comments directed at an individual or group based on gender, race, nationality, sexual orientation or other protected status; or gratuitous comments regarding gender, race, sexual orientation, or other protected status that are not relevant to the subject matter of the class or activities on the job. A hostile environment can arise from an unwarranted focus on sexual topics or sexually suggestive statements in the classroom or work environment. It can also be created by an unwarranted focus on, or stereotyping of, particular racial or ethnic groups, sexual orientations, genders or other protected statuses. An environment may also be hostile toward anyone who merely witnesses unlawful harassment in his/her immediate surroundings, although the conduct is directed at others. The determination of whether an environment is hostile is based on the totality of the circumstances,



including such factors as the frequency of the conduct, the severity of the conduct, whether the conduct is humiliating or physically threatening, and whether the conduct unreasonably interferes with an individual's learning or work.

**Sexual Harassment:** In addition to the above, sexual harassment consists of unwelcome sexual advances, requests for sexual favors, and other verbal, visual, or physical conduct of a sexual nature made by someone from, or in, the work or educational setting when:

- submission to the conduct is explicitly or implicitly made a term or condition of an individual's employment, academic status, progress, internship, or volunteer activity;
- submission to, or rejection of, the conduct by the individual is used as a basis of employment or academic decisions affecting the individual;
- the conduct has the purpose or effect of having a negative impact upon the individual's work or academic performance, or of creating an intimidating, hostile or offensive work or educational environment (as more fully described below); or
- submission to, or rejection of, the conduct by the individual is used as the basis for any decision affecting the individual regarding benefits and services, honors, programs, or activities available at or through the community college.

**This definition encompasses two kinds of sexual harassment:**

"Quid pro quo" sexual harassment occurs when a person in a position of authority makes educational or employment benefits conditional upon an individual's willingness to engage in or tolerate unwanted sexual conduct.

"Hostile environment" sexual harassment occurs when unwelcome conduct based on a person's gender alters the conditions of an individual's learning or work environment, unreasonably interfere with an individual's academic or work performance, or create an intimidating, hostile, or abusive learning or work environment. The victim must subjectively perceive the environment as hostile, and the harassment must be such that a reasonable person of the same gender would perceive the environment as hostile. A single or isolated incident of sexual harassment may be sufficient to create a hostile environment if it unreasonably interfered with the person's academic or work performance or created an intimidating, hostile, or offensive learning or working environment.

Sexually harassing conduct can occur between people of the same or different genders. The standard for determining whether conduct constitutes sexual harassment is whether a reasonable person of the same gender as the victim would perceive the conduct as harassment based on sex.

**Consensual Relationships:** Romantic or sexual relationships between supervisors and employees, or between administrators, faculty, or staff members and students are discouraged. There is an inherent imbalance of power and potential for exploitation in such relationships. A conflict of interest may arise if the administrator, faculty or staff member must evaluate the student's or employee's work or make decisions affecting the employee or student. The relationship may create an appearance of impropriety and lead to charges of favoritism by other students or employees. A consensual sexual relationship may change, with the result that sexual conduct that was once welcome becomes unwelcome and harassing. In the event that such relationships occur, the District has the authority to transfer any involved employee, to eliminate or attenuate the supervisory authority of one over the other, or of a teacher over a student. Such action by the District is a proactive and preventative measure to avoid possible charges of harassment and does not constitute discipline against any affected employee.

**Academic Freedom:** No provision of this Administrative Procedure shall be interpreted to prohibit conduct that is legitimately related to the course content, teaching methods, scholarship, or public commentary of an individual faculty member or the educational, political, artistic, or literary expression of students in classrooms and public forums. Freedom of speech and academic freedom are, however, not limitless and this procedure will not protect speech or expressive conduct that violates

federal or California anti-discrimination laws.

## Campus Sexual Violence Elimination (SaVE) Act

The Campus Sexual Violence Elimination (SaVE) Act was signed into law in 2013, as part of the Violence Against Women Act (VAWA) Reauthorization. This law mandates increased transparency on campus about incidents of sexual violence, guarantees victims enhanced rights, sets standards for disciplinary proceedings, and requires campus-wide prevention education programs. The Campus SaVE Act amends the Clery Act which addresses campus sexual assault policies within the Higher Education Act of 1965.

For comprehensive information regarding sexual assault prevention and reporting, as well as campus and community resources, please refer to the Merced College Violence Prevention and Advocacy website at [www.mccd.edu/safety/save](http://www.mccd.edu/safety/save). You may also contact Campus Police at (209) 384-6054, or Student Health Services at (209) 384-6045.

## Smoke-free District

The Merced Community College District is a smoke-free district. Smoking, the use of tobacco products, and/or the use of unregulated nicotine products (e.g. e-cigarettes) by students, staff, and visitors on any owned, rented or leased Merced Community College District property is prohibited. Violators of Board Policy/Administrative Procedure 3570 may be subject to fines. BP/AP 3570 outlines the policy and procedure for enforcement of the smoke-free District policy.

## Statement of Informed Consent

Research, including assessment and evaluation of the teaching and learning process, will be conducted at Merced College in established or commonly accepted educational settings and will involve normal educational practices.

Information gathered relating to student knowledge, skills, attitudes, and behaviors will be kept anonymous and/or confidential, and participation shall expose students to no or minimal risk of harm. By enrolling and attending Merced College courses, students have volunteered as subjects, have been fully informed, and have given their consent to participate in education-based research. Students will be fully informed should the research parameters change. The Family Educational Rights and Privacy Act of 1974 (FERPA) is a federal law regulating the privacy of student records and the obligations of the institution, primarily in the areas of release of the records and the access provided to those records. Students are protected under both FERPA law and the Human Subjects Review process.

References:

Merced College Board Policy 5040  
Merced College Administrative Procedure 5040, 5045  
Education Code Sections 76200, 76222, 76232  
Title 5, Section 54600, 54630  
[FERPA](#)  
[HHS - Office for Human Research Protections](#)

## Student Right-To-Know Disclosure

**Completion Rate: 34.63%**

**Transfer Rate: 4.70%**

**(From Fall 2018 COHORT Data)**

In compliance with the Student Right-to-Know and Campus Security Act of 1990 (Public Law 101-542), it is the policy of our college district to make available its completion and transfer rates to all current and prospective students. Beginning in Fall 2018, a cohort of all certificate-, degree-, and

transfer-seeking first-time, full-time students were tracked over a three year period. Their completion and transfer rates are listed above. These rates do not represent the success rates of the entire student population at the College nor do they account for student outcomes occurring after this three year tracking period.

Based upon the cohort defined above, a Completer is a student who attained a certificate or degree or became 'transfer prepared' during a three year period, from Fall 2018 to Spring 2021. Students who have completed 60 transferable units with a GPA of 2.0 or better are considered 'transfer prepared'. Students who transferred to another post-secondary institution, prior to attaining a degree, certificate, or becoming 'transfer prepared' during a five semester period, from Spring 2019 to Spring 2021, are transfer students.

Link: <http://srk.cccco.edu/531/srk22.htm>

## Section 504 of the Rehabilitation Act of 1973

Section 504 is also known as the "Access Law." It provides program and physical access for students with disabilities. The law states that: "No otherwise qualified individual in the United States...shall, solely by reason of disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance." When providing aid, benefit or service, public entities must provide opportunities for individuals with disabilities to participate that are as effective as the opportunities provided to others.

MCCD 504 Coordinator: Dean of Student Services

Phone: (209) 384-6192

Address: Merced College; 3600 M Street; Merced, CA 95348

The procedures for filing a complaint may be obtained from persons listed above.

### SECCION 504 DEL ACTO DE REHABILITACION DE 1973

Seccion 504 es parte de la Ley Federal de Rehabilitacion de 1973. Otros leyes incluyen El Titulo VI de la Ley de Derechos Civiles de 1964, Titulo IX de las Enmiendas de Educacion de 1972, y la ley Americana con Discapacidades. Los Estados Unidos proporciona acceso a programas y fisicamente para personas que tienen discapacidades y estan calificados sin embargo a recibir y participar en el colegio en modos diferentes por acomodaciones educacionales. Además, la ley estipula: No se permite exclusion de cualquier persona quien tiene discapacidades de actividades del colegio solamente por razon de tener discapacidades. Además, la ley prohíbe denegación de beneficios, discriminacion y exclusion de participacion en cualquier programa o actividad que recibe asistencia financiera del gobierno federal. Además, cuando agencias publicas proporcionan ayuda, beneficios, o servicios, las mismas agencias tienen discapacidades la responsabilidad legal a proporcionar oportunidades a individuales con en temas de participacion en actividades que a lo menos son de misma eficacia a las ofrecidos a personas quienes no tienen discapacidades. Para mas informacion, contacte:

MCCD Cordinador, Seccion 504

Telefono: (209) 384-6192

Pasos de someter una reclamacion: obtenga una forma o la secreteria de él.

### TSHOOJ CAI 504 NTAWM TXOJ CAI REHABILITATION XYOO 1973

Tshooj cai 504 yog hais txog "Cai Muaj Feemcuam." Nws qhib kev rau cov tub ntxhais kawm ntawv kws muaj disabilities kom muaj feemcuam koom tau. Txoj cai hais tias: "Tsis pub tshem cais ib leej neeg twg hauv teb chaws Amelika...vim disability, tawm ntawm kev muaj feemcuam, cais kev pab, lossis cais txwv txhua lub luag dejnum uas tau txais tseemfwm kev pab nyiaj xiaj."

Thaum muab kev pab, kev txhawb lossis kev qhia, tseemfwm cov koomhaum yuav tau muab kev vajhaum sib luag rau cov neeg muaj disabilities kom muaj feemcuam sib npaug zos li lwm tus.

Tus Thawj Txuas Lus ntawm Tshooj Cai MCCD 504 yog

Xovtooj: (209) 384-6192

Chaw Nyob: Merced College; 3600 M Street; Merced, CA 95348

Nej tuaj muab tau cov txheejtxheem teev kev tsis txaus siab ntawm cov neeg muaj npe raws li saum nov.

## Title IX

The Title IX Coordinator for Merced College is the Chief Human Resources Officer (CHRO). Inquiries concerning the application of Title IX, which prohibits sex discrimination, may be referred to the Title IX Coordinator or to the Office for Civil Rights.

The Title IX Coordinator is located in the Office of Human Resources in the Merced College Administration Building at 3600 M Street, Merced CA 95348-2898; and may be reached at: Telephone (209) 384-6102, Email [kelly.avila@mccd.edu](mailto:kelly.avila@mccd.edu).

The Office for Civil Rights is located at the U.S. Department of Education, 50 United Nations Plaza, Mail Box 1200, Room 1545, San Francisco, CA 94102; and may be reached at: Telephone (415) 486-5555, FAX (415) 486-5570, TDD (800) 877-8339, Email [ocr.sanfrancisco@ed.gov](mailto:ocr.sanfrancisco@ed.gov).

The Office for Civil Rights Headquarters is located at the U.S. Department of Education, Office for Civil Rights, Lyndon Baines Johnson Department of Education Bldg., 400 Maryland Avenue, SW, Washington, DC 20202-1100; and may be reached at: Customer Service Hotline (800) 421-3481, FAX (202) 453-6012, TDD (800) 877-8339, Email [ocr@ed.gov](mailto:ocr@ed.gov).

El coordinador del Título IX del Colegio es el supervisor de Recursos Humanos y se puede llegar al (209) 384-6102. Las consultas relativas a la aplicación del Título IX, que prohíbe la discriminación sexual, puede ser referido al coordinador del Título IX, o en la Oficina de Derechos Civiles, U.S. Departamento de Educación, 50 United Nations Plaza, San Francisco, CA 94102. Telephone: (415) 486-5555, FAX: (415) 486-5570, Email: [ocr.sanfrancisco@ed.gov](mailto:ocr.sanfrancisco@ed.gov). Headquarters - Washington, DC.Customer Service Hotline: (800) 421-3481, FAX: (202) 453-6012, TTY: (300) 877-8339, Email: [ocr@ed.gov](mailto:ocr@ed.gov).

Tus Ceev lub luag Title IX hauv Tsev Kawm Ntawv yog Human Resources Supervisor, (209) 384-6102. Yog xav paub txog lub luag Title IX, uas txwv tsis pub cais poj niam los yog txiv neej, hu tuaj tau rau Tus Ceev lub luag Title IX, los yog lub Hoobkas ntawm Pejxeem Cov Cai, U.S. Department of Education, 50 United Nations Plaza, San Francisco, CA 94102. Telephone: (415) 486-5555, FAX: (415) 486-5570, Email: [ocr.sanfrancisco@ed.gov](mailto:ocr.sanfrancisco@ed.gov). Headquarters - Washington, DC.Customer Service Hotline: (800) 421-3481, FAX: (202) 453-6012, TTY: (300) 877-8339, Email: [ocr@ed.gov](mailto:ocr@ed.gov).

# ADMISSION & REGISTRATION

## Who Can Be Admitted

Any person who meets at least one of the following requirements is eligible to attend Merced College:

- Has graduated from an accredited high school with either a diploma or a high school certificate of completion.
- Has passed the California High School Proficiency exam.
- Possesses a GED.
- Is a non-high school graduate, 18 years of age or older, who is no longer attending high school and is able to benefit from instruction.

Persons who are under the age of 18 and/or currently attending high school may be admitted as a special part- or full-time student with the permission of one's school principal, with parental consent, and with the approval of a college administrator. (See administrative Procedure 5011).

## Semester System and Units

Merced College classes follow the semester system, and the majority of classes cover a period of 18 weeks. Students earn the number of units specified in the catalog upon successful completion of the course.

At Merced College, as in universities, a "unit" represents one hour per week for one semester of the student's time in a lecture class, or three hours in laboratory or other exercise class not requiring homework for preparation. A normal schedule of 15 college units presupposes that the average student will devote approximately 45 hours per week to college classes and to preparation.

Because varsity sports require no academic homework assignments, they require 10 hours per week of activity for three units of credit. There are also certain courses that are regulated by outside agencies (primarily for skill certification in vocational areas) in which additional mandated hours are required but for which additional student units are not awarded.

## Course Numbering

All courses offered at Merced College are considered to be lower division. No upper division credit is granted. Course numbers are assigned as follows:

Courses numbered 1-49 are certified as transferable to the California State University system. Other four-year institutions may accept courses numbered 1-49 as transferable, but students transferring to colleges outside the CSU system should consult the catalog of that college and confer with a counselor.

Courses numbered 50-79 and independent letters such as A, B, and C designate courses that apply only to A.A./A.S. Degrees and to certificate programs and are not normally transferable to four-year institutions.

Courses numbered 80-89 designate intermediate non degree-applicable basic skills courses OR certain occupational and activity credit courses. These courses do not apply to the Associate Degree or transfer programs.

Courses numbered 90-99 designate courses that are primarily non degree-applicable basic skills courses that do not apply to the Associate Degree or transfer programs.

California State University breadth and Intersegmental General Education Transfer Curriculum (IGETC) areas are noted in parentheses ( ).

## Course Descriptions

Courses are listed alphabetically at the end of the discipline information. Each course is listed by number with the course title, the number of units, and the number of hours of lecture and laboratory instruction. Preceding

each description are the prerequisites and/or corequisites of the course.

All credit courses listed in this catalog are graded courses and meet the definition of "college credit courses" as stated by Section 55002, of Title 5 of the California Code of Regulations.

It is District policy that unless specifically exempted by statute, every course, course section or class, the average daily attendance of which is to be reported for state aid, whenever offered and maintained by the District, shall be fully open to enrollment in and participation by any person who has been admitted to the College and who meets the prerequisites as may be established pursuant to Chapter 11, Division 2, Part VI, Title 5 of the California Administrative code, commencing with Section 58108.

## Application

New or former students applying to Merced College must complete an application in order to enroll in classes. Former students are those who have had a lapse of at least one semester between enrollment periods. Applications may be submitted online through Open CCC at <https://home.cccapply.org/en/>. New students should bring a copy of prior transcripts, whether from high school or from another college attended. Students who are in grades K-12 must re-apply each semester they attend.

## Matriculation

Matriculation refers to the services Merced College provides you to enroll and matriculate. Matriculation steps include the application, orientation, counseling, and advisement (including the abbreviated student education plan and comprehensive student education plan), and follow up and referral. The intent of these services is to increase your opportunity for success in your academic pursuits. You are required to become a matriculated student unless you meet the exemption criteria.

## Merced College Responsibilities

Merced College provides an orientation to college programs, services, and procedures; a placement process; pre-enrollment counseling/advising and course selection; a suitable curriculum or program of courses; quality instruction; and continuous follow up on student progress with referral to support services when needed.

## Student Responsibilities

As part of the matriculation steps, students agree to express a broad educational intent at the time of admission; declare a specific educational objective within a reasonable period of enrollment; complete the Placement Questionnaire or other assessments; confer with counselors for registration approval and discussion of educational and vocational choices; attend classes (including orientation) and complete assigned course work; seek out support services as needed; and complete courses and maintain progress toward an educational goal.

**You are a matriculated student** if you have completed the orientation, placement process, and have met with a counselor to complete an abbreviated or comprehensive student education plan.

**You are an exempted student** if you have an AA/AS or higher degree (and can provide documentation); are enrolling at the college for a reason other than career development or advancement, transfer, attainment of a degree or certificate of achievement, or completion of a basic skills or English as a Second Language course sequence; are enrolling at the college solely to take a course that is legally mandated for employment or necessary in response to a significant change in industry or licensure standards; has enrolled at the college as a special admit student (K-12).

As an exempted student, you are not required to complete the Placement

Questionnaire or other assessments; college orientation; and confer with counselors for registration approval. However, you may participate in any or all of these services if you choose to do so.

To become a matriculated student, you must complete the following steps. To begin the matriculation process visit our website at [www.mccd.edu](http://www.mccd.edu) and click on [Academics - Apply Today](#). The steps are listed as follows:

- Apply Online - complete our online application
- Complete a Placement Questionnaire - complete online questionnaire
- Complete Orientation - complete our in-person or online orientation
- Meet with a Counselor - meet with a counselor to plan courses you will take
- Register for Classes - register for classes through the Merced College Portal.

Note: Please identify any special needs accommodations required when you make any of the above appointments.

- Complete the Placement Questionnaire. Merced College uses a Placement Questionnaire for course placement in English and Math. Most students will immediately receive placement results based on their answers to the Placement Questionnaire. The questions you will answer pertain to high school GPA, English and Math courses taken in high school, and grades in those courses.
- We recommend you refer to your high school transcript to answer the Placement Questionnaire accurately. you can only submit the Placement Questionnaire once.
- You can go to the Welcome Center in the Leshar Building, Room 102 (lower level) for assistance with the Placement Questionnaire.
- Register for classes based on your priority group date on the Merced College website or at the registration counter in the Leshar Student Services Center.
- Pay fees, according to the fee payment schedule in place at the time you register, at the Student Fees counter in the Leshar Student Services Center.

## MC4FREE

### Full Time First Time = FREE

Merced College offers first time students who enroll in at least 12 units free tuition for two years. Who is eligible?

- California residents or students who are eligible for AB540 or AB2000
- Complete the FAFSA or CADAA application
- Enroll in 12 or more units

Next steps:

- Apply for Merced College
- Complete the FAFSA or CADAA application
- Enroll in at least 12 units at Merced College
- Complete 12 units each semester to continue having your tuition paid for 2 years
- Complete the MC4FREE Commitment Contract

If you want to check your eligibility, stop by the Financial Aid Office and speak with a Financial Aid Advisor.

## Registering for Courses

All students without a hold on their registration may register for classes within their assigned priority registration group online either through WebAdvisor, or student planning, both of which can be accessed through the Merced College Portal at <https://mc4me.mccd.edu>. Students may also register in the Open Enrollment period directly following Priority Registration. Students may register in person at either the Merced or Los Banos campus Admissions and Records office. Pay fees, according to the fee schedule at the Student Fees counter in the Leshar Student Services

Center or online at [www.mccd.edu/makeapayment](http://www.mccd.edu/makeapayment).

Priority in registration is given per Board Policy BP5055 and Administrative Procedure AP5055. New and returning students **must complete an admissions application** before processing their registration forms.

The class schedule may be accessed online through the Merced College Portal/WebAdvisor Registration or Academic Planning or from the Merced College Website [www.mccd.edu/getstarted/search-classes](http://www.mccd.edu/getstarted/search-classes).

### Placement Process

Students have the right to access transfer-level coursework and academic credit English as a second language (ESL) coursework. To help ensure students take the right English and Math courses, Merced College uses a Placement Questionnaire for course placement in English and Math. Most students will immediately receive placement results based on their answers to the Placement Questionnaire. The questions you will answer pertain to high school GPA, English and Math courses taken in high school, and grades in those courses.

We use your high school GPA, the English and Math courses you took in high school and the grades earned in those courses to determine your placement. Our English and Math faculty have developed specific English and Math parameters to ensure that you are placed into courses where you will be successful.

We recommend you refer to your high school transcript to answer the questions accurately. you can only submit the Placement Questionnaire once.

### How to Take the Placement Questionnaire:

1. Find your high school transcript (Recommended for more accurate placement). See instructions on how to obtain your high school transcript (pdf).
2. Log into the Merced College Portal using your username and password, go to WebAdvisor for Students, then Academic Profile, the Placement Questionnaire. For help, view detailed instructions on how to log in (pdf).
3. Open the Placement Questionnaire.
4. Answer the questions to the Placement Questionnaire.
5. Check your responses for accuracy (Responses to the Placement Questionnaire will be randomly verified using official transcripts).
6. Submit your responses at the end of the Placement Questionnaire by checking the confirmation box and selecting on the "Submit" button.

### Get Hands-On Help

You can go to the Welcome Center in the Leshar Building, Room 102 (lower level) for assistance with the Placement Questionnaire. Please bring your high school transcript (either official or unofficial) to answer the questions. View the contact page for Welcome Center office hours. For more information visit our Placement Questionnaire Frequently Asked Questions section, (<http://www.mccd.edu/getstarted/placement-faq.html>).

### Counseling & Course Advisement

Students wishing to register in college course work with a prerequisite not completed at Merced College may be required to meet with a counselor or advisor for approval. The counselor can help determine one's preparedness for courses, determine whether one has met prerequisites, and, when appropriate, assist with the preparation of a "prerequisite challenge" (see below).

These sessions can also provide information regarding helpful College resources and support services and allow counselors to make recommendations regarding the number of units one should consider taking given work/life obligations. Counselors can also advise students on other personal, social, educational, and career-related issues which may interfere with their course of study.

### Prerequisites and Corequisites

Merced College provides you with a wide variety of academic assistance and personal support, but it is up to you to know when you need help and to seek it out. It is your responsibility to keep informed and to obey campus



rules, regulations and policies that affect your academic standing as a Merced College student. Meeting deadlines, completing prerequisites and satisfying the degree and certificate requirements, as found in this catalog, are all part of your responsibility as a student.

In both the college Catalog and the Schedule of Classes, skills are listed in the form of prerequisites, two types of corequisites, limitations on enrollment, and advisories. These skills are normally given in the form of a course, the successful completion of which will provide students with the necessary skill(s). A definition of each of these terms is listed below:

#### Prerequisite

This represents a set of skills or a body of knowledge that one must possess prior to enrolling in a course. Without these skills a student will unlikely receive a satisfactory grade in the course or succeed in the program. Students will not be permitted to enroll in these courses and programs without the prerequisite.

#### One-way Corequisite

This represents a course whose content is dependent on a main course; however, the contents of the main course can stand alone. These courses do not necessarily need to be taken during the same semester.

#### Two-way Corequisite

These are paired courses that are part of the same sequence and must be taken during the same semester.

#### Limitation on Enrollment

This is an audition or try-out requirement associated with public performance or intercollegiate competition, honors courses, safety issues, or blocks of courses intended for a cohort or group of students (such as a nursing program).

#### Advisory

This is a course, skill, or status which is strongly recommended but not required. Students with the advised skill will probably have a better understanding of the course material.

The most common way of satisfying a required or advised skill is by completing the prerequisite course with a grade of "C" or better. Those wishing to enroll in a course with a prerequisite and who have not completed the prerequisite course with a grade of "C" or better should refer to the challenge process below

#### Challenging a Prerequisite or a Corequisite

Students who believe they have met the requirements (or if one of the conditions below exists) may challenge a prerequisite. A challenge petition can be obtained from the Counseling Office. The form will explain what must be done. Students may challenge the criteria for a course if they:

1. Believe they have the knowledge or ability to succeed in the course but have not completed the pre- or corequisite;
2. Believe they will be subject to undue delay in reaching the goal of their educational plan because the pre- or corequisite course has not been made reasonably available, or the course has been limited to a special group of students and there are no other courses which would fulfill the requirement. (Students must attach a copy of their "Student Educational Plan" to be eligible to file a challenge based on this condition.);
3. Believe it is unlawfully discriminatory or is being applied in an unlawfully discriminatory manner.

Supporting documentation MUST be attached to all challenges submitted. Challenges may be filed any time during the registration period. Upon completion of the challenge procedure, the challenge will be reviewed and a determination will be made within five (5) instructional days. The student will be advised of the determination through the email provided on the form. If challenge is approved, the student must submit the approved challenge petition to Admissions and Records when registering. For more detailed information on the challenge process, call the Counseling Office at (209) 381-6478.

#### Request for Review of an Upper Division Course to Meet a Lower Division requirement

Students wishing to receive course credit for previously completed upper division work must apply to Merced College for approval. One may request credit for a major, a competency, or a general education breadth. Students must submit to the evaluator, located in Leshar Student Services Center, the following items:

- An official transcript from the college
- A catalog description of the course

Applications are due during the application for graduation window the semester prior to anticipated graduation or needed certification.

**For Major:** Course substitution: Paperwork must be submitted to Admissions and Records Evaluations for routing to the Area Dean. Approval requires the signature of two faculty members in the discipline and the Area Dean. Course substitution forms can be found at: <https://docmgmt.mccd.edu/Forms/CourseSubForm>

**For Competency:** General Petition: Paperwork must be submitted to Admissions and Records for routing to the Academic Exceptions Committee (AEC) for review. Approval requires the signature of a discipline faculty member for the competency requested and the chair of the AEC committee as well as the Dean of Student Services.

**General Education Breadth:** General Petition: Paperwork must be submitted to Admissions and Records for routing to the Academic Exceptions Committee (AEC) for review. Approval requires the signature of the chair of the AEC committee as well as the Dean of Student Services. The decision of the faculty is final; no appeal is available. General Petition forms can be found at: <https://www.mccd.edu/resources/admissions-records/downloads/GeneralPetitionfillable050421.pdf>

#### English and Math Requirements

Those pursuing an associate degree will have English and math requirements and should begin to fulfill these requirements as early in their college career as possible.

#### Some Courses Have Laboratory Requirements

Some courses, such as anatomy, biology, chemistry, and child development, require lab sections in addition to lecture sessions. Students must register in both the lecture and the lab section for these courses at the time of registration.

#### Some Programs Are Restricted

(Limitations on Enrollment)

The following programs require additional criteria: Certified Nursing Assistant, Home Health Care Aide, Licensed Vocational Nursing, Radiologic Technology, and Registered Nursing.

For more information, speak with an Allied Health counselor in the Guidance Center (209-384-6478) or contact the Allied Health Division Office (209-384-6371).

#### Safety in Allied Health Programs

Programs offered by the Allied Health Division that result in certification or licensure in health occupations include required courses of clinical training conducted at clinics, hospitals, and other patient care treatment centers. Students enrolled in clinical training settings are expected to maintain standards of practice that ensure the safety of clients and personnel in the clinical agencies. Safety is defined as meeting the objectives of a course by the times designated for each objective and to the degree of mastery designated.

A student will be dismissed from clinical training courses for unsafe behavior related to the objectives for the course in which currently enrolled, or to the objectives of previously completed clinical laboratory courses

#### Requirements for Athletics Courses

Merced College is a member of the Central Valley Conference (CVC) as authorized by the California Community College Athletic Association

(CCCCAA). Other Conference schools: Cerro Coso Community College; College of the Sequoias; Columbia College; Fresno City College; Reedley College; Porterville College; Taft College; West Hills College; and West Hills, Lemoore. The CCCCCA establishes rules of student-athlete eligibility and assigns "host" conferences when necessary. Eligibility to compete must be confirmed prior to student-athlete participation.

Merced College offers competition in the following sports: men's football, water polo, basketball, baseball, swimming, soccer, and track & field; women's volleyball, water polo, basketball, softball, swimming, soccer, and track & field

To participate in varsity competition, a student-athlete must adhere to CCCCCA rules for athletic eligibility. These include:

1. Regular attendance, beginning no later than four weeks after the beginning of the semester.
2. Active enrollment in at least 12 units during the season of sport, nine of which counts toward remediation, degree, or certificate.
3. Completion of at least 24 units with a minimum 2.0 GPA from the beginning of the first semester of competition to the beginning of the second.

Regulations are subject to change by the CCCCCA legislative process.

### Minimum and Maximum Unit Load

Students should plan to enroll in 15 units of course work each semester to earn a degree or certificate in a timely manner. #15TOFINISH <http://www.mccd.edu/resources/counseling/15-to-finish.html>

Those wishing to enroll for more than 19 units in a regular semester or 10 units in a summer session must have completed a college term of at least 15 units with a minimum 3.5 GPA. A request for excess units must be approved by the Dean of Student Services.

To qualify for one of the categories listed below, students must carry a minimum course load in a fall or spring semester as follows:

- Full-time Student: 12 units per semester.
- International Student: 12 units per semester.
- Work-Study Student: 12 units per semester.
- Social Security, California State Disability, and P.L. 674 Students: 12 units per semester.
- Military Benefits: Full-time (12 units per semester); three-quarter time (9 units) half-time (6 units).
- Student Body Officer: 12 units per semester.
- Varsity Athlete: 12 units, and P.E. if required.
- Cooperative Education: Total of 7 units per semester.

### There is a Limit on Non Degree-Applicable Basic Skills Courses

Students are limited to a total of 30 units in non degree-applicable basic skills courses (i.e., courses that are not college-level). Students who have completed a total of 26 units of non degree-applicable basic skills course work, excluding ESL courses, must apply for a waiver of the 30-unit limitation to continue in remedial course work. Petitions and procedures are available at the Admissions and Records office.

### Student Progress Monitoring

Merced College monitors the academic progress of its students and communicates this information to enrolled students. Students who fail to make satisfactory progress (2.0 GPA) each term, are placed on probation, as are students who have withdrawn from more than 50 percent of the courses in which they have enrolled. Students on probation may have additional restrictions placed on them.

### Auditing a Course

Students can audit a course only if there is space available in the class and with the instructor's permission. Any prerequisites established for the course must be met. Students wishing to audit a course may obtain the Audit request form from Admissions and Records. A person may audit a class one time (BP/AP 4070).

Students can register to audit a fall or spring full-term course after the first week of instruction, or for a short-term or summer session course after the second class meeting. A per-unit fee for auditing is charged unless a student is enrolled in at least 10 units at the time of applying to audit a class. Students who are already enrolled in at least 10 units may audit up to three units free of charge. The audit fee is non-refundable.

Once enrolled as an auditor of a course, a student may not enroll in that course for credit during the same semester, and may audit a course only once. An audited course will not be posted on one's permanent academic record; however, as an auditor, students will be expected to attend regularly and may participate in class activities, take examinations, and write papers with the instructor's consent.

If a student is enrolled only as an audit student, they will have restricted use of some College facilities and services. Although use of the library is permitted, audit students may not check out library materials, have access to the library's periodicals or any instructor materials placed on reserve. There will be restricted use of Student Health Services and there will be no access to the College's Employment Referral Service.

## Changing Your Schedule

### Adding a Fall or Spring Class

Students who have completed their steps to registration and have no holds may add any class that they have met the pre-requisite requirement for through WebAdvisor or Student Planning up until the first class meeting of that course. To add a class in person, obtain a Schedule Request form in the Admissions and Records Office. Fill in the Course Registration/Adds section. Students are required to obtain a counselor's signature if they are on probation or if they are trying to register in a course which has a prerequisite and the student is not currently enrolled in the prerequisite or if he/she has not successfully completed the prerequisite at Merced College.

From the first day of the semester through the end of the third week of the semester, students may add into a class by obtaining the instructor's signature on a schedule request add form and by submitting that to Admissions or by obtaining an electronic add permission from the class instructor and then adding the course through WebAdvisor Student Planning. Many Merced College classes have waitlists for classes that have full enrollment. Instructors will add from the list of waitlisted students first. Because late registering students may be unable to succeed due to missing instruction time, beginning with the fourth week of instruction, students must also obtain the approval of a dean of Instruction.

### Dropping a Fall or Spring Class

**It is the student's responsibility to drop any class that they do not intend to complete.** Classes may be dropped at any time a student is eligible for registering. Students with no holds can drop classes through WebAdvisor, Student planning or in person in Admissions and Records.

If a class is dropped within the first three weeks of an 18-week course, it will not appear on the student's permanent record. A grade of "W" will be placed on the student's permanent record for classes dropped after the third week and before the end of the fourteenth week of a regular semester. (See "withdrawal" in the section on grading.) After the fourteenth week drops are not allowed and students must be given the letter grade they have earned for the course.

Instructors may, but are not required to, initiate class drops if a student has not attended class or if attendance has dropped below standard (see Attendance Policy). If dropped by the instructor, students will receive a permanent record entry based on the above time periods.

### Adding and Dropping Summer Classes

**Adding a Class:** Students who have completed their steps to registration and have no holds may add any class that they have met the pre-requisite requirement for through WebAdvisor or Student Planning up until the first class meeting of that course. From the first day of the semester through

the end of the first week of the semester students may add into a class by obtaining the instructor's signature on a schedule request add form and submitting that to Admissions or by obtaining an electronic add permission from the class instructor and then adding the course through WebAdvisor Student Planning. Many Merced College classes have waitlists for classes that have full enrollment. Instructors will add from the list of waitlisted students first. From the beginning of the second until the end of the third week, students can add a class with the approval of the instructor and the dean of Instructional Services. Classes will not be added after the third week.

**Dropping a Class:** Students with no holds can drop classes through WebAdvisor, Student Planning or in person in Admissions and Records. Classes dropped during the first week of classes will not be shown on permanent records. For the second through the fifth week, a "W" - withdrawal - will be recorded on the student's permanent record. After the fifth week, drops are not allowed and students must be given the letter grade they have earned for the course.

### If You Withdraw from the College

Total withdrawal from the College is a student responsibility and can be accomplished by completing the Course Drops section of the Schedule Request form in Admissions and Records office for all of your classes or by completing the drop process for all classes through WebAdvisor or Student Planning which can be accessed through the Student Portal. All outstanding debts owed to the College must be paid and all books or other materials on loan from the College must be returned.

## Tuition, Fees, and Refunds

A California State enrollment fee is charged per unit for all students. This enrollment fee is subject to change by the State Legislature. Enrollment fees are due at the time of registration.

For non-resident students, this enrollment fee must be paid in addition to the non-resident tuition fee. (See **Residency and Tuition** p.23-24.)

The cost of textbooks and supplies needed for courses is dependent upon the selected courses and may vary widely. Textbook lists, prices, and more information are posted on the Bookstore web site at [www.bkstr.com/mercedcollegestore](http://www.bkstr.com/mercedcollegestore) the day before registration period.

IT IS THE STUDENT'S RESPONSIBILITY TO REQUEST A REFUND. Student Refund Form is available online at [http://www.mccd.edu/resources/fees/download/2150\\_StudentRefundForm\\_fillable\\_APR21\\_2.pdf](http://www.mccd.edu/resources/fees/download/2150_StudentRefundForm_fillable_APR21_2.pdf) or in person at the Student Fees Office.

Listed below are the various student fees, charges, and the refund policy for each. Fees may be charged and/or changed without notice.

#### REQUIRED:

- **California State Enrollment Fee:**  
\$46 per unit
- **Non-resident Tuition:**  
\$279 per unit (Eff: Fall 2022), plus enrollment fee. Tuition charges are subject to change beginning with the summer session each year.
- **International Student Insurance:**  
Approximately \$600 per year is required; other insurance plans may be acceptable.  
Refund Policy: Refunds are in accordance with the insurance company's policies.
- **Health Fee\*:**  
\$21 per Fall/Spring semester and \$18 per summer (Eff: Fall 2019), which includes campus accident and injury insurance coverage; community resource information, basic health and wellness services and information; short term personal counseling services.
- **Student Rep Fee\*\*:**  
\$2 per semester (no fee for summer). Fee is used to support student advocacy at the local, state and national levels.
- **Student Body Fee\*\*\*:**  
\$10 per semester (no fee for summer). Fee is used to support

campus clubs, events, activities, and campus based programs that will benefit the student population. Examples of supported programs are scholarships, multi-cultural campus events, and community resource outreach.

- **Transportation Fee:**  
\$9.95 - Per Semester: Students enrolled in 12 units or more  
\$6.95 - Per Semester: Students enrolled in less than 12 units  
Students are able to utilize all service routes of "The Bus" at any time or day throughout the semester within Merced County.
- **Follett AccessTextbook Program:**  
\$25 per credit unit: Ability to opt out by each term deadline.
  1. Textbooks can be purchased through the bookstore directly or the Follett Access Textbook program. More information is posted on the Bookstore website at <https://www.bkstr.com/mercedcollegestore/home> the day before registration period begins.

\*Ed. Code Section 76355 allows exemption from the Health Fee solely to those students meeting the following criteria:

1. Depent exclusively upon prayer for healing in accordance with the teachings of a bona fide religious sect, denomination, or organization.
2. Are attending a community college under an approved apprenticeship training program.

Health Fee Waiver forms available at the Student Fees Office. This form must be submitted by the end of the first week of the semester. Please contact the Student Fees Office for more information.

\*\*Ed. Code Section 76060.5 allows the Students to request a waiver of the student rep fee. Student Representation Fee Waiver forms are available at the Student Fees or ASMC office. This form must be submitted by the end of the first week of the semester.

\*\*\*Per California Community College Student Fee Handbook section 4.3 states that the student body fee is optional to students:

Student Body Fee Waiver forms are available at the Student Fees or ASMC office. This form must be submitted by the end of the first week of the semester.

#### ADDITIONAL:

- **Transcript Fee:**  
The first two transcripts are free; additional copies are \$5 each. Next business day service may be available for pick-up or mailing for an additional charge of \$10, but certain restrictions apply. Call (209) 386-6620 for more information. Refund Policy: No refund available.
- **Parking Fee: (\*Fees are subject to change.)**  
\$30 per auto for Fall/Spring semesters and \$15 for summer semester or \$2 per day.
- **Child Care:**  
As arranged per child by semester contract (see CDC p. 30).  
Refund Policy: If services are cancelled with a two-week notice, a refund may be obtained for the remainder of the contract.
- **Auditing Fee:**  
A fee of \$15 is charged for auditing unless students are enrolled in at least 10 units at the time they apply to audit a class. Students already enrolled in at least 10 units may audit up to three units free of charge. The audit fee is non-refundable.
- **Return Check/Stop Payment Fee:**  
\$30 per returned transaction fee.  
Refund Policy: No refund available.
- **Subpoena Fee:**  
\$15 per request.  
Refund Policy: No refund available.
- **Duplicate Degree Fee:**  
\$10 per request.  
Refund Policy: No refund available.
- **Credit by Exam:**  
The fee is equal to the enrollment fee required if registering for the course. Non-resident tuition does not apply.

### Refund Policy

The general refund policy covers the following fees: enrollment, non-resident tuition, health, student body, student representation, materials, transportation, and parking.

Students may submit a request for a refund if withdrawing from courses within the first two weeks of a full semester (18-week) course or, in the



case of non-18-week courses, before 10-percent of the class meetings have passed.

After the second week of a full-semester course, or after 10-percent of the class meetings have passed on a non-18-week course, no refunds are available. Any additional classes added after the respective refund period will incur a financial responsibility.

Outstanding Debts Owed to the College

Students owing an outstanding debt to Merced College will have a registration hold placed on their account. A student's ability to register for classes will be restored after having paid the debt in full or setting up a payment plan with the College. To pay the debt in full or arrange a payment plan, contact the Student Fees Office at (209) 384-6212 (Merced) or (209) 386-6752 (Los Banos). Credit card payments can be made online at: [www.mccd.edu/makeapayment](http://www.mccd.edu/makeapayment)

Residency & Tuition

Establishing California Residency

To avoid paying non-resident tuition, you must have resided in California for at least one year and one day prior to the opening date of the semester or summer session in which you are enrolling. You must also have satisfied at least three acts of intent prior to the one year and one day waiting period. These acts may include, but are not limited to, obtaining a California driver's license, registering a motor vehicle in California, registering to vote in California, owning California property, or having one's belongings in California. You must also show evidence that California income taxes have been or are being paid (unless you are on public support). The burden of proof to establish residency lies with the student. A complete explanation of California residency laws and regulations may be obtained in the office of Admissions and Records. (<http://www.mccd.edu/resources/admissions-records/california-residency.html>)

If you do not qualify for California residency, you must pay non-resident tuition.

To Be Reclassified as a Resident

Upon completion of the one year and one day requirement and being previously classified as a non-resident, students may obtain the forms from the Office of Admissions and Records for reclassification as a California resident. Reclassification has the additional requirement of financial independence from parents if they are non-California residents.

Military Waiver of Non-Resident Tuition

Members of the U.S. armed forces on active duty in the State of California (and have not been assigned to California for educational purposes) are exempt from non-resident tuition. They must be on active duty at the time they are admitted to the College to qualify for this waiver. Upon separating from the military, the student will be required to provide evidence of intent to establish residency in California at least one year prior to the admittance date. For eligibility for non-resident tuition exemption, contact Admissions and Records. Dependents of non-resident military personnel are entitled to an exemption from non-resident tuition until they have established residency as stated in "Establishing California Residency" above. Complete the Military Petition for California Residency Reclassification and submit it to Admissions and Records along with supporting document(s).

Nonresident Tuition Exemption Request (AB 540)

Students who have attended a California high school for a minimum of three years AND received a California high school diploma or its equivalent (such as a GED), may be exempt from paying non-resident tuition. If you are qualified, complete and submit the AB540 Affidavit, along with proof of eligibility to the Admissions and Records Office.

Education Code section 68075.6 grants an immediate nonresident tuition fee exemption to eligible Special Immigrant Visa (SIV) holders and refugee students who settled in California upon entering the United States. This exemption is granted for one year from the date the student settled in

California upon entering the United States.

- Iraqi citizens or nationals (and their spouses and children) who were employed by or on behalf of the United States Government in Iraq (Pub.L. No. 110-181, § 1244)
- Afghan and Iraqi translators (and their spouses and children) who worked directly with the United States Armed Forces (Pub.L. No. 109-163, § 1059)
- Afghanistan nationals who were employed by or on behalf of the U.S. Government or in the International Security Assistance Force (ISAF) in Afghanistan (Pub.L. No. 111-8, § 602)
- Refugee students admitted to the United States under Section 1157 of Title 8 of the United States Code.

Submit AB540 Affidavit along with proof of eligibility to the Admissions and Records office.

International Students

It is the philosophy of Merced College to encourage the attendance of international students to enrich and broaden the educational experiences of all students. With this philosophy as a basis, the Merced College International Student Policies encompass the following guidelines:

- A maximum number of international students equal to 5 percent of the previous year's full-time equivalent enrollment may be admitted to Merced College.
- Discretion is used in selecting applicants to ensure that there is a balance of international students from various countries of the world.
- International student eligibility is based on meeting the application requirements and English language proficiency (TOEFL 450) by the semester deadline.
- Upon acceptance to the International Student Program, a student is issued an I-20 immigration form that enables the student to apply for his/her student visa

To apply for admission under the International Student Program, write to the Program Assistant requesting an application (there is an application fee). Once admitted to Merced College as an international student, non-resident tuition plus state enrollment fees must be paid. Financial aid is NOT available to international students. By the census date of each class fees are due in full or a payment plan must be set up. Fees must be paid in U.S. currency.

Attendance & Grading

Attendance Policy

Regular attendance and consistent study are the two factors which contribute most to success in college work. College students are expected to attend all sessions of the classes in which they are enrolled. Failure to attend class can result in a lower grade or in being dismissed from a class.

Priority in a class is established at the time of class registration. Registering for and failing to attend the first class meeting will forfeit any priority in that class and students may be dropped from the roll in order to accommodate other students wishing to register in the class.

If, in the opinion of the instructor, a student's absences in a specific class would prevent the successful completion of the course requirements, the student may be dropped from the class. In the event of extenuating circumstances such as a verified illness, accident or conditions beyond your control, the instructor may allow the student to continue under special arrangement.

Grade Scale

In a course of instruction for which grades are awarded, the instructor of the course will determine the grade assigned using the following grade scale:

Symbol Definition	Grade Points
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A	Excellent	4
B	Good	3
C	Satisfactory	2
D	Passing, less than satisfactory	1
F	Failing	0
FW	Failing, stopped attending	0
P	Pass - performance equivalent to a grade of "C" or better	N/A
NP	No Pass - performance equivalent to a grade of "D" or "F"	N/A
I	Incomplete academic work for justifiable reasons at the end of a term	N/A
W	Withdrawal from the class and/or College	N/A
EW	Excused Withdrawal for Extenuating Circumstances	N/A
IP	In Progress - a class was extended beyond the normal end of the academic term and assignment of a substantive grade must await completion of the class	N/A
RD	Report Delayed - a temporary notation recorded when there is a delay in reporting a grade	N/A

The non-evaluative grading symbols above (marked as "N/A" - not applicable) are not used in the calculation of GPA (grade point average).

### Assigning and Removing a Grade of Incomplete

A written record containing the conditions for removal of the "I" is to be completed by the instructor at the time that grades are submitted to the Admissions and Records office. If the conditions for removal are not completed after one semester, the grade to be assigned must be part of this record. A copy of the written record will be given to the student and one will be filed with Admissions and Records.

The required work will be evaluated and a final grade will be assigned if the student meets the conditions within the one semester allowed. Students may petition for a time extension due to unusual circumstances.

### Taking Courses on a Pass/No-Pass Basis

Students are allowed to earn a maximum of 12 units attempted on a pass/no-pass basis. There are certain courses in which all students are evaluated on a pass/no pass basis only. These courses are specified in the course description in this catalog. All courses other than those included in the category above are available for the pass/no-pass option; however, courses specifically required for one's degree or certificate should not be taken with this option.

Units earned on a "P/NP" basis are not used in the calculation of the GPA.; \*however, when receiving an "NP," the units for that course will be counted as units attempted and considered in probation and dismissal procedures. **(EXEC ORDER 2022-21 suspends the NP consideration in Probation and Dismissal procedures through the end of the 2022 calendar year.)** One may repeat a course in which an "NP" was received. (The repeated course will not be counted as units attempted.)

Students selecting the pass/no-pass option and later wishing to receive the letter grade which was filed with the Registrar must submit the grade request form no later than one regular semester following the semester in which the "P" was received. Course units converted from pass/no-pass to a letter grade will not be counted in the 12 allowable pass/no-pass units, but will be used in the calculation of the GPA.

### Grade Changes

The instructor of the course shall determine the grade to be awarded to each student. The determination of the student's grade by the instructor is final in the absence of mistake, fraud, bad faith, or incompetence. The removal of an incorrect grade from a student's record shall only be done upon authorization by the instructor of the course, with the following two exceptions: 1) If the instructor is no longer employed by the District and compelling evidence is available that there was a simple error in the grade

submitted, the Vice President of Student Personnel OR Vice President of Instruction may change the grade; 2) If mistake, fraud, bad faith, or incompetence are present, the final determination concerning removal or change of grade will be made by the Board of Trustees based on the recommendation of the Superintendent/President. Board Policy 4231/AP4231.

### Repeating a Course

#### Course Repetition for Grade Improvement

In an effort to alleviate substandard academic work, a student may repeat courses in which they have received sub-standard grades of "D", "F", "FW", "NP" or "NC" by re-enrolling in the course(s). Students may repeat courses in this way for a total of three attempts. A withdrawal that results in a "W" on the transcript counts as one attempt to improve a grade. One additional attempt may be allowed if the College finds there are documented extenuating circumstances which justify another repetition. A petition must be submitted along with documentation supporting the circumstances relating specifically to the dates of the last attempt. Extenuating circumstances are verified cases of accidents, illness or other issues beyond the control of the student.

### Course Repetition When the Student Has Earned a Passing Grade

Students may take a course once and then repeat it as many times as is stated in the course description in the catalog. After receiving a grade for a course, subsequent enrollments in that course that result in a withdrawal with a "W" count as a repetition attempt.

For courses that are not repeatable in which a student has received a satisfactory grade, i.e., "A", "B", "C", "CR", or "P" may not be repeated unless the Academic Exceptions Committee approves a Petition which:

1. Demonstrates a significant length of time has elapsed since the course was taken (five or more years), or for other substantial reasons.
2. Demonstrates that repetition is necessary for a student to meet a legally mandated training requirement as a condition of continued paid or volunteer employment.

After repeating a course the following changes will appear:

- If the grade received in the original course was sub-standard, an "R" will appear in the notes column to the right of the original course. The original grade will not be used in computing the GPA. The grade received in the approved repeated course will be posted to the transcript and used for GPA purposes.
- If the grade received in the original course was satisfactory, both the grade received in the approved repeated course and the original grade will be used for purposes of GPA calculation. (State regulations do not allow "W" grades to be removed or lined out.)

### Withdrawal

Withdrawal from a course or courses shall be authorized through the last day of the 14th week of instruction (or 75 percent of a term, whichever is less). The academic record of a student who remains in a course beyond the time allowed by district policy must reflect a symbol as authorized other than a "W." No notation ("W" or other) shall be made on the academic record of the student who withdraws during the first four weeks or 30 percent of a term, whichever is less.

Students may attempt a course a maximum of 3 times including withdrawals where a "W" symbol is recorded.

Students have the right to file a petition if they believe they either should or should not receive a "W" or wish to enroll in a course where they have exceeded the maximum number of "W"s due to extenuating circumstances.

Students may petition for Excused Withdrawal (EW) for the following circumstances:

1. Medical emergency (including accident, serious illness, non-elective surgery for self or immediate family)
2. Personal emergency or hardship situation (such as loss of job or job transfer, family or child-care dependency crisis, and death of an

immediate family member)

3. Incarcerated student who is released from custody or involuntarily transferred before the end of the term
4. Immigration action against the student

### Academic Renewal

If a student receives a sub-standard grade ("D" or "F") the student can petition to disregard this course for purposes of calculating GPA. (Title 5 Sections 55044 and 55046)

Students may petition to have their academic record reviewed for academic renewal of substandard academic performance under the following conditions:

- Students must have achieved a cumulative grade point average of 2.0 since the term in which the substandard grade(s) to be removed was/were earned. The courses used in this GPA calculation must be from an accredited institution and total at least 12 units; and
- At least one regular semester must have elapsed from the time the course work to be removed was completed.

Up to 24 units of course work may be eliminated from consideration in the cumulative grade point average.

When academic renewal procedures permit previously recorded substandard coursework to be disregarded in the computation of a student's grade point average, the student's permanent academic record should contain an accurate record of all coursework to ensure a complete academic history.

Academic renewal procedures may not conflict with the District's obligation to retain and destroy records or with the instructor's ability to determine a student's final grade.

The Dean of Student Services or Academic Exceptions Committee designee must approve the Academic Renewal Petition.

Reversal of Academic Renewal actions may occur if the College finds there are documented extenuating circumstances. A petition must be submitted along with documentation supporting the extenuating circumstances to the Dean of Student Services for a final decision.

## Acceptance of Credit from Other Institutions at Merced College

A maximum of 30 credits may be earned from the combined use of Military Experience, Advanced Placement, C.L.E.P., Credit by Examination, and International Baccalaureate.

### Students Transferring from Another College

Official transcripts must be submitted in an official, sealed envelope from the other institution or received through an approved electronic service to the Admissions and Records office for evaluation of equivalent coursework. These may be submitted via mail or in person. Only lower division credit will be accepted provided the institution offering the courses accepts them towards its own degree. Institutions must be listed as being fully accredited by one of the regional institutional accrediting organizations that are recognized by the United States Department of Education. Transcripts submitted to Merced College become the property of Merced College and cannot be returned or forwarded to another institution.

### International Transcripts

Merced College does not evaluate international transcripts until they are evaluated by ERES-Educational Records Evaluation Service- an international transcript evaluation service recommended by Merced College. ERES order forms are available in the Admissions office or online at [www.eres.com](http://www.eres.com). Students should indicate on their ERES order that they would like a "Course Listing." The cost of ERES evaluation is the responsibility of the student.

The Admissions office will only consider lower division courses recommended by the ERES service. Course descriptions in the native language, catalog information, or relevant syllabus must be provided by the student for courses that they would like reviewed and submitted to the Admissions office. Discipline faculty will review and provide a report to the Admissions office when their analysis of coursework is complete. This may take 60-90 days. All evaluated coursework will be scanned to the students' record and be available for review and course planning with their counselor.

International transcripts do not have the California Course Identification Numbering System (C-ID) or general breadth articulation with the CSU/UC. Students wishing to use these courses to fulfill an ADT-Associate Degree for Transfer- should follow the Course Substitution procedure and file a general petition for general breadth exceptions or a course substitution for exception to the major core requirement (BP/AP 4227).

## CREDIT FOR PRIOR LEARNING at MERCED COLLEGE

Credit for Prior Learning (CPL) may be earned for eligible courses approved by the District for students who satisfactorily pass an authorized assessment. Authorized assessments may include the evaluation of approved external standardized examinations, military service/training, examination from within the District, the evaluation of industry recognized credentials, and student-created portfolios. A maximum of 30 credits may be earned at Merced College from CPL.

Credits earned from CPL may not count toward a Merced College degree major. Students must meet with a counselor for specific information regarding CPL and the petition process. Details may be found by consulting BP/AP 4235. For additional information or questions, please contact the interim CPL Faculty Coordinator, Dr. Dean Caivano at [dean.caivano@mccd.edu](mailto:dean.caivano@mccd.edu) or (209) 384-6350.

Students may demonstrate proficiency in a course eligible for CPL and receive college credit through the approved alternative methods for awarding credit listed below:

- Achievement of a satisfactory score on an Advanced Placement (AP) examination
- Achievement of a satisfactory score on a high-level International Baccalaureate (IB) examination
- Achievement of a satisfactory score on the College Level Examination Program (CLEP)
- Achievement of Military Training/Experience
- Evaluation of Joint Service Transcripts (JST)
- Satisfactory completion of an institutional examination, known as Internal Credit by Examination (ICE), approved annually by the District Academic Senate
- Evaluation of industry recognized credential documentation
- Evaluation of student-created portfolios

### Determination of Eligibility for Credit for Prior Learning

- The student must be in good standing and enrolled at Merced College
- The course is listed in the current Merced College Catalog
- The student is not currently enrolled in the course to be challenged

Credits acquired by CPL are not applicable to meeting of such unit load requirements as Selective Service deferment, Veterans, or Social Security benefits. Credits acquired by CPL shall not be counted in determining the 12 semester hours of credit in residence required for an Associate degree. Students will pay a CPL exam fee for Internal Credit by Exam or Evaluation of Industry Certification or Portfolio equal to the enrollment fee required if registering for the course they are challenging. Exams/reviews must be taken within the first six weeks of a regular semester and the first four weeks of summer semester. The student's academic record shall be clearly annotated to reflect that credit was earned by assessment of prior learning.

### Advanced Placement

Merced College participates in the Advanced Placement (AP) Program offered by the College Board. A score of 3, 4, or 5, is required, depending

upon the specific exam. Not all AP examinations are identified for credit. Information about the awarding of credit by the specific AP exam and the application for Merced College Associate Degree Breadth, CSU General Education Breadth, and IGETC is provided in the section titled AP EXAMINATIONS.

### International Baccalaureate

Merced College participates in the International Baccalaureate (IB) offered by the American Council on Education (ACE). Students may only receive credit towards the Merced College associate degree general education requirements. IB general education subject area applicability exists system-wide for students completing CSU GE Breadth or IGETC Breadth patterns. Specific information is provided in the section titled INTERNATIONAL BACCALAUREATE (IB)

### College Level Examination Program (CLEP)

Merced College will award credit under the College Level Examination Program (CLEP) in accordance with the standards adopted by the California State University System. Credit for Subject Matter exams is based on the scores recommended by the American Council on Education (ACE). The number of units of credit granted varies.

### Military Training/Experience

After earning 12 units of credit in residence at Merced College, and at their request, military veterans will be awarded up to 15 units of credit for military training and experience. These units will be recorded on the student's Merced College transcript. This award will be based upon the American Council of Education's (ACE) recommendations found on the individual's ACE Registry Transcript. The basis for awarding credit for military training and/or experience is as follows:

**Basic Training:** Veterans may earn up to five credits from MC College Breadth Area E (Lifelong Understanding and Self- Development) comprised of three credits from E1 Integrated Organism and two credits from E2 Activity.

**Other Military Training/Experience:** Merced College will grant a maximum of 10 units of general elective credit.

Community College of the Air Force transcripts will be evaluated in the same manner as described in Students Transferring from Another College and will not be subject to the above unit limitations and residency requirements.

### Military Service/Joint Service Transcripts (JST)

Students interested in CPL using military transcript(s) shall receive credit as recommended by the appropriate Area Dean or faculty designee.

- The student shall complete the Credit for Prior Learning Petition Form
- The student submits the appropriate military transcript to the Records Office
- Area Dean or faculty designee review the ACE ID for assessment of prior learning

For additional information or questions, please contact the Veterans Resource Center at [VRC@mccd.edu](mailto:VRC@mccd.edu) or (209) 384-6161.

### Internal Credit by Examination (ICE)

Students interested in CPL using credit by exam shall receive credit as recommended by the appropriate Area Dean or faculty designee. This option is available to students during the first six weeks of each regular semester and the first four weeks of a summer term.

- Students must be registered in at least one course at Merced College during the semester they want to attempt Internal Credit by Examination and they must be in "Good" academic standing.
- Students may be asked to supply a high school and/or other college transcript when applying for a Credit by Examination.
- The student shall complete the Credit for Prior Learning Petition Form.
- The student meets with the Area Dean or faculty designee to receive further instructions for credit by exam.
- Credit by Examination is not allowed for courses previously taken in an institution of higher education and for which any grade other than

a "W" was received.

- Credit by Examination is not allowed for courses that are considered pre-collegiate.
- Although the University of California and the California State University systems accept, with certain limitations, appropriate credits obtained by examination. There is no guarantee by Merced College that other institutions will do so.

The number and type of courses available for Internal Credit by Examination at Merced College may be limited and are identified annually by the faculty.

#### The following courses may be available for CPL via Credit by Exam:

ACTG-51	AGEH-01	AGMA-05	AGMA-06	AGPS-10
ALLH-67	BIOL-06	BIOL-09	BIOL-50	CADM-01
CADM-02	CADM-10	CADM-11	CRIM-02	CRIM-05
CRIM-08	CRIM-10	CRIM-11	CRIM-35	CRIM-37
CRIM-51	ELCT-45A	ELCT-45B	ELCT-45C	INDT-10
INDT-25	INDT-40	INDT-41	INDT-50	INDT-51
INDT-52	JPNS-01A	JPNS-01B	MATH-04A	MUSA-21A
MUSA-25A	MUSA-27A	MUSG-10	REGN-01	REGN-02
REGN-15	REGN-18	REGN-24	REGN-34	REGN-44
SPAN-01	VOCN-46	WELD-06		

### Industry Recognized Credentials

Students interested in CPL using industry recognized credential(s) shall receive credit as recommended by the appropriate Area Dean or faculty designee.

- The student shall complete the Credit for Prior Learning Petition Form
- The student submits the required industry recognized credential documents through the Credit for Prior Learning Petition Form to be reviewed by the Area Dean or faculty designee for assessment of prior learning

#### The following courses may be available for CPL via recognized Industry Credentials:

AUTO-04A	AUTO-32	AUTO-33	AUTO-36	AUTO-41
AUTO-42	AUTO-43	AUTO-44	AUTO-46	AUTO-47
AUTO-55	AUTO-56	AUTO-63	AUTO-66	CPSC-01
CPSC-05	CTIS-03	CTIS-15	CTIS-16	CTIS-17
CTIS-20	ELCT-45A	ELCT-45B	ELCT-45C	EMER-50A
EMER-50B	FIRE-30	FIRE-31	FIRE-32	FIRE-33
FIRE-34	FIRE-40	HMNG-01	HMNG-02	

### Student-Created Portfolio Assessment

Students interested in CPL using a student-created portfolio shall receive credit as recommended by the appropriate Area Dean or faculty designee.

- A department approved portfolio assessment rubric for the course is on file
- The student shall complete the Credit for Prior Learning Petition Form
- The student meets with the Area Dean or faculty designee to receive further instructions for student-created portfolio assessment
- The student submits all portfolio documents to the Area Dean or faculty designee for assessment of prior learning

#### The following courses may be available for CPL via Portfolio:

- CLDV-01
- CLDV-30
- CLDV-30L

# Probation & Dismissal

## Academic Probation

Students will be notified of having been placed on academic probation if they have attempted at least 12 units and earned a grade point average below 2.0 based on all units recorded on their permanent record. A student's probation status is not affected by a break in attendance.

Students will be removed from academic probation when their cumulative GPA is 2.0 or higher.

Students on academic probation will be subject to dismissal from the College if they've earned a cumulative grade point average of less than 1.75 in all units attempted in each of three consecutive semesters.

Students who are on academic probation for three consecutive terms with a cumulative GPA below 1.75 will be subject to dismissal.

Although units accumulated during a summer session are used in the GPA calculation, the probation status changes only at the end of a regular semester when grades are recorded.

Please note, academic probation can impact registration priority and financial aid. Please see a counselor for additional information.

For specific information regarding the impact of academic probation see Administrative Procedures AP 4250 and AP 4255.

## Progress Probation

Students will be placed on progress probation if they've enrolled in at least 12 units and the entries on their permanent record of "W," "I," and/or "NP" reach 50 percent of the cumulative units or more. The probation status is not affected by a break in attendance.

Students will be removed from progress probation when the percentage of units graded as "W," "I," and "NP" drops below 50 percent in this category.

Students placed on progress probation will be subject to dismissal from the College if the entries on their permanent record of "W," "I," and/or "NP" reach 50 percent of the cumulative units or more for three consecutive semesters.

Although units accumulated during a summer session are used in the GPA calculation, the probation status changes only at the end of a regular semester when grades are recorded.

For specific information regarding the impact of progress probation see Administrative Procedures AP 4250 and AP 4255.

## Dismissal Notification

Students who have been dismissed from the college will be notified by e-mail.

## Probation and Dismissal Appeal

A student may appeal probation or dismissal provided that unusual and verifiable circumstances occurred that were strongly instrumental in leading to the probationary or dismissal status. Reasons for appeal might include: 1) one's health; 2) an emergency in one's family; or 3) an extreme change in financial situation which did not allow the student to continue your education. Other reasons not listed above may also be considered.

Board Policy 5530 also provides information about how to contact other organizations, such as the Western Association of Schools and Colleges, if a student wishes to file a complaint.

## Grievance Process

Merced College supports students' right to grieve or appeal any official action or incident which, in their judgment, is unfair or prevents them from obtaining equal educational opportunities. Board Policy and administrative procedure AP 5530 provides information about conditions under which

students may grieve and the process to be followed.

In cases of action, such as dismissal from a class, program, or the College, students can initiate an appeal according to a specific appeal channel. If a student wishes to exercise the right to appeal an action taken against them by a College official, the student should contact the Dean of Students regarding the proper procedure to be followed.

In cases of incidents such as alleged discrimination or harassment, students can initiate a grievance. To exercise the right to grieve such an incident, students should contact the College's Equal Employment Officer regarding the proper procedure to be followed.

All complaints should attempt to be resolved at the local level. Agencies overseeing Merced College include the agencies listed below.

The California Community Colleges Chancellor's Office has complaint procedures listed on their homepage, which can be located at [cccco.edu](http://cccco.edu). The address is 1102 Q St., Suite 4554, Sacramento, CA 95811.

Students who believe that Merced College is in violation of any of the accreditation standards may contact the Accrediting Commission for Community and Junior Colleges, located at 10 Commercial Blvd., Suite 204, Novato, CA 94949 or by e-mail at [accjc@accjc.org](mailto:accjc@accjc.org). The telephone number is (415) 506-0234.

For issues related to sex, race, disability, or age discrimination contact maybe made with the Office for Civil Rights, U.S. Department of Education, 50 Beale Street, Suite 7200, San Francisco, CA 94015. Telephone numbers are: (415) 486-5555 (voice) or (415) 227-8124 (TTY).

## Student Right to Appeal

When a student's petition is denied by the Academic Exceptions Committee, the student has the right to appeal to the Dean of Student Services. An appointment is required by calling (209) 384-6314.



# STUDENT AND COLLEGE SERVICES

## Air Force Reserve Officer Training (AFROTC)

Students may take AFROTC courses for academic credit with no commitment to the Air Force. For academic credit, a student may take the courses as electives to learn more about national defense, airpower strategy, the Air Force lifestyle, and Core Values. Students can register for classes through Fresno State's extension program. If a student wants to take the courses as a lead-in to a commission as an Air Force officer, he/she must eventually join the cadet corps to prepare to enter active duty as a second lieutenant. Merced College students, who wish to pursue commissioning as cadets, and not just as students, must be full-time students with at least 12 credit hours per semester and maintain a 2.0 CGPA. They must also be accepted to Fresno State by their junior year in order to complete the commissioning path. In either case, a student or cadet can use the theory and skills learned in Aerospace Studies as leadership experience that will be invaluable for either an Air Force or civilian career. Books and supplies are provided at no cost to the student; uniforms will also be furnished for qualified students at no costs.

For more information, contact California State University-Fresno, AFROTC at (559) 278-2593 or visit [www.csufresno.edu/afrotc](http://www.csufresno.edu/afrotc).

## Art Gallery

The Art Gallery, located in the Theater Building, presents high quality art exhibits in a wide variety of media throughout the school year for enjoyment and enrichment. Featured shows include student, faculty and guest artist exhibits. All art gallery events are free and open to the public. Art exhibitions are often scheduled in conjunction with theater events. For a schedule of Art gallery events, please visit <http://www.mccd.edu/TheArts/> or call 386-6644.

## Associated Students

**Student Government – Dedicated to improving student education, life and experiences!**

Associated Students of Merced College (ASMC) is a student government organization. The mission of ASMC is to provide students with representation and advocacy on campus. ASMC is led by a nine-member Student Executive Board who are elected by students each year.

Under the guidance of a faculty advisor, ASMC works to:

- Advocate for the inclusion of students in the overall policy and decision-making processes of the college, especially as it relates to institutional effectiveness. This includes participation in the program review and the student learning outcome/service area outcomes process.
- Promote awareness of the student's role in the academic community
- Enhance the quality and scope of education at the college, both inside and outside the classroom
- Schedule activities to enhance student life at Merced College
- Empower students with leadership opportunities

ASMC represents student interests to a variety of audiences, including: college administration, faculty, staff and the Board of Trustees. Members participate in shared governance by serving as representatives on major college committees. ASMC is also a member of Region V of the Student Senate for California Community Colleges (SSCCC) and California Community College Student Affairs Association (CCCSAA).

During the Fall and Spring semesters, ASMC holds open council meetings every Monday at 09:00 a.m. in the Student Union Building, Room 137. Students and members of the community are encouraged to attend and

share ideas, concerns and/or comments with the governing council. The council does not meet the first week of the semester, during finals weeks, or during summer or winter breaks. In accordance with the Brown Act, agenda items must be submitted in writing before 12:00 noon on the Thursday before the intended meeting. Agendas will be posted in the window of the ASMC Office on Thursday afternoons. Action items may not be added to the agendas after the deadline.

Merced College  
Associated Students of Merced College  
3600 M Street  
Merced CA 95348  
Phone: (209) 384-6119

### ASMC Fee

A student must be registered for the current semester and pay the ASMC fees at the Student Fees Office. There is a \$2 Student Representative fee and a \$10 Student Body fee. Students can opt out of either fee through the student waiver forms available at the ASMC office or Student Fees Office.

### ASMC Member Benefits and Privileges:

- Right to seek office within student government
- Discount admission to college athletic and theater events, and all ASMC sponsored activities
- Eligibility to apply for ASMC scholarships
- Membership in student clubs

## Bookstore

The Merced College Bookstore is located in the Student Union Building on the Merced Campus. The bookstores offer a textbook rental program inside the bookstore or online. You will find in stock exact new, used and digital textbooks and program supplies your instructors have requested each semester. In addition, we offer a large assortment of school supplies, electronics, computer accessories, study aids, art materials, nursing supplies, convenience, and collegiate clothing. The bookstore will buy back textbooks daily. Special orders and custom orders are welcomed any time. Regular bookstore hours are from 7:45am to 4:00pm Monday through Thursday and 7:45am to 3pm Friday. Extended business hours are offered during the beginning of each semester, please go to <http://www.bkstr.com/mercedcollegestore> for details and extended business hours for both campuses.

## Follett Access Textbook Program

Follett Access is a partnership between Merced College and follett that allows you to rent or purchase textbooks at a reduced cost. The charge is posted directly to your Merced College Student Fees account and can be paid along with your college charges or using financial aid.

Merced College is making it easier for students to have textbooks on Day 1 of class and save money! Here's how:

- Register for Classes
- Pay a simple, affordable, per-unit cost
- Check @campus.mccd.edu email
- Get your textbooks

Learn more at [www.mccd.edu/textbooks](http://www.mccd.edu/textbooks)

## Open Educational Resources (OER) / Zero-Cost Textbooks

Open Educational Resources (OER) are high-quality teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license, such as a Creative Commons license, that permits their free use and repurposing by others, and may include other resources that are legally available and free of cost to students. "Open Educational Resources" include, but are not limited to, full courses, course materials, modules, textbooks, faculty-created content, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge (AB-798, section 67423, adapted from the Hewlett Foundation definition, <https://www.hewlett.org/strategy/open-educational-resources/>)

## California Mini-Corps

California Mini-Corps offers part-time employment to full-time college students who are seeking a career in teaching and is located in the Leshar Building 3rd floor, office #324 on the Merced Campus. The Mini-Corps program gives students the opportunity to work flexible hours in a classroom as tutors assisting migrant students. College students are placed in a public school grades K-12. Tutors get paid \$14.50 per hour and work hours range from 10-20 per week. Applicants must be Spanish/English bilingual. Please contact the coordinator, Margarita Covarrubias at (209) 384-6046 or covarrubias.m@mccd.edu for more information.

## CalWORKs Program

California Work Opportunity and Responsibility to Kids (CalWORKs) is a state-funded welfare-to-work program designed to help individuals receiving Temporary Assistance for Needy Families (TANF), a cash aid program (welfare) for parents who meet income guidelines and have a child at home under the age of 18.

CalWORKs serves as a liaison between the student and the Human Services Agency (HSA), the Department of Workforce Investment (DWI) and the Merced County Office of Education EMPOWER program by providing educational and career opportunities combined with an array of high-quality support services that enable students to complete their educational goals, find gainful employment and successfully transition into the workforce.

CalWORKs staff provides customized support services during the student's educational and employment journey toward self-sufficiency. For more information, contact: Merced College (209) 381-6515 or Los Banos Campus (209) 381-6428, or visit <http://www.mccd.edu/resources/>.

## Campus Dining

Complete meals, soups, sandwiches, pizza and snacks at competitive prices can be purchased in the college's attractive cafeteria located in the Student Union Building. The Campus Café also provides on-site affordable customized catering for small to large luncheons and BBQ. Call (209) 381-6549

## Career Center And Transfer Center Services

Merced College provides students career and transfer resources at the Career/Transfer Center. The Center gives students the opportunity to research colleges and careers through a variety of resources. Counselors are available to provide academic and career advisement. Students are encouraged to visit the Center to learn more about the services they provide. The Center is open during the fall and spring semesters Monday through Friday from 08:00 a.m. to 04:30 p.m. Summer hours will be posted on the website. The Center is located on the third floor of the Leshar Student Services building, room 312 on the Merced College Campus. Career and Transfer Center Services are also offered at the Los Banos

Campus in Building A. For more information, contact Merced Campus at (209) 384-6243 or Los Banos Campus (209) 826-3495.

## Child Development Center

Child Development Center services are available on campus for eligible children, with a priority given to eligible full-time Merced College Students and staff. The Merced College Child Development Center (MCCDC) is an infant/toddler and preschool education program and serves as an optimal learning environment laboratory for students majoring in Child Development education, nursing, and other student disciplines. Eligible families must qualify for financial assistance through the State Department of Education for free or low-cost childcare services. Applications are available at the Child Development Center.

## College Clubs

With more than twenty clubs, it's easy to find people who share similar interests!

This is your open door to Merced College and we want to get you connected. Associated Students of Merced College (ASMC) recognizes more than twenty student clubs and organizations on campus representing a broad range of interests. Feel free to attend their meetings; they're always looking for new members.

The role of campus clubs are to:

- Increase opportunities for students to engage in activities which contribute to educational and/or social growth outside the classroom
- Establish coordination, communication and cooperation among the officially registered student clubs
- Promote the development of student leadership, service and networking
- Promote campus and public awareness of inter-club council activities

Student clubs are governed by the Associated Students of Merced College. Each club designates one (1) student who will represent and serve the club at ASMC Council Meetings and have a vote on all issues. During the Fall and Spring semesters, ASMC holds open council meetings every Monday at 09:00a in the Student Union Building, Room 137. The meeting agenda and minutes are on display at the ASMC office.

For information on clubs and club activities, visit the ASMC webpage at: <http://www.mccd.edu/campus-life/clubs-activities/index.html>

## Counseling Department

The Counseling Department is staffed by professional counselors with training and expertise in the areas of personal, educational, and vocational/career development. In addition to services provided by the professional counseling staff, the Center is also staffed by teaching faculty who can provide academic advisement in their areas of concentration or major. Counselors will assist students in making satisfactory progress in their program of study and will confirm that they are taking appropriate prerequisite course work necessary for success in higher level courses which may be required for their major.

Counselors are also assigned to other support services and programs, including Extended Opportunity Programs and Services, Disabled Student Program & Services (DSP&S), International Student Services, the Career Center, Transfer Center, Foster Youth Center, Veterans Services, V.T.E.A., CalWORKS, Noncredit Matriculation and Student Athlete Support.

Appointments with counselors done either on an appointment or walk-in basis. The Counseling Department is open Monday through Friday from 08:00a to 04:30p and some evenings until 07:00p. Please plan to check-in no later than 30 minutes prior to closing.

## Disabled Students Program and Services

The Disabled Students Program & Services (DSPS) offers educational support services for students with a variety of disabilities, including those students with physical, psychological, communicative and learning disabilities. Support services and accommodations include, but are not limited to, priority registration, scheduling assistance, academic and vocational counseling, interpreters, test-taking accommodations, assistive technology and e-text, Kurzweil, or PDF.

For students with learning disabilities or suspected of a learning disability who are enrolled in college classes, DSPS offers assessment to determine individual strengths and weaknesses and program eligibility according to the California Community College criteria. Students with verified disabilities who require alternate formats of college publications and resources should check with DSPS. Materials available include, but are not limited to, Braille, large print, audio books and electronic text. These formats help accommodate students' specific needs and are created in the timeliest manner possible.

DSPS serves as a liaison with the campus and community agencies on behalf of students with disabilities. Students are encouraged to visit DSPS in the Leshar Student Services Building, 2nd floor, office #234 on Merced Campus (209) 384-6155 or (209) 384-6311 (TDD) and in the Student Services Building on the Los Banos Campus (209) 381-6423 or visit the website at <https://www.mccd.edu/resources/dsps/index.html>

## Embedded Tutoring

The Embedded Tutoring Program focuses on using peer tutors to provide additional individualized support during class activities, and to encourage students' participation inside the classroom. In embedded tutoring, a tutor works in the classroom under the instructor's guidance to help students understand course concepts and to enhance students' engagement. The embedded tutors also help foster connections for the students with academic support services and facilitate individual and group tutoring sessions in the Student Success and Tutorial Center (SSTC). For more information, contact the Student Success Office at (209) 384-6329.

## Extended Opportunity Programs and Services (EOPS) CARE and NextUp Programs

EOPS program's primary goal is to encourage the enrollment, retention, and transfer of students disadvantaged by language, social, economic, and educational circumstances, and to facilitate the successful completion of their goals and objectives in college. EOPS offers academic and support counseling, financial aid and other support services.

CARE is a supplemental component of EOPS that assists EOPS students who are single heads of household, are receiving Temporary Assistance for Needy Families (TANF), and have young children. The program offers support services to help students acquire the education, training and marketable skills needed to transition from TANF-dependency to employment and eventual self-sufficiency for their families. Every CARE student is an EOPS student who must meet the eligibility criteria for both programs.

NextUp is a supplemental, categorical component of EOPS that assists students who are current or former foster youth, are under the age of 26, were in foster care on or after their 13th birthday, and enrolled in at least 9 units. The program provides academic and support counseling, financial aid and other support services.

For more information or to determine eligibility for EOPS, CARE, or NextUp, contact the Merced Campus EOPS office at (209) 381-6596 or the Los Banos Campus EOPS Office at (209) 826- 3495.

## Facilities Usage

College facilities are available for use by public agencies and community organizations to serve the educational, economic, and artistic interests of the citizens of the community. Hundreds of events per year are scheduled on the Merced campus. A comprehensive master calendar is maintained in the Facilities Office. Both indoor and outdoor facilities are available, subject to priority of instructional programs. Reservations for meetings and/or banquets should be made well ahead of time by calling the Facilities Office at (209) 381-6593.

## Financial Aid

Merced College administers a student financial aid program designed to assist students in meeting college costs. The amount of financial aid awarded varies from student to student, depending on individual student need and resources.

Financial aid awards are based on calculated financial need as determined by the *Free Application for Federal Student Aid* (FAFSA) or California Application for Dream Act (CADAA). Students may apply online at [www.studentaid.gov](http://www.studentaid.gov) or [dream.csac.ca.gov](http://dream.csac.ca.gov). Application assistance is available in the Welcome Center located on the 1st floor of the Leshar Student Services Building on the Merced Campus and Student Services Building A on the Los Banos Campus.

Available programs include: 1) the Federal Pell Grant; 2) the Federal Supplemental Educational Opportunity Grant (SEOG); 3) the Federal Work Study Program; 4) State of California Cal Grant programs; 5) Student Success Completion Grant; 6) California College Promise Grant; 7) Merced College Foundation Scholarships; and 8) Federal Direct Loan Program.

### Application

Financial aid funds come from appropriations made by the Federal and State governments and through scholarship awards made by individuals and other public and private agencies and organizations. Hence, each of these funds MUST be administered according to different sets of policies, regulations, and/or specific requirements. To make the process of receiving aid as simple as possible, the Free Application for Federal Student Aid (FAFSA) and California Application for Dream Act (CADAA) determine eligibility for most state and federal assistance programs. Students are also required to file a Grade Point Average Verification Form with the California Student Aid Commission for a Cal Grant. Separate applications for specialized grants (the Child Development Grant and the Chafee Grant for Foster Youth) are also required. Scholarship applications for a number of locally administered scholarships are available each year in the Financial Aid offices on both campuses during the month of March.

### Student Eligibility

Policies relating to the College's general admission and academic progress standards are described elsewhere in this catalog.

The following are the requirements for most financial aid administered by Merced College:

- You must be a U.S. citizen or eligible non-citizen,
- You must be registered with Selective Service, if applicable,
- You must have a valid Social Security number,
- You must be working toward an eligible degree or certificate program;
- You must be making satisfactory academic progress;
- You must not owe a refund on a Federal grant or be in default on a Federal educational loan;
- You must have "financial need" as determined by submitting the FAFSA;
- You must have a high school diploma, or GED, or pass the California High School Proficiency Examination.
- Recent legislation affecting student eligibility reduces student eligibility for Pell Grants to the equivalent of 12 full-time semesters. This is a lifetime limitation not a limitation per school.

To be eligible for California grants, students MUST also:

- Be a resident of California, and have "financial need" based on



the criteria for the California College Promise Grant or Cal Grant Programs.

### Deadlines/Priority Dates

To be considered for California State Cal Grant A, B, and/or C programs, the FAFSA/CADA (California Application for Dream Act) application and the GPA Verification form for Cal Grants must be filed by March 2 of each year. It is recommended that students obtain a proof of mailing from the Postmaster to document filing on or before the March 2 deadline. Please read the GPA Verification form instructions carefully because changes are made every year.

The Merced College Admissions & Records office automatically verifies electronically GPAs for all students who have completed a sufficient number of degree applicable units and meet the AB540 criteria if applicable, prior to the deadlines. Students should check with A&R to determine if their GPA has been submitted electronically to the California Student Aid Commission.

Merced College Foundation scholarship applications are due annually on March 31. The window of opportunity for scholarship applications is March 1 to April 30. Notices will be posted each year. Students can obtain a scholarship application online at the Merced College Financial Aid website: <https://www.mccd.edu/rd/scholarships>

### Merced College Standards of Satisfactory Academic Progress

For financial aid eligibility, federal regulations require students to move toward the completion of a degree or certificate when receiving financial aid. These regulations state that Academic Progress Standards MUST include a review of periods of enrollment in which students did not receive aid as well as the periods they did receive aid.

Student's satisfactory academic progress will be reviewed at the end of each semester or upon the student's initial application for financial aid, whichever comes first.

For the purpose of financial aid eligibility, students MUST meet the following minimum standards:

- You must maintain a grade point average of at least 2.0 in all units attempted. This includes a cumulative GPA as well as a 2.0 for your last two semesters.
- Your financial aid transcript history must reflect at least a 67 percent successful completion of all enrolled units.
- You will be expected to complete a degree or certificate program based on the 150% maximum of the published unit requirement. Exception to this maximum may be made with appropriate documentation on a case-by-case basis.

Students may appeal a denial of aid based on the maximum time limits by submitting an appeal form and an educational plan, which has been reviewed and signed by a counselor, and which shows the revised goal and specific additional unit requirements. Students may also appeal a denial based on poor grades. Students can appeal online at [mccd.verifymyfafsa.com](https://mccd.verifymyfafsa.com). Each appeal will be reviewed on a case-by-case basis. Students will be notified by email of a probationary status or denial of financial aid when academic progress has not been met.

### Financial Aid Repayment Policy

Per federal regulations, any student who receives financial aid and then withdraws from all classes prior to completing 60% of the semester/program and/or course will be required to repay a portion of any unearned federal financial aid. If the student has received more than earned, notification will be sent as to the amount of aid to be returned, the due date, and the procedure. If the student has not yet received the full amount earned, notification will be sent regarding a post-withdrawal disbursement the student may receive, the response date, and the procedure. Federal regulations only allow students to receive financial aid for classes they actually attend. Students who receive financial aid for classes they drop before the first day of class or that they otherwise never attended must return those funds. There is no appeal process. Federal regulations do not allow a college to make any exceptions to the Return of Title IV

requirements. Students who do not repay the funds owed are disqualified from eligibility for federal student aid at any college or university.

Note; Students may not receive financial aid from more than one institution during the same enrollment period.

Return to Title IV Funds calculations are based on the student's:

- 1) Federal Financial aid award;
- 2) enrollment status (full, three-quarter, half, or less than half time) at the time of final withdrawal; and
- 3) the portion of the term completed.

## Honors Program

The Merced College Honors Program is designed to meet the needs of exceptional students by providing an enriched educational environment. Students are challenged to reach their full intellectual potential and to better prepare themselves for the academic demands of a four-year college or university.

Enrollment: Any new student with a 3.5 cumulative grade point average, or any continuing student with a 3.25 cumulative grade point average, may enroll in honors classes. Students who do not meet one of these enrollment requirements may also enroll in individual honors classes by successfully completing the challenge process. Inquiries regarding the Honors Program should be directed to Dr. Max Hallman, Honors Program Coordinator, at (209) 384-6327 or at [hallman.m@mccd.edu](mailto:hallman.m@mccd.edu).

Curriculum: The core curriculum of the Honors Program will consist of several honors-designated courses that fulfill CSU and IGETC transfer requirements. At least two of these courses will be offered each semester. In some cases, the courses offered will be taught in back-to-back time slots with instructors coordinating their lectures.

In addition to the core curriculum, a two-unit honors seminar will be offered each semester. These seminars are intended to give the student an opportunity to do advanced reading and research under the close supervision of a Merced College faculty member or members.

Honors Scholarships: With available funds through the Merced College Foundation, McConnell Honors Scholarships are offered to a number of students enrolled in honors classes. These scholarships carry a \$1000 award and may be provided for a maximum of two years. For more information on honors scholarships, contact Dr. Max Hallman at (209) 384-6327 or the Financial Aid Office at (209) 384-6031.

### Alpha Gamma Sigma

**Initial Membership:** Students with a minimum cumulative grade point average of 3.0 can attain initial membership upon completion of at least 12 semester units within a maximum of two semesters at any recognized institution of higher education. (No units acquired more than two years prior to application for initial membership will be used prohibitively.)

**Temporary Membership:** Life members of the California Scholarship Federation who graduated with a minimum GPA of 3.5 at the high school level, are invited to become a temporary member during the first semester at a community college. Upon the payment of fees, temporary members have all the privileges of membership except that of holding office.

**Continuing Membership:** An initial or temporary member can attain continuing membership status by achieving at least a 3.0 GPA for the previous semester in courses recognized in college standing, or by maintaining a cumulative 3.0 GPA or better in courses of recognized college standing. (Continuing members will receive a one-semester grace period to recover from a drop below 3.0 GPA. There will not be two consecutive grace periods.)

**Permanent Membership:** A member can apply for permanent membership by maintaining a cumulative 3.5 GPA or higher and by being a member of AGS for at least one term. A continuing member who has maintained a cumulative 3.25 GPA or higher and who has been a member of AGS



for at least two terms may also apply. All applicants must have completed a minimum of 60 semester units of recognized college courses with a minimum of 30 units completed at a community college.

Retroactive Membership is also an option. Ask an advisor for details.

For additional information, please visit the following website:  
<http://www.mccd.edu/campus-life/clubs-activities/index.html>.

### Lambda Nu (LN)

Lambda Nu (LN) is a national honor society for the radiologic and imaging sciences. Its objectives are to:

- foster academic scholarship at the highest academic levels
- promote research and investigation in the radiologic and imaging sciences
- recognize exemplary scholarship

There are currently 182 LN Chapters in 43 states. Lambda Nu's name is derived from the lower case Greek characters in the formula  $\ln$ , which represents the physics of the inverse relationship between wavelength ( $\lambda$ ) and frequency ( $n$ ), an essential parameter across the diversity of modalities comprising the professions.

**Membership:** To be accepted to the California Omega Chapter of Lambda Nu, radiologic and imaging sciences students must:

- Have cumulative GPA must be a 3.40 or higher on a 4.0 scale after one full-time semester (or equivalent) of a professional program.
- Be enrolled in a radiologic or imaging sciences program as a full-time student for at least one term.
- Show evidence of professional commitment beyond minimum requirements of the program, including, but not limited to: cumulative GPA higher than Chapter minimum, actively pursuing an independent research project, active membership in a professional organization, as evidenced by: membership in ASRT, CSRT or SDMS societies, holding office or committee appointments, preparing for presentation of a professional paper or poster, preparing for competition in a Quiz-Bowl or clinical based employment in a radiologic or imaging sciences field.
- Pay a one-time membership fee at the time of application.

**Privileges:** Members of Lambda Nu are entitled to:

- Wear the Lambda Nu cords at graduation;
- Apply for Lambda Nu scholarships;
- Participate in projects of the local California Omega chapter.

### Phi Theta Kappa

Phi Theta Kappa is the largest international honor society serving colleges offering associate degree programs. Founded in 1918, Phi Theta Kappa currently has more than 1,200 chapters in the United States and abroad. Its main purpose is to recognize and encourage academic excellence among associate degree students, but the four hallmarks to which Phi Theta Kappa is dedicated are scholarship, leadership, service, and fellowship.

**Membership:** To be accepted into Phi Theta Kappa, a student must:

- Have completed at least 12 units of course work at Merced College;
- Have a cumulative grade point average of 3.45 or higher;
- Complete and submit a membership profile form;
- Pay a one-time membership fee at the time of application.

**Privileges:** Members of Phi Theta Kappa are entitled to:

- Wear the Phi Theta Kappa stole at graduation;
- Have the Phi Theta Kappa seal affixed to their diploma;
- Attend regional and national conventions;
- Participate in the Summer Honors Institute;
- Apply for assorted Phi Theta Kappa scholarships (there are 39 million dollars in transfer scholarships available);
- Participate in projects of the local chapter.

The principal induction is held during the spring semester, but memberships will be accepted throughout the academic year; however, graduating

students must apply at least 45 days prior to graduation.

## Job Opportunity Services

Job Opportunity Services offers employment referral assistance for part-time, temporary, and full-time jobs for students attending Merced College and for up to two years after graduation. Other services provided are resume writing, interviewing techniques, job search assistance, and information regarding employment trends. The center also provides listings from summer camp programs locally and countrywide.

Students who already have jobs may sign up for Cooperative Education, earning college credit while they work and providing an opportunity for skill development and career exploration.  
 (209) 384-6068.

## Learning Communities

Learning Communities are pairs or clusters of courses that revolve around a theme or major. These courses are taught by creative faculty dedicated to student success. Learning Communities enhance students' academic and social opportunities, improve connection with faculty and peers, and provide greater involvement in learning. If students are interested in learning communities they must enroll in all of the linked classes.

## Library

Libraries located at both the Merced and Los Banos campuses, provide services, materials, technology, and media in support of Merced College's institutional learning outcomes. Library services and resources include:

- Research help for students, staff, and faculty
- Information literacy competency and research instruction
- Access to print materials, online and electronic resources, as well as Wi-Fi, computers, and printing stations
- Spaces for meetings, studying, reading, viewing media, and collaborating on projects
- Student help desk for technology assistance

Current Merced College students, staff, and faculty have access to over 64,000 print books and over 32,000 ebooks, including children's picture books, young adult fiction, and graphic novels. In addition, the library provides access to over 70 databases containing hundreds of thousands of full-text journal articles, streaming videos, and ebooks. The library has current subscriptions to over 50 print versions of newspapers, magazines, and journals and over 21,000 back issues. Most textbooks are also available for in-library use. Faculty librarians provide help with all aspects of the research process including finding, using, and evaluating information. Faculty librarians also teach research skills in the traditional and online classroom, and create research guides, tutorials, assignments, and activities to support student learning. Students also have access to the Student Success and Tutorial Center (SSTC), which is housed in the Merced campus library. The collaborative space connects students with highly trained peer tutors and dedicated faculty who specialize in a variety of academic fields.

Library services can be accessed in person or call, chat, text, or email for assistance.

- Call: Merced Library (209) 384-6080 or Los Banos Library (209) 381-6434
- Text: (209) 666-3235
- Email: [refdesk@mccd.edu](mailto:refdesk@mccd.edu)

## Merced College Theater

The MC Theater presents a variety of music, drama, dance, and other of live performances throughout the year. Featured performances include student productions by the theatre and music departments, as well as, events by local and international artists and performers. Most theater events are open to the public—please visit the website or call for ticket information. [www.mccd.edu/theArts](http://www.mccd.edu/theArts) or call (209) 386-6644.

## Online Courses

MCC offers some courses in an online and/or hybrid format as an alternative to traditional face-to-face classes. Online classes require no on-campus sessions, where hybrid courses require one or more in person meetings. Specific details vary per semester. Students are advised to refer to the class schedule for these courses. No distinction is made between the expectations and outcomes of online and hybrid courses with on-campus courses. The content and outcomes of the classes are the same as those taught in the face-to-face classroom. It is the flexibility of time and convenience that appeals to distance education students.

Online courses require a self-disciplined student. Courses require frequent participation through online communication with the professor and other students. These courses are best suited for those students who are self-motivated and do not procrastinate. The ability to manage time and take responsibility for deadlines is critical to success. To see if online classes are right for you, take our online readiness quiz located on our website at: <http://www.mccd.edu/online/index.html>

The student enrolled in an online class should have a solid understanding of Internet browsers (for example, Firefox, Chrome or Internet Explorer) and using file attachments and word processing programs. They should also be good problem solvers who are not intimidated by technology.

Online students must have consistent access to the Internet. If necessary, students may gain access to the Internet and MCC online courses via the Library and Study Central during posted hours. Certain classes have specific software requirements that may or may not include extra fees. Check the website and class schedule for more information.

## Puente Project

Puente students...

- Succeed academically
- Are recognized as leaders and scholars
- Graduate from four-year colleges and universities
- Belong to a statewide network of leaders and professionals.

Puente was founded in 1981 by Co-director's Felix Galaviz and Patricia McGrath at Chabot College in Hayward. The program's mission was to increase the number of Mexican American/Latino students transferring to four-year colleges and universities. Since then, Puente has expanded to numerous community colleges in and out of the state. Today, Puente is open to all students who wish to transfer to a four-year university. Many components work together to prepare Puente students to transfer to four-year colleges and universities:

**English and Guidance Instruction:** Puente students take three consecutive English classes, ENGL 01A, ENGL 13, and ENGL 01B. These classes provide a supportive and stimulating environment for Puente students to build confidence in their writing and reading skills through an exploration of the Mexican American/Latino experience. All Puente students are also required to enroll in the program's GUID 30 and GUID 45 courses.

**Counseling:** Puente students work closely with their Puente counselor until they transfer, exploring career options, developing an academic educational plan, and identifying lifetime goals. Students visit University of California, California State University and private college campuses and attend an annual Puente student transfer conference.

**Mentors:** Business or professional mentors share with students their personal, academic, and career experiences, and provide a window into "real-life" work environments. The network of trained Puente mentors provides many resources for the Puente students, their families, their colleges, and the community.

**Other Activities:** Puente students are required to attend university field trips and cultural and program events. These events are designed to help students achieve the goals of the program.

Call the Counseling Department at (209) 381-6478 for more information.

## reLAUNCH

Ready to take the next step toward your career and educational goals? Looking for a program that is fully online and meets your schedule? Relaunch enables you to earn your degree taking accelerated courses in just 17 months.

### Looking to Advance your Career? Are you a Returning Student?

Relaunch is an innovative, accelerated, fully online degree program designed to support working adults and returning students. Relaunch offers multiple short session courses within the 18 week semester, to allow working adults Upon completing the 17-month accelerated program, Relaunch students will earn a transferable associate degree in one of four disciplines: Administration of Justice, Early Childhood Education, Business Administration, and Computer Technology Information Systems.

### Designed with Your Success in Mind

Relaunch programs are designed to be completed as part of cohort. Students complete their programs with the same group of students, working to attain the same degree and building a sense of community and support along the way. Students will develop advanced skills that will benefit them in the workforce, and form lasting relationships vital for networking.

Student success is at the forefront of our mission. Relaunch provides built-in student support services to ensure students receive and have access to systems that increase their success outcomes. From start to finish, Relaunch students will have the support of a dedicated specialist to ensure ease of navigation of enrollment, financial aid, and support with academics and technology. Relaunch offers the flexibility and opportunity to accomplish your endeavors and take the next steps toward your future.

### Tuition for Relaunch

Tuition for Relaunch may be free for first-time, full-time students. Generous financial aid packages are available to those who qualify.

### Enroll Now for Fall 2022

The first four degree programs will be offered in the Fall 2022 semester, which begins in August. Enroll now and take the next step toward achieving your career and educational goals.

### Choose from 4 programs:

- Administration of Justice
- Business Administration
- Computer Technology and Information Systems
- Early Childhood Education

To learn more, complete and [submit an interest form today](#).

## Student Health Services

The mission of Student Health Services is to provide students with services, education, and resources necessary to make responsible, informed decisions regarding their physical and mental health and well-being. Services, health promotion activities, community and campus resource information and referrals are provided to currently enrolled Merced College students.

Licensed Personnel: Registered Nurses (RNs); Licensed Marriage Family Therapists (LMFTs)

Eligibility: Full or part-time students, who are currently enrolled and active in classes, are eligible for service. Students must present a current Merced College ID card at the time of service.

Cost: All services are included with payment of the health fee.

Services include:

- Personal counseling with a licensed therapist (short-term)
- Health information and education
- Blood pressure checks

Over the counter medications  
 Family planning: information, condoms, pregnancy tests  
 First aid  
 Tuberculosis (TB) Testing / Risk Assessment  
 Community resource information

**Treatment of a Minor:** Any student under the age of 18 is required to have a parental consent form signed prior to receiving the following services: personal counseling (to be determined by therapist, based upon need), TB skin testing, and flu vaccinations.

**Accident Insurance:** Accident insurance is included in the student health fee and provides on-campus accident coverage while attending college or college-sponsored activities. It is recommended that each student carry voluntary insurance coverage for off-campus emergencies and illnesses.

Student Health Services is located in the Student Union Building on the Merced Campus (209) 384-6045, and in the Student Services Building at the Los Banos Campus (209) 386-6716. Please visit the website at <http://www.mccd.edu/resources/health/index.html> for more information.

## Student Success Program

The Student Success Program oversees academic support services including, the Student Success and Tutorial Center (SSTC), Study Central, Embedded Tutoring (ET), and Student Success Workshops. The program's purpose is to increase student success and retention by providing academic support services that fit the diverse needs, multiple strengths, and the various ability levels of Merced College students. For more information, email [studentsuccess@mccd.edu](mailto:studentsuccess@mccd.edu) or contact the Student Success Office at (209) 384-6329.

## Student Success and Tutorial Center (SSTC)

The Student Success and Tutorial Center (SSTC) provides a comfortable environment for students to receive assistance from highly trained peer tutors and faculty who specialize in a variety of academic fields. The SSTC provides drop-in tutoring in-person and online (via Zoom), faculty support, embedded counselor assistance and academic resources to help students succeed. The SSTC is equipped with computers, laptops, printers, calculators, Wi-Fi, and charging outlets. Print services are available, .10c for black/white copies and .40c for color copies (cash only). Students must be enrolled in credit courses to utilize SSTC services and will be enrolled in the EDU-112A noncredit course. This is an optional, open-entry/open-exit supplemental learning assistance course and there are no fees for this course. The SSTC is located in the Merced Campus Downey Learning Resource Center first floor, and it is open Monday through Thursday 8:00 am to 7:00 pm and Friday 8:00 am to 5:00 pm. Outside of normal business hours, tutoring is available through Smarthinking 24/7 online tutoring. All students receive 10 free hours of tutoring from Smarthinking each semester. For more information, email [tutoring@mccd.edu](mailto:tutoring@mccd.edu) or call the Student Success Office at (209) 384-6329.

## Study Central

Study Central offers free, face-to-face and online workshops that cover a variety of topics that support student success. The workshops are scheduled Monday through Thursday from 2 pm to 5 pm and students are welcome to attend on a drop-in basis. The center also offers study rooms for individual and group study. Study Central is located in the Downey Learning Resource Center first floor. For more information email [studentsuccess@mccd.edu](mailto:studentsuccess@mccd.edu) or call the Student Success Office at (209) 384-6329.

## Umoja

The Umoja Program is designed to provide essential educational support and services to increase the academic success, retention, degree completion, and transfer rates of African-American and other students enrolled at Merced College. Students will accomplish this through monthly

workshops, academic counseling, and mentoring. The aim is to develop a sense of "community" among African-American students, other students, faculty, staff, and administrators.

### The Umoja Program provides:

- Offering inspirational workshops and events throughout the semester
- Access to campus resources and support services
- Academic help through study groups and tutoring
- Gaining cultural understanding by providing education forums and events that reflect and discuss African-American culture and history

The Umoja learning community is dedicated to improving the educational experiences and success of African-American and other students by providing a supportive learning environment that actively engages students through a cultural lens supportive of the experiences of African American and other students.

## Veterans Services

Merced College welcomes veterans wishing to further their education and encourages them to seek assistance at the First Lieutenant Peter Joseph Gallo Veteran's Resource Center, which is located in the Student Union Building. Staff are available to provide the paperwork and information necessary to establish eligibility. Veterans are also supplied with information about other campus resources and local agencies services. Department of Veterans Affairs encourages all new and returning veterans to contact them directly at [www.va.gov](http://www.va.gov) or (888) 442-4551 for questions about veteran's benefits and payments.

Merced College is one of 1900 members of the Servicemen's Opportunity College dedicated to assisting service members, their family members, and veterans in attaining their educational goals.

Academic counselors specializing in veterans services are available to provide educational and career planning. Counseling services are provided on the second floor of the Leshar Student Services Center, next to Admissions & Records. Class registration information can be found in the "Schedule of Classes" booklet printed each semester or on the Merced College website:

<http://www.mccd.edu/getstarted/search-classes.html>.

Veterans with disabilities can receive assistance from the College's Disabled Student Program and Services (DSPS) program. Call (209) 384-6155 for more information about available services.

Personal Counseling is available through the Merced College Student Health Services Office. Call (209) 384-6045 for more information.

Additional information may be found at

<http://www.mccd.edu/resources/veterans/index.html> or by calling (209) 384-6113.

# PREPARING FOR GRADUATION

## Catalog Rights

A student has catalog rights when meeting requirements for graduation. These requirements include general education/breadth requirements, major or certificate requirements, competency requirements and other requirements within the power of the College, unless superseded by a higher authority such as state code.

Based on the regulations described below, you may elect to meet catalog requirements for an associate degree, certificate program or transfer breadth pattern from any of these three choices:

1. The Merced College catalog in effect at the time you began continuous enrollment leading to graduation or certificate completion at any California Community College or regionally accredited university, or
2. The Merced College catalog in effect at the time you began attending Merced College, or
3. The Merced College catalog in effect at the time of your graduation or certificate completion.

Your catalog rights are protected based on the following regulations:

1. Catalog rights are preserved by maintaining continuous enrollment. Continuous enrollment is defined as an official transcript entry in one regular semester or two regular quarters of each calendar year at an appropriately accredited college or university. Any lapse in attendance of one calendar year or longer will break a student's continuous enrollment status.
2. Once catalog rights have been established, absence related to an approved educational leave shall not be considered an interruption, providing the absence does not exceed two years.
3. Active military duty will maintain your continuous enrollment status provided you enter the military from an accredited college or university campus and return at the first registration for a regular semester or term following your release. The dates of military service must account for all of the time not in attendance.
4. If your catalog outlines an earlier version of an associate degree or certificate program in which the division has discontinued or modified required courses, the division may authorize appropriate substitutions.
5. If your catalog outlines an earlier version of a transfer breadth pattern in which course options have been modified, you should expect to be held to the transfer breadth pattern requirements (1) in effect at the time the modification was first listed; or (2) in effect at the time of transfer.
6. If, while enrolled, a new associate degree, certificate program, or transfer breadth pattern is listed in the catalog and you wish to graduate with that associate degree, certificate program or transfer breadth pattern, you should expect to be held to the associate degree, certificate program or transfer breadth pattern requirements (1) in effect at the time the associate degree, certificate program or transfer breadth pattern was first listed; or (2) in effect at the time of graduation or transfer.

Whether you choose option (1) or (2) concerning your associate degree, certificate program or transfer breadth pattern, you will continue to be held to all other requirements listed in the Merced College catalog for which you claim catalog rights as defined above.

## Applying for Graduation

Students must complete an application for graduation in order to be eligible for graduation in their major with a Degree (AA, AS, AAT, AST) or to receive a Certificate of Achievement, Proficiency, Completion, or Competency in their area of study. Graduation applications are available online at <https://www.mccd.edu/resources/admission-records/graduation.html> at the

beginning of the third week of each regular semester for an eight-week period. Students may apply for graduation in the semester that they are intending to complete their requirements.

When the application is received, the student's transcript record will be evaluated and notification of eligibility or of any deficiencies that would prevent the successful completion of the degree requirements at Merced College will be sent.

**Effective Spring 2021: Eligibility for Honors distinction is based on course work completed at Merced College regardless of Catalog Rights. Students may request to have course work completed outside of the district included in meeting eligibility criteria by General Petition during the Graduation Application filing period identified above.**

### Superintendent's Honors

Students graduating with an AA, AS, AAT or AST degree, who have completed at least 36 units at Merced College, and have maintained a GPA of 4.0 in all degree-applicable courses at Merced College will receive recognition from the Superintendent/President of Merced College. Work in progress from the spring semester will not be used in this computation. The computation will be based on completed grades recorded on the student's official Merced College transcript.

### Graduation with Honors

Students graduating with an AA, AS, AAT or AST degree, who have completed at least 45 units at Merced College and have maintained a 3.5 GPA in all degree-applicable courses at Merced College will be graduated with honors. Work in progress from the spring semester will not be used in this computation. The computation will be based on completed grades recorded on the student's official Merced College transcript.

## Graduation Requirements

### For the Associate of Arts (AA) and Associate of Science (AS) Degree:

1. Student must demonstrate competence in reading, in written expression, and in mathematics.
2. The student must satisfactorily complete at least 60 semester units or 90 quarter units of college work.  
(A definition of "college work" that provides that courses acceptable toward the associate degree include those that have been properly approved pursuant to Title 5, Section 55002(a), or, if completed at other than a California community college, would reasonably be expected to meet the standards of that section).
3. The work must include the college's general education/breadth requirements and at least 18 semester units or 27 quarter units in a major listed in the Community Colleges "Taxonomy of Programs."
4. Effective for all students admitted to a community college in Fall 2009 and thereafter, all courses that count towards the associate degree area of emphasis must be "satisfactorily completed" with grades A, B, C, or P (pass). All degree requirements, including general education, must be completed with a degree-applicable grade point average of 2.0 or better.
5. The work must include at least 12 semester units or 18 quarter units of study in residence; exceptions to the residence requirement can be made by the Board when an injustice or undue hardship would result.
6. Students may petition to have noncredit courses counted toward the satisfaction of requirements for an associate degree.
7. Ethnic studies must be offered.
8. District policies and procedures regarding general education and degree requirements are published in the college catalog and are on file with the State Chancellor's Office.



### For the Associate in Arts for Transfer (AA-T) and Associate of Science for Transfer (AS-T) Degree:

1. The student must satisfactorily complete 60 semester units or 90 quarter units are eligible for transfer to the California State University.
2. The work must include the appropriate Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth Requirements (CSU-GE).
3. A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.
4. All courses that count towards the major or area of emphasis must be "satisfactorily completed" with grades A, B, C, or P.
5. All degree requirements, including general education, must be completed with a degree-applicable grade point average of 2.0 or better.
6. Students are not required to complete any additional local graduation requirements (e.g., PE and Computer and Information Literacy courses).
7. The work must include at least 12 semester units of study in residence; exceptions to the residence requirement can be made by the Board when an injustice or undue hardship would result.

### For a Certificate of Achievement:

1. A student must successfully complete a course of study that consists of 16 or more semester units or quarter units of degree-applicable credit coursework.
2. The Certificate of Achievement shall be designed to demonstrate that the student has completed coursework and developed capabilities related to career and general education.
3. All courses that count towards the major or area of emphasis must be "satisfactorily completed" with grades A, B, C, or P.
4. Must have a Degree Applicable grade point average of 2.0 or better.
5. The work must include at least 12 semester units of study in residence; exceptions to the residence requirement can be made by the Board when an injustice or undue hardship would result.
6. Certificates of Achievement are subject to the approval by the Chancellor's Office.

### For a Certificate of Proficiency:

1. A student must successfully complete a course of study as established by the District. These certificates are not Chancellor's office approved, awarded at the District level, and may not be listed on the students' transcript.
2. The Certificate of Proficiency shall be designed to demonstrate that the student has completed coursework and developed capabilities related to make a successful transition to an entry-level position in the work force.
3. All courses that count towards the major or area of emphasis must be "satisfactorily completed" with grades A, B, C, or P.
4. The Certificate of Proficiency does not require 12 semester units of study in residence.

### For a Noncredit Certificate of Completion or Certificate of Competency:

1. The Merced College Adult Education and Noncredit Program offers a wide variety of classes to assist students seeking employment, help in relearning skills, and to meet current job requirements and promote skills for physical and emotional well-being. Students who complete a specified set of courses in a program earn a Certificate of Completion or Certificate of Competency.

## Competency Requirements

Students must achieve competency in the areas of reading, writing, and mathematics, through the following:

### Reading Competency

Students must receive a grade of "C" or better in ENGL-01A or the equivalent.

### Writing Competency

Students must receive a grade of "C" or better in ENGL-01A, or the equivalent.

### Math Competency

Students must receive a grade of "C" or better in MATH-C, MATH-61, MATH-62, or a grade of "C" or better in any course which has the prerequisite of Math C, or the equivalent.

# ASSOCIATE DEGREE MAJORS AND CERTIFICATE PROGRAMS 2022-2023

## Associate Degrees:

Because learning is a continual process of self-discovery, students are encouraged to keep an open mind about their potential and options. California Community Colleges have unique relationships with the University of California and California State University systems so that students can move easily from a two-year to a four-year college. With proper planning, students can earn an associate degree while fulfilling the lower division requirements of a four-year school. When choosing courses at Merced College, students are encouraged to keep their options open for transfer.

## Certificates of Achievement:

Students interested in taking only the occupational major area classes will be eligible to receive a Certificate of Achievement from Merced College upon the successful completion of the final occupational major area course. A minimum 2.0 grade point or better is required in the area of concentration, and a minimum of 12 units must be taken at Merced College.

Merced College awards Associate Degrees, Associate Degrees for Transfer or Certificates in the following areas:

### Accounting

05000.AA Accounting (AA)  
05000.CN Accounting (CT)

### Administrative Office Management

05007.AA Administrative Medical Office Professional (AA)  
05008.AA Administrative Office Professional (AA)  
05007.CN Administrative Medical Office Professional (CN)  
05008.CT Administrative Office Professional (CN)

### Agriculture

01040.AS General Agriculture: **Advanced** (AS)  
01050.CN General Agriculture (CN)  
01052.CT Pest Control Advisor (CT)

01000.AST Agriculture Business (AST)  
01000.AS Agriculture Business (AS)  
01000.CN Agriculture Business (CN)

01100.AST Agriculture Animal Science (AST)  
01100.AS Animal Science (AS)  
01100.CN Animal Science (CN)

01160.AST Agriculture Plant Science (AST)  
01150.AS Crop Science (AS)  
01150.CN Crop Science (CN)

01200.AS Diesel Equipment Technology (AS)  
01200.CT Diesel Equipment Technology (CT)

01351.AS Environmental Horticulture (AS)  
01350.CN Environmental Horticulture (CN)

01225.AS Equine Science and Management (AS)  
01225.CN Equine Science and Management (CN)

01450.AS Mechanized Agriculture Technology (AS)  
01450.CT Mechanized Agriculture Technology (CT)  
01453.CN Compact Power Equipment (CN)

### Anthropology

22000.AAT Anthropology (AAT)

### Automotive Technology

09003.AS Automotive Master Technician (AS)  
09010.CN Automotive Technology Level 1 (CN)  
09002.CT Automotive Technology Level 2 (CT)  
09008.CT Automotive Master Technician (CT)

### Art, Fine and Performing

10110.AA Art (AA)  
06100.AA Digital Arts (AA)  
10400.AAT Music (AAT)  
10400.AA Music (AA)  
10500.AA Photography (AA)  
10500.CN Photography (CN)  
10550.AAT Studio Arts (AAT)  
10600.AAT Theatre Arts (AAT)  
10600.AA Theatre Arts (AA)

### Biology

04100.AST Biology (AST)  
04135.AS Biotechnology-Industry (AS)  
04137.AS Biotechnology Pre Professional (AS)  
04130.CN Biotechnology (CN)

### Business

05101.AST Business Administration 2.0 (AST)  
05150.AA General Business (AA)  
05150.CT General Business (CT)  
05700.AS Small Business Entrepreneurship (AS)  
05700.CT Small Business Entrepreneurship (CT)

### Chemistry

19100.AST Chemistry (AST)  
19050.AST UCTP: Chemistry (AST)

### Child Development

13010.AST Early Childhood Education (AST)  
13010.AA Child Development (AA)  
13011.CT Child Development: Administration in Early Childhood Education (CT)  
13015.CT Child Development: Early Intervention Assistant Specialization (CT)  
13020.CT Child Development: Families In Crisis Specialization (CT)  
13026.CT Infant/Toddler Care(CT)  
13030.CT Child Development: School Age Care Specialization (CT)

### Communication Studies

15601.AAT Communication Studies (AAT)

### Computer Science

07200.AST Computer Science (AST)  
07300.AS Management Information Systems (AS)

AA-T = Associate in Arts (A.A.-T.) Degree for Transfer  
AS-T = Associate in Science (A.S.-T.) Degree for Transfer  
AA = Associate of Arts (A.A.) degree  
AS = Associate of Science (A.S.) degree  
CE = Certificate requiring 6 to fewer than 8 semester units (Not approved by Chancellor's Office)

CM = Certificate requiring 8 to fewer than 16 semester units (Approved by Chancellor's Office)  
CN = Certificate requiring 16 to fewer than 30 semester units  
CT = Certificate requiring 30 to fewer than 60 semester units  
CF = Certificate requiring 60 or more semester units  
CO = Other credit Award, under 6 semester units (Not approved by Chancellor's Office)

**Computer Technology and Information Systems**

09040.AS Computer and Networking Technology (AS)  
 07201.AS Computer Technology and Information Systems (AS)  
 09040.CT Computer and Networking Technology (CT)  
 07073.CM Computer Systems Professional (CM)  
 07081.CM Networking Professional (CM)  
 07020.CM Security Professional (CM)  
 07021.CM System Administrator (CM)

**Criminal Justice**

21075.AST Administration of Justice (AST)  
 21150.AA Criminal Justice (AA)  
 21150.CT Criminal Justice (CT)  
  
 49100.CT CSU General Education (CSU-GE-Breadth) (CT)

**Computer-Aided Design and 3D Modeling**

09104.CM Computer-Aided Design & 3D Modeling (CM)

**Drone Technology**

09170.CM Drone Technology (CM)  
 09171.CM Drone Media (CM)

22200.AAT Economics (AAT)

**Electronics/Electrical and Computer Technologies**

09250.AA Electronics Technician (AA)  
 09510.AS Industrial Electrical Technician (AS)  
 09650.AA Instrumentation and Process Control Technology (AA)  
 09510.CT Industrial Electrical Technician (CT)  
 09250.CT Electronics Technician (CT)  
 09650.CT Instrumentation and Process Control Technology (CT)

49810.AAT Elementary Teacher Education (AAT)

**Engineering**

09300.AS Engineering (AS)  
 09350.AS Engineering Technology (AS)

15200.AAT English (AAT)

**Fire Technology**

21400.AS Fire Technology (AS)  
 21400.CT Fire Technology (CT)

**Foreign Language**

11200.AA French (AA)  
 11400.AA German (AA)  
 11600.AAT Spanish (AAT)

22250.AAT Geography (AAT)

19400.AST Geology (AST)

12300.AA Health Sciences (AA)

**Heating, Ventilation, Air Conditioning, and Refrigeration Technology**

09401.AS Commercial Refrigeration Technician (AS)  
 09400.AS HVAC Technician (AS)  
 09401.CT Commercial Refrigeration Technician (CT)  
 09400.CN HVAC Technician (CN)

22300.AAT History (AAT)

**Human Services**

21500.AA Human Services (AA)  
 21500.CT Human Services (CT)

49200.CT IGETC (CT)

**Industrial Maintenance**

09550.AS Industrial Maintenance Technology (AS)  
 09550.CT Industrial Maintenance Technology (CT)

**Kinesiology**

12401.CN Fitness Specialist (CN)  
 12400.AAT Kinesiology (AAT)

**Management**

05450.AA Management/Supervisory Training (AA)  
 05450.CN Management/Supervisory Training (CN)

**Marketing**

05460.AS Marketing (AS)  
 05460.CN Marketing (CN)

17400.AST Mathematics (AST)

**Nursing**

12500.AS Nursing, Registered (AS)  
 12550.AA Nursing, Vocational (AA)  
 12550.CT Nursing, Vocational (CT)

**Nutrition**

13160.CT Culinary Management (CT)  
 13160.AST Nutrition and Dietetics (AST)  
 13161.AS Nutrition and Foods (AS)  
 13161.CT Nutrition and Foods (CT)  
 13180.CN Dietetic Services Supervisor (CN)

15400.AAT Philosophy (AAT)

**Physics**

19700.AST Physics (AST)  
 19701.AST UCTP: Physics (AST)

22070.AAT Political Science (AAT)

**Psychology**

20500.AAT Psychology (AAT)  
 20500.AA Psychology (AA)

**Radiologic Technology**

12700.AS Diagnostic Radiologic Technology (AS)  
 12700.CF Diagnostic Radiologic Technology (CF)

**Social and Behavioral Science**

22600.AA Social and Behavioral Sciences (AA)  
 22650.AAT Sociology (AAT)

**Sonography**

12800.CT Diagnostic Medical Sonography (CT)

**Welding**

09800.AA Welding Technology (AA)  
 09810.CN Welding Technology (CN)  
 09785.CM Pipe Welding (CM)

AA-T = Associate in Arts (A.A.-T.) Degree for Transfer  
 AS-T = Associate in Science (A.S.-T.) Degree for Transfer  
 AA = Associate of Arts (A.A.) degree  
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 CF = Certificate requiring 60 or more semester units  
 CO = Other credit Award, under 6 semester units (Not approved by Chancellor's Office)

**Credit Certificates Not Transcribed**

05200.CO Customer Service Academy Certificate (CO)  
12100.CE Emergency Medical Technician (CE)  
05250.CO Emerging Leaders Institute (CO)  
09402.CE Fundamentals of Commercial & Residential Electrical (CE)  
12150.CO Nursing Assistant (CO)  
05600.CE Real Estate Salesperson License (CE)  
05725.CE Social Media (CE)  
05800.CE Virtual Office Professional

**Adult Education & Noncredit**

49190.NC Adult Literacy  
49165.NC Basic Skills  
07020.NC Computer Technology Essentials  
21078.NC Court Interpreter  
49195.NC ESL Advanced Skills  
49196.NC ESL Beginning Skills Program  
49198.NC ESL Intermediate Skills Program  
49310.NC ESL Workforce Training  
49301.NC Essential Skills for Employment and Job Retention  
49166.NC Mathematics College Preparatory Basic Skills  
49167.NC Mathematics College Preparatory Basic Skills II  
10100.NC Medical Assistant  
09475.NC Professional Truck Driving Class A CDL Training  
49199.NC Reading and Writing College Preparatory Basic Skills  
07744.NC Technical Office Occupations



# ASSOCIATE DEGREE BREADTH REQUIREMENTS 2022-2023

Breadth requirements are designed to introduce students to the variety of means through which people comprehend the modern world. Those who receive associate degrees must possess in common certain basic principles, concepts and methodologies unique to and shared by the various fields of study. College-educated persons must be able to use this knowledge when evaluating and appreciating the physical environment, the culture, and the society in which they live. Most importantly, this education should lead to a better self understanding.

A student may use the same course to fulfill an AA/AS major requirement and associate degree breadth requirement.

To complete the associate breadth requirement, students must select courses that fulfill the unit requirements of the following areas:

## Area A - Language and Rationality ..... (6 units total)

Courses in language and rationality are those which develop for the student the principles and applications of language toward logical thought, clear and precise expression and critical evaluation of communication in whatever symbol system the student uses. (Select one course from each area.)

### (A1) English Composition..... (3 units)

ENGL-01A

### (A2) Communication and Analytical Thinking ..... (3 units)

ACTG-04A

ARTD-07

COMM-01, 01H, 02, 04, 05, 30

CPSC-07

ENGL-01C, 02, 13+, 13H+

MATH-C, 02, 02H, 03, 04A, 04B, 04C, 06, 07, 08, 10, 11, 15, 20A, 20B, 22, 25, 26, 27, 61, 62

PHIL-10, 12, 13+, 13H+

PSYC-05

## Area B - Natural Sciences ..... (3 units total)

Courses in the natural sciences are those which examine the physical universe, its life forms, and its natural phenomena.

AGAS-01

AGPS-01, AGPS-05

ANTH-01

ARCH-01

ASTR-01, 01L

BIOL-01, 02, 04A, 04B, 06, 09, 16, 18, 20, 32, 32L

CHEM-02A, 02B, 04A, 04B

ELCT-30

GEOG-01, 15

GEOL-01, 02, 03

PHSC-01, 01L, 02, 02L

PHYS-02A, 02B, 04A, 04B, 04C, 10

PSYC-15

## Area C – Humanities..... (3 units total)

Courses in the humanities are those which concentrate on the study of cultural activities and artistic expressions of human beings.

ART-01, 02, 03, 06, 12A, 15, 24A

ARTD-07, 08, 40A, 40B, 41A, 41B, 42A, 42B, 45B, 47

ASLG-01, 02, 03

ENGL-01B, 04A, 04B, 05, 06A, 06B, 07, 08, 10, 11, 14, 15, 18\*, 19\*

ETHN-01\*, 11\*, 15\*, 18\*, 19\*

FREN-01, 02, 03, 04

GERN-01, 02, 03, 04

HMNG-01, 02

HUM-01, 01H, 02, 02H, 15\*, 21

JPNS-01A, 01B, 02

MUSA-21B, 25A, 27A

MUSE-44, 45

MUSG-10, 12, 13, 14, 15

MUST-01, 02

PHIL-01, 01H, 02, 03, 04, 05, 15

PHOT-10A, 10B, 11A, 33, 35, 36

SPAN-01, 02, 03, 04, 10, 11

THTR-01, 04, 10, 14, 31

## Area D - Social and Behavioral Sciences..... (6 units total)

Courses in the social and behavioral sciences are those which focus on people as members of society. (Select one course from area D1 and one course from area D2.)

### (D1) Social And Behavioral Sciences ..... (3 units)

Includes introductory or integrative survey courses in cultural anthropology, cultural geography, economics, psychology, sociology and related disciplines.

AGAB-05, AGRI-10

ANTH-02, 10\*, 12\*

CRIM-01

ECON-01, 02

ETHN-05\*, ETHN-12\*

GEOG-02, 12

NUTR-12

PSYC-01A, 01AH, 15, 25

SOC-01, 02, 03, 04, 05\*, 06

### (D2) History and Political Sciences ..... (3 units)

Includes introductory or integrative survey courses in history and political science.

ETHN-07\*, 20\*, 22\*, 23\*

HIST-03A, 03B, 04A, 04B, 05, 07, 09A, 09B, 10, 17A, 17AH, 17B,

17BH, 19, 20\*, 22\*, 23\*, 29

POSC-01, 02, 03, 04, 07\*

## Area E - Lifelong Understanding and Self-Development (5 units total)

Courses in lifelong understanding and self-development are those which equip human beings for lifelong learning by providing them with the skills necessary to function as independent adults in contemporary society and foster an understanding of themselves as integrated physiological and psychological entities. (Select one course from each area.)

### (E1) Integrated Organism..... (3 units)

AGEH-01

AOM-30

ARTD-47

AUTO-04

BUS-35

CLDV-01, 02, 09+, 38

CPSC-01

GUID-30, 48

HLTH-10, 15

KINE-01, 03, 04

LRNR-30

MGMT-50A, 50B, 50C, 50D, 50F, 50G, 50H, 50I, 50J, 50K, 50L,

50N, 50P, 50S, 50T, 50U, 51C, 51F, 51G, 52C, 52D

NUTR-10, 46

PSYC-09+, 22, 23, 36, 37, 40

REGN-34

### (E2) Activity ..... (2 units)

ATHL-01A, 01B, 01D, 01F, 01G, 01I, 01J, 01K, 01L, 02A, 02B, 02D,

02F, 02G, 02I, 02K, 03, 13

KINE-06, 09, 12A, 12B, 13, 14, 15, 16, 17, 19, 20, 23, 24A, 24B,

24C, 30, 31, 32, 33, 34, 35, 36, 41, 42

\*Designates ethnic studies courses which expose students to, develop an understanding of, and examine cultures that are different from the dominant culture of the United States. In addition, these courses teach an appreciation and knowledge of ethnic contributions to the society of the United States.

Courses listed in multiple areas shall not be certified in more than one area.

+ENGL-13 = PHIL-13; ENGL-13H = PHIL-13H; CLDV-09 = PSYC-09

# COLLEGE LEVEL EXAMINATION PROGRAM (CLEP) - 2022-2023

CSU System-wide Credit for External Examinations as of April 11, 2018  
ASA-2018-06 (Supersedes Coded Memorandum ASA-2017-13)

Merced College participates in the College Level Examination Program (CLEP) offered by the American Council on Education (ACE). Merced College students may only receive credit towards the associate's degree general education requirements locally established. CLEP general education subject area applicability exists system-wide for students completing CSU GE Breadth, but the UC system does not accept CLEP exams for credit under the IGETC pattern. Please see a counselor for more information.

College-Level Examination Program (CLEP)	Passing Score	Semester Credits Toward GE Breadth Certification	Merced College General Education Breadth Areas	American Institutions and/or GE Breadth Area**	Removal Date for GE Breadth***
CLEP American Government	50	3	POSC-01 (D2)	D	
CLEP American Literature	50	3	ENGL-10 OR ENGL-11 (C)	C2	
CLEP Analyzing and Interpreting Literature	50	3		C2	
CLEP Biology	50	3	BIOL-01 (B2)	B2	
CLEP Calculus	50	3	MATH-04A (A2)	B4	
CLEP Chemistry	50	3	CHEM-02A (B1)	B1	
CLEP College Algebra	50	3	MATH-267 (A2)	B4	
CLEP College Algebra - Trigonometry	50	3		B4	
CLEP College Composition	50	0		n/a	
CLEP College Composition – Modular	50	0		n/a	
CLEP College Mathematics	50	0		n/a	
CLEP English Composition (no essay)	50	0		n/a	
CLEP English Composition with Essay	50	0		n/a	
CLEP English Literature	50	3	ENGL-06A OR ENGL-06B (C)	C2	F11
CLEP Financial Accounting	50	0		n/a	
CLEP French Level I	50	0	FREN-01 OR FREN-02 (C)	n/a	
CLEP French Level II	59	3		C2	F15
CLEP French Level II	59	3	FREN-03 OR FREN-04 (C)	C2	
CLEP Freshman College Composition	50	0		n/a	
CLEP German Level I	50	0	GERN-01 OR GERN-02 (C)	n/a	
CLEP German Level II	60	3		C2	F15
CLEP German Level II	60	3	GERN-03 OR GERN-04 (C)	C2	
CLEP History, United States I	50	3	HIST-17A (D2)	D+US-1	
CLEP History, United States II	50	3	HIST-17B (D2)	D+US-1	
CLEP Human Growth and Development	50	3	PSYC-09 OR CLDV-09 (E1)	E	
CLEP Humanities	50	3	HUM-01 OR HUM-02 (C)	C2	

College-Level Examination Program (CLEP)	Passing Score	Semester Credits Toward GE Breadth Certification	Merced College General Education Breadth Areas	American Institutions and/or GE Breadth Area**	Removal Date for GE Breadth***
CLEP Information Systems and Computer Applications	50	0		n/a	
CLEP Introduction to Educational Psychology	50	0		n/a	
CLEP Introductory Business Law	50	0	BUS-18A (NO GE AREA)	n/a	
CLEP Introductory Psychology	50	3	PSYC-01A (D1)	D	
CLEP Introductory Sociology	50	3	SOC-01 (D1)	D	
CLEP Natural Sciences	50	3		B1 or B2	
CLEP Pre-Calculus	50	3		B4	
CLEP Principles of Accounting	50	0		n/a	
CLEP Principles of Macroeconomics	50	3	ECON-02 (D1)	D	
CLEP Principles of Management	50	0	MGMT-31 (NO GE AREA)	n/a	
CLEP Principles of Marketing	50	0	MKTG-30 (NO GE AREA)	n/a	
CLEP Principles of Microeconomics	50	3	ECON-01 (D1)	D	
CLEP Social Sciences and History	50	0		n/a	
CLEP Spanish Level I	50	0	SPAN-01 OR SPAN-02 (C)	n/a	
CLEP Spanish Level II	63	3		C2	F15
CLEP Spanish Level II	63	3	SPAN-03 OR SPAN-04 (C)	C2	
CLEP Trigonometry	50	3	MATH-25 (A2)	B4	F06
CLEP Western Civilization I	50	3	HIST-04A (D2)	C2 or D	
CLEP Western Civilization II	50	3	HIST-04B (D2)	D6	

For CLEP tests in the same language other than English:

- Only one exam score may be applied towards the CSU degree.
- A passing score of 50 is considered "Level I" and earns six units of baccalaureate credit
- A passing score higher than 50 is considered "Level II" and earns additional units of credit and placement in Area C2 of GE Breadth

If a student passes more than one CLEP test in the same language other than English, then only one examination may be applied to the baccalaureate. For each test in a language other than English, a passing score of 50 is considered "Level I" and earns six units of baccalaureate credit; the higher score listed for each test is considered "Level II" and earns additional units of credit and placement in Area C2 of GE Breadth, as noted.

\*Minimum Semester Credits Earned towards admission: These units count toward eligibility for admission. The units may not apply towards Associate Degrees for Transfer (AD-T) or the baccalaureate degree. The units may not all apply toward certification of the corresponding GE-Breadth area. See Executive Orders 1036 and 1100 for details.

\*\*American Institutions and/or GE Breadth Area: Areas of GE Breadth (A1 through E) are defined in EO 1100. Areas of American Institutions (US-1 through US-3) are set forth in Sections IA and IB of EO 1061, and at assist.org.

\*\*\*Removal Date for GE Breadth: Students seeking certification in GE Breadth prior to transfer must have passed the test before this date.

# INTERNATIONAL BACCALAUREATE (IB) 2022-2023

CSU System-wide Credit for External Examinations as of April 11, 2018  
ASA-2018-06 (Supersedes Coded Memorandum AA-2017-13)

As recommended by the California State University Chancellor's Office and the University of California Office of the President (UCOP), Merced College grants credit toward its undergraduate degrees for successful completion of specific Higher Level International Baccalaureate examinations. Students who present scores of four (4) or better will be granted up to three (3) to six (6) semester units of credit by the CSU applied to the appropriate General Education requirements (CSU-GE). Merced College students may receive credit towards the associate's degree general education requirements locally established. Please consult the IB Chart below for specific details and consult with a counselor.

International Baccalaureate	Passing Score	Semester Credits Toward GE Breadth Certification	Merced College GE Breadth Areas	American Institutions and/or GE Breadth Area**	Removal Date for GE Breadth***
IB Biology HL	5	3	B2-3 units	B2	
IB Chemistry HL	5	3	B1-3 units	B1	
IB Economics HL	5	3	D1-3 units	D	
IB Geography HL	5	3	D1-3 units	D	
IB History (any region) HL	5	3	D2-3 units	C2 or D	
IB Language A Literature HL	4	3		C2	
IB Language A Language and Literature HL	4	3		C2	
IB Language A1 (any language) HL	4	3		C2	F13
IB Language A2 (any language) HL	4	3		C2	F13
IB Language B (any language) HL@	4	0	C-3 units	n/a	
IB Mathematics HL	4	3	A2-3 units	B4	
IB Physics HL	5	3	B1-3 units	B1	
IB Psychology HL	5	3	D1-3 units	D	
IB Theatre HL	4	3	C-3 units	C1	

HL = indicates "higher level" exams which qualify for IB credits. Students who have taken other exams (i.e., "S" = standard, are not eligible for IB credits.)

\*These units count toward eligibility for admission. The units may not apply towards Associate Degrees for Transfer (AD-T) or the baccalaureate degree. The units may not all apply toward certification of the corresponding GE-Breadth area. See Executive Orders 1036 and 1100 for details.

\*\*Areas of GE Breadth (A1 through E) are defined in EO 1100. Areas of American Institutions (US-1 through US-3) are set forth in Sections IA and IB of EO 1061, and at [assist.org](http://assist.org)

\*\*\*Students seeking certification in GE Breadth prior to transfer must have passed the test before this date.

@ The IB curriculum offers language at various levels for native and non-native speakers. Language B courses are offered at the intermediate level for non-natives. Language A1 and A2 are advanced courses in literature for native and non-native speakers, respectively.



# AP EXAMINATIONS

## AP Credit for Merced College Associate Degree Breadth

Students will be granted three to six units of credit upon completion of the Advanced Placement (AP) examination with a score of 3, 4, or 5, depending upon the specific exam listed below. Not all AP exams are identified for credit and no letter grade will be given.

AP credit cannot be counted toward the degree major. AP credit can be counted toward the associate degree general education requirements.

## AP Credit for CSU GE

- For the fall 1997 term and beyond, all institutions participating in the CSU General Education-Breadth certification may treat the AP examinations listed below as though they were incorporated in the institutions' own General Education-Breadth certification list.
- Students must have scored 3, 4, or 5 on the AP examination to receive the credit indicated. All CSU campuses will accept the minimum units shown below toward fulfillment of the designated General Education-Breadth area if the examination is included in a full or subject-area certification.
- Individual CSU campuses may choose to accept more units than those specified below towards completion of General Education-Breadth requirements. The CSU campus to which the student is transferring determines the total number of units awarded for successful completion of an AP examination and the applicability of the examination to other graduation requirements.
- Not all AP examinations are approved systemwide for fulfillment of General Education-Breadth requirements, nor can all General Education-Breadth areas be completed by AP examination. No AP examination is accepted for fulfillment of the Area A3 (critical thinking) requirement.

## AP Credit for IGETC (UC Campuses only)

A score of 3, 4, or 5 is required to grant credit for IGETC certification. An acceptable score for IGETC equates to either 3-semester or 4-quarter units for certification purposes. Each AP exam listed below may be applied to one IGETC area as satisfying one course requirement, with the exception of Language other Than English (LOTE). Students who have earned credit from an AP exam should not take a comparable college course because transfer credit will not be granted for both. If two areas are identified for an AP exam, either area may be used to regardless of where the certifying CCC's discipline is located.

- Students earning scores of 3, 4, or 5 in the physical and biological science AP examinations earn credit toward IGETC Area 5 and meet the IGETC laboratory activity requirement. AP exams in Biology, Chemistry or Physics B allow CCC campuses to apply 4 semester or 5 quarter units to IGETC certification. For Environmental Science, Physics C: Mechanics and Physics C: Electricity/Magnetism, 3 semester or 4 quarter units are applied for IGETC certification. Therefore, students who complete these exams will be required to complete at least 4 semester or 5 quarter units to satisfy the minimum required units for Area 5.
- There is no equivalent AP exam for Area 1B- Critical Thinking/Composition requirement and Area 1C – Oral Communication (CSU requirement only).
- Actual AP transfer credit awarded for admission, major or baccalaureate degree requirements is determined by the individual CSU and UC campus. Students should check with the transfer campus of their choice for its policies on awarding unit credit for AP exams.

# COLLEGE BOARD ADVANCED PLACEMENT TESTS 2022-2023

2019 IGETC Standards, Policies and Procedures Version 1.9 dated May 21, 2018  
 CSU System-wide Credit for External Examinations as of January 28, 2019  
 ASA-2018-06 (Supersedes Coded Memorandum ASA-2017-13)

College Board Advanced Placement Tests	Minimum Passing Score	Semester Credits Toward GE Breadth Certification	IGETC Applicability (3 sem/4qtr)	American Institutions and/or GE Breadth Area**	Removal Date for GE Breadth***	MC Associate Degree Breadth Areas & unit credit
AP Art History	3	3	3A or 3B <sup>4</sup>	C1 or C2		C (3)
AP Biology	3	4	5B and 5C	B2+B3		B2 (3)
AP Calculus AB <sup>1</sup>	3	3	2A	B4		A2 (3)
AP Calculus BC <sup>1</sup>	3	3	2A	B4		A2 (3)
AP Calculus BC/ AB Subscore <sup>1</sup>	3	3	2A	B4		A2 (3)
AP Chemistry	3	6		B1+B3	F09	
AP Chemistry	3	4	5A and 5C	B1+B3		B1 (6)
AP Chinese Language and Culture	3	3	3B and 6A	C2		C (3)
AP Comparative Government & Politics	3	3	4	D		D2 (3)
AP Computer Science A <sup>1</sup>	3	0		n/a		
AP Computer Science AB <sup>1</sup>	3	0		n/a		
AP Computer Science Principles	3	3		B4		
AP English Language and Composition	3	3	1A	A2		A1 (C3)
AP English Literature and Composition	3	6	1A or 3B <sup>4</sup>	A2+C2		A1 + C (6)
AP Environmental Science <sup>2</sup>	3	4		B2+B3	F09	
AP Environmental Science <sup>2</sup>	3	4	5A and 5C	B1+B3		B2 (4)
AP European History	3	3	3B or 4 <sup>4</sup>	C2 or D		D2 (3)
AP French Language	3	6		C2	F09	
AP French Language	3	3		C2	F11	C (3)
AP French Language and Culture	3	3	3B and 6A	C2		
AP French Literature	3	3	3B and 6A	C2	F09	C (3)
AP German Language	3	6		C2	F09	C (6)
AP German Language	3	3		C2	F11	C (3)
AP German Language and Culture	3	3	3B and 6A	C2		
AP Human Geography	3	3	4	D		D1 (3)
AP Italian Language and Culture	3	3	3B and 6A	C2		C (3)
AP Japanese Language and Culture	3	3	3B and 6A	C2		C (3)
AP Latin Literature	3	3	3B and 6A	C2	F09	C (3)
AP Latin	3	3	3B and 6A	C2		
AP Latin: Vergil	3	3	3B and 6A	C2	F12	C (3)
AP Macroeconomics	3	3	4	D		D1 (3)
AP Microeconomics	3	3	4	D		D1 (3)
AP Music Theory	3	3		C1	F09	C (3)
AP Physics 1 <sup>3</sup>	3	4	5A and 5C	B1+B3		
AP Physics 2 <sup>3</sup>	3	4	5A and 5C	B1+B3		

College Board Advanced Placement Tests	Minimum Passing Score	Semester Credits Toward GE Breadth Certification	IGETC Applicability (3 sem/4qtr)	American Institutions and/or GE Breadth Area**	Removal Date for GE Breadth***	MC Associate Degree Breadth Areas & unit credit
AP Physics B <sup>3</sup>	3	6		B1+B3	F09	B1 (6)
AP Physics B <sup>3</sup>	3	4	5A and 5C	B1+B3	F13	B1 (4)
AP Physics C (electricity/magnetism) <sup>3</sup>	3	4	5A and 5C	B1+B3		B1 (4)
AP Physics C (mechanics) <sup>3</sup>	3	4	5A and 5C	B1+B3		B1 (4)
AP Psychology	3	3	4	D		D1 (3)
AP Seminar	3	0		n/a		
AP Spanish Language	3	6		C2	S14	
AP Spanish Language and Culture	3	3	3B and 6A	C2		C (3)
AP Spanish Literature	3	6		C2	S13	
AP Spanish Literature and Culture	3	3	3B and 6A	C2		
AP Statistics	3	3	2A	B4		A2 (3)
AP Studio Art - 2D Design	3	0		n/a		
AP Studio Art - 3D Design	3	0		n/a		
AP Studio Art - Drawing	3	0		n/a		
AP U.S. Government & Politics	3	3	4 and US-2	D+US-2		D2 (3)
AP U.S. History	3	3	(3B or 4 <sup>4</sup> ) and US-1	(C2 or D) + US-1		D2 (3)
AP World History	3	3	3B or 4 <sup>4</sup>	C2 or D		D2 (3)

<sup>1</sup> AP Calculus AB, AP Calculus BC, AP Calculus BC/AB Subscore, and AP Computer Science A, AP computer Science AB - If a student passes more than one AP exam in calculus or computer science, only one examination may be applied to the baccalaureate.

<sup>2</sup>AP Environmental Science - Students who pass AP Environmental Science earn 4 units of credit. Tests prior to Fall 2009 may apply to either B1+B3 or B2+B3 of GE Breadth. Fall of 2009 or later, those credits may only apply to B1+B3.

<sup>3</sup>AP Physics 1, AP Physics 2, AP Physics B, AP Physics C - If a student passes more than one AP exam in physics, only six units of credit may be applied to the baccalaureate, and only four units of credit may be applied to a certification in GE Breadth.

<sup>4</sup>IGETC Version 2.0 – AP exams may be used in either area regardless of where the certifying CCC's discipline is located.

\* Minimum Semester Credits Earned towards admission - These units count toward eligibility for admission. The units may not apply towards Associate Degrees for Transfer (AD-T) or the baccalaureate degree. The units may not all apply toward certification of the corresponding GE-Breadth area. See Executive Orders 1036 and 1100 Revised for details.

\*\* American Institutions and/or GE Breadth Area - Areas of GE Breadth (A1 through E) are defined in EO 1100. Areas of American Institutions (US-1 through US-3) are set forth in Sections IA and IB of EO 1061, and at assist.org.

\*\*\* Removal Date for GE Breadth - Students seeking certification in GE Breadth prior to transfer must have passed the test before this date.

# TRANSFER REQUIREMENTS 2022-2023

## General Information

Merced College provides the first two years of a four-year college or university program. The requirements for transfer vary considerably among the four-year institutions in California. As a result, entering students are encouraged to meet with a counselor at the College as soon as possible to plan his/her course of study.

The four-year institutions in California fall generally into three categories:

1. The California State University System (CSU): CSU Bakersfield, CSU Channel Islands, CSU Chico, CSU Dominguez Hills, CSU Fresno, CSU Fullerton, CSU East Bay, Humboldt State University, CSU Long Beach, CSU Los Angeles, CSU Maritime Academy, CSU Monterey Bay, CSU Northridge, California State Polytechnic University, Pomona, CSU Sacramento, CSU San Bernardino, CSU San Marcos, San Diego State University, San Francisco State University, San Jose State University, California Polytechnic State University, San Luis Obispo, Sonoma State University, and CSU Stanislaus. Each CSU campus accepts certification of breadth requirements completed at Merced College.
2. The University of California (UC): UC Berkeley, UC Davis, UC Irvine, UC Los Angeles, UC Merced, UC Riverside, UC San Diego, UC San Francisco (medical school), UC Santa Barbara, and UC Santa Cruz. UC campuses support a "transfer core curriculum"; however, each UC campus may list particular breadth and major requirements. Refer to [www.assist.org](http://www.assist.org) for articulation agreements.
3. The Independent or Private Colleges and Universities: Some examples of the over 100 in California include Brandman University, Stanford University, University of the Pacific, Fresno Pacific, and the University of Southern California. Each private college or university has its own unique requirements.

## California State University (CSU)

### Basic Information

Merced College courses numbered 1 - 49 have been designated baccalaureate level courses transferable to the CSU system. These courses will be accepted by any campus of the California State University system for credit toward its baccalaureate degrees.

In preparing for transfer to a CSU campus, you should follow two concurrent pathways to complete required course work:

1. The CSU General Education Breadth courses listed on the following page; and
2. Articulated lower division major preparation courses as designated by the particular CSU campus to which you plan to transfer. A Merced College counselor can assist you with course selection.

### CSU Transfer Admission Requirements

The majority of transfer students enter as upper-division transfers. Students can qualify for admissions to the CSU system as an upper-division transfer if they have a minimum of 60 semester or 90 quarter units. Your overall grade point average must be at least 2.0 (2.40 for California nonresidents.) The GPA is calculated using all transfer units attempted.

Some transfers will enter as lower-division transfers. If, at the time you will enter the CSU, you have completed 59 or fewer semester or 89 or fewer quarter units you are a lower-division transfer. Some CSU campuses do not accept lower-division transfers, so be sure to check with the campus if you are considering transfer as a lower-division student.

### CSU Transfer Breadth Curriculum

Merced College will certify completion of the General Education Breadth requirements in part, or in their entirety, if you are transferring to one of the 23 campuses of the California State University System.

Merced College will give full certification upon the satisfactory completion of 39 designated units. In addition, a minimum of nine upper division units must be taken as designated by the state university conferring the B.A./B.S. Degree. If the CSU campus requires more than 48 General Education/Breadth units, you will take the additional units after transfer.

To complete the CSU transfer breadth requirements, students must select courses that fulfill the unit requirements of specific areas. (Courses listed in these areas may change, depending upon CSU Chancellor's Office approval.) The CSU transfer breadth requirements appear on the following page.

### SB 1440

The Student Transfer Agreement Reform Act (SB 1440 – Padilla), signed into legislation on September 29, 2010, enables the California Community Colleges and California State University to collaborate on the creation of Associate in Arts Degree (AA) and Associate in Science (AS) Degree transfer programs. This new law requires community colleges to grant an associate degree for transfer to a student once a student has met specified general education and major requirements for the degree. Upon completion of the associate degree, the student is eligible for transfer with junior standing into the California State University (CSU) system.

Students are given guaranteed admission into the California State University (CSU) system, and further are given priority consideration when applying to a particular program that is similar to the student's community college major. The law prohibits the CSU from requiring a transferring student to repeat courses similar to those taken at the community college that counted toward their associate degree for transfer. It is expected that community college students will be able to declare an interest in pursuing specific transfer AA/AS degrees.

## University of California System (UC)

Of the ten University of California campuses, nine welcome community college transfer students (UCSF is only a graduate level university). UC campuses support a "transfer core curriculum"; however, each of the ten campuses and the individual majors has unique requirements. Students planning to transfer to a UC campus should see a Merced College counselor as soon as possible in order to plan an appropriate program of study and work closely with the UC representative in the Career/Transfer Center.

## Private Colleges and Universities

There are approximately 112 independent or private schools in the State of California not supported by state tax revenues. They vary greatly in programs offered, size, and number of transfer students. Each school acts autonomously, evaluating course work on an individual basis. To obtain specific transfer information, contact the admissions office at the school to which you wish to transfer. A Merced College counselor can help you plan your transfer program.



# ASSOCIATE DEGREES FOR TRANSFER 2022-2023



## Associate Degree for Transfer

### *A Degree with a Guarantee.<sup>SM</sup>*

California Community Colleges are now offering associate degrees for transfer to the CSU. These may include Associate in Arts (AA-T) or Associate in Science (AS-T) degrees. These degrees are designed to provide a clear pathway to a CSU major and baccalaureate degree. California Community College students who are awarded an AA-T or AS-T degree are guaranteed admission with junior standing somewhere in the CSU system and given priority admission consideration to their local CSU campus or to a program that is deemed similar to their community college major. This priority does not guarantee admission to specific majors or campuses.

Students who have been awarded an AA-T or AS-T are able to complete their remaining requirements for the 120-unit baccalaureate degree within 60 semester or 90 quarter units.

To view the most current list of Merced College Associate Degrees for Transfer and to find out which CSU campuses accept each degree, please go to <http://www.icangotocollege.com>. Current and prospective community college students are encouraged to meet with a counselor to review their options for transfer and to develop an educational plan that best meets their goals and needs.

#### Merced College list of Transfer Degrees:

- Administration of Justice
- Agriculture Animal Science
- Agriculture Business
- Agriculture Plant Science
- Anthropology
- Biology
- Business Administration 2.0
- Chemistry
- Communication Studies
- Computer Science
- Early Childhood Education
- Economics
- Elementary Teacher Education
- English
- Geography
- Geology
- History
- Kinesiology
- Mathematics
- Music
- Nutrition and Dietetics
- Philosophy
- Physics
- Political Science
- Psychology
- Social Justice Studies and Ethnic Studies
- Sociology
- Spanish
- Studio Arts
- Theatre Arts

Additional majors are being developed. Please see a counselor and [www.mccd.edu](http://www.mccd.edu) for more information.

# CSU-GE BREADTH CERTIFICATION REQUIREMENTS 2022-2023

## AREA A: English Language Communication and Critical Thinking

Select one course from each category:

### A1 Oral Communication

COMM-01, 01H, 04, 05

### A2 Written Communication [AP accepted]

ENGL-01A

### A3 Critical Thinking

ENGL-01C, ENGL/PHIL-13, 13H, PHIL-10, 12

## AREA B: Scientific Inquiry and Quantitative Reasoning

A minimum of 9 units is required with one course each from areas B1, B2, and B4. At least one of the courses must be a lab course from B3 (Lab courses are underlined under B1 and B2):

### B1 Physical Science [AP, IB & CLEP accepted]

ARCH-01, ASTR-01, 01L  
CHEM-02A, 02B, 04A, 04B  
GEOG-01, 01L, 15  
GEOL-01, 02, 03  
PHSC-01, 01L, 02  
PHYS-02A, 02B, 04A, 04B, 04C, 10  
AGPS-05

### B2 Life Science [AP, IB & CLEP accepted]

ANTH-01  
BIOL-01, 02, 04A, 04B, 06, 09, 16, 18, 20, 32  
AGPS-01  
PSYC-15\*

### B3 Laboratory Activity

ANTH-01  
ASTR-01L  
BIOL-01, 02, 04A, 04B, 16, 18, 20, 32L  
CHEM-02A, 02B, 04A, 04B  
GEOG-01L  
GEOL-01, 02, 03  
PHSC-01L, 02L  
PHYS-02A, 02B, 04A, 04B, 04C  
AGPS-01  
AGPS-05

### B4 Mathematics/Quantitative Reasoning [AP, IB & CLEP accepted]

CPSC/MATH-07, MATH-02, 02H, 03, 04A, 04B, 04C, 06, 08, 10, 11, 15, 20A, 20B, 22, 25, 26, 27  
PSYC-05

## AREA C: Arts and Humanities

A minimum of 9 semester units are required with at least one course from each area:

### C1 Arts (Art, Dance, Music, Theater) [AP & IB accepted]

ART-01, 02, 03, 06, 15  
ARTD-07, 08, 40A, 40B  
DRAM-01\*, 08  
ENGL-14, 15, ETHN-11  
MUSG-10, 12, 13, 14, 15  
PHOT-33, 36

### C2 Humanities (Literature, Philosophy, and Foreign Language) [AP, IB & CLEP accepted]

ARTD-07, ASLG-01, 02  
DRAM-01\*  
ENGL-01B, 04A, 04B, 05, 06A, 06B, 07, 08, 10, 11, 18, 19\*  
ETHN-15\*, 18, 19\*, FREN-01, 02, 03, 04  
GERN-01, 02, 03, 04  
HIST-03A\*, 03B\*, 04A\*, 04B\*, 05\*, 09A, 09B, 17A\*, 17AH\*, 17B\*, 17BH\*, 19\*, 29\*  
HMNG-01, 02  
HUM-01, 01H, 02, 02H, 15\*, 21  
JPNS-01A, 01B, 02  
PHIL-01, 01H, 02\*, 03, 04, 05, 15  
SPAN-01, 02, 03, 04, 10, 11

## AREA D: Social Sciences [AP, IB & CLEP accepted]

A minimum of 6 semester units (courses can be in the same disciplines) are required from the following:

AGAB-05, AGRI-10, ANTH-02, 10, 12,  
CLDV-01\*, 02\*, COMM-30, CRIM-01,  
ECON-01, 02  
ETHN-01\*, 05\*, 19\*, 20\*, 22, 23  
GEOG-02, 12  
HIST-03A\*, 03B\*, 04A\*, 04B\*, 05\*, 07, 10, 17A\*, 17AH\*, 17B\*, 17BH\*, 19\*, 20\*, 22, 23, 29\*  
HUM-15\*, NUTR-12, PHIL-02\*,  
POSC-01, 02, 03, 04, 07  
PSYC-01A, 01AH, 15\*, 22\*, 23\*, 25, 36  
SOC-01, 02, 03, 04, 05\*, 06

## AREA E: Lifelong Understanding and Self-Development

A minimum of 3 units (of which only two units may be physical activity) are required from the following:

### E Integrated Organism [CLEP accepted]

CLDV-01\*, 02\*  
CLDV/PSYC-09  
GUID-30  
HLTH-10  
NUTR-10  
PSYC-22\*, 23\*, 40  
REGN-34

### Physical Activity (two unit maximum)

ATHL-01D, 01F, 01K, 01L, 02A, 02B, 02D, 02F, 02G, 02I, 02K  
KINE-09, 12B, 14, 15, 16, 17, 20, 30, 32, 35, 36, 41, 42

## AREA F: Ethnic Studies

A minimum of 3 units are required from the following:

F ENGL-19\*, ETHN-01\*, 05\*, 12\*, 19\*, 20\*, HIST-20\*, SOC-05\*  
Check <http://www.mccd.edu/getstarted/catalog.html> for official list of approved courses.

## Minimum Total CSU-GE Certification: 39 Units

## Merced College Courses Designated to Meet CSU History, Constitution, and American Ideals Graduation Requirement [AP & CLEP accepted]

The American Institutions Requirement (AIR) (U.S. History, Constitution, California State and Local Government) as well as requirements for Political and Economic Institutions may be met by completion of one of the following sequences:

### Sequence A:

HIST-17A or HIST-17AH (both meet US-1 and US-2) AND  
HIST-17B or HIST-17BH (both meet US-1 and US-3)

### Sequence B:

HIST-17A or HIST-17AH or HIST-17B or HIST-17BH or HIST-22 (US-1)

### AND POSC-01 (US-2 AND US-3)

Students satisfy this CSU graduation requirement through coursework in three areas:

- US-1: Historical development of American institutions and ideals
  - US-2: U.S. Constitution and government
  - US-3: California state and local government Conditions:
    - This requirement may be met before or after transfer to the CSU.
    - Students who want to fulfill this requirement with courses taken before Fall, 2004 should consult their college catalogs.
    - If a course is approved for more than one US Area above, a student may use the course to satisfy all areas listed.
    - US-1 may be completed with a score of 3 or higher on Advanced Placement US History.
    - US-2 (but not US-3) may be completed with a score of 3 or higher on Advanced Placement US Government & Politics.
    - At the discretion of the CSU Campus granting the degree, courses meeting this requirement may also be counted toward certification in general education (GE Breadth or IGETC).
- Check with your counselor for details.

Updated FEB 2021; reference: www.assist.org and CSU EO 1100 <https://calstate.policystat.com/89191/latest/>

\*Courses listed in multiple areas shall not be certified in more than one area, except CSU History Constitution, and American Ideals Graduation Requirement.

# CSU-GE BREADTH CERTIFICATION REQUIREMENTS FOR STEM - 2022-2023

## ONLY USABLE FOR AS-T BIOLOGY

### AREA A: English Language Communication and Critical Thinking

Select one course from each category:

#### A1 Oral Communication

COMM-01, 01H, 04, 05

#### A2 Written Communication [AP accepted]

ENGL-01A

#### A3 Critical Thinking

ENGL-01C, ENGL/PHIL-13, 13H, PHIL-10, 12

### AREA B: Scientific Inquiry and Quantitative Reasoning

A minimum of 9 units is required with one course each from areas B1, B2, and B4. At least one of the courses must be a lab course from B3 (Lab courses are underlined under B1 and B2):

#### B1 Physical Science [AP, IB & CLEP accepted]

ARCH-01, ASTR-01, 01L  
CHEM-02A, 02B, 04A, 04B  
GEOG-01, 01L, 15  
GEOL-01, 02, 03  
PHSC-01, 01L, 02  
PHYS-02A, 02B, 04A, 04B, 04C, 10  
AGPS-05

#### B2 Life Science [AP, IB & CLEP accepted]

ANTH-01  
BIOL-01, 02, 04A, 04B, 06, 09, 16, 18, 20, 32  
AGPS-01  
PSYC-15\*

#### B3 Laboratory Activity

ANTH-01  
ASTR-01L  
BIOL-01, 02, 04A, 04B, 16, 18, 20, 32L  
CHEM-02A, 02B, 04A, 04B  
GEOG-01L  
GEOL-01, 02, 03  
PHSC-01L, 02L  
PHYS-02A, 02B, 04A, 04B, 04C  
AGPS-01  
AGPS-05

#### B4 Mathematics/Quantitative Reasoning [AP, IB & CLEP accepted]

CPSC/MATH-07, MATH-02, 02H, 03, 04A, 04B, 04C, 06, 08, 10, 11, 15, 20A, 20B, 22, 25, 26, 27  
PSYC-05

### AREA C: Arts and Humanities

A minimum of 6 semester units are required with at least one course from each area:

#### C1 Arts (Art, Dance, Music, Theater) [AP & IB accepted]

ART-01, 02, 03, 06, 15  
ARTD-07, 08, 40A, 40B  
DRAM-01\*, 08  
ENGL-14, 15, ETHN-11  
MUSG-10, 12, 13, 14, 15  
PHOT-33, 36

#### C2 Humanities (Literature, Philosophy, and Foreign Language)

[AP, IB & CLEP accepted]  
ARTD-07, ASLG-01, 02, DRAM-01\*  
ENGL-01B, 04A, 04B, 05, 06A, 06B, 07, 08, 10, 11, 18, 19\*  
ETHN-15\*, 18, 19\*, FREN-01, 02, 03, 04  
GERN-01, 02, 03, 04  
HIST-03A\*, 03B\*, 04A\*, 04B\*, 05\*, 09A, 09B, 17A\*, 17AH\*, 17B\*, 17BH\*, 19\*, 29\*  
HMNG-01, 02  
HUM-01, 01H, 02, 02H, 15\*, 21  
JPNS-01A, 01B, 02  
PHIL-01, 01H, 02\*, 03, 04, 05, 15  
SPAN-01, 02, 03, 04, 10, 11

### AREA D: Social Sciences [AP, IB & CLEP accepted]

A minimum of 3 semester units are required from the following:

AGAB-05, AGRI-10, ANTH-02, 10, 12,  
CLDV-01\*, 02\*, COMM-30, CRIM-01,  
ECON-01, 02  
ETHN-01\*, 05\*, 19\*, 20\*, 22, 23  
GEOG-02, 12  
HIST-03A\*, 03B\*, 04A\*, 04B\*, 05\*, 07, 10, 17A\*, 17AH\*, 17B\*, 17BH\*, 19\*, 20\*, 22, 23, 29\*  
HUM-15\*, NUTR-12, PHIL-02\*,  
POSC-01, 02, 03, 04, 07  
PSYC-01A, 01AH, 15\*, 22\*, 23\*, 25, 36  
SOC-01, 02, 03, 04, 06

### AREA E: Lifelong Understanding and Self-Development

A minimum of 3 units (of which only two units may be physical activity) are required from the following:

#### E Integrated Organism [CLEP accepted]

CLDV-01\*, 02\*  
CLDV/PSYC-09  
GUID-30  
HLTH-10  
NUTR-10  
PSYC-22\*, 23\*, 40  
REGN-34

#### Physical Activity (two unit maximum)

ATHL-01D, 01F, 01K, 01L, 02A, 02B, 02D, 02F, 02G, 02I, 02K  
KINE-09, 12B, 14, 15, 16, 17, 20, 30, 32, 35, 36, 41, 42

### AREA F: Ethnic Studies

A minimum of 3 units are required from the following:

#### F ENGL-19\*, ETHN-01\*, 05\*, 12\*, 19\*, 20\*, HIST-20\*, SOC-05\*

Check <http://www.mccd.edu/getstarted/catalog.html> for official list of approved courses.

## Minimum Total CSU-GE Certification: 39 Units

### Merced College Courses Designated to Meet CSU History, Constitution, and American Ideals Graduation Requirement [AP & CLEP accepted]

The American Institutions Requirement (AIR) (U.S. History, Constitution, California State and Local Government) as well as requirements for Political and Economic Institutions may be met by completion of one of the following sequences:

#### Sequence A:

HIST-17A or HIST-17AH (both meet US-1 and US-2) AND  
HIST-17B or HIST-17BH (both meet US-1 and US-3)

#### Sequence B:

HIST-17A or HIST-17AH or HIST-17B or HIST-17BH or HIST-22 (US-1)

#### AND POSC-01 (US-2 AND US-3)

Students satisfy this CSU graduation requirement through coursework in three areas:

US-1: Historical development of American institutions and ideals

US-2: U.S. Constitution and government

US-3: California state and local government Conditions:

- This requirement may be met before or after transfer to the CSU.
- Students who want to fulfill this requirement with courses taken before Fall, 2004 should consult their college catalogs.
- If a course is approved for more than one US Area above, a student may use the course to satisfy all areas listed.
- US-1 may be completed with a score of 3 or higher on Advanced Placement US History.
- US-2 (but not US-3) may be completed with a score of 3 or higher on Advanced Placement US Government & Politics.
- At the discretion of the CSU Campus granting the degree, courses meeting this requirement may also be counted toward certification in general education (GE Breadth or IGETC).

Check with your counselor for details.

Updated FEB 2021; reference: www.assist.org and CSU EO 1100 <https://calstate.policystat.com/89191/latest/>

\*Courses listed in multiple areas shall not be certified in more than one area, except CSU History Constitution, and American Ideals Graduation Requirement.

# CSU BACCALAUREATE LEVEL COURSE LIST

## 2022-2023

This agreement lists courses transferable for unit credit to all CSU campuses. It is based on information from the 2016-2019 ASSIST database ([www.assist.org](http://www.assist.org))

ACTG-04A	AGPS-10	ATHL-02K	CLDV-34B	CTIS-27	ENGL/PHIL-13H
ACTG-04B	AGPS-11	ATHL-03	CLDV-37	CTIS-29	ENGL-14
ACTG-31	AGPS-12	ATHL-13	CLDV-38	CTIS-30	ENGL-15
AGAB-01	AGPS-13	ATHL-36A	CLDV/NUTR-41	CTIS-32	ENGL-18/ETHN-18
AGAB-02	AGPS-14	ATHL-36B	COLL-47	CTIS-33	ENGL-19/ETHN-19
AGAB-03	ANTH-01	ATHL-36C	COMM-01	CTIS-35	ENGR/CPSC-14
AGAB-04	ANTH-02	ATHL-36D	COMM-01H	DRAM-01	ENGR-15
AGAB-05	ANTH-10	AUTO-04	COMM/ENGL-02	DRAM-02	ENGR-18
AGAB-07	ANTH-12	AUTO-24	COMM-04	DRAM-02L	ENGR-30
AGAB-08	AOM-30	AUTO-32	COMM-05	DRAM-20A	ENGR-35
AGAB-30A	AOM-43	AUTO-33	COMM-30	DRAM-20B	ENGR-45
AGAB-30B	ARCH-01	AUTO-36	CPSC-01	DRAM-08	ESL-40
AGAB-30C	ARCH-01L	AUTO-41	CPSC-05A	DRAM-12	ETHN-01
AGAB-31A	ART-01	AUTO-42	CPSC-06	DRAM-13	ETHN-05/SOC-05
AGAB-31B	ART-02	AUTO-43	CPSC/MATH-07	DRAM-15	ETHN-07/POSC-07
AGAB-31C	ART-03	AUTO-44	CPSC/ENGR-14	DRAM-16	ETHN-11
AGRI-01	ART-06	AUTO-46	CPSC-20	DRAM-23	ETHN-12
AGRI-10	ART-12A	AUTO-47	CPSC-21	DRON-01	ETHN-15/HUM-15
ALLH-24	ART-12B	BIOL-01	CPSC-22	DRON-02	ETHN-18/ENGL-18
AGAS-01	ART-15	BIOL-02	CPSC-25	DRON-10	ETHN-19/ENGL-19
AGAS-02	ART-17A	BIOL-04A	CPSC-39	DRON-11	ETHN/HIST-20
AGAS-03	ART-17B	BIOL-04B	CPSC-42	DRON-20	ETHN/HIST-22
AGAS-04	ART-20A	BIOL-06	CPSC/ELCT-45A	DRON-21	ETHN/HIST-23
AGAS-10	ART-20B	BIOL-09	CPSC/ELCT-45B	ECON-01	FIRE-24
AGAS-11	ART-23A	BIOL-16	CRIM-01	ECON-02	FIRE-30
AGAS-12	ART-23B	BIOL-18	CRIM-02	ELCT-30	FIRE-31
AGAS-13	ART-24A	BIOL-20	CRIM-03	ELCT-31	FIRE-32
AGAS-14	ART-24B	BIOL-32	CRIM-04	ELCT-32	FIRE-33
AGAS-15	ART-26A	BIOL-32L	CRIM-05	ELCT-34	FIRE-34
AGAS-16	ART-26B	BIOL-33	CRIM-06	ELCT-35	FIRE-35
AGAS-24	ART-29A	BUS-10	CRIM-08	ELCT-36	FIRE-36
AGAS-40	ART-29B	BUS-18A	CRIM-10	ELCT-41	FIRE-37
AGAS-41	ARTD-07	BUS-35	CRIM-11	ELCT-42A	FIRE-47A
AGEH-01	ARTD-08	BUS-37	CRIM-24	ELCT-42B	FIRE-47B
AGEH-02	ARTD-40A	CADM-01	CRIM-30	ELCT-43A	FREN-01
AGEH-03	ARTD-40B	CADM-02	CRIM-33	ELCT-44	FREN-02
AGEH-04	ARTD-41A	CADM-10	CRIM-35	ELCT/CPSC-45A	FREN-03
AGEH-05	ARTD-41B	CADM-11	CRIM-37	ELCT/CPSC-45B	FREN-04
AGEH-06	ARTD-42A	CHEM-02A	CRIM-42C	ELCT-45C	GEOG-01
AGEH-07	ARTD-42B	CHEM-02B	CRIM-42D	ELCT-45D	GEOG-01L
AGEH-08	ARTD-45A	CHEM-04A	CTIS-02	ELCT-47	GEOG-02
AGEH-24	ARTD-45B	CHEM-04B	CTIS-03	EMER-10	GEOG-12
AGMA-01	ARTD-47	CHEM-13A	CTIS-04	EMER-11	GEOG-15
AGMA-02	ASLG-01	CHEM-13AL	CTIS-05	EMER-20	GEOG-20
AGMA-05	ASLG-02	CHEM-13B	CTIS-06	EMER-21	GEOG-25
AGMA-06	ASLG-03	CHEM-13BL	CTIS-07	EMER-24	GEOL-01
AGMA-07	ASTR-01	CLDV-01	CTIS-08	EMER-30	GEOL-02
AGMA-11	ASTR-01L	CLDV-02	CTIS-09	EMER-31	GEOL-03
AGMA-12	ATHL-01A	CLDV-03	CTIS-10	ENGL-01A	GERN-01
AGMA-13	ATHL-01B	CLDV-04	CTIS-11	ENGL-01B	GERN-02
AGMA-14	ATHL-01D	CLDV-05	CTIS-12	ENGL-01C	GERN-03
AGMA-15	ATHL-01F	CLDV-06	CTIS-14	ENGL/COMM-02	GERN-04
AGMA-16	ATHL-01G	CLDV-07	CTIS-15	ENGL-04A	GUID-30
AGMA-17	ATHL-01I	CLDV-07L	CTIS-16	ENGL-04B	GUID-45
AGMA-18	ATHL-01J	CLDV/PSYC-09	CTIS-17	ENGL-05	GUID-47
AGMA-19	ATHL-01K	CLDV-10	CTIS-18	ENGL-06A	GUID-48
AGMA-20	ATHL-01L	CLDV-11	CTIS-19	ENGL-06B	HIST-03A
AGMA-21	ATHL-02A	CLDV-24	CTIS-20	ENGL-07	HIST-03B
AGPS-01	ATHL-02B	CLDV-30	CTIS-21	ENGL-08	HIST-04A
AGPS-02	ATHL-02D	CLDV-30D	CTIS-22	ENGL-10	HIST-04B
AGPS-03	ATHL-02F	CLDV-30L	CTIS-23	ENGL-11	HIST-05
AGPS-05	ATHL-02G	CLDV-33	CTIS-25	ENGL-12	HIST-07
AGPS-06	ATHL-02I	CLDV-34A	CTIS-26	ENGL/PHIL-13	HIST-09A



HIST-09B	KINE-41	NUTR-46	REGN-03
HIST-10	KINE-42	PHIL-01	REGN-15
HIST-17A	LBST-10	PHIL-01H	REGN-18
HIST-17AH	LBST-20	PHIL-02	REGN-24
HIST-17B	LBST-25	PHIL-03	REGN-34
HIST-17BH	LBST-30	PHIL-04	REGN-44
HIST-19	LRNR-30	PHIL-05	SOC-01
HIST/ETHN-20	MATH-02	PHIL-10	SOC-02
HIST/ETHN-22	MATH-02H	PHIL-12	SOC-03
HIST/ETHN-23	MATH-03	PHIL/ENGL-13	SOC-04
HIST-29	MATH-04A	PHIL/ENGL-13H	SOC-05/ETHN-05
HLTH-10	MATH-04B	PHIL-15	SOC-06
HLTH-15	MATH-04C	PHOT-10A	SONO-40
HMNG-01	MATH-06	PHOT-10B	SONO-40C
HMNG-02	MATH/CPSC-07	PHOT-11A	SONO-41
HMSV-20	MATH-08	PHOT-33	SONO-42A
HMSV-21	MATH-09	PHOT-35	SONO-42B
HMSV-22	MATH-10	PHOT-36	SONO-43A
HMSV-24	MATH-11	PHOT-49	SONO-43B
HSMV-41	MATH-15	PHSC-01	SONO-44A
HMSV-42	MATH-20A	PHSC-01L	SONO-44B
HMSV-43	MATH-20B	PHSC-02	SONO-44C
HMSV-44	MATH-22	PHSC-02L	SONO-45A
HNRS-40A	MATH-25	PHYS-02A	SONO-45B
HNRS-40B	MATH-26	PHYS-02B	SONO-45C
HNRS-40C	MATH-27	PHYS-04A	SONO-47A
HNRS-40D	MATH-32	PHYS-04B	SPAN-01
HUM-01	MGMT-31	PHYS-04C	SPAN-02
HUM-01H	MGMT-32	PHYS-10	SPAN-03
HUM-02	MGMT-33	POSC-01	SPAN-04
HUM-02H	MGMT-34	POSC-02	SPAN-10
HUM-15/ETHN-15	MKTG-30	POSC-03	SPAN-11
HUM-21	MKTG-33	POSC-04	STGV-33A
INDT-25	MUSA-20	POSC-07/ETHN-07	STGV-33B
INDT-32	MUSA-21A	PSYC-01A	STGV-33C
INDT-35	MUSA-21B	PSYC-01AH	STGV-33D
INDT-40	MUSA-25A	PSYC-01B	TUTR-35
INDT-41	MUSA-25B	PSYC-05	VOCN-40
INDT-49	MUSA-27A	PSYC/CLDV-09	VOCN-42
JPNS-01A	MUSA-27B	PSYC-15	VOCN-44
JPNS-01B	MUSE-41	PSYC-22	VOCN-46A
JPNS-02	MUSE-42	PSYC-23	VOCN-46B
KINE-01	MUSE-43	PSYC-25	VOCN-47A
KINE-02	MUSE-44	PSYC-36	VOCN-47B
KINE-03	MUSE-45	PSYC-37	VOCN-47C
KINE-04	MUSG-10	PSYC-40	VOCN-48
KINE-05	MUSG-12	RADT-10	WELD-06
KINE-06	MUSG-13	RADT-11	WELD-07
KINE-07	MUSG-14	RADT-12A	WELD-46
KINE-09	MUSG-15	RADT-12B	WORK-24
KINE-12A	MUSG-17	RADT-13	WORK-40
KINE-12B	MUST-01	RADT-14A	
KINE-13	MUST-02	RADT-14B	
KINE-14	MUST-03	RADT-15A	
KINE-15	MUST-04	RADT-15B	
KINE-16	MUST-05	RADT-15C	
KINE-17	MUST-06	RADT-15D	
KINE-19	MUST-07	RADT-16A	
KINE-20	MUST-08	RADT-16B	
KINE-23	NUTR-10	RADT-16C	
KINE-24	NUTR-12	RADT-17A	
KINE-24A	NUTR-20	RADT-17B	
KINE-24B	NUTR-24	RADT-18A	
KINE-24C	NUTR-25	RADT-18B	
KINE-30	NUTR-37	RADT-18C	
KINE-31	NUTR-40	RADT-24	
KINE-32	NUTR/CLDV-41	REAL-42	
KINE-33	NUTR-42	REAL-43	
KINE-34	NUTR-43	REAL-44	
KINE-35	NUTR-44	REGN-01	
KINE-36	NUTR-45	REGN-02	

# COURSE IDENTIFICATION NUMBERING SYSTEM (C-ID) 2022-2023



Associate Degree  
for Transfer  
*A Degree with a Guarantee™*

The Course Identification Numbering System (C-ID) is a statewide numbering system independent from the course numbers assigned by local California community colleges. A C-ID number next to a course signals that participating California colleges and universities have determined that courses offered by other California community colleges are comparable in content and scope to courses offered on their own campuses, regardless of their unique titles or local course number. Thus, if a schedule of classes or catalog lists a course bearing a C-ID number, for example C-ID COMM 110, students at that college can be assured that it will be accepted in lieu of a course bearing the C-ID COMM 110 designation at another community college. In other words, the C-ID designation can be used to identify comparable courses at different community colleges. However, students should always go to [www.assist.org](http://www.assist.org) to confirm how each college's course will be accepted at a particular four year college or university for transfer credit.

The C-ID numbering system is useful for students attending more than one community college and is applied to many of the transferable courses students need as preparation for transfer. Because these course requirements may change and because courses may be modified and qualified for or deleted from the C-ID database, students should always check with a counselor to determine how C-ID designated courses fit into their educational plans for transfer. Students may consult the ASSIST database at [www.assist.org](http://www.assist.org) for specific information on C-ID course designations. Counselors can always help students interpret or explain this information.

MC Courses(s) ID	C-ID Descriptor
ACTG-04A	ACCT 110
ACTG-04B	ACCT 120
AGAB-01	AG-AB 104
AGAB-02	AG-AB 128
AGAB-07	AG-AB 112
AGAB-08	AG-AB 108
AGAS-01	AG-AS 104
AGAS-12	AG-AS 108L
AGAS-15	AG-AS 112L
AGEH-02	AG-EH 112L
AGEH-03	AG-EH 108L
AGEH-05	AG-EH 116L
AGMA-02	AG-MA 108L
AGPS-01	AG-PS106, 106L
AGPS-05	AG-PS 128, 128L
ANTH-01	ANTH 110
ANTH-02	ANTH 120
ARCH-01	ANTH 150
ART-12A	ARTS 101
ART-15	ARTS 100
ART-23A	ARTS 210
ART-24A	ARTS 110
ART-24B	ARTS 205
ART-26A	ARTS 200
ART-06	ARTH 150
ARTD-40A	ARTS 250
BIOL-16	BIOL 110 B
BIOL-18	BIOL 120 B
BIOL-04A	BIOL 190
BIOL-04B	BIOL 140
BUS-10	BUS 110
BUS-18A	BUS 125
CHEM-02A	CHEM 101
CHEM-04A	CHEM 110
CHEM-04A, CHEM-04B	CHEM 120S
CHEM-13A, CHEM-13AL	CHEM 160S
CLDV-01	CDEV 100
CLDV-02	CDEV 110
CLDV-03	ECE 120

MC Courses(s) ID	C-ID Descriptor
CLDV-04	ECE 200
CLDV-05	ECE 220
CLDV-06	ECE 230
CLDV-07	ECE 130
CLDV-07L	ECE 210
CLDV-09	PSY 180
COMM-01	COMM 110
COMM-01H	COMM 110
COMM-02	COMM 170
COMM-30	COMM 150
COMM-04	COMM 140
COMM-05	COMM 130
CPSC-01	ITIS 120
CPSC-05	ITIS 130
CPSC-39	COMP 132
CPSC-42	COMP 142
CPSC-06	COMP 122
CPSC-07	COMP 152
CRIM-01	SOCI 160
CRIM-11	AJ 200
CRIM-02	AJ 110
CRIM-03	AJ 122
CRIM-30	AJ 220
CRIM-04	AJ 120
CRIM-05	AJ 160
CRIM-06	AJ 124
CRIM-08	AJ 140
DRAM-01	THTR 111
DRAM-12	THTR 151
DRAM-13	THTR 152
DRAM-15	THTR 171
DRAM-16	THTR 174
DRAM-02	THTR 191
DRAM-23	THTR 114
DRAM-02L	THTR 192
DRAM-08	THTR 113
ECON-01	ECON 201
ECON-02	ECON 202

## C-ID continued

MC Courses(s) ID	C-ID Descriptor
ENGL-01C	ENGL 105
ENGL-10	ENGL 130
ENGL-11	ENGL 135
ENGL-12	ENGL 200
ENGL-13, ENGL-13H	ENGL 105
ENGL-01A	ENGL 100
ENGL-01B	ENGL 120
ENGL-04A	ENGL 140
ENGL-04B	ENGL 145
ENGL-06A	ENGL 160
ENGL-06B	ENGL 165
ENGR-14	COMP 122
ENGR-15	ENGR 130
ENGR-18	ENGR 260, 260L
ENGR-35	ENGR 150
ENGR-45	ENGR 140 & 140L
ETHN-05	SOCI 150
GEOG-01	GEOG 110
GEOG-12	GEOG 120
GEOG-15	GEOG 130
GEOG-01L	GEOG 111
GEOG-02	GEOG 125
GEOL-01	GEOL 101
GEOL-02	GEOL 111
GEOL-03	GEOL 121
HIST-03A	HIST 170
HIST-17A, HIST-17AH	HIST 130
HIST-17B, HIST-17BH	HIST 140
HIST-04B	HIST 180
KINE-01	KIN 100
KINE-02	KIN 101
LBST-10	EDUC 200
MATH-10	MATH 110
MATH-15	MATH 130
MATH-02	MATH 155
MATH-20A	MATH 120
MATH-026	MATH 150
MATH-02H	MATH 155
MATH-04A	MATH 211
MATH-04B	MATH 221
MATH-04C	MATH 230
MATH-06	MATH 240
MATH-07	MATH 160
MATH-08	MATH 250
MUSA-20	MUS 160
MUSE-41	MUS 180
MUSE-42	MUS 180
MUSE-43	MUS 180
MUSE-44	MUS 180
MUSE-45	MUS 180
MUSG-10	MUS 110
MUSG-15	MUS 100
MUST-01	MUS 120

MC Courses(s) ID	C-ID Descriptor
MUST-02	MUS 130
MUST-03	MUS 140
MUST-04	MUS 150
MUST-05	MUS 125
MUST-06	MUS 135
MUST-07	MUS 145
MUST-08	MUS 155
NUTR-10	NUTR 110
NUTR-20	NUTR 120
PHIL-01	PHIL 100
PHIL-12	PHIL 110
PHIL-03	PHIL 130
PHIL-04	PHIL 140
PHIL-05	PHIL 120
PHIL-13, PHIL-13H	ENGL 105
PHSC-02, PHSC-02L	PHYS 140S
PHYS-02A	PHYS 105
PHYS-02B	PHYS 110
PHYS-04A	PHYS 205
PHYS-04A, PHYS-04B, PHYS-04C	PHYS 200S
PHYS-04B	PHYS 210
POSC-01	POLS 110
POSC-02	POLS 130
POSC-03	POLS 140
POSC-04	POLS 120
PSYC-15	PSY 150
PSYC-01A	PSY 110
PSYC-01AH	PSY 110
PSYC-01B	PSY 200
PSYC-22	PSY 130
PSYC-23	PSY 115
PSYC-25	PSY 120
PSYC-05	SOCI 125
PSYC-05	MATH 110
PSYC-09	PSY 180
SOC-01	SOCI 110
SOC-02	SOCI 115
SOC-03	SOCI 130
SOC-04	SOCI 140
SOC-05	SOCI 150
SOC-06	SOCI 160
SPAN-01	SPAN 100
SPAN-10	SPAN 220
SPAN-11	SPAN 230
SPAN-02	SPAN 110
SPAN-03	SPAN 200
SPAN-04	SPAN 210

# IGETC 2022-2023

## Intersegmental General Education Transfer Curriculum

Completion of the IGETC permits a student to transfer from Merced College to a campus in either the California State University or the University of California system without the need after transfer to take additional, lower division, general education courses to satisfy the campus GE requirements. IGETC is not recommended for majors that require extensive lower division preparation. Consult with your counselor. Students may also fulfill the general education requirements by completing the specific lower division breadth and general education requirements of the school or college of the campus to which the student intends to transfer. Students intending to transfer to the California State University System may also complete the requirement by fulfilling the CSU's general education requirement.

Completion of the IGETC will not satisfy the American Institutions requirement. Courses used to satisfy the American Institutions requirement may not be counted to satisfy either a Humanities or a Social and Behavioral Science requirement.

### AREA 1: English Communication

UC: Select one course from 1A & 1B.

CSU: Select one course from 1A, 1B and 1C.

#### Group A: English Composition [AP accepted]

ENGL-01A

#### Group B: Critical Thinking

ENGL-01C, ENGL/PHIL-13\*, 13H

#### Group C: Oral Communication {CSU REQUIREMENT ONLY}

COMM-01, 01H, 04

### AREA 2: Mathematical Concepts and Quantitative Reasoning [AP accepted]

(One course: 3 semester units)

CPSC/MATH-07

MATH-02+, 02H+, 03, 04A, 04B, 04C, 06, 07, 08, 10, 11, 15, 26+, 27  
PSYC-05

### AREA 3: Arts & Humanities

A minimum of three courses (nine semester units) are required with at least one course from 3A and 3B

#### 3A. Arts [AP & IB accepted]

ART-01, 02, 03, 06, 15  
ARTD-07, 08, 40A, 40B  
ENGL-14  
HUM-21  
MUSG-10, 12, 13, 14, 15  
PHOT-33

#### 3B. Humanities [AP & IB accepted]

DRAM-01  
ENGL-01B\*, 04A, 04B, 05, 06A, 06B, 07, 08, 10, 11, 18  
ETHN-15\*, 18, FREN-03\*, 04\*  
GERN-02\*, 03\*, 04\*  
HIST-03A, 03B, 04A, 04B, 05\*, 09A\*, 09B, 17A\*, 17AH\*, 17B\*, 17BH\*, 29\*  
HMNG-02\*  
HUM-01, 01H, 02, 02H, 15\*  
PHIL-01, 01H, 02\*, 03, 04, 05, 15  
SPAN-02\*+, 03\*, 04\*, 10\*+, 11\*+

### AREA 4: Social & Behavioral Sciences [AP & IB accepted]

A minimum of three courses (9 semester units) is required from at least two disciplines

AGAB-05  
ANTH-02, 10  
CLDV-01, 02  
COMM-30, ECON-01, 02  
ETHN-05, 15\*, 20, 22, 23  
GEOG-02, 12  
HIST-03A, 03B, 05\*, 09A\*, 07, 10, 17A\*, 17AH\*, 17B\*, 17BH\*, 19, 20, 22\*, 23\*, 29\*  
HUM-15\*  
PHIL-02\*  
POSC-01, 02, 03, 04  
PSYC-01A, 01AH, 15\*, 22, 23, 25, 36  
SOC-01, 02, 03, 04, 05, 06

### AREA 5: Physical & Biological Sciences

A minimum of two course (7-9 semester units) is required with at least one course from 5A and 5B. At least one course must be a lab course listed in "5C Laboratory".

#### 5A. Physical Science [AP & IB accepted]

AGPS-05  
ARCH-01  
ASTR-01  
CHEM-02A+, 02B+, 04A, 04B  
GEOG-01, 15  
GEOL-01, 02\*, 03+  
PHSC-01+, 02+  
PHYS-02A+, 02B+, 04A+, 04B+, 04C+, 10+

#### 5B. Biological Science [AP & IB accepted]

AGPS-01  
ANTH-01  
BIOL-01+, 02, 04A, 04B, 06, 09, 16, 18, 20, 32  
PSYC-15\*

#### 5C. Laboratory [AP & IB accepted]

AGPS-01, 05  
ANTH-01  
ASTR-01L  
BIOL-01+, 02, 04A, 04B, 16, 18, 20, 32L  
CHEM-02A+, 02B+, 04A, 04B  
GEOG-01L  
GEOL-01, 02\*, 03+  
PHSC-01L, 02L+  
PHYS-02A+, 02B+, 04A+, 04B+, 04C+

### AREA 6: Language Other Than English [AP & IB accepted] {UC ONLY}

Requires proficiency equivalent to two years of high school study in the same language. Courses from another college, AP/IB, or courses above the proficiency level may also be used to meet this requirement.

FREN-01, 02, 03\*, 04\*  
GERN-01, 02\*, 03\*, 04\*  
HMNG-01, 02\*  
JPNS-01B, 02  
SPAN-01+, 02\*+, 03\*, 04\*, 10+, 11+

+Transfer Credit is limited by UC or CSU or both. Please consult with a counselor.

\*Courses listed in multiple areas shall not be certified in more than one area except for courses in Area 6, Language Other Than English, which can be certified in both Areas 3B and 6.



# IGETC 2022-2023 for STEM

## Intersegmental General Education Transfer Curriculum

Completion of the IGETC permits a student to transfer from Merced College to a campus in either the California State University or the University of California system without the need after transfer to take additional, lower division, general education courses to satisfy the campus GE requirements. IGETC is not recommended for majors that require extensive lower division preparation. Consult with your counselor. Students may also fulfill the general education requirements by completing the specific lower division breadth and general education requirements of the school or college of the campus to which the student intends to transfer. Students intending to transfer to the California State University System may also complete the requirement by fulfilling the CSU's general education requirement. Completion of the IGETC will not satisfy the American Institutions requirement. Courses used to satisfy the American Institutions requirement may not be counted to satisfy either a Humanities or a Social and Behavioral Science requirement.

### IGETC FOR STEM CAN ONLY USED BY THE AS-T IN BIOLOGY AND THE AS-T IN CHEMISTRY.

#### AREA 1: English Communication

UC: Select one course from 1A & 1B.

CSU: Select one course from 1A, 1B and 1C.

##### Group A: English Composition [AP accepted]

ENGL-01A

##### Group B: Critical Thinking

ENG-01C, ENGL/PHIL-13\*, 13H

##### Group C: Oral Communication {CSU REQUIREMENT ONLY}

COMM-01, 01H, 04

#### AREA 2: Mathematical Concepts and Quantitative Reasoning [AP accepted]

(One course: 3 semester units)

CPSC/MATH-07

MATH-02+, 02H+, 03, 04A, 04B, 04C, 06, 07, 08, 10, 11, 15, 26+, 27  
PSYC-05

#### AREA 3: Arts & Humanities

A minimum of two courses (6 semester units) are required with at least one course from 3A and 3B

##### 3A. Arts [AP & IB accepted]

ART-01, 02, 03, 06, 15  
ARTD-07, 08, 40A, 40B  
ENGL-14  
HUM-21  
MUSG-10, 12, 13, 14, 15  
PHOT-33

##### 3B. Humanities [AP & IB accepted]

DRAM-01  
ENGL-01B\*, 04A, 04B, 05, 06A, 06B, 07, 08, 10, 11, 18  
ETHN-15\*, 18, FREN-03\*, 04\*  
GERN-02\*, 03\*, 04\*  
HIST-03A, 03B, 04A, 04B, 05\*, 09A\*, 09B, 17A\*, 17AH\*, 17B\*, 17BH\*, 29\*  
HMNG-02\*  
HUM-01, 01H, 02, 02H, 15\*  
PHIL-01, 01H, 02\*, 03, 04, 05, 15  
SPAN-02\*+, 03\*, 04\*, 10\*+, 11\*+

#### AREA 4: Social & Behavioral Sciences [AP & IB accepted]

A minimum of two courses (6 semester units) is required from at least two disciplines

AGAB-05  
ANTH-02, 10  
CLDV-01, 02  
COMM-30, ECON-01, 02  
ETHN-05, 15\*, 22, 23  
GEOG-02, 12  
HIST-03A, 03B, 05\*, 09A\*, 07, 10, 17A\*, 17AH\*, 17B\*, 17BH\*, 19, 22\*, 23\*, 29\*  
HUM-15\*  
PHIL-02\*  
POSC-01, 02, 03, 04  
PSYC-01A, 01AH, 15\*, 22, 23, 25, 36  
SOC-01, 02, 03, 04, 05, 06

#### AREA 5: Physical & Biological Sciences

A minimum of two course (7-9 semester units) is required with at least one course from 5A and 5B. At least one course must be a lab course listed in "5C Laboratory".

##### 5A. Physical Science [AP & IB accepted]

AGPS-05  
ARCH-01  
ASTR-01  
CHEM-02A+, 02B+, 04A, 04B  
GEOG-01, 15  
GEOL-01, 02\*, 03+  
PHSC-01+, 02+  
PHYS-02A+, 02B+, 04A+, 04B+, 04C+, 10+

##### 5B. Biological Science [AP & IB accepted]

AGPS-01  
ANTH-01  
BIOL-01+, 02, 04A, 04B, 06, 09, 16, 18, 20, 32  
PSYC-15\*

##### 5C. Laboratory [AP & IB accepted]

AGPS-01, 05  
ANTH-01  
ASTR-01L  
BIOL-01+, 02, 04A, 04B, 16, 18, 20, 32L  
CHEM-02A+, 02B+, 04A, 04B  
GEOG-01L  
GEOL-01, 02\*, 03+  
PHSC-01L, 02L+  
PHYS-02A+, 02B+, 04A+, 04B+, 04C+

#### AREA 6: Language Other Than English [AP & IB accepted] {UC ONLY}

Requires proficiency equivalent to two years of high school study in the same language. Courses from another college, AP/IB, or courses above the proficiency level may also be used to meet this requirement.

FREN-01, 02, 03\*, 04\*  
GERN-01, 02\*, 03\*, 04\*  
HMNG-01, 02\*  
JPNS-01B, 02  
SPAN-01+, 02\*+, 03\*, 04\*, 10+, 11+

+Transfer Credit is limited by UC or CSU or both. Please consult with a counselor.

\*Courses listed in multiple areas shall not be certified in more than one area except for courses in Area 6, Language Other Than English, which can be certified in both Areas 3B and 6.

01/30/20

# UC TCA COURSES 2021-2022

## University of California Transfer Course Agreement

This agreement lists courses transferable for unit credit at all UC campuses. It is based on information from the 2015-16 UCOP (University of California Office of the President) transfer course agreement, and is valid for the current academic year listed at the top of this agreement. Courses marked with "UC-" will satisfy the five areas of the 1998 transfer course requirements. (E = English, M = Math, H = Humanities, B = Behavioral and Social Sciences, S = Biological and Physical Sciences) Meet with your counselor to determine more specific transfer credit information.

### SEE NEXT PAGE FOR IMPORTANT INFORMATION ABOUT UC'S TRANSFERABLE COURSE AGREEMENTS.

ACTG-04A	*ATHL-02G ea	DRAM-20B	HIST-17AH (UC-B/H)	MATH-08 (UC-M)
ACTG-04B	*ATHL-02I ea	DRAM-23	HIST-17B (UC-B/H)	MATH-09 (UC-M)
AOM-30	*ATHL-02K ea	DRON-01	HIST-17BH (UC-B/H)	&MATH-10 (UC-M)
AGRI-10	*ATHL-03 ea	DRON-21	HIST-19 (UC-B/H)	&MATH-11 (UC-M)
AGBS-11 (UC-B)	*ATHL-13 ea	ECON-01 (UC-B)	HIST/ETHN-20 (UC-BH)	MATH-15 (UC-M)
AGBS-18	+ATHL-36A	ECON-02 (UC-B)	HIST/ETHN-21 (UC-BH)	&&MATH-20A
ASLG-01	+ATHL-36B	ENGR-14/CPSC-14	HIST/ETHN-22 (UC-BH)	&&MATH-20B
ASLG-02 (UC-H)	+ATHL-36C	ENGR-15	HIST-22 (UC-B)	\$MATH-26 (UC-M)
ASLG-03 (UC-H)	+ATHL-36D	ENGR-18	HIST-23 (UC-B)	\$MATH-27 (UC-M)
ANSC-10	++BIOL-01 w/lab (UC-S)	ENGR-30	HIST-29 (UC-B/H)	&MATH-32 (UC-M)
ANSC-12	BIOL-02 w/lab (UC-S)	ENGR-35	**HMNG-01	MUSA-20 ea
ANSC-14	BIOL-04A w/lab (UC-S)	ENGR-45	HMNG-02 (UC-H)	MUSA-21A
ANSC-16	BIOL-04B w/lab (UC-S)	ENGL-01A (UC-E)	HNRS-40A	MUSA-21B
ANSC-17	BIOL-06 (UC-S)	ENGL-01B UC-E/H)	HNRS-40B	MUSA-25A
ANSC-18	BIOL-09 (UC-S)	ENGL-01C (UC-E)	HNRS-40C	MUSA-25B
ANSC-19	BIOL-16 w/lab (UC-S)	ENGL-02/COMM-02	HNRS-40D	MUSA-27A
ANTH-01 w/lab (UC-S)	BIOL-18 w/lab (UC-S)	ENGL-04A(UC-H)	HMSV-21	MUSA-27B
ANTH-02 (UC-B)	BIOL-20 w/lab (UC-S)	ENGL-04B(UC-H)	HUM-01 (UC-H)	MUSE-41 ea
ANTH-10 (UC-B)	BIOL-32 (UC-S)	ENGL-05 UC-H)	HUM-01H (UC-H)	MUSE-42 ea
ANTH-12	BIOL-32L	ENGL-06A UC-H)	HUM-02 (UC-H)	MUSE-43 ea
ARCH-01 (UC-S)	BUS-10	ENGL-06B(UC-H)	HUM-02H (UC-H)	MUSE-44 ea
ART-01 (UC-H)	BUS-18A	ENGL-07 UC-H)	HUM-15 (UC-B/H)	MUSE-45 ea
ART-02 (UC-H)	oCHEM-02A w/lab (UC-S)	ENGL-08	HUM-21 (UC-H)	MUSG-10 (UC-H)
ART-03	CHEM-04A w/lab (UC-S)	ENGL-10(UC-H)	JPNS-01A	MUSG-12 (UC-H)
ART-06 (UC-H)	CHEM-04B w/lab (UC-S)	ENGL-11(UC-H)	**JPNS-01B	MUSG-13 (UC-H)
ART-08 (UC-H)	CHEM-12A w/lab (UC-S)	ENGL-12	JPNS-02	MUSG-14 (UC-H)
ART-12A	CHEM-12B w/lab (UC-S)	ENGL-13/PHIL-13 UC-E)	+KINE-01	MUSG-15 (UC-H)
ART-12B	CHEM-13A w/lab (UC-S)	ENGL-13H/PHIL-13H	KINE-02	MUSG-17
ART-15	CHEM-13AL w/lab	UC-E)	+KINE-03	MUST-01
ART-17A	CHEM-13B w/lab (UC-S)	ENGL-14 UC-H)	*KINE-09	MUST-02
ART-17B	CHEM-13BL w/lab	ENGL-15	*KINE-12A	MUST-03
ART-20A	CLDV-01 (UC-B)	ENGL-18 (UC-H)	*KINE-12B	MUST-04
ART-20B	CLDV-02 (UC-B)	**FREN-01	*KINE-13	NUTR-10
ART-23A	CLDV-09/PSYC-09	ESL-40	*KINE-14	PHIL-01 (UC-H)
ART-23B	COLL-47	ETHN/HIST-20 (UC-B/H)	*KINE-15	PHIL-01H (UC-H)
ART-24A	COMM-01	ETHN/HIST-21 (UC-B/H)	*KINE-16	PHIL-02 (UC-B)
ART-24B	COMM-01H	ETHN/HIST-23 (UC-BH)	*KINE-17	PHIL-03 (UC-H)
ART-26A	COMM-02/ENGL-02	FREN-02	KINE-19	PHIL-04 (UC-H)
ART-26B	COMM-04	FREN-03(UC-H)	*KINE-20	PHIL-05 (UC-H)
ART-29A	COMM-30 (UC-B)	FREN-04 (UC-H)	KINE-23	PHIL-10 (UC-H)
ART-29B	CPSC-01	GEOG-01 (UC-S)	*KINE-24A	PHIL-12 (UC-H)
ARTD-07 (UC-H)	CPSC-05A	GEOG-01L	*KINE-24B	PHIL-13/ENGL-13 (UC-E)
ARTD-40A	CPSC-06	GEOG-02 (UC-B)	*KINE-24C	PHIL-13H/ENGL-13H
ARTD-40B	CPSC-07/MATH-07	GEOG-12 (UC-B)	*KINE-30	UC-E)
ARTD-41A	CPSC/ENGR-14	GEOG-15 (UC-B)	*KINE-31	PHIL-15 (UC-H)
ARTD-41B	CPSC-39	GEOL-01 w/lab (UC-S)	*KINE-32	PHOT-10A
ARTD-42A	CPSC-42	GEOL-02 (UC-S)	*KINE-33	%PHOT-10B
ARTD-42B	CTIS-02	o o GEOL-03	*KINE-34	%PHOT-11A
ARTD-45A	CTIS-04	**GERN-01	*KINE-35	PHOT-33 (UC-H)
ARTD-45B	CTIS-08	GERN-02 (UC-H)	*KINE-41	@PHSC-01 (UC-S)
ARTD-47	CTIS-10	GERN-03 (UC-H)	*KINE-42	PHSC-01L
ASTR-01 (UC-S)	CTIS-21	GERN-04 (UC-H)	+++LAND-10A	@@PHSC-02
ASTR-01L	CRIM-02	GUID-30	+++LAND-10B	@@PHSC-02L
*ATHL-01A ea	CRIM-04	GUID-46	LAND-12	#PHYS-02A w/lab (UC-S)
*ATHL-01B ea	CRIM-05	***HLTH-10	LAND-16	#PHYS-02B w/lab (UC-S)
*ATHL-01D ea	DAIR-10	***HLTH-15	LRNR-30	#PHYS-04A w/lab (UC-S)
*ATHL-01F ea	DRFT-25	HIST-03A (UC-B/H)	***LBST-10	#PHYS-04B w/lab (UC-S)
*ATHL-01G ea	DRAM-01 (UC-H)	HIST-03B (UC-B/H)	***LBST-20	#PHYS-04C w/lab (UC-S)
*ATHL-01I ea	DRAM-02	HIST-04A (UC-H)	\$MATH-02 (UC-M)	##PHYS-10 (UC-S)
*ATHL-01J ea	DRAM-02L	HIST-04B (UC-H)	\$MATH-02H (UC-M)	PLSC-10 (UC-S)
*ATHL-01K ea	DRAM-08 (UC-H)	HIST-05 (UC-B/H)	\$\$MATH-03 (UC-M)	PLSC-13
*ATHL-01L ea	DRAM-12	HIST-07 (UC-B/H)	\$\$MATH-04A (UC-M)	POSC-01 (UC-B)
*ATHL-02A ea	DRAM-13	HIST-09A (UC-H)	MATH-04B (UC-M)	POSC-02 (UC-B)
*ATHL-02B ea	DRAM-15	HIST-09B (UC-H)	MATH-04C (UC-M)	POSC-03 (UC-B)
*ATHL-02D ea	DRAM-16	HIST-10 (UC-B/H)	MATH-06 (UC-M)	POSC-04 (UC-B)
*ATHL-02F ea	DRAM-20A	HIST-17A (UC-B/H)	MATH-07/CPSC-07	PSYC-01A (UC-B)

PSYC-01AH (UC-B)  
PSYC-01B (UC-B)  
&PSYC-05 (UC-M)  
PSYC-09/CLDV-09  
PSYC-15 (UC-B)  
PSYC-22 (UC-B)  
PSYC-23 (UC-B)  
PSYC-25 (UC-B)  
PSYC-36 (UC-B)  
PSYC-40  
SOC-01 (UC-B)  
SOC-02 (UC-B)  
SOC-03 (UC-B)  
SOC-04 (UC-B)  
SOC-05 (UC-B)  
SOC-06 (UC-B)  
SOIL-10 (UC-S)  
^SPAN-01  
^^SPAN-02 (UC-H)  
SPAN-03 (UC-H)  
SPAN-04 (UC-H)  
^SPAN-10 (UC-H)  
^^SPAN-11 (UC-H)

# UC TCA 2021-2022

## University of California Transfer Course Agreement

### IMPORTANT INFORMATION ABOUT UC'S TRANSFERABLE COURSE AGREEMENTS

#### Variable Topics Courses:

These courses are also called "Independent Studies", "Special Studies", "Special Topics", "Field Work", etc. Credit for variable topics courses is given only after a review of the scope and content of the course by the enrolling UC campus. This usually occurs after transfer and may require recommendations from faculty. Information about internships may also be presented for review, but credit for internships rarely transfers to UC. UC does not grant credit for variable topics courses in Journalism, Photography, Health, Business Administration, Architecture, Administration of Justice (Criminology) or Library Departments because of credit restrictions in these areas.

#### Honors Course Credit Limitation:

Duplicate credit will not be awarded for both the honors and regular versions of a course. Credit will only be awarded to the first course completed with a grade of C or better.

#### Course Repeatability:

An "ea" after the unit value of a course on this agreement is meant to indicate that the course may be repeated for credit under CCC campus policies. Since campus policies on repeatability vary, the "ea" indicator does not guarantee that UC will grant credit for every course that appears multiple times on a student's transcript.

#### LEGEND:

\* ATHL/KINE/PHED: Any or all of these PE Activity courses combined: maximum credit, 4 units

+ATHL: Any or all of these courses combined: maximum credit, 8 units

++BIOL-01: No credit for BIOI-01 if taken after BIOI-04A (per catalog)

oCHEM-02A No credit for CHEM-2A if taken after CHEM -4A

\*\*FREN-01/GERN-01/HMNG-01/JPNS/0B: Corresponds to two years of high school study

ooGEOL-03 No credit if taken after a college level course in Astronomy, Geology, Oceanography or Meteorology

\*\*\*HLTH-10 and HLTH-15 combined: maximum credit, one course

+++LAND-10A and 10B combined: maximum credit, one course

\*\*\*LBST-10 and LBST-20 combined: maximum credit, one course

\$MATH -02, MATH-2H, MATH-26, and MATH-27 combined: maximum credit, 5 semester units/7.5 quarter units

\$\$MATH -03 and MATH-04A combined: maximum credit, one course

&MATH -10, MATH-11, MATH-32, and PSYC-05combined: maximum credit, one course

&&MATH-20A and MATH -20B combined: maximum credit, one course

%PHOT-10B AND PHOT-11A combined: maximum credit, one course

@PHSC-01: No credit for PHSC-01 if taken after a college level courses in Astronomy, Geology, or Physics

@@PHSC-02/PHSC-02L: No credit if taken after a more advanced course in Chemistry or Physics

#PHYS-02A, PHYS-02B and PHYS-04A, PHYS-04B, PHYS-04C combined: maximum credit, one series; deduct credit for duplication of topics

##PHYS-10: No credit if taken after PHYS-02A or PHYS-04A

^SPAN-01 and SPAN -10 combined: maximum credit, one course – corresponds to two years of high school study

^^SPAN-02 and SPAN-11 combined: maximum credit, one course



# COURSES RELATED IN CONTENT

The Board of Governors have changed the regulations for course repetition. The changes were made first and foremost to limit the number of times a student can enroll in the same or similar courses in physical education, visual and performing arts. In addition, changes were made to clarify the limited circumstances under which a student could enroll more than once in the same course. The regulations set upper limits on the number of times and circumstances in which a district may permit a student to enroll in the same credit course.

## Active Participatory Courses in Physical Education, Visual and Performing Arts

Title 5 sections 55000, 55040, and 55041, now identifies and limit the number of times a student can enroll in active participatory courses in physical education, visual and performing arts that are related in content. A course related in content includes any course with similar primary education activities in which skill levels or variations are separated into distinct courses with different student learning outcomes for each level or variation. Students are limited to four semester or six quarter enrollments in all levels and/or variation. ALL GRADES COUNT, INCLUDING F, W, FW, or NP.

The following is the list of courses that are approved by the committee as Courses Related in Content:

\* Course is currently approved to be repeated. Please read course description for the limited number of repeats allowed.

+ Course is not active (*see A&R or the list online for the full list of inactive courses*).

### 3-D Foundations

ART-12A  
ART-12B  
ART-17A  
ART-17B

### Acting

DRAM-12  
DRAM-13  
DRAM-50

### Aquatics

KINE-20  
KINE-23  
KINE-24A  
KINE-24B  
KINE-24C

### Painting & 2-D Foundations

ART-15  
ART-23A  
ART-23B  
ART-29A  
ART-29B

### Theatre Design & Technology

DRAM-15  
DRAM-16

### Life Fitness

KINE-30  
KINE-31  
KINE-32  
KINE-33  
KINE-34  
KINE-35  
KINE-36

### Applied Music

MUSA-20\*

### Drawing

ART-20A  
ART-20B  
ART-24A  
ART-24B  
ART-26A  
ART-26B

### Music Technique

MUSA-21A  
MUSA-21B  
MUSA-25A  
MUSA-25B  
MUSA-27A  
MUSA-27B

### Individual or Dual

**Sports**  
KINE-41  
KINE-42

### Graphic Design

ARTD-41A  
ARTD-41B  
ARTD-42A  
ARTD-42B  
ARTD-45A  
ARTD-45B  
ARTD-47

### Large Music

**Ensemble**  
MUSE-41\*  
MUSE-44\*

### Professional Photography

PHOT-35  
PHOT-36

### Fundamentals of Photography

PHOT-10A  
PHOT-10B  
PHOT-11A

### Photoshop

ARTD-40A  
ARTD-40B

### Small Music

**Ensemble**  
MUSE-42\*  
MUSE-43\*  
MUSE-45\*

### Theatre Production

DRAM-02  
DRAM-02L  
DRAM-20A  
DRAM-20B

### Team Sports

KINE-12A  
KINE-12B  
KINE-13  
KINE-14  
KINE-15  
KINE-16  
KINE-17  
KINE-19

## SCHOOLS

## Schools

Industrial and Manufacturing	Social Sciences and Arts	Science Technology Engineering and Mathematics (STEM)	Health and Public Safety	Agriculture	Humanities, Languages, Fine and Performing Arts	Business
Automotive Technology	Anthropology	Biology	Criminal Justice	Agriculture		Accounting
Electricity/ Electronics		Biotechnology	Emergency Medical Care	Agriculture Business	Art and Digital Art	Administrative Office Management
HVAC Technology	Child Development	Chemistry	Fire Technology	Animal Science	Court Interpreter	Business Administration
	Communication Studies	Computer-Aided Design & 3D Modeling	Foods and Nutrition	Environmental Horticulture	English	Economics
Industrial Technology	Ethnic Studies	Computer Science	Health Sciences	Equine Science & Management		Entrepreneurship
Truck Driving	Geography	Computer Technology Information Systems	Kinesiology	Mechanized Agriculture	French	Management
Welding Technology	History	Drone Technology	Medical Assisting	Plant & Crop Science	German	Marketing
	Human Services	Engineering	Nursing, Assistant		Music	Real Estate
	Liberal Studies	Geology	Nursing, Registered		Philosophy	Technical Office Occupations
	Political Science	Information Communication Technology	Nursing, Vocational		Photography	Virtual Office
	Psychology	Mathematics	Paramedic			
	Sociology and Social Sciences	Mathematics College Preparatory	Radiological Technology		Spanish	
		Physics	Sonography		Theatre Arts	

# ENGLISH COURSE PLACEMENT 2022-2023

EFFECTIVE FALL 2022

After completing the placement questionnaire at Merced College, you should have received either placement in an English course or instructions to meet with a counselor to get your placement in an English course. Please use this chart to better understand your placement and course options.

## COURSE GUIDE



### ENGL 01A

*Online, Hybrid, or Face to Face*

***Self-Reported HS GPA of 2.6 or higher***

This is a 4 unit, freshman reading and composition course. Students place into this course through the GPA reporting process and multiple measures assessment, or by passing ENGL 95S, ENGL 85 AC, or ESL 85E



### ENGL 01A + ENGL 95S

*Hybrid or Face to Face*

***Self-Reported HS GPA below 2.6***

**or**

This is a linked pair of courses for students who need extra support to be successful in English 01A, college level reading and composition. Students will be enrolled in a section of ENGL 01A (4 units) that is hard linked to a section of ENGL 95S (2 units) with the same instructor and cohort of students. Students place into this class by reporting a high school GPA below 2.6 in the placement questionnaire.



### ESL 84E or ESL 40

*Face to Face*

***ESL 84E → ESL 40 → ENGL 01A***

ESL 84E and ESL 40 are 5 unit courses designed for students whose primary language is not English. ESL 40 receives CSU/UC elective credit. These courses help students develop the necessary academic reading and writing skills to succeed in English 01A and other transfer-level courses. These courses focus primarily on writing paragraphs and essays, and reading academic texts. All non-native English speakers should speak with a counselor to discuss placement options or self-place using the ESL self-assessment. A noncredit ESL pathway is also available.

# MATH COURSE PLACEMENT 2022-2023

## Mathematics Course Sequence 2022-2023

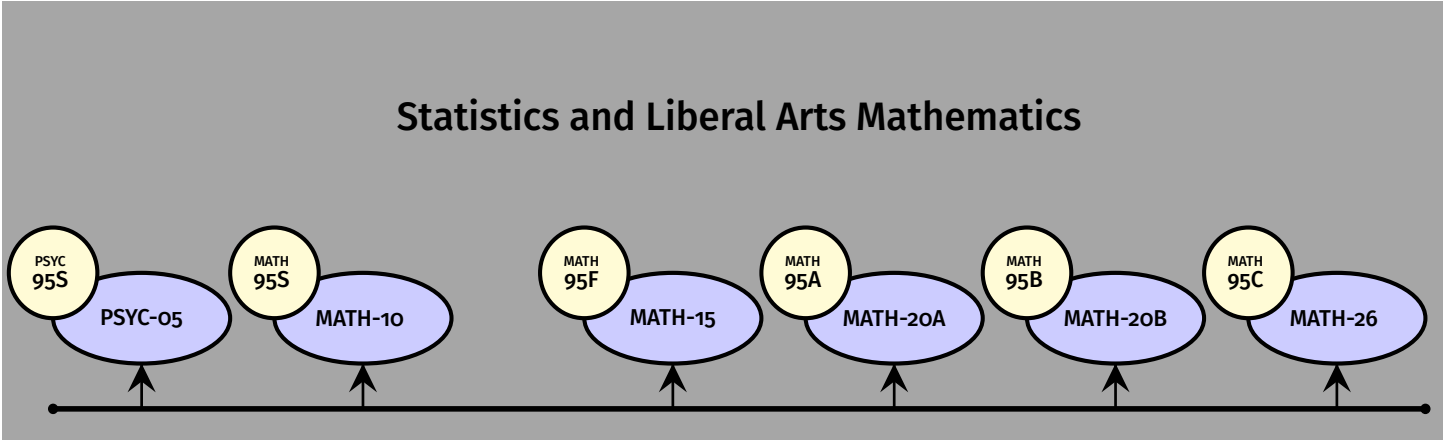
Updated 4/6/22



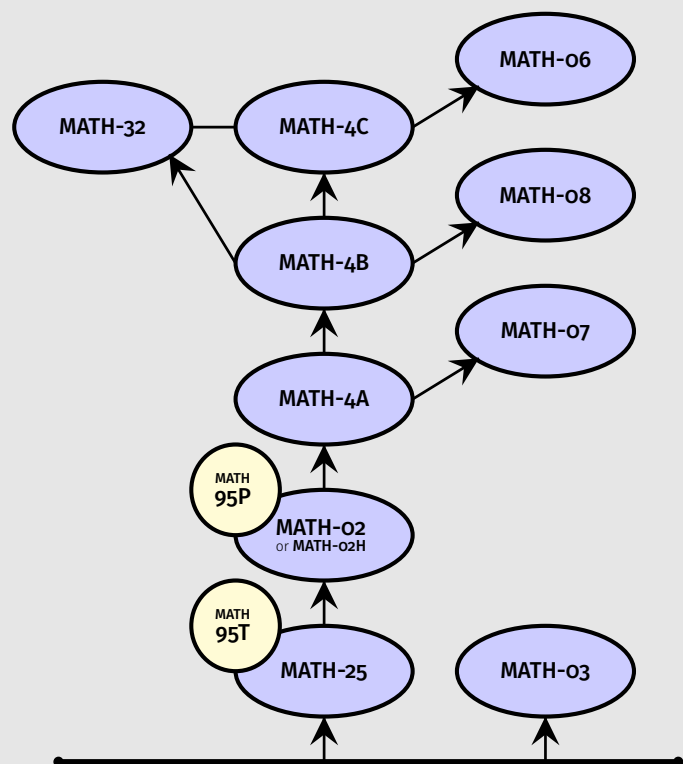
- Degree applicable courses
- Transferable
- Meets the Math Competency requirements



- Basic skills support courses
- Non-Transferable, Non Degree applicable
- Pass/No Pass grading



## Mathematics for BSTEM





# BUSINESS AND COMMUNITY PROGRAMS



## Business Resource Center

The Business Resource Center (BRC) provides Contract Education training to local employers in the greater Merced area with customized training, leadership, and development programs. The trainings offered are workplace essential skills, manager/supervisory, technical, and certification skills that employees can immediately apply to their job upon completion of the training. Since its inception in 1994, the BRC has increased Merced College's capacity to deliver training services to regional businesses, industry partners, and individuals through research, in-service training, and the development and implementation of innovative training options. The BRC supports essential elements of the California Community College Mission and Goals, which is to advance California's economic growth and global competitiveness through education, training, and services that contribute to continuous workforce improvement.

For more information about the BRC and trainings, call (209) 386-6733 or visit [www.businesscommunityeducation.com](http://www.businesscommunityeducation.com).

## Community Education

The Community Education program at Merced College has been an integral part of the College's commitment to provide education, enrichment, and adventure to the community. The Community Education Program offers:

1. Fee-based classes to district residents interested in studying specific interests and enrichment areas.
2. Special programs for children and young adults during the summer session, known as College for Kids classes, sports camps, and swimming.
3. Traffic Safety School, licensed by the Department of Motor Vehicles, for adults and juveniles. With permission from the court of jurisdiction, taking this course will prevent your citation from appearing on your record. Traffic School Online, in English and in Spanish, is also available.

For more information about Community Education, call (209) 384-6224 or visit [www.businesscommunityeducation.com](http://www.businesscommunityeducation.com).

## Retail, Hospitality, and Tourism/Learn & Earn (RHTLE)

Merced College hosts the Central and Mother Lode region's Deputy Sector Navigator (DSN) for Retail, Hospitality, and Tourism industries from San Joaquin to Kern as well as Amador to Inyo Counties. The RHTLE DSN acts as a facilitator within all three of these economic sub-sectors, connecting industry employers with incumbent worker training and pipeline development with students within the public education system. The RHTLE DSN acts as a central point of contact for the sector within the region, offering a wide variety of workforce and educational resources in support of the statewide "Doing What Matters – for Jobs and the Economy"

campaign (part of the California Community College Chancellor's Office). For more information about RHTLE DSN, call (209) 386-6734 or visit [www.doingwhatmatters.cccco.edu/or](http://www.doingwhatmatters.cccco.edu/or) [www.centralvalley-motherloderht.org](http://www.centralvalley-motherloderht.org).

## Adult Education and Noncredit

The Merced College Adult Education and Noncredit Program Office is located at the Business Resource Center in downtown Merced. Our office offers a wide variety of classes to the community with no registration fees. Classes are offered in four major categories: short-term vocational training, basic skills support up to the 12th grade, basic skills for college preparation, and personal responsibility & lifelong learning. Call us at (209) 381-6540 for more information.

### Career Opportunities:

- Court Interpreter
- Medical Assistant
- Professional Truck Driver
- Technical Office Occupations

### Highlights

Adult Education and Noncredit is part of the community colleges system of instruction. As a key aspect of lifelong learning, noncredit instruction:

- Serves as a gateway to college and/or a career path;
- Assists parents in developing the skills needed to help their children succeed in school and in life;
- Provides programs for immigrants to actively engage in the economy and civic life;
- Supports persons with disabilities to develop ways to be self-sufficient;
- Increases community awareness of health, safety, family, and consumer issues;
- Provides access to basic skills and English as a Second Language;
- Keeps older adults active and healthy.

### Programs:

#### Certificates of Competency

Adult Literacy  
ESL Advanced Skills  
Essential Skills for Employment and Job Retention  
Mathematics College Preparatory Basic Skills  
Mathematics College Preparatory Basic Skills II  
Medical Assistant  
Technical Office Occupations

#### Certificates of Completion

Basic Skills  
Computer Technology Essentials  
Court Interpreter  
ESL Beginning Skills Program  
ESL Intermediate  
ESL Workforce Training  
Professional Truck Driver Class A CDL Training  
Reading and Writing College Preparatory Basic Skills

# Accounting

## SCHOOL OF BUSINESS

**DEAN**  
CAROLINE DAWSON  
**PHONE**  
(209) 384-6120  
**AREA OFFICE**  
VOC-18

**COUNSELING**  
(209) 381-6478  
[Accounting Website](#)

### DEGREE

A.A. - Accounting

### CERTIFICATE

Accounting

#### Program Description

Making good decisions is critical for success in any business enterprise. Accounting plays a vital role in providing information needed to make knowledgeable financial decisions. The information supplied by accounting is in the form of quantitative data, primarily financial in nature, and relates to specific economic entities. An economic entity may be an individual, a business enterprise, or a nonprofit organization. Every entity, regardless of its size or purpose, must have a way to keep track of its economic activities and to measure how well it is accomplishing its goals. Accounting provides the means for tracking activities and measuring results.

Without accounting information, many important financial decisions would be made blindly. Investors, for example, would have no way to distinguish between a profitable company and one that is on the verge of failure; bankers could not evaluate the riskiness of potential loans; managers would have no basis for controlling costs, setting prices, or controlling the company's resources; and government would have no basis for taxing income.

Thus, accounting is a service activity designed to accumulate, measure, and communicate financial information to various decision makers, such as investors, creditors, and managers.

#### Career Opportunities

Many career opportunities are available in accounting requiring varying amounts of education and experience. Listed below are some of the common accounting positions:

- Accounting Clerk
- General Bookkeeper
- Junior Accountant
- Accountant
- Public Accountant
- Private Accountant
- Not-for-profit Accountant
- Auditor

#### Highlights

Great Job Opportunities  
Better understanding of business

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE (10/07)

#### A.A. - Accounting (05000.AA)

An Associate of Arts Degree in Accounting is available in preparation for employment in the field of bookkeeping or accounting as a full-charge bookkeeper or junior accountant. For the A.A. Degree, students must meet the graduation requirements and complete the following courses.

#### Program Student Learning Outcomes

- A. Read, analyze, evaluate, and communicate, both orally and in written form, an appropriate financial interpretation of accounting documents, including proper maintenance of accounting records using the basics of bookkeeping.
- B. Analyze an accounting problem and/or scenario and apply appropriate mathematical and accounting concepts to develop and verify a solution.
- C. Analyze and apply critical/creative thinking to an accounting problem or scenario in order to formulate a set of alternatives, then recommend the best course of action.

#### Program Requirements:

##### Program Core: (30 Units)

##### Units

ACTG-04A	Financial Accounting	4
ACTG-04B	Managerial Accounting	4
ACTG-31	Computerized Accounting	2
ACTG-51	Applied Accounting	4
AOM-30	Introduction to Computer Applications	3
BUS-10	Introduction to Business	3
BUS-18A	Business Law	4

##### Plus six units from the following:

ACTG-52	Payroll Records and Accounting	3
ACTG-53	Fundamentals of Income Tax Accounting	3

**Total: (30 Units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## CERTIFICATE

### Accounting (05000.CT)

A Certificate of Achievement will be awarded upon the satisfactory completion of 30 units of course work in this area of study which includes the core courses indicated for the A.A. Degree in Accounting.

#### Program Student Learning Outcomes

- Read, analyze, evaluate, and communicate, both orally and in written form, an appropriate financial interpretation of the material, including proper maintenance of accounting records using the basics of bookkeeping.
- Analyze, make computations and solve a variety of complex accounting problems and scenarios.
- Apply analytical and critical thinking skills to contemplate a given accounting scenario and propose a solution after contemplating a variety of courses of action.

#### Program Requirements

Program Core: (30 Units)		Units
ACTG-04A	Financial Accounting .....	4
ACTG-04B	Managerial Accounting .....	4
ACTG-31	Computerized Accounting .....	2
ACTG-51	Applied Accounting .....	4
AOM-30	Introduction to Computer Applications .....	3
BUS-10	Introduction to Business .....	3
BUS-18A	Business Law .....	4
<b>Plus six units from the following:</b>		
ACTG-52	Payroll Records and Accounting .....	3
ACTG-53	Fundamentals of Income Tax Accounting .....	3
<b>Total: (30 Units)</b>		

## ACCOUNTING (ACTG)

### ACTG-04A FINANCIAL ACCOUNTING

(C-ID ACCT 110)

4 units: 4 hours lecture.

Advisory: MATH-C, MATH-61 or MATH-62.

This course provides the student with the knowledge of corporate financial statement reporting and the ability to analyze the reports of a corporation. Basic topics include analysis of transactions and preparation of financial statements related to developing an understanding of the financial condition of a corporation. This accounting course is recommended for students who have knowledge of or equivalent experience in the basics of bookkeeping. (05/22)

### ACTG-04B MANAGERIAL ACCOUNTING

(C-ID ACCT 120)

4 units: 4 hours lecture.

One-way corequisite: ACTG-04A or ACTG-51.

This course provides students with instruction in managerial accounting. Topics include job-order and process costing, cost-volume-profit relationships, the contribution approach to costing, budgeting, standard costing, capital budgeting and investment decisions, and relevant costs for decision making. (05/22)

### ACTG-31 COMPUTERIZED ACCOUNTING

2 units: 1 hour lecture, 3 hours lab.

Prerequisite: ACTG-04A or ACTG-51.

Advisories: AOM-30 and ENGL-01A

This course provides instruction in computer-assisted accounting. Topics include general ledger setup, accounts receivable setup, accounts payable setup, transactions and reports, financial statement analysis, depreciation, and payroll. (05/22)

### ACTG-51 APPLIED ACCOUNTING

4 units: 4 hours lecture.

Advisory: ENGL-01A; MATH-C, MATH-61 or MATH-62.

This course is an entry-level accounting course emphasizing a preparer approach using manual accounting methods, and comparing them to current computerized accounting. Basic course work during the first half of the semester relates to the sole proprietorship type organization. During the second half of the course the emphasis changes to cover the basics of partnership and corporate accounting. Students will become acquainted with both the theory and terminology associated with the accounting cycle and within an accounting system. Other topics in accounting may also be covered including payroll, cash, inventory, bad debts, and depreciation. (05/22)

### ACTG-52 PAYROLL RECORDS AND ACCOUNTING

3 units: 3 hours lecture.

One-way corequisite: ACTG-04A or ACTG-51.

Advisory: ENGL-01A; MATH-95S.

This course covers payroll tax laws, computation of payroll taxes, completion of payroll tax forms, and the recording of payroll transactions in the journal. Emphasis is placed on computing gross wages, calculating withholding amounts (such as Social Security, Medicare, income taxes (federal & state), and unemployment taxes); determining net pay; preparing appropriate tax forms with reporting requirements; and journalizing/posting payroll transactions. Upon completion, students should be able to analyze data, make appropriate calculations, complete payroll tax forms, and prepare accounting entries. (05/22)

### ACTG-53 FUNDAMENTALS OF INCOME TAX ACCOUNTING

3 units: 3 hours lecture.

Advisory: ACTG-04A or ACTG-51

This course provides the student with the knowledge of tax laws, accounting procedures, and preparation of required returns for federal income taxes. An introduction to partnership and corporate taxation, as well as a brief overview of tax administration, will supplement the course material. (05/22)

# Administrative Office Management

## SCHOOL OF BUSINESS

### DEGREE

A.A. - Administrative Medical Office Professional

A.A. - Administrative Office Professional

### CERTIFICATE

Administrative Medical Office Professional

Administrative Office Professional

#### Program Description

The Administrative Office Management program provides training in the office and technology skills required by administrative office professionals, such as: document preparation, storage and retrieval with an emphasis on electronic record keeping; integrated computer software applications; organization and scheduling; Internet/Intranet communications and research; customer service and public relations. Our program is versatile – train for the Degree, a Certificate or simply update/refresh skills that you may already have.

#### Career Opportunities

- Administrative Assistant
- Advertising Assistant
- Customer Service Representative
- Data Entry Specialist
- Front Desk Coordinator
- Medical Assistant
- Medical Transcriber
- Office Assistant
- Public Relations Office Assistant
- Receptionist

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE (11/17)

#### A.A. - Administrative Medical Office Professional (05007.AA)

Refer to the general education requirements for specific information regarding general education, unit and scholarship requirements. Completion of the certificate program, in addition to the general education and district requirements, qualifies the student for an Associate of Arts Degree.

#### Program Student Learning Outcomes

- Produce effective administrative documents by using computer applications.
- Apply correct medical billing and coding procedures.
- Understand the role of an administrative office professional.

#### Program Requirements:

Program Core: (23 Units)		Units
AOM-30	Introduction to Computer Applications .....	3
AOM-43	Essentials of Business Communication .....	3
AOM-50B	Document Formatting.....	3
AOM-50C	Learn to Type .....	1
AOM-52C	Keyboarding Speed and Accuracy .....	1
AOM-56	Office Procedures .....	3
AOM-58A	Website Development.....	2
AOM-59A	Medical Coding and Billing.....	4
VIRT-51	Social Media.....	3
<b>Total: (23 Units)</b>		

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Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE (11/17)

#### A.A. - Administrative Office Professional (05008.AA)

Refer to the general education requirements for specific information regarding general education, unit and scholarship requirements. Completion of the certificate program, in addition to the general education and district requirements, qualifies the student for an Associate of Arts Degree.

#### Program Student Learning Outcomes

- Produce effective administrative documents by using computer applications.
- Utilize appropriate social media for a business environment ethically and effectively.
- Understand the role of the administrative professional.

#### Program Requirements:

Program Core: (19 Units)		Units
AOM-30	Introduction to Computer Applications .....	3
AOM-43	Essentials of Business Communication .....	3
AOM-50B	Document Formatting.....	3
AOM-50C	Learn to Type .....	1
AOM-52C	Keyboarding Speed and Accuracy .....	1
AOM-56	Office Procedures .....	3
AOM-58A	Website Development.....	2
VIRT-51	Social Media.....	3
<b>Total: (19 Units)</b>		

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE (11/09)

#### Administrative Medical Office Professional (05007.CN)

A Certificate of Achievement will be awarded upon the successful completion of the 23-unit core plus the program option listed below.

#### Program Student Learning Outcomes

- Produce effective administrative documents by using computer applications.
- Apply correct medical billing and coding procedures.
- Understand the role of an administrative office professional.

#### Program Requirements

Program Core: (23 Units)		Units
AOM-30	Introduction to Computer Applications .....	3
AOM-43	Essentials of Business Communication .....	3
AOM-50B	Document Formatting.....	3
AOM-50C	Learn to Type .....	1
AOM-52C	Keyboarding Speed and Accuracy .....	1
AOM-56	Office Procedures .....	3
AOM-58A	Website Development.....	2
AOM-59A	Medical Coding and Billing.....	4
VIRT-51	Social Media.....	3
<b>Total: (23 Units)</b>		

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## CERTIFICATE <sup>(11/17)</sup>

### Administrative Office Professional (05008.CN)

A Certificate of Achievement will be awarded upon the successful completion of the 22-unit core plus the program option listed below.

- A. Produce effective administrative documents by using computer applications.
- B. Utilize appropriate social media for a business environment ethically and effectively.
- C. Understand the role of an administrative office professional.

#### Program Requirements:

Program Core: (19 Units)		Units
AOM-30	Introduction to Computer Applications .....	3
AOM-43	Essentials of Business Communication .....	3
AOM-50B	Document Formatting.....	3
AOM-50C	Learn to Type .....	1
AOM-52C	Keyboarding Speed and Accuracy .....	1
AOM-56	Office Procedures .....	3
AOM-58A	Website Development .....	2
VIRT-51	Social Media.....	3
<b>Total: (19 Units)</b>		

## ADMINISTRATIVE OFFICE MANAGEMENT (AOM)

### AOM-30 INTRODUCTION TO COMPUTER APPLICATIONS

3 units: 2 hours lecture, 3 hours lab.

This course is intended for students seeking an introduction to application software used in the workplace with emphasis on business situations. Computer applications including word processing, spreadsheets, databases, and presentation managers will be covered. (02/21)

### AOM-43 ESSENTIALS OF BUSINESS COMMUNICATION

3 units: 3 hours lecture.

Advisory: AOM-30 and AOM-50B.

This course covers the business writing patterns of routine, persuasive, and negative messages. Students learn the basic training in listening, speaking, and non-verbal communication in order to develop the skills needed in everyday business communication. Given a scenario, students create e-mail, memos, letters, proposals, reports and an ePortfolio. Students also learn about doing business with other cultures and giving oral business presentations. (11/19)

### AOM-50B DOCUMENT FORMATTING

3 units: 2 hours lecture, 3 hours lab.

Students will learn the (1) development of basic computerized keyboarding techniques and (2) fundamental knowledge of word processing software to properly format memorandums, letters, envelopes, tables, and reports. (10/19)

### AOM-50C LEARN TO TYPE

1 units: 1 hour lecture.

This course provides an introduction to the keyboard for non-typists. (11/17)

### AOM-52C KEYBOARDING SPEED AND ACCURACY

1 unit: 1 hour lecture.

Upon entering the course, it is recommended that the student be able to: Know the qwerty enhanced keyboard and be able to key at least 22 wpm with 85% accuracy.

This course is designed to increase keyboarding speed and accuracy through the use of individualized evaluation. The course helps bridge the speed gap between each level of keyboarding instruction. It is designed for the student who wishes to gain keyboarding speed and accuracy. (03/22)

### AOM-56 OFFICE PROCEDURES

3 units: 3 hours lecture.

Students will learn the skills, strategies, and techniques needed to perform the common office procedures within any form of business. (03/19)

### AOM-58A WEBSITE DEVELOPMENT

2 unit: 2 hour lecture.

This is an introductory course in the planning, design and creation of a web site. (10/20)

### AOM-59A MEDICAL CODING AND BILLING

4 Units: 4 hours lecture.

This course will enable the student to develop a basic knowledge of the national diagnostic and procedural coding systems and to simplify the process of filing claim forms. The student will be introduced to the major medical insurance programs, reimbursement, privacy rules, HIPAA, basic understanding of legal and regulatory considerations. The student will be able to identify and define medical terminology and abbreviations in the outpatient setting. (03/19)



# Agriculture

## SCHOOL OF AGRICULTURE

### DEGREE

A.S. - General Agriculture

### CERTIFICATE

Pest Control Advisor

General Agriculture

### Program Description

The General Agriculture major is tailor made for students wishing to explore this diverse industry with a multitude of classes offered. A broad general agricultural background provides students with entry level employment opportunities and skills along with the ability to transfer to a college or university and continue their studies in a wide variety of agricultural fields.

### Career Opportunities

A major in General Agriculture opens many doors for students in this area such as Agricultural Education, Agricultural Banking and Finance, Self-Employment in Agriculture, Wholesale and Retail Sales, Equipment Service and Sales, Legislative/Administrative Services, Field Service Representative, and Pest Control Advisor.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE (02/22)

#### A.S. - General Agriculture: Advanced (01040.AS)

The Associate of Science Degree in General Agriculture Advanced is available upon satisfactory completion of the graduation requirements and complete the following required courses with a minimum grade of a "C" (or P) in each course in the degree and maintains a 2.0 GPA.

### Program Student Learning Outcomes

- Given various pieces of Agricultural Equipment and the proper and safe operation instruction, students will demonstrate proper and safe use of said equipment.
- Given the required equipment and materials and a set of plans/instructions, students will demonstrate the ability to assemble a sample project by selecting the correct equipment and performing basic welding operations related to the welding field.
- Given the proper criteria for selection and application students will identify and select the most appropriate plants and trees with their decision based on the environment conditions, plant characteristics and customer preferences.
- Given a computer with the proper software and the parameters of a hypothetical or actual problem students will be able to demonstrate the ability to compose a word processing document, a mathematical spreadsheet, and/or an information database given the parameters of a hypothetical problem.

### Program Requirements:

#### Program Core: (31 Units)

	Units
AGAB-08	Agricultural Computer Applications ..... 3
AGRI-10	Agriculture, Environment, and Society ..... 3
AGAS-01	Elements of Animal Science..... 3
AGEH-01	Elements of Landscape Horticulture ..... 3
AGMA-01	Equipment Safety..... 1

Plus 18 units from three of the five following areas:

Agriculture Business	
AGAB-01	Introduction to Agriculture Business..... 3

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AGAB-02	Agricultural Accounting..... 3
AGAB-03	Agricultural Marketing ..... 3
AGAB-07	Agricultural Sales and Communication ..... 3
Animal Science	
AGAS-03	Animal Diseases and Parasite Control..... 3
AGAS-04	Elements of Animal Nutrition ..... 3
*AGAS-16	Fitting, Showing and Merchandising Livestock ..... 1.5
Crop Science/Plant Science/Soil Science	
AGPS-10	Elements of Cereal Grain Production..... 3
AGPS-12	Commercial Vegetable and Garden Production..... 3
AGPS-11	Forage Crops ..... 3
AGPS-03	Economic Entomology ..... 3
AGPS-06	Fertilizers and Soil Amendments..... 3
Landscape Horticulture	
AGEH-02	Plant Identification and Usage: Fall..... 3
AGEH-06	Landscape Design ..... 3
AGEH-07	Landscape Construction and Installation ..... 3
AGEH-05	Plant Propagation
Mechanized Agriculture	
AGMA-05	Agricultural and Industrial Technical Skills ..... 3
AGMA-06	Small Engine Repair and Maintenance..... 3
AGMA-07	Compact Power Equipment ..... 3
<b>Total: (31 Units)</b>	

Completion of MCCG-GE Breadth: (23 units)

Elective (as needed to reach 60 units) Units: (18 Units)

**Total Degree Units: (60 Units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**CERTIFICATE** (02/22)

**General Agriculture (01050.CN)**

A Certificate of Achievement in General Agriculture will be awarded upon the satisfactory completion of the curriculum listed below, with a minimum grade of a "C" (or P) in each course in the certificate and maintains a 2.0 GPA.

**Program Student Learning Outcomes**

- Examine the role of livestock and crop production.
- Differentiate the basic understanding of related tools and equipment.
- Assess the role of agriculture among different economies.

**Program Requirements:**

<b>Program Core: (19 Units)</b>		<b>Units</b>
AGAB-05	Agricultural Economics.....	3
AGAS-01	Elements of Animal Science.....	3
AGEH-01	Elements of Landscape Horticulture .....	3
AGMA-01	Equipment Safety.....	1
AGMA-05	Agricultural and Industrial Technical Skills .....	3
AGPS-01	Elements of Plant Science .....	3
AGRI-10	Agriculture, Environment, and Society .....	3

**Total: (19 Units)**

**AGRICULTURE (AGRI)**

**AGRI-01 AGRICULTURE EDUCATION ORIENTATION**

3 units: 3 hours lecture.

This course is an overview of agriculture education in California, including the principle components of agriculture education, developing academic and career plans, and observation in a secondary agriculture education classroom. In addition to class time, the course requires a minimum of 45 hours of structured field work in K-12 classrooms that represent California's diverse student population, and includes cooperation with at least one carefully selected and campus approved certificated classroom teacher. Students need to do their observations in a classroom that is inline with their degree plans. Single subject agriculture credential require that candidates observe in subject area at high school or junior high. This course requires verification of measles vaccination and pertussis, freedom of tuberculosis, and verification of flu vaccination within the past 12 months. (02/22)

**AGRI-10 AGRICULTURE, ENVIRONMENT, AND SOCIETY**

(CSU breadth area D)

3 units: 3 hours lecture.

This course involves an international view of the sociology of agriculture presented through an examination of relationships between societies and their environments, economics, and agriculture. Emphasis will be placed on the analysis of agriculture's use of technology and the corresponding impact on the environment, economy, and society on a global scale. (02/22)

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**CERTIFICATE** (10/21)

**Pest Control Advisor (01052.CT)**

A Certificate of Achievement for the Pest Control Adviser course requirements will be awarded upon satisfactory completion of the one 3-unit core course and 39-units of electives listed below. In conjunction with the required unit categories, the student must also attain 24 months of work experience following the Department of Pesticide Regulations requirements.

**Program Student Learning Outcomes**

- Given the proper criteria for selection and application, students will identify and select the most appropriate plants and trees with their decision based on the environment conditions, plant characteristics and customer preferences.
- Demonstrate the skills and knowledge of pest and nutrient management through the use of professional recommendations.
- Provide written recommendations required by producers for production agriculture use.
- Uphold the California Environmental Quality Act (CEQA) requirement to ensure the use of pesticides is the best alternative based on site specifics.

**Program Requirements:**

<b>Program Core: (33 Units)</b>		<b>Units</b>
AGPS-03	Economic Entomology .....	3
<b>Crop Health (Total 9) Select 9 units from the following:</b>		
AGPS-05	Soil Science .....	3
AGPS-06	Fertilizers and Soil Amendments.....	3
AGPS-12	Commercial Vegetable and Garden Production.....	3
AGEH-08	Landscape Maintenance .....	3

**Physical and Biological Sciences (Total 12)**

**Select 12 units from the following:**

AGPS-01	Elements of Plant Science .....	3
AGAS-03	Animal Diseases and Parasite Control.....	3
BIOL-01	General Biology for Non-Majors.....	4
BIOL-04B	Diversity of Life: Morphology and Physiology .....	5
BIOL-06	Environmental Science .....	3
BIOL-09	Introduction to Genetics .....	3
BIOL-32	Introduction to Biotechnology.....	4
CHEM-02A	Introductory Chemistry .....	4
CHEM-02B	Introductory Chemistry: Introduction to Organic and Biochemistry.....	4
CHEM-04A	General Chemistry I .....	5
CHEM-04B	General Chemistry II .....	5

**Pest Management Systems and Methods (Total 3)**

**Select 3 units from the following:**

AGPS-02	Weeds .....	3
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**Production Systems (Total 9)**

**Select 6 additional units from the following:**

AGPS-10	Elements of Cereal Grain Production.....	3
AGPS-11	Forage Crops .....	3
AGPS-12	Commercial Vegetable and Garden Production.....	3
AGPS-13	Fruit Tree Maintenance .....	3
AGPS-14	Vineyard Production and Management.....	3
AGAS-01	Elements of Animal Science.....	3
AGAS-12	Beef Production.....	3
AGAS-13	Sheep and Meat Goat Science .....	3
AGAS-14	Swine Production .....	3
AGEH-02	Plant Identification and Usage: Fall.....	3
AGEH-03	Plant Identification and Usage: Spring.....	3
AGEH-01	Elements of Landscape Horticulture .....	3
AGEH-05	Plant Propagation.....	3
AGEH-50	Residential Gardening.....	3

**Electives (Total 9)**

Plus 9 additional units from the above courses not yet used.

**Total: (42 Units)**

# Animal Science

## SCHOOL OF AGRICULTURE

### DEGREE

A.S.-T - Agriculture Animal Science  
A.S. - Animal Science  
A.S. - Equine Science and Management

### CERTIFICATE

Animal Science  
Equine Science and Management

### Program Description

The Animal Science curriculum at Merced College is designed to meet the need for trained personnel in a broad range of occupational opportunities involved with or related to the Animal Science field.

### Career Opportunities

Upon completion of an Animal Science Certificate of Achievement, graduates will find many opportunities in the Beef Cattle, Dairy Cattle, Horses, Sheep, Swine, and Poultry industries, as well as many different areas in Agribusiness such as sales and marketing.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE (10/21)

#### A.S.-T. - Animal Science (01100.AST)

The Associate in Science in Agriculture Animal Science for Transfer degree is designed for students looking to obtain a well-rounded education in Agriculture Animal Science. Upon completion, students with an AS-T in Agriculture Animal Science will be eligible to transfer with junior standing into an equivalent major within the California State University (CSU) system. Students will be given priority consideration when applying to a particular program that is similar to the student's community college area of emphasis. Upon completion of the AS-T in Agriculture Animal Science, students will be able to:

#### Program Student Learning Outcomes:

- Demonstrate basic understanding in genetic, reproduction, nutrition and housing of livestock.
- Demonstrate the ability to learn animal science reproduction practices.
- Appraise diverse ethnical practices within livestock industry.

#### For an Associate in Science in Agriculture Animal Science for Transfer (AS-T), students must complete the following:

- 60 semester CSU-transferable units.
- the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- a minimum of 18 semester in the major or area of emphasis as determined by the community college district.
- obtainment of a minimum grade point average (GPA) of 2.0.
- earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

**Note: Students are not required to complete any additional local graduation requirements for the AA-T (e.g., PE and Computer and Information Literacy courses).**

#### Program Requirements:

##### Program Core: (25-26 Units)

##### Required Core (13-14 units):

AGAS-01	Elements of Animal Science.....	Units	3
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AGAB-05	Agricultural Economics.....	3
or		
ECON-01	Introduction to Economics.....	3
CHEM-02A	Introductory Chemistry .....	4
or		
CHEM-04A	General Chemistry I .....	5
MATH-10	Elementary Statistics.....	3
or		
PSYC-05	Introduction to Statistics in Psychology .....	3

#### List A: Area 1: Animal Production

##### Select a minimum of 3 units from the following:

AGAS-11	Horse Husbandry .....	3
AGAS-12	Beef Production.....	3
AGAS-13	Sheep and Meat Goat Science .....	3
AGAS-14	Swine Production .....	3
AGAS-15	Elements of Dairy .....	3

#### List A: Area 2: Animal Health

##### Select a minimum of 3 units from the following:

AGAS-04	Elements of Animal Nutrition .....	3
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#### List B: Select 6 units from the following:..... 3

##### Any List A course not already used above

AGAS-02	Livestock Breeding and Selection .....	3
AGPS-11	Forage Crops .....	3

#### Total Units toward the Major: (25-26 Units)

Total Units that may be double counted: (-10 Units)

General Education (CSU-GE or IGETC) Units: (37-39 Units)

Elective (CSU Transferable) Units: (7-8 Units)

#### Total Degree Units: (60 Units)

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE (10/21)

#### A.S. - Animal Science (01100.AS)

The Associate of Science Degree in Animal Science is available upon satisfactory completion of the graduation requirements and complete the following required courses with a minimum grade of a "C" (or P) in each course in the degree and maintains a 2.0 GPA.

#### Program Student Learning Outcomes

- Develop an efficient and profitable livestock operation based on necessary skills in genetics, reproduction, nutrition and housing.
- Identify proper production practices, good animal health, proper animal nutrition, and good reproduction and management practices.
- Perform calculations needed in the field, use good communication skills, and apply good computer skills in the animal industry.
- Assemble the skills necessary to deal with potential changes in animal science and other related industries.
- Evaluate the importance of ethical practices and diversity by applying standards recognized by the livestock industry.

#### Program Requirements:

##### Program Core: (22 Units):

##### Required Core: (13 units):

AGAB-08	Agricultural Computer Applications .....	Units	3
AGAS-01	Elements of Animal Science.....		3

AGAS-03	Animal Diseases and Parasite Control.....	3
AGAS-04	Elements of Animal Nutrition.....	3
AGMA-01	Equipment Safety.....	1
<b>Six units animal production courses from the following list: (6 Units)</b>		
AGAS-02	Livestock Breeding and Selection .....	3
AGAS-10	Meat Science .....	3
AGAS-11	Horse Husbandry .....	3
AGAS-12	Beef Production .....	3
AGAS-13	Sheep and Meat Goat Science .....	3
AGAS-14	Swine Production .....	3
AGAS-15	Elements of Dairy.....	3

**Plus 3 units from the following electives including any courses  
Including any courses above not used (3)**

AGAB-02	Agricultural Accounting .....	3
AGAS-16 *	Fitting, Showing, and Merchandising Livestock .....	1.5
AGMA-02	Agriculture Equipment - Fall .....	3
AGAS-24	Work Experience in Animal Science .....	3

\* Course can be repeated.

**Total (22 Units)**

Completion of MCCD-GE (CSU-GE or IGETC) Units: (23 Units)

Elective (as needed to reach 60 units) Units: (15 Units)

**Total Degree Units: (60 Units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## CERTIFICATE (10/21)

### Animal Science (01100.CN)

A Certificate of Achievement in Animal Science will be awarded upon the satisfactory completion of the curriculum listed below, with a minimum grade of a "C" (or P) in each course in the certificate and maintains a 2.0 GPA.

#### Program Student Learning Outcomes

- Demonstrate basic understanding in genetic, reproduction, nutrition and housing of livestock
- Demonstrate the ability to learn animal science reproduction practices..
- Appraise diverse ethical practices within livestock industry.

#### Program Requirements:

<b>Program Core: (19 Units)</b>		<b>Units</b>
AGAB-08	Agricultural Computer Applications .....	3
AGAS-01	Elements of Animal Science.....	3
AGAS-02	Livestock Breeding and Selection.....	3
AGAS-03	Animal Disease and Parasite Control .....	3
AGAS-04	Elements of Animal Nutrition .....	3
AGAS-10	Meat Science .....	3
AGMA-01	Equipment Safety.....	1
<b>Total: (19 Units)</b>		

## DEGREE (10/21)

### A.S. - Equine Science and Management (01225.AS)

#### Program Description

The Horse Management Program at Merced College is designed to meet the need for trained personnel in a broad range of occupational opportunities involved with or related to the horse industry.

Students enrolled in the Merced College Horse Management Program study theory and apply practical experiences in a variety of classes that are related to the horse. Students receive a platform of experiences which help prepare them for a very competitive business.

The diverse curriculum includes: Agricultural Sales and Accounting, Animal Nutrition, Breeding and Disease, Beginning and Intermediate Horsemanship, and Specialized Horse Training, as well as Tack Repair, Hoof Care, and Equipment Construction. The safety and well-being of both horse and rider is emphasized in all courses. These classes give the student a wide view of Agriculture in general and provide in-depth experience in dealing with the problems to be faced when raising horses.

The course teaches the actual trimming and shoeing of horses, iron and forge work introduces the construction of man-made horseshoes. The anatomy and physiology of the equine foot and leg, horse psychology, and proper hoof balance in relation to conformation are also covered. Approximately 700 horses and mules are trimmed per semester by Merced College students. Horses are brought to the college to be shod. Students also participate in working field trips to various breeding farms, ranches, and pack stations.

Additional courses may be taken if desired in the afternoon or evening during the semester. Examples of courses that may be of interest to horseshoers are: Welding, Animal Nutrition, Horse Husbandry, Horsemanship, and Hoof Care and Trimming (offered during our Fall Semester).

#### Career Opportunities

Careers in horse management are available to those students showing a keen interest in equine science they range from agri business, ag education, to on the farm husbandry.

The Associate of Science degree in Equine Science and Management is available for students who meet the graduation requirements and complete the following required courses, with a minimum grade of a "C" (or P) in each course in the degree and maintain a 2.0 GPA.

#### Program Student Learning Outcomes

- Evaluate the scientific principles of Horse Management.
- Develop skills to deal with potential changes and diversity in Horse Management and related industries.
- Appraise diverse ethical practices within the equine industry.

#### Program Requirements:

<b>Program Core: (22 Units)</b>		<b>Units</b>
AGAB-08	Agricultural Computer Applications .....	3
AGAS-01	Elements of Animal Science.....	3
AGAS-03	Animal Diseases and Parasite Control.....	3
AGAS-04	Elements of Animal Nutrition .....	3
AGAS-11	Horse Husbandry .....	3
AGMA-01	Equipment Safety.....	1
<b>Choose 6 units from the following electives: (6)</b>		
AGAB-03	Agricultural Marketing .....	3
AGAS-02	Livestock Breeding and Selection .....	3
AGAS-40	Beginning Horsemanship (Western) .....	2
AGAS-41	Intermediate Horsemanship (Western) .....	2
AGMA-02	Agriculture Equipment.....	3
AGPS-11	Forage Crops .....	3
<b>Total (22 Units)</b>		

Completion of MCCD-GE (CSU-GE or IGETC) Units: (23 Units)

Elective (as needed to reach 60 units) Units: (15 Units)

**Total Degree Units: (60 Units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE (10/21)

#### Equine Science and Management (01225.CN)

A Certificate of Achievement in Equine Science and Management will be awarded upon the satisfactory completion of the curriculum listed below, with a minimum grade of a "C" (or P) in each course in the certificate and maintain a 2.0 GPA.

#### Program Student Learning Outcomes

- Evaluate the scientific principles of Horse Management.
- Develop skills to deal with potential changes and diversity in Horse Management and related industries.
- Appraise diverse ethical practices within the equine industry.

#### Program Requirements:

Program Core: (16 Units)		Units
AGAB-08	Agricultural Computer Applications.....	3
AGAS-01	Elements of Animal Science.....	3
AGAS-03	Animal Diseases and Parasite Control.....	3
AGAS-04	Elements of Animal Nutrition.....	3
AGAS-11	Horse Husbandry.....	3
AGMA-01	Equipment Safety.....	1
<b>Total: (16 Units)</b>		

## AGRICULTURE ANIMAL SCIENCE (AGAS)

### AGAS-01 ELEMENTS OF ANIMAL SCIENCE

3 units: 3 hours lecture.

This course is a survey of the livestock industry, supply of animal products, and their uses in animal production. There is a special emphasis on the origin, characteristics, adaptation, and contributions of farm animals to the agriculture industry. The student will analyze the economic trends and career opportunities in animal agriculture. Field trips will be required. (10/21)

### AGAS-02 LIVESTOCK BREEDING AND SELECTION

3 units: 3 hours lecture.

This course combines the study of basic genetic principles with the study of the anatomical and physiological aspects of reproduction as they relate to animal species significant to agriculture. The genetic principles to be emphasized include basic inheritance, selection techniques, mating systems, heterosis, and performance evaluation. The reproductive aspects to include endocrinology, estrous cycles, mating behaviors, gametogenesis, conception, gestation, parturition, and maternal behaviors. Artificial insemination, embryo manipulation, and current innovations in reproductive biotechnology will also be examined. (10/21)

### AGAS-03 ANIMAL DISEASE AND PARASITE CONTROL

3 units: 3 hours lecture.

This course of animal health and sanitation will provide instruction to the student on common livestock diseases and fundamentals of immunity. It will also include coverage of the livestock worker's role in promoting animal health and the foundation of disease control programs. (10/19)

### AGAS-04 ELEMENTS OF ANIMAL NUTRITION

3 units: 2 hours lecture; 3 hours lab.

The science of animal nutrition is the basis for "Livestock Feeding and Nutrition." The fundamentals of digestion and absorption in both ruminants and non-ruminants are discussed in this course. The nutritive value of feeds as they relate to the formulation of livestock rations will be emphasized, including by-product feeding. (10/21)

### AGAS-10 MEAT SCIENCE

3 units: 2 hours lecture, 3 hours lab.

This course is an introduction to the meat industry with a special emphasis on meat products and value added meat processing techniques. It includes concepts of food safety, grading and inspection along with preservation and marketing strategies to meet current consumer demands. (10/21)

### AGAS-11 HORSE HUSBANDRY

3 units: 2 hours lecture, 3 hours lab.

This is a survey of the equine industry encompassing the evolution and role of the equine species throughout history, breed selection and development, nutrition, diseases, preventive health, reproductive management, basic horsemanship, and stabling alternatives. (10/21)

### AGAS-12 BEEF PRODUCTION

(C-ID: AG-AS 108 L)

3 units: 2 hours lecture, 3 hours lab.

This is a study of principles and practices of purebred and commercial beef cattle production throughout the world, United States, and California. There will be emphasis placed on the importance of breeds, breeding principles, selection, nutrition, environmental management, health, marketing, and record keeping to ensure scientifically-based management decisions and consumer product acceptance as applied to beef cattle. (10/21)

### AGAS-13 SHEEP AND MEAT GOAT SCIENCE

3 units: 2 hours lecture, 3 hours lab.

This course is a survey of the sheep and meat goat industry including management of commercial, purebred and small farm flocks; selecting, feeding, breeding and basic care of the herd animals plus the marketing and economics of lambs, wool, and kids. (10/21)



**AGAS-14 SWINE PRODUCTION**

3 units: 2 hours lecture, 3 hours lab.

This is a study of the principles and practices of purebred and commercial pork production throughout California, the United States, and the world. Emphasis will be placed on the importance of breeds, breeding principles, selection, nutrition, environmental management, health, marketing, and record keeping to ensure scientifically-based management decisions and consumer product acceptance. (10/21)

**AGAS-15 ELEMENTS OF DAIRY**

(C-ID AG-AS 112L)

3 units: 2 hours lecture, 3 hours lab.

This is a study of history, development, and projections of the dairy industry. General information on the economics of dairying, facts, trends, selection, culling, fitting, showing, judging, pedigrees, feeding, and basic management skills will be learned and also information on employment opportunities and requirements. (10/21)

**AGAS-16 FITTING, SHOWING, AND MERCHANDISING  
LIVESTOCK**

1.5 units: 1 hours lecture, 1.5 hours lab.

This course is designed for students to develop skills in preparing and marketing beef cattle, sheep, swine, dairy cattle, and goats for competition at intercollegiate livestock competitions. Lessons in exhibiting the animals are given. **\*The course may be repeated three times.** (10/21)

**AGAS-24 WORK EXPERIENCE IN ANIMAL SCIENCE**

1-8 units

Advisory: ENGL-01A

This course enables students to earn college credit for learning and/or improving skills or knowledge on-the-job. Occupational Work Experience is discipline-specific and must connect to the student's major or occupational goal(s). Seventy-five (75) hours of documented paid work experience equals 1 unit of credit. Sixty (60) hours of documented volunteer experience equals 1 unit of credit. A student may enroll in up to 16 total units of work experience at Merced College. Students must have an established work site prior to enrolling in the course (10/21)

**AGAS-40 BEGINNING HORSEMANSHIP (WESTERN)**

2 units: 1 hour lecture, 3 hours lab.

*(Note: Check with instructor for supplies needed.)*

This is a course that deals with the handling and schooling of a horse from the ground, in addition to basic fundamentals of riding. Safety factors for both horse and rider will be emphasized. Other areas of the course will include the proper use of equipment and aids. (10/21)

**AGAS-41 INTERMEDIATE HORSEMANSHIP (WESTERN)**

2 units: 1 hour lecture, 3 hours lab.

Prerequisite: AGAS-40.

*(Note: Check with instructor for supplies needed.)*

This is a class in intermediate western riding which will enable a person to school a horse, teach beginning riding, or train another rider in schooling. The student will obtain a working knowledge of the judging of horse shows and obligations involved in the judging of different events. A rider in this class is expected to be able to give a creditable performance in a standard AHSA or AQHA horse show. (10/21)

# Agriculture Business

SCHOOL OF AGRICULTURE



Associate Degree  
for Transfer  
*A Degree with a Guarantee.™*

## DEGREE

A.S.-T. - Agriculture Business

A.S. - Agriculture Business

## CERTIFICATE

Agriculture Business

### Program Description

With a raw product value in excess of three billion dollars, agriculture is Merced County's number one industry and is the county's largest employer. Production agriculture employs a fifth of the county's residents. When you include food processing, agriculture employs about a third of the workforce. Dollar-wise, Merced is the fifth most important ag county in the state and the nation.

Agriculture is a vital component to our local, state and national economies and offers many exciting employment opportunities. The Agriculture Business program is designed to prepare students for immediate employment in Agribusiness and transfer to four-year colleges/universities to pursue advanced degrees in agriculture.

### Career Opportunities

The USDA projects that nearly half of all career opportunities for college graduates in agriculture will be in Agriculture Business and Management with Sales and Service occupations as the primary source of jobs in Agribusiness. Priority occupations include Credit Analysts, Food Marketing Managers, Information Systems Managers, Financial Planners, Land Use Planners, Renewable Energy Economists, Retail Sales Managers, and Human Resource Specialists in Agribusiness. Management jobs will continue to shift from production and manufacturing to the services sector of the economy. A growing number of managerial jobs will be found in environmental compliance and restoration ecology.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

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[Agriculture Business Website](#)

DEGREE (11/21)

**A.S.-T. - Agriculture Business (01000.AST)**

The Associate in Science in Agriculture Business for Transfer degree is designed for students looking to obtain a well-rounded education in Agriculture Business. Upon completion, students with an AS-T in Agriculture Business will be eligible to transfer with junior standing into an equivalent major within the CA State University (CSU) system. Students will be given priority consideration when applying to a particular program that is similar to the student's community college area of emphasis.

Program Student Learning Outcomes:

- Analyze the core concepts of various agriculture business disciplines.
- Analyze local, state, and national agricultural issues and trends.
- Examine economic principles with respect to the production and distribution of agricultural products and services.
- Develop communication and problem solving skills to work effectively, respectfully, ethically, and professionally with people of diverse age, gender, ethnicity and culture in agribusiness.
- Combine team building skills and collaborative behaviors in the accomplishment of group goals and objectives.

**For an Associate in Science in Agriculture Business for Transfer (AS-T), students must complete the following:**

- 60 semester CSU-transferable units.
- the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- a minimum of 18 semester in the major or area of emphasis as determined by the community college district.
- obtainment of a minimum grade point average (GPA) of 2.0.
- earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

**Note: Students are not required to complete any additional local graduation requirements for the AS-T (e.g., PE and Computer and Information Literacy courses).**

### Program Requirements:

#### Program Core: (24-26 Units)

AGAB-01	Introduction to Agriculture Business .....	3
AGAB-02	Agricultural Accounting .....	3
AGAB-05	Agricultural Economics .....	3
AGAB-07	Agricultural Sales and Communication .....	3
AGAB-08	Agricultural Computer Applications .....	3
ECON-02	Introduction to Macroeconomics .....	3
<b>Science</b>		
AGPS-05	Soil Science .....	3
or		
CHEM-02A	Introductory Chemistry .....	4
or		
CHEM-04A	General Chemistry I .....	5
<b>Statistics</b>		
MATH-10	Elementary Statistics.....	3
or		
PSYC-05	Introduction to Statistics in Psychology .....	3

**Total Units toward the Major: (24-26 Units)**

Total Units that may be double counted: (-13 Units)

General Education (CSU-GE or IGETC) Units: (37-39 Units)

Elective (CSU Transferable) Units: (8-12 Units)

**Total Degree Units: (60 Units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

accomplishment of group goals and objectives.

**DEGREE** (11/21)

**A.S. - Agriculture Business (01000.AS)**

The Associate of Science degree in Agriculture Business is available for students who meet the graduation requirements and complete the following required courses, with a minimum grade of a "C" in each course in the degree, and maintain a 2.0 GPA.

**Program Student Learning Outcomes**

- Analyze the core concepts of various agriculture business disciplines.
- Analyze local, state, and national agricultural issues and trends.
- Examine economic principles with respect to the production and distribution of agricultural products and services
- Develop communication and problem solving skills to work effectively, respectfully, ethically, and professionally with people of diverse age, gender, ethnicity and culture in agribusiness.
- Combine team building skills and collaborative behaviors in the accomplishment of group goals and objectives.

**Program Requirements:**

<b>Program Core: (24 Units)</b>		<b>Units</b>
AGAB-01	Introduction to Agriculture Business.....	3
AGAB-02	Agricultural Accounting .....	3
AGAB-03	Agricultural Marketing .....	3
AGAB-05	Agricultural Economics .....	3
AGAB-07	Agricultural Sales & Communication .....	3
AGAB-08	Agricultural Computer Applications .....	3
<b>Six units from these electives:</b> .....		6
AGAB-04	Farm Management.....	3
AGAB-30A	Elements of Agricultural Leadership.....	2
AGAB-30B	Agricultural Leadership - Personal Development.....	2
AGAB-30C	Agricultural Leadership - Team Leadership .....	2
AGAB-31A	Agricultural Ambassadors - Introduction .....	2
AGAB-31B	Agricultural Ambassadors - Recruitment .....	2
AGAB-31C	Agricultural Ambassadors - Public Relations .....	2
AGAS-01	Elements of Animal Science.....	3
AGEH-01	Elements of Landscape Horticulture .....	3
AGPS-01	Elements of Plant Science .....	3
AGPS-05	Soil Science .....	3
AGPS-10	Elements of Cereal Grain Production.....	3
AGRI-10	Agriculture, Environment, & Society.....	3

**Required Major Total: (24 units)**

Completion of MCCD-GE Breadth: (23 Units)

Electives (as needed to reach 60 units): (13 Units)

**Total Degree Units: (60 Units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**CERTIFICATE** (11/21)

**Agriculture Business (01000.CN)**

A Certificate of Achievement in Agriculture Business will be awarded upon satisfactory completion of the curriculum listed below, with a minimum grade of "C" (or P) in each course in the certificate and maintains a 2.0 GPA..

**Program Student Learning Outcomes**

- Analyze the core concepts of various agriculture business disciplines.
- Analyze local, state, and national agricultural issues and trends.
- Examine economic principles with respect to the production and distribution of agricultural products and services
- Develop communication and problem solving skills to work effectively, respectfully, ethically, and professionally with people of diverse age, gender, ethnicity and culture in agribusiness.
- Combine team building skills and collaborative behaviors in the

**Program Requirements:**

**Program Core: (18 Units)**

AGAB-01	Introduction to Agriculture Business.....	3
AGAB-02	Agricultural Accounting.....	3
AGAB-03	Agricultural Marketing .....	3
AGAB-05	Agricultural Economics.....	3
AGAB-07	Agricultural Sales and Communication .....	3
AGAB-08	Agricultural Computer Applications .....	3
<b>Total: (18 Units)</b>		

## AGRICULTURE BUSINESS (AGAB)

### AGAB-01 INTRODUCTION TO AGRICULTURE BUSINESS

(C-ID AG-AB 104)

3 units: 3 hours lecture.

This course is a survey of the broad scope of agriculture business. It serves as an introduction to economic, accounting, management, sales, leadership, and marketing aspects of agriculture and their impact on producers and consumers. The management principles encountered in the day-to-day operation of an agricultural enterprise are stressed as they relate to the decision-making process. (11/21)

### AGAB-02 AGRICULTURAL ACCOUNTING

(C-ID AG-AB 128)

3 units: 3 hours lecture.

This course will focus on the principles of agricultural accounting systems, types of records, their use, and how to compute and use measures of earnings and costs of production to improve agribusiness efficiency. (11/21)

### AGAB-03 AGRICULTURAL MARKETING

3 units: 3 hours lecture.

This course includes a survey of the marketing aspects of the agriculture industry and an overview of the structure and institutional aspects of the marketing system. Emphasis will be on the marketing functions and how consumer trends affect agribusiness. (11/21)

### AGAB-04 FARM MANAGEMENT

3 units: 3 hours lecture.

This course will focus on the organization and operation of a farm or ranch businesses, identification of factors affecting profitability, evaluation of the business for increased efficiency and profit, and the application of budgeting to the laboratory school farm. (11/21)

### AGAB-05 AGRICULTURAL ECONOMICS

(CSU breadth area D) (IGETC area 4)

3 units: 3 hours lecture.

This course includes the analysis of the microeconomic principles of supply and demand and the affects on producers and consumers. This class will explore the contemporary and historical place of agriculture and farmers in our economic, social, and political systems and their relationship to the consuming public. (11/21)

### AGAB-07 AGRICULTURAL SALES AND COMMUNICATION

(C-ID: AG-AB 112)

3 units: 3 hours lecture.

This course involves the study of principles and practices of the selling process: selling strategies and approaches, why and how people buy, prospecting, territory management, and customer service. Additional topics for exploration include self-management, communication, interpersonal skills necessary to developing managerial abilities, leadership qualities, and facilitation of teamwork within the agribusiness sector. (11/21)

### AGAB-08 AGRICULTURAL COMPUTER APPLICATIONS

(C-ID AG-AB 108)

3 units: 2 hours lecture, 3 hours lab.

This course explores computer use in the workplace with emphasis on agribusiness situations. Computer applications including word-processing, spreadsheets, databases, and presentation managers will be covered. Also included will be accessing information through the Internet and World Wide Web, telecommunications, an introduction to web page design, and other software appropriate to agribusiness. (11/21)

### AGAB-30A ELEMENTS OF AGRICULTURAL LEADERSHIP

2 units: 2 hours lecture.

The purpose of this course is to increase the effectiveness of agricultural student leaders. Leadership theories and models will be explored along with opportunities to apply specific leadership skills. The curriculum is designed to develop students for leadership positions in local, state, regional, and national organizations and agencies involved in the agriculture industry. (11/21)

### AGAB-30B AGRICULTURE LEADERSHIP - PERSONAL DEVELOPMENT

2 units: 2 hours lecture.

This course focuses on the knowledge, skills and attitudes that enhance personal effectiveness and professional success. Students will gain self-awareness and study leadership traits. Goal attainment, personal organization and critical thinking strategies are emphasized. (11/21)

### AGAB-30C AGRICULTURE LEADERSHIP - TEAM LEADERSHIP

2 units: 2 hours lecture.

Principles and practices in planning, developing, conducting, and evaluating leadership programs for agricultural groups. The course focuses on helping students better understand themselves and others; improving group communication; becoming effective leaders and members of groups; improving leadership and personal development skills; assessing leadership situations, determining and administering appropriate leadership strategies, and evaluating results. (11/21)

### AGAB-31A AGRICULTURAL AMBASSADORS - INTRODUCTION

2 units: 2 hours lecture.

The purpose of this course is to introduce students to the Agricultural Ambassador program. Ambassadors promote agricultural awareness and educational opportunities in agriculture at Merced College and beyond. Students will learn the role of Ambassadors, develop their communication and leadership skills, plan leadership events, prepare recruitment materials, and deliver recruitment presentations to prospective students and members of the community. (11/21)

### AGAB-31B AGRICULTURAL AMBASSADORS - RECRUITMENT

2 units: 2 hours lecture.

The purpose of this course is to focus the recruitment role of the Agricultural Ambassadors as they promote agricultural awareness and educational opportunities in agriculture at Merced College and beyond. Students will learn the fundamentals of effective presentations, conduct tours, plan leadership events, prepare recruitment materials, and deliver recruitment presentations for prospective students and members of the community while serving in the role of Agricultural Ambassador. (11/21)

### AGAB-31C AGRICULTURAL AMBASSADORS - PUBLIC RELATIONS

2 units: 2 hours lecture.

The purpose of this course is to focus on the public relations role of the Agricultural Ambassadors as they promote agricultural awareness and educational opportunities in agriculture at Merced College and beyond. Students will learn the fundamentals of public relations, communication and leadership skills, plan leadership events, prepare recruitment materials, and deliver recruitment presentations for prospective students and members of the community while serving in the role of Agricultural Ambassador. (11/21)

# Environmental Horticulture

## SCHOOL OF AGRICULTURE

### DEGREE

A.S. - Environmental Horticulture

### CERTIFICATE

Environmental Horticulture

#### Program Description

The Landscape Horticulture Program at Merced is designed to meet the need for trained personnel in a broad range of occupational opportunities involved with or related to the Landscape Industry.

The Merced College Landscape Unit includes greenhouses, a lath house, a spacious growing grounds and modern head house for potting. Facilities available to the Landscape Unit include a large school farm, laboratories, classrooms, and a beautifully landscaped campus. These facilities provide excellent opportunity for study and practice in the production and use of ornamental plants both for sale and for use in the landscape.

The Landscape Horticulture student receives well-rounded training in his field by being exposed to Tree and Plant Identification, Landscape Design, Construction and Maintenance, and finally, Nursery and Garden Center Practice. All courses deal with the entire range of activities within that particular area such as landscape uses of plants, plant propagation, basic irrigation and sprinkler systems. The legal aspects of the field are covered in the Landscape Construction and Installation course when local codes and state requirements for licensing are taught.

#### Career Opportunities

Enjoyable and profitable employment is waiting for qualified Merced College graduates who become proficient in propagating, growing, installing, and caring for ornamental plants.

The increase in leisure time with the related increase in employment and high earnings, have created an ever-expanding demand for plant material.

The following list is a sample of the positions available to the graduate:

#### Nursery Industry

- Retail Nursery Sales
- Retail Nursery Owner
- Plant Propagation
- Nursery Production

#### Turf Industry

- Golf Course Personnel
- Parks Grounds keeper

#### Government Services

- Extension Assistant

#### Landscape Industry

- Arbor Personnel
- Landscape Maintenance
- Landscape Estimator
- Landscape Installation
- Landscape Designer

#### Related Industry

- Pest Control
- Sales Representative
- Park Ranger

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[Horticulture Website](#)

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE <sup>(10/21)</sup>

#### A.S. - Environmental Horticulture (01351.AS)

The Associate of Science degree in Environmental Horticulture is available for students who meet the graduation requirements and complete the following required courses, with a minimum grade of a "C" (or P) in each course in the degree and maintain a 2.0 GPA.

#### Program Student Learning Outcomes

- Given an area to be landscaped and customer parameters, plan a workable landscape design including the bid and customer presentation.
- Demonstrate the ability to perform the hands on skills and abilities to build / construct various projects related to the Landscape industry. These will include, but not be limited to, carpentry, electrical, plumbing and irrigation, concrete, site preparation, and bid and job estimation.
- Select the most appropriate plants and trees with the decision based on the environment conditions, plant characteristics and customer preferences.
- Faced with either a hypothetical or actual problem dealing with plantings or sprinkler/irrigation systems and the appropriate references, formulate a solution to the problem.

#### Program Requirements:

##### Program Core: (16 Units)

	Units
AGEH-01 Elements of Landscape Horticulture .....	3
AGEH-06 Landscape Design .....	3
AGPS-01 Elements of Plant Science .....	3
AGMA-01 Equipment Safety .....	1

##### Plant Identification and Usage

##### Plus 3 units from the following electives:

AGEH-02 Plant Identification and Usage: Fall.....	3
AGEH-03 Plant Identification and Usage: Spring .....	3

##### Nursery Production

AGEH-04 Nursery and Garden Center Practice.....	3
AGEH-05 Plant Propagation .....	

##### Electives: Plus 6 units from the following electives:

AGAB-08 Agricultural Computer Applications .....	3
AGEH-07 Landscape Construction and Installation .....	3
AGEH-08 Landscape Maintenance .....	3
AGEH-50 Residential Gardening .....	
AGPS-03 Economic Entomology .....	3
AGPS-06 Fertilizers and Soil Amendments.....	3
AGPS-13 Fruit Tree Maintenance .....	3

##### Mechanized Agriculture

AGMA-06 Small Engine Repair/Maintenance.....	3
AGMA-07 Compact Power Equipment .....	3

**Total: (22 Units)**

Completion of MCCD-GE Breadth: (23 Units)

Electives (as needed to reach 60 units): (13 Units)

**Total Degree Units: (60 Units)**



Visit the [Program Mapper](#) for more information on when to take classes and career information.

## CERTIFICATE (10/21)

### Environmental Horticulture (01350.CN)

A Certificate of Achievement in Environmental Horticulture will be awarded upon the satisfactory completion of the curriculum listed below, with a minimum grade of a "C" (or P) in each course in the certificate and maintain a 2.0 GPA.

#### Program Student Learning Outcomes

- Given an area to be landscaped and customer parameters, plan a workable landscape design including the bid and customer presentation.
- Demonstrate the ability to perform the hands on skills and abilities to build / construct various projects related to the Landscape industry. These will include, but not be limited to, carpentry, electrical, plumbing and irrigation, concrete, site preparation, and bid and job estimation.
- Select the most appropriate plants and trees with the decision based on the environment conditions, plant characteristics and customer preferences.
- Faced with either a hypothetical or actual problem dealing with plantings or sprinkler/irrigation systems and the appropriate references, formulate a solution to the problem.

#### Program Requirements:

##### Program Core: (16 Units)

	Units
AGEH-01 Elements of Landscape Horticulture .....	3
AGEH-06 Landscape Design .....	3
AGPS-01 Elements of Plant Science .....	3
AGMA-01 Equipment Safety.....	1

##### Plant Identification and Usage

##### Plus 3 units from the following electives:

AGEH-02 Plant Identification and Usage: Fall.....	3
AGEH-03 Plant Identification and Usage: Spring.....	3

##### Nursery Production

AGEH-04 Nursery and Garden Center Practice.....	3
AGEH-05 Plant Propagation .....	

**Total: (16 Units)**

## AGRICULTURE ENVIRONMENTAL HORTICULTURE (AGEH)

### AGEH-01 ELEMENTS OF LANDSCAPE HORTICULTURE

3 units: 2 hours lecture, 3 hours lab.

This is a course in the study of landscape horticulture with emphasis on nursery operations, landscaping, turf management, and floral industries. Topics include basic botany, cultural practices, propagation, structures and layout, pest management, planting, container gardening and houseplants, floral design, plant identification, turf grass installation and care, and survey of career opportunities. (10/21)

### AGEH-02 PLANT IDENTIFICATION AND USAGE: FALL

(C-ID AG-EH 112L)

3 units: 2 hours lecture, 3 hours lab.

This course covers the identification, growth habits, culture and ornamental use of landscape and indoor plants adapted to climates of California. Plants emphasized will come from the current California Association of Nursery and Garden Centers (CAN & GC) and California Landscape Contractors Association (CLCA) plant lists. Topics include botanical nomenclature, plant hardiness and growth zones, growth habits, plant structural characteristics and soil nutritional requirements. Landscape uses are stressed along with cultural practices. Plants covered are those best observed and identified in the fall of the year. (10/21)

### AGEH-03 PLANT IDENTIFICATION AND USAGE: SPRING

(C-ID AG-EH 108L)

3 units: 2 hours lecture, 3 hours lab.

This course covers the identification, growth habits, culture and ornamental use of landscape and indoor plants adapted to climates of California. Plants emphasized will come from the current California Association of Nursery and Garden Centers (CAN & GC), and California Landscape Contractors Association (CLCA) plant lists. Topics include botanical nomenclature, plant hardiness and growth zones, growth habits, plant structural characteristics, and soil nutritional requirements. Landscape uses are stressed along with cultural practices. Plants covered are those best observed and identified in the spring of the year. (10/21)

### AGEH-04 NURSERY AND GARDEN CENTER PRACTICE

3 units: 2 hours lecture, 3 hours lab.

This course is a study of commercial retail nursery and garden center operations dealing with wholesale and retail nursery practices, including plant care, merchandising, and management practices. (10/21)

### AGEH-05 PLANT PROPAGATION

(C-ID AG EH 116L)

3 units: 2 hours lecture, 3 hours lab.

This course teaches the principles of sexual and asexual propagation, seeding, cuttings, grafting, budding, and layering. The student will also be exposed to dedicated plant structures relating to propagation, specialized propagation media and rooting aids. (10/21)

### AGEH-06 LANDSCAPE DESIGN

3 units: 2 hours lecture, 3 hours lab.

This course includes the principles of landscape design and studies in form, space, color, texture, scale, balance, utility, and contrast. Materials used in landscape developments, site analysis, problems of design, correct use of plant material relating to ecology and function of landscape structures in the plan will be encompassed in this course. Basic irrigation design is also a component of the course. (10/21)

**AGEH-07 LANDSCAPE CONSTRUCTION AND INSTALLATION**

3 units: 2 hours lecture, 3 hours lab.

This course covers the fundamentals of landscape construction including soil preparation, paving and construction materials, hand and power tool use, turf and plant installation, plan reading, estimating and bid preparation. The course also covers local codes and state requirements and prepares students to pass the C-27 Landscaping Contractor's License Exam. (10/21)

**AGEH-08 LANDSCAPE MAINTENANCE**

3 units: 2 hours lecture, 3 hours lab.

This course prepares students to enhance the function and aesthetic value of public and private landscapes by applying appropriate maintenance techniques. Topics include planting, pruning, watering, soil fertility, pest management, weed control, and landscape maintenance business practices. (10/21)

**AGEH-24 WORK EXPERIENCE IN LANDSCAPE HORTICULTURE**

1-8 Units

Advisory: ENGL-01A

This course enables students to earn college credit for learning or improving skills or knowledge on-the-job. Occupational Work Experience is discipline-specific and must connect to the student's major or occupational goal(s). Seventy-five (75) hours of documented paid work experience equals 1 unit of credit. Sixty (60) hours of documented volunteer experience equals 1 unit of credit. A student may enroll in up to 16 total units of work experience at Merced College. Students must have an established work site prior to enrolling in the course. (10/21)

**AGEH-50 RESIDENTIAL GARDENING**

3 units: 3 hours lecture.

This course teaches the basic needs in residential gardening. Included in this course are plant identification, basic landscape design, sprinkler installation and care, fumigation and lawn installation, pruning, pest and disease recognition and control, soils, fertilization, and weed control. Also included will be foliage plant care for interiors. (10/21)

# Mechanized Agriculture

## SCHOOL OF AGRICULTURE

### DEGREE

A.S. - Diesel Equipment Technology

A.S. - Mechanized Agriculture Technology

### CERTIFICATE

Compact Power Equipment

Diesel Equipment Technology

Mechanized Agriculture Technology

### Diesel Program Description

The Diesel Equipment Technology program at Merced College is designed to meet the need for trained mechanics in all phases of the diesel equipment industry.

This program is based on "hands-on" skill development with course time divided into two segments, 30% classroom sessions and 70% working in a shop atmosphere, while under the supervision of factory trained instructors. Instructional areas include the trucking industry, bus repair, agricultural equipment, construction equipment, and industrial power. Students obtain skills used throughout the entire diesel equipment field in repair and maintenance of equipment. The sequence of courses within the diesel Equipment Technology Program encompass all phases of technical training to insure the success of both experienced and graduating technicians.

Merced College has a spacious shop, equipped with the latest model agriculture equipment and vehicles currently being used in the industry. Since the right tools are essential to proper training, Merced College provides students with state-of-the-art tools required for the repair of most complex machinery. The college also maintains a large inventory of equipment and training aids to allow students maximum "hands-on" experience on both vintage as well as the most current equipment on the market.

### Career Opportunities

Employment opportunities for the Diesel Equipment Technician trainee are excellent. A recent survey of the Diesel Equipment Industry in Merced County has shown a need for 125 truck and bus mechanics and 75 agricultural and industrial equipment mechanics per year. In addition, there are jobs available in diesel fuel system shops, hydraulic shops, maintenance shops, and various other related industries.

Graduates from this program have been successfully placed on jobs locally, statewide, and nationally. The following are popular occupations: Diesel Truck Technician, Agriculture Equipment Technician, Field Service Technician, Marine Diesel Technician, Diesel Fuel Specialist, Electrical Specialist, Parts Person, Heavy Equipment Technician, Bus Mechanic, Industrial Equipment Technician, Service Manager, Hydraulic Specialist, Diesel Equipment Sales, and Air Conditioning Specialists.

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Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE <sup>(11/21)</sup>

#### A.S. - Diesel Equipment Technology (01200.AS)

The Associate in Science degree in Diesel Equipment Technology is available for students who meet the graduation requirements and complete the following required courses, with a minimum grade of a "C" (or P) in each course in the degree, and maintain a 2.0 GPA.

#### Program Student Learning Outcomes

- Explain the basic theory of the subject matter or system for the course of instruction based on industry standards.
- Analyze a scenario based upon an equipment system failure/problem/complaint.
- Employ a systematic approach to troubleshooting a system malfunction and prepare a solution.
- Demonstrate the correct tools/supplies required to diagnose/repair a malfunction.
- Evaluate the path of repair by testing and/or completing a work order/report.

#### Program Requirements:

Program Core: (32 Units)		Units
AGMA-02	Agriculture Equipment.....	3
AGMA-11	Diesel Engines .....	4
AGMA-12	Equipment Mechanics Skills .....	2
AGMA-13	Power Equipment Air Conditioning.....	2
AGMA-14	Power Equipment Electrical Systems .....	3
AGMA-16	Power Trains .....	4
AGMA-17	Applied Electrical and Hydraulic Service.....	3
AGMA-18	Applied Electrical and Hydraulic Service.....	3
AGMA-19	Advanced Diagnosis and Repair.....	3
AGMA-20	Introduction to Equipment Diagnosis and Repair.....	2
AGMA-21	Truck Brake and Chassis .....	4
<b>Total: (32)</b>		

Completion of MCCD-GE Breadth: (23 Units)

Electives (as needed to reach 60 units): (5 Units)

**Total Degree Units: (60 Units)**

### Mechanized Ag Program Description

Agriculture's dependence on power equipment has given rise to a tremendous vocational education program at Merced College in the Mechanized Agriculture field.

The Mechanized Agriculture program offers courses in a wide variety of subject areas including Power Equipment Mechanics, Agricultural Construction, Diesel Engines, Hydraulics, Small Power Equipment, Machinery Management, and Power Equipment Operation. The Mechanized Agriculture facilities at the College are modern, spacious and equipped with current equipment that is used in the industry.

For instruction in Power Equipment Mechanics, the College shop has diesel engines of all makes and styles, hydraulic components, injection pumps, tractors, and agriculture equipment used for "hands-on" student training. Equipment used in the operation courses consist of both current model tractors as well as vintage designs. In addition, all of the implements necessary to run a complete farming operation are available for instructional use. Trucks and heavy equipment are also available for student instruction.

The Diesel Fuel Systems instruction provides the opportunity for our students to utilize a fully equipped fuel injection room. The College provides students with the tools necessary for all classes.

### Career Opportunities

A recent University of California survey on employment opportunities in agriculture categorized the Mechanized Agriculture field as offering "... one of the highest potential labor demands for new employees." Employment opportunities are excellent and range from farm equipment sales to equipment repair and other careers in related fields such as the trucking industry and compact power equipment.

Diesel equipment is an important part of the farm and industrial sectors of the national, state, and local economy. Persons skilled in the repair, maintenance, and operation of diesel equipment may secure a variety of jobs.

With the evolution of highly sophisticated farm machinery, the technical level of upcoming technicians in the areas of electrical and hydraulic diagnosis and repair is essential. The curriculum within the Mechanized Agriculture Program is designed to meet this need.

The following lists a few employment possibilities:

- Heavy Equipment Technician
- Agriculture Equipment Technician
- Farm & Power Equipment Technician
- Hydraulic Technician
- Heavy Duty Electrical Technician
- Diesel Equipment Technician

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE <sup>(11/21)</sup>

#### A.S. - Mechanized Agriculture Technology (01450.AS)

The Associate in Science degree in Mechanized Agriculture Technology is available for students who meet the graduation requirements and complete the following required courses, with a minimum grade of a "C" (or P) in each course in the degree, and maintain a 2.0 GPA.

#### Program Student Learning Outcomes

- Explain the basic theory of the subject matter or system for the course of instruction based on industry standards.
- Analyze a scenario based upon an equipment system failure/problem/complaint.
- Employ a systematic approach to troubleshooting a system malfunction and prepare a solution.
- Demonstrate the correct tools/supplies required to diagnose/repair a malfunction
- Evaluate if the path of repair was correct by testing and/or completing a work order/report.

#### Program Requirements:

Program Core: (34 Units)		Units
AGMA-02	Agriculture Equipment.....	3
AGMA-07	Compact Power Equipment .....	3
AGMA-11	Diesel Engines .....	4
AGMA-12	Equipment Mechanics Skills .....	2
AGMA-13	Power Equipment Air Conditioning.....	2
AGMA-14	Power Equipment Electrical Systems .....	3
AGMA-15	Hydraulics .....	3
AGMA-16	Power Trains .....	4
AGMA-17	Applied Electrical and Hydraulic Service.....	3
AGMA-18	Applied Diesel Technical Skills.....	2
AGMA-19	Advanced Diagnosis and Repair.....	3
AGMA-20	Introduction to Equipment Diagnosis and Repair.....	2
<b>Major Total: (34 Units)</b>		

Completion of MCCD-GE Breadth: (23 Units)

Elective (as needed to reach 60 units): (3 Units)

**Total Degree (Maximum): (60 Units)**

**CERTIFICATE** (11/21)**Compact Power Equipment (01453.CN)**

A Certificate of Achievement in Compact Power Equipment will be awarded upon the satisfactory completion of the curriculum listed below, with a minimum grade of a "C" (or P) in each course in the certificate and maintains a 2.0 GPA.

**Program Student Learning Outcomes**

- Explain the basic theory of the subject matter or system for the course of instruction based on industry standards.
- Analyze a scenario based upon an equipment system failure/problem/complaint.
- Employ a systematic approach to troubleshooting a system malfunction and prepare a solution.
- Demonstrate the correct tools/supplies required to diagnose/repair a malfunction.
- Evaluate if the path of repair was correct by testing and/or completing a work order/report.

**Program Requirements:**

<b>Program Core: (16 Units)</b>		<b>Units</b>
AGMA-07	Compact Power Equipment .....	3
AGMA-12	Equipment Mechanics Skills .....	2
AGMA-14	Power Equipment Electrical Systems .....	3
AGMA-15	Hydraulics .....	3
AGMA-19	Advanced Diagnosis and Repair .....	3
AGMA-20	Introduction to Equipment Diagnosis and Repair .....	2
<b>Total Units: (16)</b>		

**CERTIFICATE** (11/21)**Diesel Equipment Technology (01200.CT)**

A Certificate of Achievement in Diesel Equipment Technology will be awarded upon the satisfactory completion of the curriculum listed below, with a minimum grade of a "C" (or P) in each course in the certificate and maintains a 2.0 GPA.

**Program Student Learning Outcomes**

- Explain the basic theory of the subject matter or system for the course of instruction based on industry standards.
- Analyze a scenario based upon an equipment system failure/problem/complaint.
- Employ a systematic approach to troubleshooting a system malfunction and prepare a solution.
- Demonstrate the correct tools/supplies required to diagnose/repair a malfunction.
- Evaluate the path of repair by testing and/or completing a work order/report.

**Program Requirements:**

<b>Program Core: (32 Units)</b>		<b>Units</b>
AGMA-02	Agriculture Equipment .....	3
AGMA-11	Diesel Engines .....	4
AGMA-12	Equipment Mechanics Skills .....	2
AGMA-13	Power Equipment Air Conditioning .....	2
AGMA-14	Power Equipment Electrical Systems .....	3
AGMA-16	Power Trains .....	4
AGMA-17	Applied Electrical and Hydraulic Service .....	3
AGMA-18	Applied Diesel Technical Skills .....	2
AGMA-19	Advanced Diagnosis and Repair .....	3
AGMA-20	Introduction to Equipment Diagnosis and Repair .....	2
AGMA-21	Truck Brake and Chassis .....	4
<b>Total Units: (32 Units)</b>		

**CERTIFICATE** (11/21)**Mechanized Agriculture Technology (01450.CT)**

A Certificate of Achievement in Mechanized Agriculture Technology will be awarded upon the satisfactory completion of the curriculum listed below, with a minimum grade of a "C" (or P) in each course in the certificate and maintains a 2.0 GPA.

**Program Student Learning Outcomes**

- Explain the basic theory of the subject matter or system for the course of instruction based on industry standards.
- Analyze a scenario based upon an equipment system failure/problem/complaint.
- Employ a systematic approach to troubleshooting a system malfunction in order to prepare a solution.
- Demonstrate the correct tools/supplies required to diagnose/repair a malfunction.
- Evaluate the path of repair by testing and/or completing a work order/report.

**Program Requirements:**

<b>Program Core: (34 Units)</b>		<b>Units</b>
AGMA-02	Agriculture Equipment .....	3
AGMA-07	Compact Power Equipment .....	3
AGMA-11	Diesel Engines .....	4
AGMA-12	Equipment Mechanics Skills .....	2
AGMA-13	Power Equipment Air Conditioning .....	2
AGMA-14	Power Equipment Electrical Systems .....	3
AGMA-15	Hydraulics .....	3
AGMA-16	Power Trains .....	4
AGMA-17	Applied Electrical and Hydraulic Service .....	3
AGMA-18	Applied Diesel Technical Skills .....	2
AGMA-19	Advanced Diagnosis and Repair .....	3
AGMA-20	Introduction to Equipment Diagnosis and Repair .....	2
<b>Total: (34 Units)</b>		

## AGRICULTURE MECHANIZED AG (AGMA)

**AGMA-01 EQUIPMENT SAFETY**

1 unit: 0.5 hours lecture, 1.5 hours lab.

This course is a study of safety on and about farm equipment and machines. The safe operation and daily maintenance of machines commonly used in the daily operation of farming operations will be covered along with hitching, driving, and operational safety skills. The safety rules and laws that apply to agriculture equipment will be stressed. (11/21)

**AGMA-02 AGRICULTURE EQUIPMENT**

(C-ID AG-MA 108L)

3 units: 2 hours lecture, 3 hours lab.

This Course is a study of the use, maintenance, adjustment, calibration, and repair of the equipment commonly used in California agriculture, with emphasis on primary and secondary tillage, planting, chemical application, and harvesting equipment. The selection and operation of both machinery and tractors will be practiced. Safety will be stressed throughout. (11/21)

**AGMA-05 AGRICULTURAL AND INDUSTRIAL TECHNICAL SKILLS**

3 units: 2 hours lecture, 3 hours lab.

This course provides an introduction to basic technical skills required throughout the industrial areas. The course includes identification and use of tools and materials, tool sharpening and care, hot and cold metal work, pipe fitting, electrical wiring fundamentals, basic woodwork, concrete materials and mixes, and sketching and estimating. (11/21)



**AGMA-06 SMALL ENGINE REPAIR AND MAINTENANCE**

3 units: 2 hours lecture, 3 hours lab.

This course is a complete introduction to the operation, construction, maintenance, repair, and adjustment of two-cycle and four-cycle engines. It is designed for persons without prior experience in small engines. Theory and practical work including safety and the care and use of specialized tools used in small engine repair and maintenance will be covered. Examples of types of engines to be used will include lawn mower, power saw, pump, conveyor, self-propelled small carts, and any other small engines. (11/21)

**AGMA-07 COMPACT POWER EQUIPMENT**

3 units: 2 hours lecture, 3 hours lab.

Advisory: AGMA-06.

This is a study in basic principles of modern small equipment and engines and explores design, operation, and proper maintenance of equipment and current compact engines approved by the California Air Resources Board. Topics include application of compact engine systems to various machines, power transmission systems, attachments, related engine systems to various machines, power transmission systems, attachments, related engine systems, equipment operation, problem solving, and component failures. (11/21)

**AGMA-11 DIESEL ENGINES**

4 units: 2 hours lecture, 6 hours lab.

This course explores the operation and repair of modern diesel engines. Principles and theories are studied by operating, testing, diagnosing, disassembling and reassembling diesel engines and their components. (11/21)

**AGMA-12 EQUIPMENT MECHANICS SKILLS**

2 units: 1 hour lecture, 3 hours lab.

This course is an introduction to skills and safety required within the Diesel Mechanics and Mechanized Agriculture areas. The course will include identification and use of hand tools and power equipment used within the equipment mechanic area. Emphasis will be placed on precision measuring and use of the following equipment: hydraulic press, pullers, cleaners, hoists, jacks, securing, dynamometers, valve grinders, boring machines, sharpening tools, reamers, hones, glass bead machine, boil out tank, forklifts, and other specialty tools. An in-depth study will also occur on fasteners and plumbing used within the equipment mechanic area. (11/21)

**AGMA-13 POWER EQUIPMENT AIR CONDITIONING**

2 units: 1 hour lecture, 3 hours lab.

This course is a study of the fundamentals of mobile power equipment air conditioning systems. Current EPA regulations that govern the use of refrigerant installation, diagnostic, and recycling equipment are also covered. Environmental impacts by various protection procedures are emphasized. (11/21)

**AGMA-14 POWER EQUIPMENT ELECTRICAL SYSTEMS**

3 units: 2 hours lecture, 3 hours lab.

This course is a study of the fundamentals of electricity with applications to current power equipment electrical systems. Theory and service procedures will include the following systems: starting, charging, lighting, and accessories. (11/21)

**AGMA-15 HYDRAULICS**

3 units: 2 hours lecture, 3 hours lab.

This is an introduction to the principles of hydraulics applied to farm and light industrial equipment. The course includes a study of the technical language of fluid power, including graphical symbols, industrial standards, components, and maintenance of hydraulic units. (11/21)

**AGMA-16 POWER TRAINS**

4 units: 2 hours lecture, 6 hours lab.

This course is an introduction to the principles of hydraulics applied to farm and light industrial equipment. The course includes a study of the technical language of fluid power, including graphical symbols, industrial standards, components, and maintenance of hydraulic units. (11/21)

**AGMA-17 APPLIED ELECTRICAL AND HYDRAULIC**

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: AGMA-14.

This course is a study of the function and repair of a power train from the clutch through the final drive. Topics will include the theory of operation, maintenance, diagnosis, and repair of clutched and torque converters, mechanical and hydraulic transmissions, differential, and final drives. Safety will be stressed throughout. (11/21)

**AGMA-18 APPLIED DIESEL TECHNICAL SKILLS**

2 units: 1 hour lecture, 3 hours lab.

This course includes applied skill in the service and repair of diesel engines and their sub-systems. Emphasis is placed upon in-frame service/rebuild applications, electronic service information, and component installation and timing. Testing and diagnostic procedures for after service/repair is an important part of the course. Industry safety is emphasized throughout the course. (11/21)

**AGMA-19 ADVANCED DIAGNOSIS AND REPAIR**

3 units: 2 hours lecture, 3 hours lab.

This course is designed for students who have completed a majority of the Diesel Equipment/Mechanized Agricultural courses. Emphasis will be placed on modern diagnosis and equipment repair techniques used in agriculture, heavy equipment and on-highway truck industries. (11/21)

**AGMA-20 INTRODUCTION TO EQUIPMENT DIAGNOSIS AND REPAIR**

2 units: 1 hour lecture, 3 hours lab.

Corequisites: AGMA-12 and AGMA-14

This course is designed for students who are enrolled in the first semester Diesel Equipment/Mechanized Agricultural courses. Emphasis will be placed on the introduction of modern diagnosis and equipment repair techniques used in agriculture, heavy equipment and on-highway truck industries. (11/21)

**AGMA-21 TRUCK BRAKE AND CHASSIS**

4 units: 2 hour lecture, 6 hours lab.

Prerequisite: AGMA-12. Corequisite: AGMA-16

This course is a study of truck and bus mechanics. It includes a study of the running gear, tires, wheels, brakes, electrical systems wiring, services, maintenance, and safety inspection. Troubleshooting and servicing is a major portion of this course. (11/21)

# Plant Science

## SCHOOL OF AGRICULTURE



### Associate Degree for Transfer

*A Degree with a Guarantee.<sup>SM</sup>*

#### DEGREE

A.S.-T. - Agriculture Plant Science

A.S. - Crop Science

#### CERTIFICATE

Crop Science

#### Program Description

The Associate in Science in Agriculture Plant Science for Transfer degree is designed for students looking to obtain a well-rounded education in Agriculture Plant Science. Upon completion, students with an AS-T in Agriculture Plant Science will be eligible to transfer with junior standing into an equivalent major within the California State University (CSU) system. Students will be given priority consideration when applying to a particular program that is similar to the student's community college area of emphasis.

#### Program Student Learning Outcomes:

- Demonstrate managerial and leadership abilities in plant science classes for employment that will enhance opportunities and success in the plant science industry.
- Demonstrate academic proficiency and specific skills within plant science disciplines needed for employment within the industry.

For an Associate in Science in Agriculture Plant Science for Transfer (AS-T), students must complete the following:

- 60 semester CSU-transferable units.
- the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- a minimum of 18 semester in the major or area of emphasis as determined by the community college district.
- Obtainment of a minimum grade point average (GPA) of 2.0.
- earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

*Note: Students are not required to complete any additional local graduation requirements for the AS-T (e.g., PE and Computer and Information Literacy courses).*

Visit the [Program Mapper](#) for more information on when to take classes and career information.

#### DEGREE (09/20)

**A.S.-T. - Agriculture Plant Science (01160.AST)**

#### Program Requirements:

##### Program Core: (25-26 Units)

	Units
AGPS-01 Elements of Plant Science.....	3
AGPS-05 Soil Science.....	3
CHEM-02A Introductory Chemistry.....	4

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or CHEM-04A	General Chemistry I .....	5
AGAB-05	Agricultural Economics.....	3
or ECON-01	Introduction to Microeconomics.....	3
MATH-10	Elementary Statistic.....	3
or PSYC-05	Introduction to Statistics in Psychology.....	3
List A: Select 1 course from the following: (minimum 3 Units)		
AGEH-02	Plant Identification and Usage: Fall.....	3
AGEH-03	Plant Identification and Usage: Spring .....	3
AGEH-05	Plant Propagation .....	3
AGMA-02	Agriculture Equipment.....	3
List B:		
Select 2 courses for a minimum of 6 units from the following:		
Select any List A course not already used		
AGPS-11	Forage Crops .....	3
AGEH-07	Landscape Construction and Installation .....	3
AGMA-02	Agriculture Equipment .....	3
AGPS-06	Fertilizers and Soil Amendments.....	3

#### Total Units toward the Major: (25-26 Units)

Total Units that may be double counted: (-13 Units)

General Education (CSU-GE or IGETC) Units: (37 Units)

Elective (CSU Transferable) Units: (10-11 Units)

**Total Degree Units: (60 Units)**

#### Crop Science Program Description

The Crop Science program at Merced College is designed to meet the need for trained personnel in a broad range of occupational opportunities involved with or related to producing crops.

The Merced College Crop Science Program maintains 240 acres of cropland which serve as a laboratory for Crop Science students. Equipment and methods used in the program are of the latest type and follow current trends and practices in crop-oriented production areas. Students take an active part in the farming operations by planning individual as well as group projects. The student not only gains the theoretical knowledge associated with production, but also experiences "hands-on" practical application.

Students of the Merced College Agriculture Division are raising a wide variety of crops including alfalfa, wheat, barley, corn, oats, almonds, and pasture. The operation also includes the raising of onion seed stock crops.

#### Career Opportunities

Only two out of ten Crop Science graduates are involved with the actual production end of Crop Science. They work as self-employed farmers or in the farming, ranching, or dairy environment. The remaining eight graduates find positions in crop-related occupations such as crop processing and marketing, commodity sales, agriculture chemical sales, irrigation district, U.S. Department of Agriculture, and banking and corporate holdings in Agriculture Management. These jobs are open to people from both urban and rural areas who have gathered their expertise through education in Crop Science.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**DEGREE** (09/21)

**A.S. - Crop Science (01150.AS)**

The Associate of Science Degree in Crop Science is available upon satisfactory completion of the graduation requirements and complete the following required courses with a minimum grade of a "C" (or P) in each course in the degree and maintains a 2.0 GPA.

Program Student Learning Outcomes

- A. Demonstrate how to properly plant different varieties of plants and analyze soil conditions and type for testing.
- B. Demonstrate the ability to properly read and apply industry labeled instructions for chemical and fertilizer application.
- C. Identify and select the most appropriate plants and soils with the decision based on the environment conditions, plant characteristics and soil conditions.
- D. Appraise a hypothetical or actual problem dealing with plantings and soil conditions and the appropriate references to determine a solution to the problem.

**Program Requirements:**

<b>Program Core: (19 Units)</b>		<b>Units</b>
AGPS-01	Elements of Plant Science .....	3
AGPS-03	Economic Entomology .....	3
AGPS-05	Soil Science .....	3
AGPS-06	Fertilizers and Soil Amendments.....	3
AGMA-01	Equipment Safety.....	1
Plus 6 additional units from the following electives:		
AGPS-02	Weeds .....	3
AGPS-10	Elements of Cereal Grain Production.....	3
AGPS-11	Forage Crops .....	3
AGPS-12	Commercial Vegetable and Garden Production.....	3
AGPS-13	Fruit Tree Maintenance .....	3
AGPS-14	Vineyard Production and Management.....	3
AGMA-02	Agriculture Equipment.....	3
<b>Total: (19 Units)</b>		

Completion of MCCD-GE Breadth: (23 Units)

Electives (as needed): (18 Units)

**Total Degree Units: (60 Units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**CERTIFICATE** (09/21)

**Crop Science (01150.CN)**

A Certificate of Achievement will be awarded upon satisfactory completion of the 13 unit core and 6 units from the electives below with a minimum grade of a "C" (or P) in each course in the certificate and maintains a 2.0 GPA.

Program Student Learning Outcomes

- E. Demonstrate how to properly plant different varieties of plants and analyze soil conditions and type for testing.
- F. Demonstrate the ability to properly read and apply industry labeled instructions for chemical and fertilizer application.
- G. Identify and select the most appropriate plants and soils with the decision based on the environment conditions, plant characteristics and soil conditions.
- H. Appraise a hypothetical or actual problem dealing with plantings and soil conditions and the appropriate references to determine a solution to the problem.

**Program Requirements:**

<b>Program Core: (19 Units)</b>		<b>Units</b>
AGPS-01	Elements of Plant Science .....	3
AGPS-03	Economic Entomology .....	3
AGPS-05	Soil Science .....	3
AGPS-06	Fertilizers and Soil Amendments.....	3
AGMA-01	Equipment Safety.....	1
Plus 6 additional units from the following electives:		
AGPS-02	Weeds .....	3
AGPS-10	Elements of Cereal Grain Production.....	3
AGPS-11	Forage Crops .....	3
AGPS-12	Commercial Vegetable and Garden Production.....	3
AGPS-13	Fruit Tree Maintenance .....	3
AGPS-14	Vineyard Production and Management.....	3
AGMA-02	Agriculture Equipment.....	3
<b>Total: (19 Units)</b>		

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**AGRICULTURE PLANT SCIENCE (AGPS)****AGPS-01 ELEMENTS OF PLANT SCIENCE**

(C-ID AG-PS 106L) (CSU breadth area B2/B3) (IGETC area 5B/5C)

3 units: 2 hours lecture, 3 hours lab.

This course is designed to provide the students with a working knowledge of fundamental structures and processes of plants. Principles to be applied cover plant structures, physiology, heredity, environmental relationship to growth, adaptation, and management of crops. Techniques of research, exploration of plant growth, and identification of economical crops will be included. (09/21)

**AGPS-02 WEEDS**

3 units: 3 hours lecture.

This is a study of classification, identification, and life cycle of common and poisonous weeds in California which are detrimental to cultivated crops, grasslands, animals, and man. Management practices include: prevention, mechanical, biological, and chemical methods. Weed establishment and chemical resistance are also covered. (09/21)

**AGPS-03 ECONOMIC ENTOMOLOGY**

3 units: 3 hours lecture.

This course will cover insects and mites of economic importance to agriculture. Morphology, taxonomy, identification, life cycles, hosts, habitat relationships, and control methods will be discussed. Collection and labeling of specimens will be required. (09/21)

**AGPS-05 SOIL SCIENCE**

(CSU breadth area B1/B3) (IGETC area 5A/5C) (C-ID AG-PS 128L)

3 units: 2 hours lecture, 3 hours lab.

This course provides a basic knowledge of the physical, chemical, and biological properties of soils and their characteristics. The course includes factors of fundamental soil properties, soil and plant relationships, principles of soil formation, fertilizers and soil management, salinity, pH, erosion management, and nonagricultural uses. (09/21)

**AGPS-06 FERTILIZERS AND SOIL AMENDMENTS**

3 units: 3 hours lecture.

The course will cover the composition, value, selection, and use of fertilizer materials and soil amendments. Soil, plant, and fertilizer relationships will be covered. Application practices common to area crops and soils will be discussed. (09/21)

**AGPS-10 ELEMENTS OF CEREAL GRAIN PRODUCTION**

3 units: 2 hours lecture, 3 hours lab.

This is a study of production principles, which include botany, taxonomy, soil tillage, fertilization, variety and seed selection, pest management, harvest, processing, storage, and marketing for important fiber, food, and cereal crops in California. Covered crops will include cotton, sugar beets, wheat, rice, barley, sorghum, corn, oats, safflower, legumes for seed, and potatoes. A field trip to a major production area is required. (09/21)

**AGPS-11 FORAGE CROPS**

3 units: 2 hours lecture, 3 hours lab.

This course will cover production, harvesting, and utilization of principal California forage crops. The importance of forage crops as a supplement to livestock enterprises will also be covered. The use of forage crops as soil amendments, and irrigated and range pastures will be discussed. (09/21)

**AGPS-12 COMMERCIAL VEGETABLE AND GARDEN PRODUCTION**

3 units: 2 hours lecture, 3 hours lab.

This course is a study of vegetable production covering the botany, cultural production, harvesting, processing, growth characteristics, fertility, pests, and marketing of the major warm season and cool season vegetable crops in California. A field trip into a major vegetable production region is required. (09/21)

**AGPS-13 FRUIT TREE MAINTENANCE**

3 units: 2 hours lecture, 3 hours lab.

This course is designed to evaluate management decisions for fruit and nut trees. Management topics will include studies of climate zones, soil selection, financing, farm organization, irrigation systems, field layout, varietal selection, nutritional needs, harvesting, labor management, marketing, and budgeting. The student will be required to prepare a budget and calendar of orchard operations. (9/21)

**AGPS-14 VINEYARD PRODUCTION AND MANAGEMENT**

3 units: 2 hours lecture, 3 hours lab.

This course is designed to evaluate management decisions for fruit and nut trees. Management topics will include studies of climate zones, soil selection, financing, farm organization, irrigation systems, field layout, varietal selection, nutritional needs, harvesting, labor management, marketing, and budgeting. The student will be required to prepare a budget and calendar of orchard operations. (10/21)

# Allied Health

## ALLIED HEALTH

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Medical Terminology (ALLH-67) is a prerequisite to the Vocational Nursing, Diagnostic Radiologic Technology, and Diagnostic Medical Sonography Programs. This course is offered during the Spring and Fall semesters for 18 weeks and Summer session for 6 weeks.

Reference the current Schedule of Classes for course offerings.

For full information and description of programs that require ALLH courses, see:

Nursing, Assistant

## ALLIED HEALTH (ALLH)

### ALLH-24 WORK EXPERIENCE IN ALLIED HEALTH

1-8 units

Advisory: ENGL-01A

This course enables students to earn college credit for learning and/or improving skills or knowledge on-the-job. Occupational Work Experience is discipline-specific and must connect to the student's major or occupational goal(s). Seventy-five (75) hours of documented paid work experience equals 1 unit of credit. Sixty (60) hours of documented volunteer experience equals 1 unit of credit. A student may enroll in up to 16 total units of work experience at Merced College. Students must have an established work site prior to enrolling in the course. (11/19)

### ALLH-63 NURSE ASSISTANT

6 units: 3.5 hours lecture; 7.5 hours lab TBA

Limitation on Enrollment: 1) Mandatory Orientation;

2) CPR card-Module AC;

3) negative TB screening test within past 6 months or negative chest x-ray within past year;

4) physical within past 6 months;

5) DOJ fingerprint clearance;

6) Penal Code Violations Clearance

This course provides clinical instruction and practice of basic nursing skills required of nursing assistants employed in skilled nursing facilities and extended care facilities. The course emphasizes care of the older adult client, assistance with the activities of daily living, bathing, dressing, exercise movement, eating eliminating safety measures, cardiopulmonary resuscitation and rehabilitation techniques. Meets State Department of Health Services requirements for eligibility to take the Nursing Assistant Certification examination. (2/18)

### ALLH-67 MEDICAL TERMINOLOGY

3 units: 3 hours lecture

Advisory: ENGL-01A

This course is a study of general medical terminology -- diagnostic, operative, and symptomatic terms related to body systems -- with emphasis on proper spelling and pronunciation. (03/20)



# American Sign Language

## HUMANITIES

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### AMERICAN SIGN LANGUAGE (ASLG)

#### ASLG-01 BEGINNING AMERICAN SIGN LANGUAGE

(CSU breadth area C2)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This course is an introduction to understanding and signing American Sign Language and appreciating the basic elements of the Deaf culture. Emphasis is on obtaining a practical command of the language, including major grammatical components, basic ASL sentence structures, non-manual gestures, expression of spatial relationships in a visual-gestural language, and beginning conversational skills. (09/21)

#### ASLG-02 HIGH BEGINNING AMERICAN SIGN LANGUAGE

(CSU breadth area C2)

3 units: 3 hours lecture.

Prerequisite: ASLG-01.

Advisory: ENGL-01A.

This course provides high beginning practice understanding and signing American Sign Language and appreciating the basic elements of the Deaf culture. Emphasis is on obtaining a practical command of the language including major grammatical components, basic ASL sentence structures, non-manual gestures, expression of spatial relationships in a visual-gestural language, and high beginning conversational skills. (09/21)

#### ASLG-03 INTERMEDIATE AMERICAN SIGN LANGUAGE

3 units: 3 hours lecture.

Prerequisite: ASLG-02.

Advisory: ENGL-01A.

This course provides intermediate practice in understanding and signing American Sign Language and insights in the basic elements of the Deaf culture. Emphasis is on obtaining a practical command of the language, including major grammatical components, basic ASL sentence structures, non-manual gestures, expression of spatial relationships in a visual-gestural language, and intermediate conversational skills. (05/19)

# Anthropology & Archeology

SCHOOL OF SOCIAL SCIENCES AND EDUCATION



Associate Degree  
for Transfer  
*A Degree with a Guarantee.™*

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## DEGREE

### A.A.-T. - Anthropology

#### Program Description

The Anthropology curriculum is designed to meet the lower division requirements of most universities offering a major in Anthropology. Students that complete an AA-T in Anthropology from Merced College will be prepared for upper division course work in Anthropology at a California State University.

## DEGREE (12/20)

### A.A.-T. - Anthropology (22000.AAT)

The Anthropology program integrates concepts and information from various disciplines to provide a holistic understanding of mankind through the fields of Biological Anthropology, Socio-cultural Anthropology and Archaeology. Upon completion, students with an AA-T in Anthropology will be eligible to transfer with junior standing into an equivalent major within the California State University (CSU) system.

Program Student Learning Outcomes:

- Examine the goals of the discipline of anthropology.
- Evaluate the methods used in the discipline of anthropology.
- Demonstrate an understanding of cultural diversity.

**For an Associate in Arts in Anthropology for Transfer (AA-T), students must complete the following:**

- 60 semester CSU-transferable units.
- the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- a minimum of 18 semester in the major or area of emphasis as determined by the community college district.
- obtainment of a minimum grade point average (GPA) of 2.0.
- earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

**Note: Students are not required to complete any additional local graduation requirements for the AA-T (e.g., PE and Computer and Information Literacy courses).**

#### Program Requirements:

##### Program Core: (19-21 Units)

Required Core (10 units):	Units
ANTH-01 Introduction to Biological Anthropology .....	4
ANTH-02 Sociocultural Anthropology .....	3
ARCH-01 Introduction to Archaeology .....	3

##### List A: Select (3 units)

ANTH-10 Southeast Asian Culture: Hmong .....	3
ANTH-12 Ancient Civilizations of Mexico and Central America .....	3
GEOG-02 World Geography .....	3

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[Anthropology Website](#)

MATH-10	Elementary Statistics .....	3
or		
PSYC-05	Introduction to Statistics in Psychology .....	3

##### List B: Select (3-4 units)

##### Any course from List A not used above (3)

GEOG-01	Physical Geography .....	3
GEOL-01	Physical Geology .....	4
GEOL-03	Earth Science .....	4

##### List C: Select (3-4 units) .....

##### Any course from List A or List B not used above (3-4)

ARCH-01L	Field Archaeology .....	1
COMM-30	Introduction to Intercultural Communication .....	3
GEOG-12	Introduction to Human Geography .....	3
HIST-07	History of Southeast Asia .....	3
HIST-09A	Introduction to East Asian Civilization: China .....	3
HIST-09B	Introduction to East Asian Civilization: Japan .....	3
HIST-22	History of Minorities - Black Emphasis .....	3
HIST-23	Chicana/O American History and Culture .....	3
HUM-15	Comparative Cultures .....	3
NUTR-12	Culture and Cuisine of the World .....	3
PHIL-15	Comparative Religions .....	3
SOC-01	Introduction to Sociology .....	3

**Total Units toward the Major: (19-21 Units)**

Total Units that may be double counted: (16-19 Units)

General Education (CSU-GE or IGETC) Units: (37 Units)

Elective (CSU Transferable) Units: (18-23 Units)

**Total Degree Units: (60 Units)**

**ANTHROPOLOGY (ANTH)****ANTH-01 INTRODUCTION TO BIOLOGICAL ANTHROPOLOGY**

(CSU breadth area B2/B3) (IGETC area 5B/5C) (C-ID ANTH 110)

4 units: 3 hours lecture, 3 hours lab.

Advisory: ENGL-01A.

This survey course deals with the study of human biological heritage and physical variability. Genetics, the fossil evidence and theories of human evolution, forensic anthropology, primatology and current bioethical issues will be discussed. The laboratory portion of the course will include exercises in: genetics, human variation, skeletal analysis, forensic anthropology, evolution and the fossil record, and primate anatomy and behavior. The philosophy of science and the scientific method serve as the foundation for this course. (9/16)

**ANTH-02 SOCIOCULTURAL ANTHROPOLOGY**

(C-ID ANTH 120) (CSU breadth area D) (IGETC area 4)

3 units: 3 hours lecture.

Advisory ENGL-01A

This course is an introduction to the study of human culture and the concepts, theories, and methods used in the comparative study of socio-cultural systems. Subjects include subsistence patterns, social and political organization, language and communication, family and kinship, religion, the arts, social inequality, ethnicity, gender, and culture change. The course applies anthropological perspectives to contemporary issues. (05/19)

**ANTH-10 SOUTHEAST ASIAN CULTURE: HMONG**

(CSU breadth area D) (IGETC area 4)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This course surveys the basic ideas and social constructs of Southeast Asian Cultures, especially the cultures of the new Southeast Asian groups of people in California: Hmong, Mien, Lue, Lao, Cambodian, and Vietnamese. Emphasis will be placed on issues of cultural ethnicity, family life style, educational background, and socio-political organization of each group in the past and in the United States. (05/19)

**ANTH-12 ANCIENT CIVILIZATIONS OF MEXICO AND CENTRAL AMERICA**

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This is an archaeology survey course covering the art, architecture, calendar, history, religion, worldview, and other cultural achievements of the civilizations of Mesoamerica, including the Aztecs, Maya, and Zapotecs, Teotihuacanos, Olmecs, and those of West Mexico. The course will cover the Early Formative Period up through the Conquest of its aftermath. (10/21)

**ARCHAEOLOGY (ARCH)****ARCH-01 INTRODUCTION TO ARCHAEOLOGY**

(C-ID ANTH 150) (CSU breadth area B1) (IGETC area 5A)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This course is an introduction to the history, theory, concepts, and methods of the anthropological discipline of archaeology. How do we know anything about the ancient human past? This course answers that question, addressing survey methods, excavation, stratigraphy, dating techniques, artifact analysis, professional ethics, and the role of scientific inquiry in understanding the past, illustrated with examples from ancient cultures around the world. (10/20)

**ARCH-01L FIELD ARCHAEOLOGY**

1 unit: 3 hours lab.

Advisory: ENGL-01A.

This course provides the student with an opportunity to gain practical experience in archaeological field reconnaissance, archaeological site excavation, laboratory analysis of archaeological data and in the preparation of archaeological reports. Students will take part in surveys and excavations of local historic and prehistoric sites and/or perform laboratory analysis of their archaeological materials. (10/20)

# Art, Digital

## SCHOOL OF HUMANITIES, LANGUAGES AND FINE & PERFORMING ARTS

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[Digital Art Website](#)

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE <sup>(11/19)</sup>

#### A.A. - Digital Arts (06100.AA)

The study of digital art keeps students knowledgeable about cutting-edge artistic developments in our increasingly visual world. An education in digital art prepares students to produce media for print publication and screen-based output. The state-of-the-art classroom and digital art lab provides students with hands-on experience in digital art, graphic design, digital publishing, three-dimensional modeling, motion graphics, interactive media, multimedia, and web software techniques.

The Digital Art Program provides thorough preparation for careers and visual expression in digital art fields. The Associate of Arts Degree in Digital Art is available for students who meet the graduation requirements and complete the 30-unit curriculum listed below, with a minimum grade of a "C" in each course in the degree and maintain a 2.0 GPA.

#### Program Student Learning Outcomes

- Analyze historical, technical and current cultural approaches while utilizing computers, peripherals, screen-based media, the Internet and digital media tools to create digital art.
- Demonstrate visual thinking ability in still and time-based digital art forms.
- Appraise digital art industry trends through various multimedia formats.

#### Program Requirements:

##### Program Core: (18 Units)

	Units
ARTD-08 History of Animation .....	3
or	
ARTD-07 History of Graphic Design .....	3
ART-15 Design: 2-D Foundations .....	3
ART-24A Fundamentals of Drawing .....	3
or	
ART-26A Introduction to Figure Drawing .....	3
ARTD-40A Introduction to Digital Art .....	3
ARTD-41A Introduction to Graphic Design: 2D Foundations .....	3
ARTD-45A Animation I: Introduction to Web Design and 2D Animation .....	3

or

ARTD-42A Introduction to Motion Graphics .....	3
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##### Plus 9 units from the following courses:

ARTD-40B Intermediate Digital Art .....	3
ARTD-41B Intermediate Graphic Design: 2D Foundations .....	3
ARTD-45A Animation I: Introduction to Web Design and 2D Animation .....	3
ARTD-45B Animation II: Intermediate Web Design and Animation .....	3
ARTD-47 Typography I: Introduction to Type Design .....	3
ARTD-42B Intermediate Motion Graphics .....	3

##### Plus 3 units from the following courses:

PHOT-11A Introduction to the Digital Camera .....	3
CPSC-05A Application Development and Programming .....	3
MKTG-33 Advertising .....	3
MGMT-37 Small Business Entrepreneurship .....	3
VIRT-50 Virtual Office .....	3
VIRT-51 Social Media .....	3

AOM-58A Website Development .....	2
and	
MGMT-50A Challenges of Leadership: Difficult People/Tough Conversations .....	0.5

and	
MGMT-50H	Customer Service.....0.5
<b>Total: (30 Units)</b>	

## ARTD (DIGITAL ART)

### ARTD-07 HISTORY OF GRAPHIC DESIGN

(CSU breadth Area C1) (IGETC Area 3A)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This survey course encompasses graphic art forms from the development of written language to contemporary digital media across a range of cultural perspectives. The class explores formative printed media and Gutenberg press book design from illuminated manuscripts through the Renaissance, Victorian era and Art Nouveau graphics and critical theory from the modernist era through postmodernism and the digital revolution. (12/17)

### ARTD-08 HISTORY OF ANIMATION

(CSU breadth Area C1) (IGETC Area 3A)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This critical and historical survey course covers animated media from the origins of cave paintings illuminated by flickering firelight to contemporary digital augmented reality pushing the boundaries of consciousness. The class explores American, European and Japanese animation through a cross-cultural perspective which fosters a wide-ranging analysis of moving imagery with particular attention to significant creative breakthroughs in the medium. (11/20)

### ARTD-40A INTRODUCTION TO DIGITAL ART

(CSU breadth area C1) (IGETC area 3A) (C-ID ARTS 250)

3 units: 2 hours lecture, 3 hours lab.

Advisory: AOM-50C.

The studio survey course introduces fundamental raster and vector artwork concepts and visualization processes. Students will learn basic design elements, compositional principles, current digital art theories, philosophical and cultural implications, and software techniques to create, edit, and output digital visuals. The course emphasizes creative thinking skills, design aesthetics, static imagery and motion media competence. (02/19)

### ARTD-40B INTERMEDIATE DIGITAL ART

(CSU breadth area C1) (IGETC area 3A)

3 units: 2 hours lecture, 3 hours lab.

Advisory: AOM-50C; ARTD-40A

This studio course continues to promote creative thinking ability, the exploration of design elements & composition, and imaginative technical ability through the intermediate use of bitmap and vector software programs. Students' perceptual capability will expand when producing innovative artworks for print, web, and multimedia outputs. Digital art history, contemporary trends, and emerging media underscore the course's broadminded structure. (02/19)

### ARTD-41A INTRODUCTION TO GRAPHIC DESIGN: 2D FOUNDATIONS

3 units: 2 hours lecture, 3 hours lab.

This studio survey course introduces fundamental concepts and manipulation processes in graphic design and the visual communication arts. Students will learn foundational design principles, conceptual thinking, and typographic layout while also exploring philosophical and cultural implications. Students utilize software and traditional drawing-board design practices that visually enlighten and effectively communicate to a mass audience. (02/19)

**ARTD-41B INTERMEDIATE GRAPHIC DESIGN: 2D FOUNDATIONS**

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: ARTD-41A

This studio survey course continues to explore concepts and manipulation processes in graphic design and the visual communication arts. Students will learn intermediate design principles, conceptual thinking, and typographic layout while also exploring philosophical and cultural implications. Students utilize software and traditional drawing-board design practices that visually enlighten and effectively communicate to a mass audience. (12/19)

**ARTD-42A INTRODUCTION TO MOTION GRAPHICS**

3 units: 2 hours lecture, 3 hours lab.

Advisory: AOM-50C.

This course involves innovative thinking in introductory three-dimensional graphics on a timeline. Students will create characters, design movement paths, learn pose manipulation and cycles, frame movement based on sound, animate text and produce dynamic compositions and scene storytelling with drawing and software such as After Effects, ZBrush and Maya. (05/22)

**ARTD-42B INTERMEDIATE MOTION GRAPHICS**

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: ARTD-42A. Advisory: AOM-50C.

The studio survey course introduces fundamental raster and vector. This studio course involves more in-depth innovative concepts in intermediate-level visual effects on a timeline. Students will create characters with pose manipulation, design fluid movement paths within environments, control simulations with scripting, frame movement based on sound, and produce more complex compositions and scene storytelling with particles and deformers while utilizing software such as After Effects, ZBrush, Nuke, Toon Boom and Maya. (05/22)

**ARTD-45A ANIMATION I: INTRODUCTION TO WEB DESIGN AND 2D ANIMATION**

3 units: 2 hours lecture, 3 hours lab.

Advisory: ART-24A; AOM-50B.

This studio course imparts a thorough foundation in creative two-dimensional Toon Boom digital media production for the web, while also exploring philosophical and cultural implications. Indispensable basic typographic, color, illustration, animation, interactivity, layout, and sound design concepts feature strongly in the class. The course's Animate CC, Toon Boom and HTML 5 web technology techniques prepare students for producing imaginative web sites, animations and multimedia projects. (02/19)

**ARTD-45B ANIMATION II: INTERMEDIATE WEB DESIGN AND ANIMATION**

3 units: 2 hours lecture, 3 hours lab.

Prerequisite ARTD-45A.

This studio course further imparts a thorough intermediate-level approach to creative Toon Boom digital media production for the web. Indispensable intermediate typographic, color, illustration, animation, interactivity, layout, and sound design concepts feature strongly in the class. The course's interactive Toon Boom and new web technology techniques prepare students for producing imaginative web sites and multimedia projects. (02/19)

**ARTD-47 TYPOGRAPHY I: INTRODUCTION TO TYPE DESIGN**

3 units: 2 hours lecture, 3 hours lab.

Advisory ART-15

This course provides an introduction to the fundamental aspects of creative letterform design for effective visual communication. Students develop initial prototypes on the drawing board and further computer refinements using software such as Illustrator and FontForge to produce professional typefaces in the OpenType format. The class underscores a broad cross-section of typefaces and Gutenberg historical precedents of typographic style to generate original visual solutions. (02/19)



# Art, Fine

## SCHOOL OF HUMANITIES LANGUAGES, AND FINE & PERFORMING ARTS



### Associate Degree for Transfer

*A Degree with a Guarantee.*<sup>SM</sup>

#### DEGREE

A.A. - Art

A.A.-T - Studio Arts

#### Web Site

<http://www.mccd.edu/academics/finearts/visual-art.html>

#### Program Description

The study of art will enrich the student's experience of the world and encourage the student to draw upon creative resources. An education in art can lead to professional or vocational careers, as well as enhance abilities in other fields. The Art Department offers a foundation in theoretical and practical skills, and the opportunity to work in a wide variety of specific art media.

The Art Program provides lower division undergraduate transfer classes, professional preparation, personal development, general interest, and general education, as well as an Associate in Arts degree.

#### Career Opportunities

Some careers may require more than two years of college study. Art Instructor, Art Historian, Art Critic / Writer, Art Therapist, Painter, Sculptor, Ceramist, Printmaker, Illustrator, Graphic Designer, Film and Story Board Illustrator, Cartoonist, Animator, Digital Media Artist, Typographer, Sign Painter, Photographer, Interior Design, Product Design, Furniture Design, Fashion Design, Color Consultant, Textile Design, Jewelry Design, Landscape Design, Floral Design, Stage Design, Set and Lighting Design, Film Industry, Advertising, Art Gallery/Museum-Staff, Manager, Director, or Curator, Arts Administrator.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

#### DEGREE (02/21)

##### A.A.-T. - Studio Arts (10550.AAT)

The Associate in Arts in Studio Arts for Transfer degree is designed around a core education that includes the study of various media in the visual arts and art history. Upon completion, students with an AA-T in Studio Art will be eligible to transfer with junior standing into an equivalent major within the California State University (CSU) system. Students will be given priority consideration when applying to a particular program that is similar to the student's community college area of emphasis.

The Associate in Arts in Studio Arts for Transfer degree is designed to prepare students for a seamless transfer into the CSU system to complete a baccalaureate degree in Studio Arts or similar major.

#### Program Student Learning Outcomes:

- Demonstrate knowledge of techniques and processes involved in a variety of two and three dimensional art forms.
- Create works of art integrating aesthetics with the elements and principles of design theory as applies to areas of interest in drawing, painting, design, printmaking, digital art, sculpture, ceramics, or mixed media.
- Distinguish individual styles as applied to various media, historic art periods and/or cultural diversity.

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[Fine Art Website](#)

- D. Develop an appreciation and understanding of a wide range of historical content through the visual arts both traditional and contemporary.

For an Associate in Arts in Studio Arts for Transfer (AA-T), students must complete the following:

- 60 semester CSU-transferable units.
- the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- a minimum of 18 semester in the major or area of emphasis as determined by the community college district.
- obtainment of a minimum grade point average (GPA) of 2.0.
- earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

**Note: Students are not required to complete any additional local graduation requirements for the AA-T (e.g., PE and Computer and Information Literacy courses).**

#### Program Requirements:

##### Program Core: (12 Units)

	Units
ART-02	Survey of Western Art from Renaissance to Contemporary.....3
ART-12A	Sculpture: 3-D Foundations.....3
ART-15	Design: 2- D Foundations.....3
ART-24A	Fundamentals of Drawing.....3

##### List A: Select a minimum of 3 units.

ART-01	Survey of Western Art from Prehistory Through the Middle Ages.....3
ART-06	Survey of Modern Art.....3

##### List B: Select a minimum of 9 units

ART-12B	Intermediate Sculpture.....3
ART-17A	Introduction to Ceramics.....3
ART-17B	Intermediate Ceramics.....3
ART-20A	Introduction to Printmaking.....3
ART-20B	Intermediate Printmaking.....3
ART-23A	Introduction to Painting.....3

ART-24B or ART-26A	Intermediate Drawing.....3 Introduction to Figure Drawing.....3
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ART-29A	Introduction to Watercolor Painting.....3
ARTD-40A	Introduction to Digital Art.....3
ARTD-41A	Introduction to Graphic Design: 2D Foundations.....3
PHOT-10A	Introduction to Photography.....3

#### Total Units toward the Major: (24 Units)

Total Units that may be double counted: (-3-6 Units)  
General Education (CSU-GE or IGETC) Units: (37 Units)  
Elective (CSU Transferable) Units: (2-5 Units)

#### Total Degree Units: (60 Units)

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**DEGREE** (02/21)**A.A. - Art (10110.AA)**

The Associate of Arts Degree in Art is available for students who meet the graduation requirements and complete the following required courses, with a minimum grade of a "C" in each course in the degree and maintain a 2.0 GPA.

**Program Student Learning Outcomes**

- Demonstrate a knowledge of the techniques and processes involved in a variety of two and three dimensional art forms.
- Create works of art integrating aesthetics with the elements and principles of design theory as applied to studio art and digital art works.
- Distinguish individual styles as applied to various contemporary media and historic art periods.
- Develop an appreciation and understanding of cultural diversity in the visual arts.

**Program Requirements:****Program Core: (18 Units)**

	Units
ART-02 Survey of Western Art from Renaissance to Contemporary .....	3
ART-12A Sculpture: 3-D Foundations .....	3
ART-15 Design: 2-D Foundations .....	3
ART-23A Introduction to Painting .....	3
ART-24A Fundamentals of Drawing .....	3
ART-26A Introduction to Figure Drawing .....	3

**Plus 3 units from the following Art History courses:**

ART-01 Survey of Western Art from Prehistory Through the Middle Ages .....	3
ART-03 Art of Africa, Oceania, and Indigenous North Americas .....	3
ART-06 Survey of Modern Art .....	3
PHOT-33 The History of Photography .....	3
or	
ARTD-07 History of Graphic Design .....	3
ARTD-08 History of Animation .....	3

**Plus 9 units from the following courses:**

ART-12B Intermediate Sculpture .....	3
ART-17A Introduction to Ceramics .....	3
ART-17B Intermediate Ceramics .....	3
ART-20A Introduction to Printmaking .....	3
ART-20B Intermediate Printmaking .....	3
ART-23B Intermediate Painting .....	3
ART-24B Intermediate Drawing .....	3
ART-26B Intermediate Figure Drawing .....	3
ART-29A Introduction to Watercolor Painting .....	3
ART-29B Watercolor Painting II .....	3
ARTD-40A Introduction to Digital Art .....	3
ARTD-40B Intermediate Digital Art .....	3
ARTD-41A Introduction to Graphic Design: 2D Foundations .....	3
ARTD-41B Intermediate Graphic Design: 2D Foundations .....	3
ARTD-42A Introduction to Motion Graphics .....	3
ARTD-42B Intermediate Visual Communication .....	3
ARTD-45A Animation I: Introduction to Web Design and 2D Animation .....	3
ARTD-45B Animation II: Intermediate Web Design and Animation .....	3
ARTD-47 Typography I: Introduction to Type Design .....	3
PHOT-10A Basic Photography .....	3
PHOT-11A Introduction to the Digital Camera .....	3

**Total: (30 Units)****ART (ART)****ART-01 SURVEY OF WESTERN ART FROM PREHISTORY THROUGH THE MIDDLE AGES**

(CSU breadth area C1) (IGETC area 3A)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This course is a survey that examines the historical contexts of humanity through the development of art, architecture, painting, sculpture, and the minor arts, from pre-history through the Medieval period. (4/19)

**ART-02 SURVEY OF WESTERN ART FROM RENAISSANCE TO CONTEMPORARY**

(CSU breadth area C1) (IGETC area 3A)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This course is a survey that examines the historical context of humanity through the development of art, architecture, sculpture, painting and the applied arts from the Renaissance to the Contemporary period. (4/19)

**ART-03 ART OF AFRICA, OCEANIA, AND INDIGENOUS NORTH AMERICAS**

(CSU breadth area C1) (IGETC area 3A)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This course is a survey which examines the visual culture within selected regions in Africa, Oceania, and indigenous North America. These arts will be placed in their historical, social, and religious contexts. Discussion, research, and writing on the visual arts, including painting, sculpture, architecture, book arts, ceramics, textiles, and body arts. (11/19)

**ART-06 SURVEY OF MODERN ART**

(CSU breadth area C1) (IGETC area 3A) (C-ID ARTH 150)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This course is a survey of the prominent artists and art movements from the 19th and 20th centuries to today. Major works in painting, sculpture, architecture and the applied arts are covered. The historical context of science, invention, world events, politics, philosophy, religion, and music are examined as influences reflected in each generation's contribution to the history of the visual arts. (12/15)

**ART-12A SCULPTURE: 3-D FOUNDATIONS**

(C-ID ARTS 101)

3 units: 2 hours lecture, 3 hours lab.

This course is an introduction to the fundamentals of the sculpting process and the study of a variety of materials related to sculpture. Projects explore the elements and principles of 3-D design and the conceptual styles of realism to abstraction, both in the round and as bas-relief. Important sculptors and their significant works from various historical periods and various cultures are examined. A small materials fee covers the cost of the works created. (5/12)

**ART-12B INTERMEDIATE SCULPTURE**

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: ART-12A.

Students will explore sculpture materials, methods, techniques, and create three-dimensional design projects related to intermediate-level course work. Students will research important sculptors and their significant works from various historical periods and cultures. A materials fee will cover the cost of the art works created (01/14).

**ART-15 DESIGN: 2-D FOUNDATIONS**

(C-ID ARTS 100) (CSU breadth area C1) (IGETC area 3A)

3 units: 2 hours lecture, 3 hours lab.

This studio survey class is a required foundation course for the study of the Visual Arts. Lectures and studio projects explore and analyze concepts related to the elements and principles of current and historical design theories. Philosophical, social and cultural implications are examined. Subject matter is directly linked to topics in 2-D, fine art, graphic design, commercial art, and photography, with broader applications to professional fields of 3-D, applied arts, environmental design, architecture, interior design and fashion. Required for Art Majors. (12/15)

**ART-17A INTRODUCTION TO CERAMICS**

3 units: 2 hours lecture, 3 hours lab.

This course is an introduction to ceramic materials, concepts, and processes including basic design elements and principles, creative development, hand-building, throwing, glaze techniques, firing and ceramic terminology. The course covers aesthetics and creative development of clay objects examining historical, contemporary and personal modes of expression across multiple cultures. (5/14)

**ART-17B INTERMEDIATE CERAMICS**

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: ART-17A.

This is an intermediate course in ceramic pottery and sculpture design and construction, non-technical glaze composition, and kiln firing. Stress is placed upon the attainment of skill on the potter's wheel and organization of construction problems. Students pursue projects of individual interest. (5/14)

**ART-20A INTRODUCTION TO PRINTMAKING**

3 units: 2 hours lecture, 3 hours lab.

Advisory: ART-24A.

This course is an introduction to the basic materials, equipment and fundamental printmaking processes including relief (linocut and woodcut), intaglio (drypoint, etching and collagraph) and stencil (screenprint) methods. Students will produce limited editions of black and white prints, be introduced to color techniques and survey the history of printmaking. (2/14)

**ART-20B INTERMEDIATE PRINTMAKING**

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: ART-20A.

This course deals with color printmaking techniques, as well as black and white, with an emphasis on intaglio processes and the lithographic technique in which images are printed from limestone slabs. (2/14)

**ART-23A INTRODUCTION TO PAINTING**

(C-ID ARTS 210)

3 units: 2 hours lecture, 3 hours lab.

This course is an introduction to the principles, elements, and practices of painting in oil and acrylic medium. Students will focus on exploration of painting materials, perceptual skills and color theory, paint mixing and technique, as well as creative responses to materials and subject matter. (2/14)

**ART-23B INTERMEDIATE PAINTING**

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: ART-23A.

This course is an exploration of artistic concepts, styles, and creative expression related to intermediate-level painting, focusing on complex subject matter and concepts using a variety of subjects, techniques, and methodologies. Students in this course will build on fundamental painting skills to develop personalized approaches to content and materials in exercises covering multiple historical and contemporary approaches to painting. (02/14)

**ART-24A FUNDAMENTALS OF DRAWING**

(C-ID ARTS 110)

3 units: 2 hours lecture, 3 hours lab.

This studio survey course introduces the principles, elements, and practices of drawing, employing a wide range of subject matter and drawing media. Students will focus on perceptually based drawing, observational skills, technical abilities, conceptual thinking and critical analysis. Historical and contemporary developments, critical trends, materials, and approaches in drawing will be examined for their philosophical and cultural implications. Required for Art majors. (1/17)

**ART-24B INTERMEDIATE DRAWING**

(C-ID ARTS 205)

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: ART-24A.

This course is an exploration of artistic concepts, styles, and creative expression related to intermediate-level drawing, focusing on complex subject matter and concepts using a variety of drawing mediums, techniques, and methodologies. Students in this course will build on fundamental drawing skills to develop personalized approaches to content and materials in exercises covering multiple historical and contemporary approaches to drawing. (2/14)

**ART-26A INTRODUCTION TO FIGURE DRAWING**

(C-ID ARTS 200)

3 units: 2 hours lecture, 3 hours lab.

This course is an introduction to drawing the human figure from observation using a wide variety of drawing media and techniques. Topics include an introduction to human anatomy and the historical and contemporary roles of figure drawing in the visual arts. Students in this course will learn both descriptive and interpretive approaches to drawing the figure, in both rapid and extended studies. (2/14)

**ART-26B INTERMEDIATE FIGURE DRAWING**

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: ART-26A.

Exploration of artistic concepts, styles, and creative expression related to intermediate-level figure drawing, focusing on complex composition and concepts using a variety of color drawing mediums, techniques, and methodologies. Students in this course will build on fundamental figure drawing skills to develop personalized approaches to content and materials in exercises covering multiple historical and contemporary approaches to figure drawing. (2/14)

**ART-29A INTRODUCTION TO WATERCOLOR PAINTING**

3 units: 2 hours lecture, 3 hours lab.

This course is an introduction to the principles, elements, and practices of painting in the watercolor medium. Students will focus on exploration of painting materials, perceptual skills and color theory, paint mixing and technique, as well as creative responses to materials and subject matter. (2/14)

**ART-29B INTERMEDIATE WATERCOLOR PAINTING**

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: ART-29A.

This course is an exploration of artistic concepts, styles, and creative expression related to intermediate-level watercolor painting, focusing on complex subject matter and concepts using a variety of subjects, techniques, and methodologies. Students in this course will build on fundamental watercolor painting skills to develop personalized approaches to content and materials in exercises covering multiple historical and contemporary approaches to painting. (2/14)

# Astronomy

MATH, SCIENCE AND ENGINEERING

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## ASTRONOMY (ASTR)

### ASTR-01 PRINCIPLES OF ASTRONOMY

(CSU breadth area B1) (IGETC area 5A)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This is a basic course studying the principles of astronomy beginning with the solar system and continuing through the Milky Way Galaxy and the galaxies beyond. Throughout the course topics relating to the philosophy of science, history of astronomy, tools of the astronomer, and supporting topics of physics are introduced. The course is designed for students satisfying breadth requirements in science and having a general interest in astronomy. (02/20)

### ASTR-01L INTRODUCTORY ASTRONOMY LABORATORY

(CSU breadth area B3) (IGETC area 5C)

1 unit: 3 hours lab.

One-way corequisite: ASTR-01.

Advisories: ENGL-01A; MATH-C, MATH-61 or MATH-62.

This is a basic course in astronomy providing laboratory experience and opportunity for observation of the night sky. Specific topics include observations of the solar system and deep sky objects, time studies, planetary motions, telescopes and their applications, spectroscopy, and basic calculations of the astronomer. (02/20)

# Athletics

## KINESIOLOGY

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[Athletics Website](#)

### ATHLETICS (ATHL)

#### ATHL-01A INTERCOLLEGIATE BASEBALL

3 units: 180 hours lab TBA.

Limitation on enrollment: This is a varsity team sport requiring coach's or academic athletic advisor's approval.

This is a course teaching theory, practice and game performance of competitive baseball. This course may be repeated three times. (3/19)

#### ATHL-01B INTERCOLLEGIATE BASKETBALL

1.5-3 units: 90-180 hours lab TBA.

Limitation on enrollment: This is a varsity team sport requiring coach's or academic athletic advisor's approval.

Advisory: KINE-13.

This course teaches theory, practice and game performance of competitive basketball. This course may be repeated three times. (12/18)

#### ATHL-01D INTERCOLLEGIATE FOOTBALL

(CSU breadth area E)

3 units: 180 hours lab TBA.

Limitation on enrollment: This is a varsity team sport requiring coach's or academic athletic advisor's approval.

This course offers the student the opportunity to develop and improve the fundamental skills involved in football, such as passing, receiving, kicking, blocking (with the aid of blocking dummies), team play and strategy. Rules and class competition will also be included. This class may be repeated three times. (02/20)

#### ATHL-01F INTERCOLLEGIATE SOCCER

(CSU breadth Area E)

3 units: 180 hours lab TBA.

Limitation on enrollment: This is a varsity team sport requiring coach's or academic athletic advisor's approval.

This course teaches theory, practice, and game performance of competitive soccer. Students will have the opportunity to develop fundamental skills and conditioning to prepare them for intercollegiate athletics. This course is limited to intercollegiate athletes and may be repeated three times. (10/19)

#### ATHL-01G INTERCOLLEGIATE SWIMMING

3 units: 180 hours lab TBA.

Limitation on enrollment: This is a varsity team sport requiring coach's or academic athletic advisor's approval.

This course teaches theory, practice and game performance of the competitive sport. This course may be repeated three times. (03/19)

#### ATHL-01I INTERCOLLEGIATE TRACK AND FIELD

3 units: 180 hours lab TBA.

Limitation on enrollment: This is a varsity team sport requiring coach's or academic athletic advisor's approval.

This is a course teaching theory, practice, and game performance of the designated competitive sport. This course may be repeated three times. (12/19)

#### ATHL-01J INTERCOLLEGIATE WATER POLO

3 units: 180 hours lab TBA.

Limitation on enrollment: This is a varsity team sport requiring coach's or academic athletic advisor's approval.

This is a course teaching theory, practice and game performance of the competitive sport. May be repeated three times. (03/19)

#### ATHL-01K INTERCOLLEGIATE SOFTBALL

(CSU Breadth area E)

3 units: 180 hours lab TBA.

Limitation on enrollment: This is a varsity team sport requiring coach's or academic athletic advisor's approval. Advisory: KINE-15.

This course teaches theory, practice and game performance of the competitive softball. This course may be repeated three times. (02/20)

#### ATHL-01L INTERCOLLEGIATE VOLLEYBALL

(CSU Breadth area E)

3 units: 180 hours lab TBA.

Limitation on enrollment: This is a varsity team sport requiring coach's or academic athletic advisor's approval.

This course teaches theory, practice and game performance of the competitive sport. This course may be repeated three times. (05/20)

#### ATHL-02A OFF-SEASON CONDITIONING FOR BASEBALL

(CSU breadth Area E)

1-3 units: 3-9 hours lab.

Limitation on enrollment: This is a varsity team off-season conditioning course that requires coach's or academic athletic adviser's signature.

This course is designed to optimize sports performance and reduce risk of injury for the off-season intercollegiate athlete in the sport of baseball. Course content will include: sport specific skill development, sport specific strength training, cardiovascular conditioning, agility work, plyometrics, speed training, and flexibility exercises. This course is designed to prepare students for intercollegiate baseball competition and may be repeated to meet requirements for CCCAA eligibility. (02/20)

#### ATHL-02B OFF-SEASON CONDITIONING FOR BASKETBALL

(CSU breadth Area E)

1-3 units: 3-9 hours lab.

Limitation on enrollment: This is a varsity team off-season conditioning course that requires coach's or academic athletic adviser's signature.

This course is designed to optimize sports performance and reduce risk of injury for the off-season intercollegiate athlete in the sport of basketball. Course content will include: sport specific skill development, sport specific strength training, cardiovascular conditioning, agility work, plyometrics, speed training, and flexibility exercises. This course is designed to prepare students for intercollegiate basketball competition and may be repeated to meet requirements for CCCAA eligibility. (03/20)

#### ATHL-02D OFF-SEASON CONDITIONING FOR FOOTBALL

(CSU breadth Area E)

1-3 units: 3-9 hours lab.

Limitation on enrollment: This is a varsity team off-season conditioning course that requires coach's or academic athletic adviser's signature.

This course is designed to optimize sports performance and reduce risk of injury for the off-season intercollegiate athlete in the sport of football. Course content will include: sport specific skill development, sport specific strength training, cardiovascular conditioning, agility work, plyometrics, speed training, and flexibility exercises. This course is designed to prepare students for intercollegiate football competition and may be repeated to meet requirements for CCCAA eligibility. (09/20)

#### ATHL-02F OFF-SEASON CONDITIONING FOR SOCCER

(CSU breadth area E)

1 -3 units: 3-9 hours lab.

This course is designed to optimize sports performance and reduce risk of injury for the off-season intercollegiate athlete in the sport of soccer. Course content will include: sport specific skill development, sport specific strength training, cardiovascular conditioning, agility work, plyometrics, speed training, and flexibility exercises. This course is designed to prepare students for intercollegiate soccer competition and may be repeated to



meet requirements for CCCAA eligibility. (02/21)

#### **ATHL-02G OFF-SEASON CONDITIONING FOR WATER POLO**

(CSU breadth Area E)

1-3 units: 3-9 hours lab.

Limitation on enrollment: This is a varsity team off-season conditioning course that requires coach's or academic athletic adviser's signature.

This course is designed to optimize sports performance and reduce risk of injury for the off-season intercollegiate athlete in the sport of water polo. Course content will include: sport specific skill development, sport specific strength training, cardiovascular conditioning, agility work, plyometrics, speed training, and flexibility exercises. This course is designed to prepare students for intercollegiate water polo competition and may be repeated to meet requirements for CCCAA eligibility. (11/19)

#### **ATHL-02I OFF-SEASON CONDITIONING FOR TRACK AND FIELD**

(CSU breadth Area E)

1-3 units: 3-9 hours lab.

Limitation on enrollment: This is a varsity team off-season conditioning course that requires coach's or academic athletic adviser's signature.

This course is designed to optimize sports performance and reduce risk of injury for the off-season intercollegiate athlete in the sport of track and field. Course content will include: sport specific skill development, sport specific strength training, cardiovascular conditioning, agility work, plyometrics, speed training, and flexibility exercises. This course is designed to prepare students for intercollegiate track and field competition and may be repeated to meet requirements for CCCAA eligibility. (12/19)

#### **ATHL-02K OFF-SEASON CONDITIONING FOR SOFTBALL**

(CSU breadth Area E)

1-3 units: 3-9 hours lab.

Limitation on enrollment: This is a varsity team off-season conditioning course that requires coach's or academic athletic adviser's signature.

This course is designed to optimize sports performance and reduce risk of injury for the off-season intercollegiate athlete in the sport of softball. Course content will include: sport specific skill development, sport specific strength training, cardiovascular conditioning, agility work, plyometrics, speed training, and flexibility exercises. This course is designed to prepare students for intercollegiate softball competition and may be repeated to meet requirements for CCCAA eligibility. (12/19)

#### **ATHL-03 ATHLETIC CONDITIONING**

.5-2 units: 1.5-6 hours lab.

Limitation on enrollment: This is varsity athletic team conditioning course that requires coach's or academic athletic adviser's signature.

Advisory: Good general health; absence of medical conditions that would prevent planned physical activity.

This class is designed to prepare athletes for athletic competition. Different training techniques will be used including: functional training, core training, plyometrics, and strength training. Emphasis will be placed on injury prevention and to improve athletic performance. Multiple workouts are required per week. This course may be repeated three times. (2/13)

#### **ATHL-13 ADVANCED BASKETBALL**

.5-1 units: 1.5-3 hours lab.

Limitation on enrollment: This is a varsity team off-season conditioning course that requires coach's or academic athletic adviser's signature.

This course offers the more advanced student the opportunity to develop and improve fundamental skills involved in basketball, such as, ball handling, shooting, defensive and offensive tactics, and physical endurance. It also covers team strategy and play. Rules, strategy, and sportsmanship are also stressed. This course may be repeated three times. (2/14)

#### **ATHL-36A THEORY AND ANALYSIS OF FOOTBALL**

1 unit: 1 hour lecture.

Advisory: ENGL-01A

This course presents the fundamental knowledge of football through lecture and discussions. The analyzing of in season practices and games will take place during this course. This course is recommended for varsity football players. (09/20)

#### **ATHL-36B THEORY AND ANALYSIS OF BASKETBALL**

1 unit: 1 hour lecture.

Advisory: ENGL-01A

This course presents the fundamental knowledge of basketball through techniques of lecture, discussions, and video analysis. This course is recommended for physical education, recreation, and recreation-aide majors and varsity basketball players. (2/14)

#### **ATHL-36C THEORY AND ANALYSIS OF BASEBALL**

1 unit: 1 hour lecture.

Advisory: ENGL-01A

This course presents the fundamental knowledge of baseball through techniques of lecture, discussions, and video analysis. This course is recommended for kinesiology, physical education, recreation, and recreation-aide majors and varsity baseball players. (9/15)

#### **ATHL-36D THEORY AND ANALYSIS OF TRACK AND FIELD**

1 unit: 1 hour lecture.

Advisory: ENGL-01A

This course presents the fundamental knowledge of track and field through techniques of lecture, discussions, and video/DVD analysis. (11/15)

# Automotive Technology

## SCHOOL OF INDUSTRY AND MANUFACTURING

### DEGREE

A.S. - Automotive Master Technician

### CERTIFICATE

Automotive Technology Level 1

Automotive Technology Level 2

Automotive Master Technician

#### Program Description

The Merced College Automotive Technology program provides students with skills required for efficient diagnosis, maintenance and repair of current automobiles and automobile systems. The program is recognized and certified by the National Automotive Technicians Education Foundation (NATEF) as an Automotive Service Excellence (ASE) program. The automotive program instructors are ASE certified. The Merced College Automotive program is also certified by the California Bureau of Automotive Repair (BAR) to teach the Basic and Enhanced Clean Air Car Courses.

Merced College Automotive Technology offers students training in theory and practice in all automotive systems. Upon successful completion of the program, students are qualified for placement as technicians in the automotive repair industry. Students may apply units earned by successful completion of Automotive Technology courses to one or more specific certificates and/or an Associate of Arts Degree in Automotive Technology.

#### Career Opportunities

- Automotive Service Technicians
- Automotive Line Technicians (mid-level)
- Automotive Master Technicians
- Assistant Service Managers
- Service Managers
- Parts Specialist
- Field Technical Specialists
- Director of Fixed Operations
- General Managers

#### Automotive Service Excellence

Merced College is ASE certified in the following automotive areas:

- Engine Repair
- Transmissions and Transaxles
- Drivetrains and Axles
- Suspension and Steering
- Brake Systems
- Electrical/Electronic Systems
- Heating and Air Conditioning
- Engine Performance



**National Automotive Technicians  
Education Foundation**

#### Highlights

Merced College also offers weekend smog update classes certified by the Bureau of Automotive Repair for smog technicians. Contact the Merced College Business Resource Center for more information and dates of update classes.

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[Automotive Website](#)



**National Institute for  
AUTOMOTIVE  
SERVICE  
EXCELLENCE**

"Certifying the Automotive Professional"

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE (21/21)

#### A.S. - Automotive Master Technician (09003.AS)

The Automotive Master Technician Associate Science Degree is available for students who successfully complete the graduation requirements and complete the following program. For successful completion, a student must complete the requirements with a minimum grade of a "C" (or P) in each course with a grade point average of 2.0 or higher.

#### Program Student Learning Outcomes

- Develop safe work habits with the use of automotive service tools and equipment extending to the advanced level.
- Collect automotive service and diagnostic information with the use of computerized tools and resources extending to advanced level systems.
- Inspect automotive components and systems for proper operation extending to the advanced level.

#### Program Requirements:

##### Program Core: (52 Units)

	Units
AUTO-04 Automotive Mechanics .....	3
AUTO-32 Wheel Alignment and Suspension .....	4
AUTO-33 Automotive Brake Systems .....	4
AUTO-36 Automotive Manual Transmissions and Drive Trains	4
AUTO-41 Automotive Engines .....	4
AUTO-42 Automotive Electrical Systems .....	4
AUTO-43 Automotive Fuel Systems .....	4
AUTO-44 Automotive Air Conditioning, Heating System, Cooling systems.....	4
AUTO-46 Automatic Transmissions .....	4
AUTO-47 Engine Performance .....	2
AUTO-52 Introduction to Electrified Vehicles .....	1
AUTO-55 Automotive Emissions Level 1 and 2 Training .....	5
AUTO-56 Advanced Diagnosis and Repair in Automotive Technology .....	2
AUTO-63 Basic Auto Electronics for Technicians.....	4
AUTO-66 Automotive Parts and Service Advising .....	3

#### Major Total: (52 units)

Completion of MCCD-GE Breadth:..... 23 units

Electives (as needed to reach 60 units): ..... 0 units

**Total Degree (maximum): (75 units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE <sup>(5/17)</sup>

#### Automotive Technology Level 1 (09010.CN)

The Automotive Master Technician Certificate of Achievement is available for students who successfully complete the full program option. For successful completion, a student must complete the requirements with a minimum grade of a "C" (or P) in each course with a grade point average of 2.0 or higher

##### Program Student Learning Outcomes

- Develop safe work habits with the use of automotive service tools and equipment related to entry level systems.
- Inspect automotive components and systems for proper operation at the entry level.
- Collect automotive service and diagnostic information with the use of computerized tools and resources related to entry level automotive systems.

##### Program Requirements:

Program Core: (19 Units)		Units
AUTO-04	Automotive Mechanics .....	3
AUTO-32	Wheel Alignment and Suspension .....	4
AUTO-33	Automotive Brake Systems .....	4
AUTO-42	Advanced Automotive Body Repair and Refinishing .....	4
AUTO-63	Basic Auto Electronics for Technicians.....	4
<b>Total: (19 Units)</b>		

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE <sup>(5/17)</sup>

#### Automotive Technology Level 2 (09002.CT)

For successful completion, a student must complete the requirements with a minimum grade point of 2.0 in each course required for the certificate.

##### Program Student Learning Outcomes:

- Develop safe work habits with the use of automotive service tools and equipment extending to intermediate level systems.
- Inspect automotive components and systems for proper operation extending to the intermediate level.
- Collect automotive service and diagnostic information with the use of computerized tools and resources extending to intermediate level systems..

##### Program Requirements:

Program Core: (35 Units)		Units
AUTO-04	Automotive Mechanics .....	3
AUTO-32	Wheel Alignment and Suspension .....	4
AUTO-33	Automotive Brake Systems .....	4
AUTO-36	Automotive Manual Transmissions and Drive Trains .....	4
AUTO-41	Automotive Engines .....	4
AUTO-42	Automotive Electrical Systems .....	4
AUTO-43	Automotive Fuel Systems .....	4
AUTO-46	Automatic Transmissions .....	4
AUTO-63	Basic Auto Electronics for Technicians.....	4
<b>Total: (35 Units)</b>		

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE <sup>(12/21)</sup>

#### Automotive Master Technician (09008.CT)

The Master in Automotive Technician Certificate of Achievement will be awarded upon satisfactory completion of the full program option. The student must complete the requirements with a minimum grade point of 2.0 in each course required for the certificate.

##### Program Student Learning Outcomes

- Repair and service automotive systems in the student's area of specialization.
- Work safely and responsibly within all shop safety and environmental guidelines and standards.
- Demonstrate competency in accessing and applying technical service information.

##### Program Requirements:

Program Core: (52 Units)		Units
AUTO-04	Automotive Mechanics .....	3
AUTO-32	Wheel Alignment and Suspension .....	4
AUTO-33	Automotive Brake Systems .....	4
AUTO-36	Automotive Manual Transmissions and Drive Trains .....	4
AUTO-41	Automotive Engines .....	4
AUTO-42	Automotive Electrical Systems .....	4
AUTO-43	Automotive Fuel Systems .....	4
AUTO-44	Automotive Air Conditioning, Heating System, Cooling systems.....	4
AUTO-46	Automatic Transmissions .....	4
AUTO-47	Engine Performance .....	2
AUTO-52	Introduction to Electrified Vehicles .....	1
AUTO-55	Automotive Emissions Level 1 and 2 Training .....	5
AUTO-56	Advanced Diagnosis and Repair in Automotive Technology .....	2
AUTO-63	Basic Auto Electronics for Technicians.....	4
AUTO-66	Automotive Parts and Service Advising .....	3
<b>Total: (52 Units)</b>		

## AUTOMOTIVE TECHNOLOGY (AUTO)

### AUTO-04 AUTOMOTIVE MECHANICS

3 units: 3 hours lecture.

This class is designed for students without prior experience in automotive mechanics. It is a study of fundamental theory and operation of the components that make up the major automotive systems with the purpose of giving the student general knowledge of the automobile. Major emphasis is given to operational principles of the automobile and related terminology. (03/21)

### AUTO-24: Work Experience in Automotive Technology

1-8 Units

Advisory: ENGL-01A

This course enables students to earn college credit for learning and/or improving skills or knowledge on-the-job. Occupational Work Experience is discipline specific and must connect to the student's major or occupational goal(s). Seventy-five (75) hours of documented paid work experience equals 1 unit of credit. Sixty (60) hours of documented volunteer experience equals 1 unit of credit. A student may enroll in up to 16 total units of work experience at Merced College. Students must have an established work site prior to enrolling in the course. (03/21)

**AUTO-32 WHEEL ALIGNMENT AND SUSPENSION**

4 units: 3 hours lecture, 3 hours lab.

Advisory: AUTO-04 and AUTO-63.

This course is designed to provide the technical knowledge and experience required for aligning and servicing suspension systems on modern automobiles. Laboratory exercises will provide the student an opportunity to develop entry-level skills in the use of machines and equipment commonly used in wheel alignment, tire service, and front-end repairs. (03/21)

**AUTO-33 AUTOMOTIVE BRAKE SYSTEMS**

4 units: 3 hours lecture, 3 hours lab.

Advisory: AUTO-04 and AUTO-63.

This course is designed for students without prior experience in automotive brake repair. The course will cover theory, service and repair of conventional, Antilock Brake Systems (ABS) and related brake systems. Laboratory exercises will provide the student the opportunity to develop skills and knowledge in the use of tools and equipment necessary in the repair and service of automotive brake systems. (03/21)

**AUTO-36 AUTOMOTIVE MANUAL TRANSMISSIONS AND DRIVE TRAINS**

4 units: 3 hours lecture, 3 hours lab.

Advisory: AUTO-04

This course is designed for the student without any prior experience in standard transmissions or drive axles. The class will provide technical information required for understanding and repairing of manual transmissions and drive trains. Laboratory exercise will provide the student with proper repair procedures and use of related tools and equipment. Standard transmissions, transaxles, differentials, drivelines, and related components will be covered. (03/21)

**AUTO-41 AUTOMOTIVE ENGINES**

4 units: 2 hours lecture, 6 hours lab.

One-way corequisite: AUTO-04.

This is a class in the principles and theory of engine repair and rebuilding including the disassembly and assembly of engines. There will be emphasis on inspection, measuring, and comparing worn and rebuilt parts. Testing equipment will be used during in-car engine condition diagnosis. Also included will be minor machining operations that are used in engine rebuilding and repairing. (03/21)

**AUTO-42 AUTOMOTIVE ELECTRICAL SYSTEMS**

4 units: 3 hours lecture, 3 hours lab.

Prerequisite: AUTO-63.

Advisory: AUTO-04.

This course covers automotive electrical systems and includes a review of electron theory, magnetism, and semiconductors. The student will acquire technical and working knowledge of starting, charging and ignition systems and components. The student will acquire working and technical knowledge of electrical accessories and accessory circuits. The use of special service tools and electronic diagnostic equipment will be included. (03/21)

**AUTO-43 AUTOMOTIVE COMPUTERIZED ENGINE CONTROLS**

4 units: 3 hours lecture, 3 hours lab.

One-way corequisite: AUTO-04, AUTO-63.

Advisory: AUTO-42

This course covers the testing and service of automotive fuel systems, including fuel injection systems, electronic engine controls, and emission controls. (03/21)

**AUTO-44 AUTOMOTIVE AIR CONDITIONING, HEATING SYSTEM, COOLING SYSTEM**

4 units: 3 hours lecture, 3 hours lab.

Advisory: AUTO-04

This is a basic course in the principles of operation of automotive air conditioning, heating system, and cooling system. The course covers theory, system controls, troubleshooting, service, and repairs. Lab emphasis consists of system diagnosis servicing, repairs, and preventive maintenance on live vehicles. (03/21)

**AUTO-46 AUTOMATIC TRANSMISSIONS**

4 units: 2 hours lecture, 6 hours lab.

Advisory: AUTO-04 and AUTO-63

This course will cover domestic and import automatic transmissions and transaxles. Rebuilding will include diagnosis, inspection, repair, and testing. Theory will cover power flow, apply devices, hydraulics, torque converters, and computer controls. (03/21)

**AUTO-47 ENGINE PERFORMANCE**

2 units: 1 hours lecture, 3 hours lab.

Prerequisites: AUTO-42, AUTO-43.

This course is a study in the diagnosis of automotive electrical and computer controlled fuel and ignition systems. The course will cover charging and starting circuits, computer controlled fuel injection and ignition systems and emissions control devices. All integrated systems will be included as they relate to live maintenance and diagnostic procedures. Advanced systems diagnosis and maintenance of these circuits will receive special attention. (03/21)

**AUTO-52 INTRODUCTION TO ELECTRIFIED VEHICLES**

1 unit: 0.5 hours lecture, 1.5 hours lab.

Prerequisite: AUTO-42 and AUTO-63 or ASE A6 Industry Certificate

The course is designed for students without prior knowledge of Hybrid and Electric Vehicles. This course will cover the different types of electrified vehicles, safety, operation, and basic repair procedures related to electric motors, inverters, and high voltage batteries. (12/21)

**AUTO-55 AUTOMOTIVE EMISSIONS LEVEL 1 AND 2 TRAINING**

5 units: 4.5 hours lecture, 1.5 hours lab.

Advisory: AUTO-47

This course is designed to provide students with knowledge and skills necessary to perform Smog Check Inspections. Level 1 training is intended to provide students with fundamental knowledge of engine and emission control theory, design and operation. Level 2 training is intended to provide students the knowledge, skills, and abilities needed to perform Smog Check inspections. Students who successfully complete this training will have met the California Bureau of Automotive Repair requirements for Level 1 and 2 training to qualify to take the Smog Check Inspector state licensing examination. (03/21)

**AUTO-56 ADVANCED DIAGNOSIS AND REPAIR IN AUTOMOTIVE TECHNOLOGY**

2 units: 6 hours lab.

Prerequisite: AUTO-36, AUTO-41, AUTO-43, and AUTO-46.

This course is designed to permit the student to gain additional diagnostic and hands on experience in automotive power trains, drive trains, and chassis systems. This course will help prepare the student for employment in the automotive repair industry with entry level skills. (03/21)

**AUTO-63 BASIC AUTO ELECTRONICS FOR TECHNICIANS**

4 units: 3 hours lecture, 3 hours lab.

This course is designed to provide the automotive students with a strong background in basic electrical concepts. This will help the student to troubleshoot electrical system problems with the aid of technical information and test equipment. The class will also provide the necessary electrical theory for the more advanced automotive classes. (03/21)

**AUTO-66 AUTOMOTIVE PARTS AND SERVICE ADVISING**

3 units: 2.5 hours lecture, 1.5 hours lab.

This course will cover the duties and responsibilities of automotive parts and service advisors working at independent and dealership-based stores. Course content will include service and parts merchandising and communication skills, integrated computer management software, cost estimation, enhancing customer satisfaction, scheduling, inventory control, hazardous materials, warranties, lemon laws and documentation requirements. (03/21)

# Biology

SCHOOL OF SCIENCE, TECHNOLOGY,  
ENGINEERING AND MATHEMATICS (STEM)

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Visit the [Program Mapper](#) for more information on when to take classes and career information.

## DEGREE

A.S.-T. - Biology

### Program Description

The Associate in Science in Biology for Transfer degree is designed to meet the lower division requirements for students pursuing a baccalaureate degree in biology at the California State University System. Students who complete an AS-T in Biology from Merced College will have completed the equivalent of the first two years as a biology major in the California State University System and will be prepared for upper division course work in Biology at a California State University.

## DEGREE (10/21)

A.S.-T.- Biology (04100.AST)

The Associate in Science in Biology for Transfer degree is designed to prepare students for seamless transfer to a university that offers a baccalaureate degree with a major in biological science or related discipline. The Associate in Science in Biology for Transfer degree provides the student with laboratory experience and introductory knowledge of fundamental principles in biology that include cell theory, genomics, taxonomy, comparative anatomy and physiology, ecology and evolution. This major provides a strong foundation in biology enabling them to succeed in upper division coursework in a baccalaureate degree program in biology.

### Program Student Learning Outcomes

- Analyze the natural world.
- Describe interactions with the natural world.
- Describe mechanisms of evolution.
- Demonstrate scientific literacy.

To complete the degree, students must fulfill the following requirements:

- 60 semester CSU-transferable units or 90 quarter units that are eligible for transfer to the California State University
- the California State University-General Education-Breadth (CSU GE-Breadth) for STEM pattern; Intersegmental General Education Transfer Curriculum (IGETC) for STEM pattern.
- a minimum of 18 semester units or 27 quarter units in the major or area of emphasis as determined by the community college district.
- obtainment of a minimum grade point average (GPA) of 2.0.
- earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

**Note:** Students are not required to complete any additional local graduation requirements for the AS-T (e.g., PE and Computer and Information Literacy courses).

### Program Requirements:

Program Core: (34-36 Units)	Units
BIOL-04A Fundamentals of Biology: The Cell and Evolution .....	4
BIOL-04B Diversity of Life: Morphology and Physiology .....	5
<b>List A: Restricted Electives (22 Units)</b>	
CHEM-04A General Chemistry I .....	5
CHEM-04B General Chemistry II .....	5
MATH-04A Calculus I .....	4
<b>Physics: General</b>	
PHYS-02A General Physics I .....	4
and	
PHYS-02B General Physics II .....	4
or	
<b>Calculus-Based Physics:</b>	
PHYS-04A Physics I .....	4
and	
PHYS-04B Physics II .....	4
<b>List B: Electives</b> Select 3-5 Units from the following	
BIOL-16 General Human Anatomy .....	4
BIOL-18 Principles of Physiology .....	4
MATH-04B Calculus II .....	4
MATH-10 Elementary Statistic .....	3
<b>First Semester Organic Chemistry</b>	
CHEM-13A First Semester Organic Chemistry Lecture .....	3
CHEM-13AL First Semester Organic Chemistry Labs .....	2
<b>Second Semester Organic Chemistry</b>	
CHEM-13B Second Semester Organic Chemistry Lecture .....	3
CHEM-13BL Second Semester Organic Chemistry Labs .....	2

### Total Units toward the Major: (34-36 Units)

Total Units that may be double counted: .....	10
General Education (CSU-GE or IGETC for STEM*) Units: .....	31-33
Elective (CSU Transferable) Units: .....	1-3

**Total Degree Units: (60 Units)**

**\*IGETC or CSU-GE Breadth for STEM, allows for completion of 6 units on non-STEM GE work after transfer.**

## BIOLOGY (BIOL)

### BIOL-01 GENERAL BIOLOGY FOR NON-MAJORS

(CSU breadth area B2/B3) (IGETC area 5B/5C)

4 units: 3 hours lecture, 3 hours lab.

Limitation on enrollment: This course is not open to students having a C or better in BIOL-04A or BIOL-04AH.

This is an introductory-level course designed for non-majors. Areas stressed include the origin of life, structure and function of cells, basic processes of life, reproduction, ecology, microbiology, evolution, classification, genetics, and metabolic processes. (12/20)

### BIOL-02 HUMAN BIOLOGY

(CSU breadth area B2/B3) (IGETC area 5B/5C)

4 units: 3 hours lecture, 3 hours lab.

Limitation on enrollment: This course is not open to students having a C or better in BIOL-04A.

This course is an introduction to the principles of biology with an emphasis on humans. Topics covered include scientific method, cell structure and function, biochemistry, metabolism, cell division, heredity, biotechnology, evolution, anatomy and physiology of the human body, development and aging, disease, and ecology. This course is recommended for allied health students. (12/20)



**BIOL-04A FUNDAMENTALS OF BIOLOGY: THE CELL AND EVOLUTION**

(C-ID BIOL 190) (CSU breadth area B2/B3) (IGETC area 5B/5C)

4 units: 3 hours lecture, 3 hours lab.

Prerequisite: CHEM-04A; MATH-C, MATH-61 or MATH-62.

Advisories: BIOL-01 or BIOL-02.; ENGL-01A

This course is a study of the principles of biology. Areas of study will include aspects of the philosophy of science, the chemistry of life, the cell and cellular organization, biological membranes, energy transfer including photosynthesis and cellular metabolism, mitosis/meiosis, and molecular biology. Genetics will include Mendelian genetics, human genetics and Biotechnology. This course is intended for science majors for pre-medical, pre-veterinarian, pre-dental, pre-optometry, and pre-pharmacy majors. (2/18)

**BIOL-04B DIVERSITY OF LIFE: MORPHOLOGY OF PHYSIOLOGY**

(C-ID BIOL 140) (CSU breadth area B2/B3) (IGETC area 5B/5C)

5 units: 3 hours lecture, 6 hours lab.

Prerequisite: BIOL-04A.

This course is the second semester of a two-semester sequence of general biology for biology majors. This course will cover the origins of life, evolutionary history, biological diversity, plant form and function, animal form and function, and ecology. This course is intended for science majors and for pre-medical, pre-veterinarian, pre-dental, pre-optometry, and pre-pharmacy majors. (11/21)

**BIOL-06 ENVIRONMENTAL SCIENCE**

(CSU breadth area B2) (IGETC area 5B)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This introductory course examines Earth as an ecosystem composed of biological, chemical, and physical processes with emphasis on man's impact on the planet. Topics include the structure and function of ecosystems, bio-diversity, the impact of industrialization and urbanization, energy, populations, resources, pollution, pesticides, and risk/benefit assessment. (02/21)

**BIOL-09 INTRODUCTION TO GENETICS**

(IGETC breadth area B2)(CSU breadth area B2)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This course is an introductory study of genetic principles, inheritance, variation, and evolution in plants and animals. This course includes the study of Mendelian genetics, molecular genetics, and population genetics. Recent research innovations explored include genetic engineering. (2/19)

**BIOL-16 GENERAL HUMAN ANATOMY**

(C-ID BIOL 110L) (CSU breadth area B2/B3) (IGETC area 5B/5C)

4 units: 2 hours lecture, 6 hours lab.

Prerequisite: BIOL-01 or BIOL-02 or BIOL-4A. Advisory: ENGL-01A

This course is an intensive study of the structure of the human body. Consideration is given to the skeletal, muscular, circulatory, respiratory, digestive, excretory, reproductive, and nervous systems. Special emphasis is placed on the needs of students majoring in biology, nursing, physical education, and medical sciences. (11/19)

**BIOL-18 PRINCIPLES OF PHYSIOLOGY**

(C-ID BIOL 120) (CSU breadth area B2/B3) (IGETC area 5B/5C)

4 units: 3 hours lecture, 3 hours lab.

Prerequisite: BIOL-01, BIOL-02, BIOL-04A or BIOL-16; CHEM-02A; MATH-C, MATH-61, or MATH-62. Advisory: ENGL-01A.

This course is a general lecture and laboratory course in human physiology, including a study of blood and circulation, respiration, muscle activity, endocrine glands, digestion, excretion, and the functions and activities of the brain, nerves, and sense organs. (2/14)

**BIOL-20 MICROBIOLOGY**

(CSU breadth area B2/B3) (IGETC area 5B/5C)

4 units: 2 hours lecture, 6 hours lab.

Prerequisite: BIOL-01, BIOL-02 or BIOL-04A; CHEM-02A;

Advisory: ENGL-01A

This is an introductory course familiarizing students with basic laboratory techniques and fundamental topics of microbiology. Laboratory work includes aseptic techniques, staining procedures, biochemical characterization, serology, and DNA technology used in the identification of microorganisms. Lecture topics consist of a historical overview, genetics, metabolism, cell physiology, growth requirements, immunology, and host-parasite interactions between humans and bacteria, viruses, protozoa, and helminthes. The course is designed for students in any of the allied health professions. (11/21)

**BIOL-32 INTRODUCTION TO BIOTECHNOLOGY**

(IGETC area 5B) (CSU breadth area B2)

4 units: 4 hours lecture.

Advisory: ENGL-01A

This is an introductory course in the theory and principles of biotechnology and how the field applies to meeting the needs of today's world. Topics covered within the lectures include the application of Biotechnology in medicine, microbial engineering, biomanufacturing, bioremediation, agriculture and biofuels. In addition, the specialized fields of stem cells, personalized therapies in medicine, forensics and agricultural biotechnology are covered. The discussion section of the course will incorporate active student involvement in genetic database searches, patent applications, market analysis and will focus on how biological research can be translated into solutions for current world problems. (02/21)

**BIOL-32L INTRODUCTION TO BIOTECHNOLOGY LAB**

(IGETC area 5C) (CSU Breadth area B3)

2 units: 6 hours lab.

One-way corequisite: BIOL-32. Advisories: ENGL-01A.

This lab is the required partner to BIOL-32 for students pursuing the Biotechnology A.S. or certificate degrees. (2/18)

**BIOL-33 BIOTECHNOLOGY II: ADVANCED LABORATORY TECHNIQUES AND THEORY**

4 units: 2 hours lecture, 6 hours lab.

Prerequisite: BIOL-09, BIOL-32, and BIOL-32L.

Advisories: BIOL-20 and ENGL-01A

An advanced course on techniques in biotechnology. This course is designed to build upon the skills developed in Biology 31. The course will cover PCR, restriction enzyme digest, subcloning, gene expression, genomic library construction, primary cell culture, mammalian cell expression systems, Southern and Western blotting, and protein quantization. Field trips may be required (3/16)

**BIOL-50 SURVEY OF ANATOMY AND PHYSIOLOGY**

3 units: 3 hours lecture.

This is a course in basic anatomy and physiology of the human body. It is designed as an elementary course for students with limited background in science or biology. (12/20)

# Biotechnology

SCHOOL OF SCIENCE, TECHNOLOGY,  
ENGINEERING AND MATHEMATICS (STEM)

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## DEGREE

A.S. - Biotechnology-Industry  
A.S. - Biotechnology Pre-Professional

## CERTIFICATE

Biotechnology

### Program Description

The Biotechnology A.S. Industry degree is intended to prepare students for employment in the field of biotechnology. This would include but may not be limited to working as a lab technician, in research or agricultural biotechnology.

The Associate of Science degree in Biotechnology Pre-Professional is intended to prepare students to transfer to a four-year institution to complete the requirements for a bachelor's degree. This program focuses on developing basic lab competencies in biology, basic molecular biology, genetics and cell biology. This program is intended to prepare students for careers in scientific research as a lab tech, researcher or primary investigator. Potential four-year institutes include but are not limited to University of California, Davis; California Polytechnic University, Pomona; and California State University, San Marcos.

### Career Opportunities

Biology/Biotechnology lab technician, research lab technician, biomanufacturing technician.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## DEGREE (2/14)

### A.S. - Biotechnology-Industry (04135.AS)

The student majoring in Biotechnology is generally preparing for employment in the biotechnology industry.

The Associate of Science degree in Biotechnology-Industry is available for students who meet the graduation requirements and complete the following required courses, with a minimum grade of a "C" in each course in the degree and maintain a 2.0 GPA. Students must complete both courses in the CHEM-02 sequence, with the first course in the sequence satisfying the physical science breadth requirements. BIOL-04A, BIOL-01, or BIOL-02 should be taken to satisfy the life science breadth requirement.

### Program Student Learning Outcomes

- Students will demonstrate the use and maintenance of equipment found in a standard biotechnology lab.
- Students will demonstrate the application and comprehension of laboratory math skills where appropriate.
- Students will demonstrate an understanding of the underlying theory of laboratory skills and work ethic through application, problem-solving skills and teamwork.
- Students will demonstrate the preparation, comprehension, evaluation, and maintenance of standard documents associated with the biotechnology workplace.
- Students will demonstrate the comprehension and interpretation and application of federal, state, and local safety regulations within the biotechnology workplace with regards to the quality control of products generated in the laboratory.

### Program Requirements:

#### Program Core: (27 Units)

	Units
BIOL-09 Introduction to Genetics .....	3
BIOL-32 Introduction to Biotechnology .....	4
BIOL-32L Introduction to Biotechnology Lab .....	2
BIOL-33 Biotechnology II: Advanced Laboratory Techniques .....	4
CHEM-02B Introductory Chemistry .....	4
<b>10 units from the following courses:</b>	
BIOL-04B Diversity of Life: Morphology and Physiology .....	5
BIOL-06 Environmental Science .....	3
BIOL-16 General Human Anatomy .....	4
BIOL-18 Principles of Physiology .....	4
CPSC-01 Introduction to Computer Information Systems .....	4
or	
AOM-30 Introduction to Computer Applications .....	3
AGPS-01 Elements of Plant Science .....	3

### Required Major Total: (27 units)

Completion of MCCD-GE Breadth pattern: ..... 23 units  
Double Counting: ..... -3 units  
Electives: ..... 13 units

**Total: (60-62 units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**DEGREE** (3/15)**A.S. - Biotechnology Pre-Professional (04137.AS)**

The Associate in Science degree in Biotechnology Pre-Professional is available for students who meet the graduation requirements and complete the following required courses, with a minimum grade of a "C" in each course in the degree and maintain a 2.0 GPA.

**Program Student Learning Outcomes**

- A. Demonstrate the comprehension and application of laboratory math skills where appropriate.
- B. Demonstrate a comprehension of biotechnology theory through the application of basic biotechnology laboratory skills, problem solving skills, work ethic and teamwork.
- C. Demonstrate the ability to prepare, comprehend, evaluate, and maintain standard documents associated with the biotechnology workplace.
- D. Demonstrate an understanding of federal, state, and local safety regulations and through their application in the biotechnology workplace.
- E. Demonstrate an understanding of federal, state and local regulations as they relate to quality control of products produced in the laboratory.

**Program Requirements:****Program Core: (30 Units)**

	Units
BIOL-09 Introduction to Genetics .....	3
BIOL-20 Microbiology .....	4
BIOL-32 Introduction to Biotechnology .....	4
BIOL-32L Introduction to Biotechnology Lab .....	2
BIOL-33 Biotechnology II: Advanced Laboratory Techniques ..	4
CHEM-04A General Chemistry I .....	5
CHEM-04B General Chemistry II .....	5

**3 units from the following courses:**

BIOL-04B Diversity of Life: Morphology and Physiology .....	5
BIOL-06 Environmental Science .....	3
BIOL-16 General Human Anatomy .....	4
BIOL-18 Principles of Physiology .....	4

CPSC-01 Introduction to Computer Information Systems .....	4
or	
AOM-30 Introduction to Computer Applications .....	3
AGPS-01 Elements of Plant Science .....	3

**Required Major Total: (30 units)**

Completion of MCCD-GE Breadth pattern: .....	23 units
Double Counting: .....	-3 units
Electives: .....	13 units
<b>Total: (60-62 units)</b>	

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**CERTIFICATE** (2/14)**Biotechnology (04130.CN)**

The Certificate of Achievement in Biotechnology will be awarded upon the satisfactory completion of the 17 units from the courses listed below, with a minimum grade of a "C" in each course in the certificate and maintain a 2.0 GPA. It is intended that the student complete both courses in the CHEM-02 sequence. BIOL-04A, BIOL-01, or BIOL-02 should be taken to satisfy the prerequisite requirement for BIOL-09.

**Program Student Learning Outcomes**

- A. Students will be able to use equipment found in a standard biotechnology lab.
- B. Demonstrate the application and comprehension of laboratory math skills where appropriate.
- C. Demonstrate the preparation, comprehension, evaluation, and maintenance of standard documents associated with the biotechnology workplace.
- D. Students will demonstrate problem-solving skills in the biotechnology laboratory.
- E. Students will demonstrate an appropriate work ethic and demonstrate teamwork skills.

**Program Requirements:****Program Core: (17 Units)**

	Units
BIOL-09 Introduction to Genetics .....	3
BIOL-32 Introduction to Biotechnology .....	4
BIOL-32L Introduction to Biotechnology Lab .....	2
BIOL-33 Biotechnology II: Advanced Laboratory Techniques ..	4
CHEM-02B Introductory Chemistry .....	4
<b>Total Units:(17 Units)</b>	

# Business

## SCHOOL OF BUSINESS



Associate Degree  
for Transfer  
*A Degree with a Guarantee.<sup>SM</sup>*

### DEGREE

A.S.-T. - Business Administration 2.0

A.A. - General Business

A.A. - Small Business Entrepreneurship (see Entrepreneurship)

### CERTIFICATE

General Business

Small Business Entrepreneurship (see Entrepreneurship)

#### Program Description

The American economy offers ever-increasing opportunities in business careers and Merced College provides training in a variety of business fields. The suggested courses of study prepare the student for immediate employment in business.

The Business Administration program is designed to prepare students who plan to transfer to a four-year college or university to earn a Bachelor in Arts or Science Degree. Students take classes to complete general education requirements and combine business classes in accounting, computer science, and business law to complete the General Business program. Upon transferring to a four-year college or university, students may choose a concentration in areas such as accounting, business, education, executive secretarial administration, finance, management information, marketing, and real estate.

#### Highlights:

Career training and retraining.

Lower division courses for students planning to transfer to four-year colleges and universities.

Short, intensive programs for those who wish to specialize in one area with immediate employment in mind.

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Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE (12/21)

#### A.S.-T. - Business Administration 2.0 (05101.AST)

The Associate in Science in Business Administration for Transfer degree is designed for students looking to obtain a well-rounded education in Business Administration. Upon completion, students with an AS-T in Business Administration will be eligible to transfer with junior standing into an equivalent major within the California State University (CSU) system. Students will be given priority consideration when applying to a particular program that is similar to the student's community college area of emphasis.

For an Associate in Science in Business Administration for Transfer (AS-T), students must complete the following:

1. 60 semester CSU-transferable units.
2. The California State University General Education Breadth (CSU-GE Breadth) pattern the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
3. A minimum of 18 semester units in the major or area of emphasis as determined by the community college district.
4. Obtainment of a minimum grade point average (GPA) of 2.0.
5. Earn a grade of C (or P) or better in all courses required for the major or area of emphasis

**Note: Students are not required to complete any additional local graduation requirements for the AS-T (e.g., PE and Computer and Information Literacy courses).**

Program Student Learning Outcomes:

- A. Communicate interpersonally to establish positive business relationships.
- B. Perform a SWOT analysis.
- C. Demonstrate an awareness of the external business environment.
- D. Develop management skills to work with diverse populations.

#### Program Requirements:

##### Program Core: (21 Units)

	Units
ACTG-04A Financial Accounting .....	4
ACTG-04B Managerial Accounting.....	4
BUS-10 Introduction to Business.....	3
BUS-18A Business Law .....	4
ECON-01 Introduction to Microeconomics .....	3
ECON-02 Introduction to Macroeconomics .....	3

##### List A: Select 1 of the following (3 units minimum):

MATH-03 Calculus for Business.....	4
MATH-04A Calculus I .....	4
MATH-15 Finite Mathematics .....	3

##### List B: Select 1 of the following (3 units minimum):

MATH-10 Elementary Statistics.....	3
PSYC-05 Introduction to Statistics in Psychology.....	3

##### Total Units Toward Major: (27-28 units)

Total Units that may be double counted (CSU/IGETC) ..... -9 units

General Education (CSU-GE/IGETC) units..... 37-39

Electives: ..... 2-5 units

**Total: (60 units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## DEGREE (11/19)

### A.A - General Business (05150.AA)

The mission of the Merced College General Business (A.A.) program is to provide students with general preparation for entry into employment in the business community. We seek to educate the whole person, to help students develop a global perspective, to provide students a basis for life-long learning, to encourage students to seek opportunities to serve others, and to prepare students for success in the business environment of the 21st century. Students completing this program will earn an Associate of Arts degree in General Business.

Students must meet the graduation requirements and complete the following major requirements.

#### Program Student Learning Outcomes

- Deliver business presentations utilizing at least one form of supporting media.
- Apply discipline-related knowledge to analyze an ethical business predicament.
- Utilize a variety of computer programs to manipulate business data.
- Demonstrate an understanding of making a plan to achieve financial goals.
- Use collaborative team building skills to complete a project successfully.

#### Program Requirements:

Program Core: (23 Units)		Units
ACTG-51	Applied Accounting.....	4
AOM-30	Introduction to Computer Applications .....	3
AOM-50B	Document Formatting.....	3
BUS-10	Introduction to Business.....	3
BUS-18A	Business Law .....	4
BUS-35	Money Management .....	3
MKTG-30	Principles of Marketing.....	3
<b>Total: (23 Units)</b>		

#### Suggested electives include:

BUS-37	Small Business Entrepreneurship.....	3
MGMT-31	Principles of Management.....	3
MKTG-33	Advertising .....	3

#### Note:

*Students should refer to the catalog of the school to which they plan to transfer to determine whether that school requires any specific courses in addition to, or other than, those listed above.*

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## CERTIFICATE (11/19)

### General Business (05150.CT)

The mission of the Merced College General Business (Certificate) program is to provide students with general preparation for entry into employment in the business community. We seek to educate the whole person, to help students develop a global perspective, to provide students a basis for life-long learning, to encourage students to seek opportunities to serve others, and to prepare students for success in the business environment of the 21st century.

A Certificate of Achievement will be awarded upon the satisfactory completion of 30 units of course work in this area of study which includes the core courses indicated for the A.A. Degree in General Business.

#### Program Student Learning Outcomes

- Deliver business presentations utilizing at least one form of supporting media.
- Apply discipline-related knowledge to analyze an ethical business predicament.
- Utilize a variety of computer programs to manipulate business data.
- Demonstrate an understanding of making a plan to achieve financial goals.
- Use collaborative team building skills to complete a project successfully.

#### Program Requirements:

Program Core: (30 Units)		Units
ACTG-51	Applied Accounting.....	4
AOM-50B	Document Formatting.....	3
BUS-10	Introduction to Business.....	3
BUS-18A	Business Law .....	4
BUS-35	Money Management .....	3
AOM-30	Introduction to Computer Applications .....	3
MKTG-30	Principles of Marketing.....	3
Plus 7 additional units in this area of study .....		7
<b>Total: (30 Units)</b>		

#### Suggested electives include:

BUS-37	Small Business Entrepreneurship.....	3
MGMT-31	Principles of Management.....	3
MKTG-33	Advertising .....	3

## BUSINESS (BUS)

### BUS-10 INTRODUCTION TO BUSINESS

(C-ID BUS 110)

3 units: 3 hours lecture.

Advisory: AOM-30; ENGL-01A

This survey course is an overview of all aspects involved in business. It covers economic foundations, types of business organizations, marketing, money and banking, and finance. This information will be integrated and related to social, political, legal, and international matters affecting the United States. (03/22)

### BUS-18A BUSINESS LAW

(C-ID BUS 125)

4 units: 4 hours lecture.

Advisory: BUS-10; ENGL-01A.

This course is a study of legal principles that govern the conduct of business. Included are surveys of the essential elements of legal history and jurisprudence; judicial, administrative, and alternative dispute resolution; ethics; business crime; torts; contracts and the UCC; bankruptcy; agency relationships; property; administrative law; labor and employment law; international law. Introduction to legal research and brief-writing are also included. (03/22)

### BUS-35 MONEY MANAGEMENT

3 units: 3 hours lecture.

Advisories: BUS-10.

This course offers instruction in basic financial, career and life planning. Areas of study include income distribution; occupational earnings; wise buying; credit and borrowing; insurance; housing; savings and investments; taxes; and retirement and planning. (03/22)

### BUS-37 SMALL BUSINESS ENTREPRENEURSHIP

3 units: 3 hours lecture.

Advisory: AOM-30.

This course is designed to educate prospective new business owners. Topics include the business environment, enterprise management, legal considerations, financing, insuring a business, budgeting, and marketing for a small business. (03/22)



# Chemistry

SCHOOL OF SCIENCE, TECHNOLOGY,  
ENGINEERING AND MATH (STEM)



Associate Degree  
for Transfer

*A Degree with a Guarantee.<sup>SM</sup>*

## DEGREE

**A.S. - T. - Chemistry**

**UCTP: A.S.T.- Chemistry**

### Program Description

The Chemistry curriculum is designed to meet the lower division requirements of most universities offering a major in Chemistry. Students that complete an AS-T in Chemistry from Merced College will be prepared for upper division course work in Chemistry at a California State University.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## DEGREE (10/21)

**A.S. -T. - Chemistry (19100.AST)**

The Associate in Science in Chemistry for Transfer degree is designed for students looking to obtain a well-rounded education in Chemistry. Upon completion, students with an AS-T in Chemistry will be eligible to transfer with junior standing into an equivalent major within the CA State University (CSU) system. Students will be given priority consideration when applying to a particular program that is similar to the student's community college area of emphasis.

### Program Student Learning Outcomes:

- Demonstrate an understanding of various chemical representations of elements, compounds, and chemical reactions.
- Solve problems utilizing chemical concepts and equations.
- Collect and analyze laboratory data.
- Demonstrate scientific literacy.

For an Associate in Science in Chemistry for Transfer (AS-T), students must complete the following:

- 60 semester CSU-transferable units.
- the Intersegmental General Education Transfer Curriculum (IGETC) for STEM pattern.
- a minimum of 18 semester in the major or area of emphasis as determined by the community college district.
- obtainment of a minimum grade point average (GPA) of 2.0.
- earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

**Note: Students are not required to complete any additional local graduation requirements for the AS-T (e.g., PE and Computer and Information Literacy courses).**

### Program Requirements:

#### Program Core: (36 Units)

	Units
CHEM-04A General Chemistry I .....	5
CHEM-04B General Chemistry II .....	5
CHEM-13A First Semester Organic ChemistryLecture .....	3
CHEM-13AL First Semester Organic Chemistry Lab .....	2
CHEM-13B Second Semester Organic Chemistry Lecture .....	3
CHEM-13BL Second Semester Organic Chemistry Lab .....	2

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PHYS-04A	Physics I .....	4
PHYS-04B	Physics II .....	4
MATH-04A	Calculus I .....	4
MATH-04B	Calculus II .....	4

**Total: (36 Units)**

Total Units that may be double counted: .....7 Units

\*General Education (IGETC for STEM) Units: .....31-33 Units

Elective (CSU Transferable) Units: .....0 Units

**Total Degree Units: (60 Units)**

**\*This TMC presumes completion of IGETC or CSU-GE Breadth for STEM, allowing for completion of 6 units of non-STEM GE work after transfer.**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## DEGREE (10/21)

**UCTP: A.S. -T. - Chemistry (19050.AST)**

The Associate in Science in Chemistry for University of California (UC) Transfer degree is designed for students planning on transferring to a University of California. Students who complete this program and who maintain a grade point average (GPA) OF 3.5 in the major, will be guaranteed admission into the University of California system in a Chemistry program. The chemistry curriculum is designed to meet the lower division requirements of most University of California offering a major in Chemistry.

The Associate in Science in Chemistry for UC Transfer degree provides the student with laboratory experience and introductory knowledge of fundamental principles in chemistry that include states of matter, atomic structure and bonding, stoichiometry, nomenclature, thermodynamics, quantum mechanics, gas laws, equilibria, electrochemistry, multi-step synthesis, reaction mechanisms, stereochemistry of reactions of hydrocarbons and common functional groups. Introduction to structure elucidation using modern instrumental methods.

### Program Student Learning Outcomes:

- Demonstrate an understanding of various chemical representations of elements, compounds, and chemical reactions.
- Solve problems utilizing chemical concepts and equations.
- Collect and analyze laboratory data.
- Demonstrate scientific literacy.

For an Associate in Science in Chemistry for Transfer (AS-T), students must complete the following:

- minimum of 60 semester (90 quarter) units of UC-transferable credit. No more than 14 semester (21 quarter) units of the 60 semester (90 quarter) units may be taken pass/fail or credit/no credit.
- the Intersegmental General Education Transfer Curriculum (IGETC) for Chemistry for UC Transfer pattern.
- a minimum of 18 semester (27 quarter) units in the major or area of emphasis as determined by the community college district.
- obtainment of a minimum grade point average (GPA) of 2.0.
- earn a grade of C (or "P") or better in all courses required for the major or area of emphasis.

**Note: Students are not required to complete any additional local graduation requirements for the AS-T (e.g., PE and Computer and Information Literacy courses).**

### Program Requirements:

**Program Core: (47 Units)**

**Units**

CHEM-04A	General Chemistry I .....	5
CHEM-04B	General Chemistry II .....	5
CHEM-13A	First Semester Organic ChemistryLecture .....	3
CHEM-13AL	First Semester Organic Chemistry Lab .....	2
CHEM-13B	Second Semester Organic Chemistry Lecture .....	3
CHEM-13BL	Second Semester Organic Chemistry Lab .....	2
PHYS-04A	Physics I .....	4
PHYS-04B	Physics II .....	4
PHYS-04C	Physics III .....	4
MATH-04A	Calculus I .....	4
MATH-04B	Calculus II .....	4
MATH-04C	Multivariable Calculus .....	4
MATH-06	Elementary Differential Equations .....	3

**Total Units toward Major: (47 Units)**

\*General Education (CSU-GE/IGETC: .....16-20 Units

Elective (UC Transferable) Units: .....0 Units

**Total Degree Units: (63-67 Units)**

***\*This AS-T degree general education requirements presumes completion of two courses in Area 3 and two courses in Area 4 after transfer to the University of California to complete the entire IGETC pattern.***

Area 1A Freshman Composition (3 units)

Area 1B Critical Thinking (3 units)

Area 3 Arts and Humanities (3 units)

Area 4 Social and Behavioral Science (3 units)

Area 5 Biological Science (4 units)

Area 6 Languages other than English (0-4 units)

**CHEMISTRY (CHEM)****CHEM-02A INTRODUCTORY CHEMISTRY**

(CSU breadth area B1/B3) (IGETC area 5A/5C) (C-ID CHEM 101)

4 units: 3 hours lecture, 3 hours lab.

Prerequisite: MATH-C, MATH-61, or MATH-62.

Advisory: ENGL-01A

This is an introduction to the general principles of inorganic chemistry, atomic and molecular structure, states of matter, solutions, and radioactivity. The class is designed for students majoring in liberal studies; nursing or agriculture. (04/20)

**CHEM-02B INTRODUCTORY CHEMISTRY: INTRODUCTION TO ORGANIC AND BIOCHEMISTRY**

(CSU breadth area B1/B3) (IGETC area 5A/5C)

4 units: 3 hours lecture, 3 hours lab.

Prerequisite: CHEM-02A;

MATH-C, MATH-61, or MATH-62.

Advisories: ENGL-01A and LRNR-30.

This is a continuation of CHEM-02A with emphasis on organic and biochemistry. The structure, nomenclature, and properties of organic compounds such as: alkanes, alkenes, arenes, alcohols, thiols, amines, aldehydes, ketones, carboxylic acids and their derivatives are covered. Structure, properties and reactions of biochemical compounds such as carbohydrates, proteins, and lipids are covered and followed through major and minor metabolic pathways. This course is intended for students in liberal studies, agriculture, and health-related fields. It is not for chemistry or science majors. (10/20)

**CHEM-04A GENERAL CHEMISTRY I**

(CSU breadth area B1/B3) (IGETC area 5A/5C)

(C-ID CHEM 110/120S)

5 units: 3 hours lecture, 6 hours lab.

Prerequisites: CHEM-02A; MATH-C, MATH-61, or MATH-62;

Advisory: ENGL-01A

This course is designed to teach general principles of chemistry emphasizing nomenclature, chemical equations, stoichiometry, concentration, gas laws, atomic structure, bonding, intermolecular forces, and crystalline solids. It is designed for the student majoring in chemistry, physics, biology,

engineering, pre-med, or related fields. A student who has not successfully completed the prerequisite of CHEM-02A but has completed a high school chemistry course with a grade of "B" or higher may consider submitting a prerequisite challenge. (02/21)

**CHEM-04B GENERAL CHEMISTRY II**

(CSU breadth areas B1/B3) (IGETC area 5A/5C) (C-ID CHEM 120S)

5 units: 3 hours lecture, 6 hours lab.

Prerequisite: CHEM-04A. Advisory: ENGL-01A.

This is a continuation of the general principles of chemistry, with emphasis on kinetics, chemical equilibria, thermodynamics, electrochemistry, nuclear chemistry and transition metal complexes. An introduction to the principles of organic chemistry is included. The lab provides the student with experience in qualitative and quantitative analysis. (02/21)

**CHEM-13A FIRST SEMESTER ORGANIC CHEMISTRY LECTURE**

(C-ID: CHEM 150, 160 S)

3 units: 3 hours lecture

Prerequisite: CHEM-04B. Advisory: ENGL-01A.

This course is a study of the theory and practice of organic chemistry examining the bonding, structure, stereochemistry, nomenclature, properties, and reactions of hydrocarbons and organic halides. Addition, substitution, elimination, and rearrangement reactions are examined. Corresponding mechanisms and energy diagrams are included in the study. Nuclear magnetic resonance, infrared, ultra-violet and mass spectroscopy are introduced as structural elucidation techniques.(05/21)

**CHEM-13AL FIRST SEMESTER ORGANIC CHEMISTRY LAB**

(C-ID: CHEM 150, 160 S)

2 units: 6 hours lab.

Prerequisite: CHEM-04B. Corequisite CHEM-13A.

Advisory: ENGL-01A.

A laboratory course that includes the study of organic laboratory techniques including the synthesis of organic compounds, separation, characterization, identification, purification, and the use of related instrumentation. This course is directed toward students in science and pre-professional preparation. (05/21)

**CHEM-13B SECOND SEMESTER ORGANIC CHEMISTRY LECTURE**

(C-ID: CHEM 160 S)

3 units: 3 hours lecture

Prerequisite: CHEM-13A and CHEM-13-AL. Advisory: ENGL-01A.

This course is a continuation of CHEM-13A, expanding the study of organic chemistry to include aromatic hydrocarbons, alcohols, ethers, thiols, sulfides, aldehydes, ketones, carboxylic acids and derivatives, amines and an introduction to the biochemistry of carbohydrates, proteins, and lipids. Included is a further examination of the use of IR, NMR, GC and Mass Spectroscopy in the identification of organic substances. (05/21)

**CHEM-13BL SECOND SEMESTER ORGANIC CHEMISTRY LAB**

(C-ID: CHEM 160 S)

2 units: 6 hours lab.

Prerequisite: CHEM-13A and CHEM-13AL. Corequisite CHEM-13B.

Advisory: ENGL-01A.

In the laboratory, course emphasis is placed on the reaction, synthesis, purification, characterization, spectroscopy, and qualitative tests of organic substances. This course is directed toward students in science and pre-professional preparation. (05/21)

# Child Development

## SCHOOL OF SOCIAL SCIENCES AND EDUCATION



Associate Degree  
for Transfer

*A Degree with a Guarantee<sup>SM</sup>*

### DEGREE

A.S.-T. - Early Childhood Education

A.A. - Child Development

### CERTIFICATE

Child Development: Administration in Early Childhood Education

Child Development: Early Intervention Assistant Specialization

Child Development: Families In Crisis Specialization

Child Development: Infant/Toddler Care

Child Development: School Age Care Specialization

### Program Description

The Merced College Child Development Department offers students classes and training to meet California requirements for credentials and licenses, as well as an Associate of Arts in Child Development (AA) degree and an Associate of Science in Early Childhood Education for Transfer (AS-T in ECE) degree. Preparation includes transfer level courses with several that meet general education requirements and Certificates of Achievement. Throughout all courses, students are trained culturally sensitive and family-focused perspectives that emphasize the value of individual differences in your children. The Child Development Department works closely with many community programs to meet the specific needs of the early care and education workforce.

Students are strongly encouraged to transfer to a 4-year college or university. In several courses, students are given information about pursuing their bachelor, masters, and doctorate degrees. In particular classes, information, materials, and workshops on the California Teaching Credential Child Development Permit Matrix are shared. The permit matrix covers entry level positions through a master's degree option. To increase the likelihood that students will transfer, students are required to develop an education plan with a counselor. Increasing numbers of our students are transferring to pursue degrees in child development, liberal studies, and other related fields.

### Career Opportunities

There are many opportunities for employment in the field of Early Childhood Education. People with training in child development can:

- Work with infants, toddlers, preschoolers, and school-aged children in positions including teacher assistants, teachers, directors, and program coordinators.
- Open a small child care business, a licensed family child care home or a private child care center.
- Become "in-home" child care providers who are hired by parents to do child care for children in the child's home setting.
- Become a foster parent.
- Work as a teacher's aide in elementary school programs.
- Transfer to a four-year college or university in fields related to children, schools and families, such as elementary school teachers, social workers, parent educators, special education teachers and early intervention specialists.

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### Highlights

"Averaging thirty graduates per year," the Child Development program is one of the largest career technical programs at Merced College. Child Development Certificate and Associate degree requirements are offered on both the Merced Campus and Los Banos Campus. For the convenience of the students, six of the eight required core courses are offered online. In addition, Merced College participates in three programs to assist students in their success: California Early Childhood Mentor Program (CECMT), Child Development Training Consortium (CDTC), and Temporary Assistance for Needy Families—Child Development Careers Program (TANF-CDC). Please call the Child Development Department at (209) 384-6150 for additional information.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE (12/19)

#### A.S.-T. - Early Childhood Education (13010.AST)

The Associate in Science in Early Childhood Education for Transfer (AS-T in ECE) at Merced College is based on the approved Transfer Model in accordance to SB1440 and California Education Code sections 66746-66749. The AS-T in ECE is consistent with and supports the colleges' mission of commitment to continuously improve methods of providing an accessible, affordable, and relevant education that improves the quality of life for all students and their communities. The AS-T in ECE is designed to prepare students for transfer into the CSU system with guarantee admission with junior status to complete a baccalaureate degree in ECE or similar major. Students who obtain advanced degrees and/or professional certificates, such as a baccalaureate degree, will have the foundation to pursue careers in the early care and education workforce. AS-T in ECE students will:

- Develop knowledge of high quality developmentally appropriate practices.
- Analyze the various theoretical frameworks and domains associated with typical and atypical development.
- Formulate effective strategies that empower families and community.
- Construct personal philosophy regarding professionalism and best practices in child development.

For an Associate in Science in Early Childhood Education for Transfer (AS-T in ECE):

- 60 semester CSU-transferable units.
- The California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- A minimum of 18 semester units in the major or area of emphasis as determined by the community college district.
- Obtainment of a minimum grade point average (GPA) of 2.0.
- Earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

**Note: Students are not required to complete any additional local graduation requirements for the AS-T (e.g., PE and Computer and Information Literacy courses).**

### Program Requirements:

#### Program Core: (24 Units)

	Units
CLDV-01	Child Growth and Development.....3
CLDV-02	Child, Family and Community .....3
CLDV-03	Principles and Practices of Teaching Young Children.....3

CLDV-04	Observation and Assessment .....	3
CLDV-05	Health, Safety and Nutrition .....	3
CLDV-06	Embracing Diversity in Education .....	3
CLDV-07	Introduction to Curriculum for the Young Child.....	3
CLDV-07L	Practicum .....	3
<b>Total: (24 Units)</b>		

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## DEGREE (3/17)

### A.A. - Child Development (13010.AA)

For an Associate of Arts in Child Development, students must meet the graduation requirements and complete the following courses.

#### Program Student Learning Outcomes

- Develop knowledge of high quality developmentally appropriate practices.
- Analyze the various theoretical frameworks and domains associated with typical and atypical development.
- Formulate effective strategies that empower families and community.
- Construct personal philosophy regarding professionalism and best practices in child development.

For an Associate in Arts in Child Development (AA):

- 60 semester degree-applicable units.
- Complete the associate breath requirements consisting of 23 units.
- A minimum of 18 semester units in the major or area of emphasis as determined by the community college district.
- Obtainment of a minimum grade point average (GPA) of 2.0.
- Earn a grade of C or better in all courses required for the major or area of emphasis.
- Fulfill the following competency requirements:
  - Reading and Writing Competency:  
Grade C or better in ENGL-01A or the equivalent
  - Math Competency:  
Grade C or better in MATH-C or the equivalent

#### Program Requirements:

<b>Program Core: (24 Units)</b>		<b>Units</b>
CLDV-01	Child Growth and Development .....	3
CLDV-02	Child, Family and Community .....	3
CLDV-03	Principles and Practices of Teaching Young Children.....	3
CLDV-04	Observation and Assessment .....	3
CLDV-05	Health, Safety and Nutrition .....	3
CLDV-06	Embracing Diversity in Education .....	3
CLDV-07	Introduction to Curriculum for the Young Child.....	3
CLDV-07L	Practicum .....	3
<b>Total: (24 Units)</b>		

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## CERTIFICATE (10/19)

### Child Development: Administration in Early Childhood Education (13011.CT)

Students must take the following classes designated below to complete a 32 unit certificate of Achievement.

#### Program Student Learning Outcomes

- Demonstrate knowledge of high quality developmentally appropriate practices.
- Identify the various theoretical frameworks and domains associated with typical and atypical development.
- Formulate effective strategies that empower families and community.
- Construct personal philosophy regarding professionalism and best practices in child development.

#### Program Requirements:

##### Program Core: (32 Units)

CLDV-01	Child Growth and Development .....	3
CLDV-02	Child, Family and Community .....	3
CLDV-03	Principles and Practices of Teaching Young Children.....	3
CLDV-04	Observation and Assessment .....	3
CLDV-05	Health, Safety and Nutrition .....	3
CLDV-06	Embracing Diversity in Education .....	3
CLDV-07	Introduction to Curriculum for the Young Child.....	3
CLDV-07L	Practicum .....	3
CLDV-34A	Administration I: Programs in Early Childhood Education .....	3
CLDV-34B	Administration and Supervision of ECE Programs: Part B.....	3
CLDV-37	Adult Supervision and Mentoring in Early Care and Education .....	2
<b>Total: (32 Units)</b>		

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## CERTIFICATE (12/07)

### Child Development: Early Intervention Assistant Specialization (13015.CT)

Students must take the following classes designated below to complete a 32 unit certificate of Achievement.

#### Program Student Learning Outcomes

- Assess programs that support full participation and inclusive practices of children with disabilities, or other special needs, and their families.
- Evaluate legal requirements related to the care, education and program policies of young children with disabilities or other special needs that meet IDEA, ADA, and state law requirements including parent's rights and confidentiality matters.
- Evaluate and construct safe and effective use of adaptive equipment based on the recommendations set by specialist service providers, families, and/or the IFSP/IEP team.

#### Program Requirements:

<b>Program Core: (32 Units)</b>		<b>Units</b>
CLDV-01	Child Growth and Development .....	3
CLDV-02	Child, Family and Community .....	3
CLDV-03	Principles and Practices of Teaching Young Children.....	3
CLDV-04	Observation and Assessment .....	3
CLDV-05	Health, Safety and Nutrition .....	3
CLDV-06	Embracing Diversity in Education .....	3
CLDV-07	Introduction to Curriculum for the Young Child.....	3
CLDV-07L	Practicum .....	3
CLDV-38	Children with Special Needs .....	3
CLDV-11	Introduction to Early Intervention .....	3
CLDV-37	Adult Supervision and Mentoring in Early Care and Education .....	2
<b>Total: (32 Units)</b>		



Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE (12/07)

#### Child Development: Families In Crisis Specialization (13020.CT)

Students must take the following classes designated below to complete a 32 unit certificate of Achievement.

##### Program Student Learning Outcomes

- Assess family strengths, needs and risk factors related to child and family health, mental health and development.
- Evaluate procedures for referrals to community resources with consideration for the diverse linguistic and cultural experiences of families.
- Advocate in the family and in the community for awareness of risk, resiliency and preventive factors.

##### Program Requirements:

Program Core: (32 Units)		Units
CLDV-01	Child Growth and Development .....	3
CLDV-02	Child, Family and Community .....	3
CLDV-03	Principles and Practices of Teaching Young Children .....	3
CLDV-04	Observation and Assessment .....	3
CLDV-05	Health, Safety and Nutrition .....	3
CLDV-06	Embracing Diversity in Education .....	3
CLDV-07	Introduction to Curriculum for the Young Child .....	3
CLDV-07L	Practicum .....	3
CLDV-33	Working Effectively with Families .....	1
CLDV-37	Adult Supervision and Mentoring in Early Care and Education .....	2
CLDV-54	Sexual Development of Young Children .....	1
CLDV-57	Child Abuse & Neglect .....	1
CRIM-33	Violence in the Family .....	3
<b>Total: (32 Units)</b>		

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE (3/17)

#### Infant/Toddler Care (13026.CT)

For successful completion, a student must complete the required 32 units outlined in the Certificate of Achievement with a GPA of 2.0 or better.

A student must have earned a grade of C or better in each course to qualify for a Child Development permit through the California Commission on Teacher Credentialing.

##### Program Student Learning Outcomes

- Distinguish and apply infant/toddler caregiving principles and infant/toddler education practices.
- Design environments and curriculum for infant/toddler caregiving settings (including inclusive care) that support learning and building strong, positive and respectful relationships with children and families.
- Distinguish the professional practices of adults and staff in infant/toddler caregiving settings.

##### Program Requirements:

Program Core: (32 Units)		Units
CLDV-01	Child Growth and Development .....	3
CLDV-02	Child, Family and Community .....	3
CLDV-03	Principles and Practices of Teaching Young Children .....	3
CLDV-04	Observation and Assessment .....	3
CLDV-05	Health, Safety and Nutrition .....	3
CLDV-06	Embracing Diversity in Education .....	3

CLDV-07	Introduction to Curriculum for the Young Child .....	3
CLDV-07L	Practicum .....	3
CLDV-30	Infant and Toddler Development .....	3
CLDV-30L	Infant/Toddler Care and Education Practicum .....	3
CLDV-37	Adult Supervision and Mentoring in Early Care and Education .....	2
<b>Total: (32 Units)</b>		

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE (12/07)

#### Child Development: School-Age Care Specialization (13030.CT)

Students must take the following classes designated below to complete a 32 unit certificate of Achievement.

##### Program Student Learning Outcomes

- Design and analyze theme based activities for children in grades K-8, recognize the curriculum implications for behavior management, including the indoor and outdoor environment, and apply guidance techniques for school-age children.
- Distinguish characteristics of the school-age care profession and professional.
- Self-assess strengths and weaknesses of a school-age care provider, and understand the role in partnerships with the community and families of school-age children.
- Determine current issues facing school-age children and apply school-age theories to school-age development, including physical, cognitive, and psychosocial development, and observe children in three age groups, 5-7, 8-10, and 11-13 years old.

##### Program Requirements:

Program Core: (32 Units)		Units
CLDV-01	Child Growth and Development .....	3
CLDV-02	Child, Family and Community .....	3
CLDV-03	Principles and Practices of Teaching Young Children .....	3
CLDV-04	Observation and Assessment .....	3
CLDV-05	Health, Safety and Nutrition .....	3
CLDV-06	Embracing Diversity in Education .....	3
CLDV-07	Introduction to Curriculum for the Young Child .....	3
CLDV-07L	Practicum .....	3
CLDV-30D	School-Age Curriculum .....	2
CLDV-37	Adult Supervision and Mentoring in Early Care and Education .....	2
CLDV-56	School-Age Development .....	2
CLDV-56L	School-Age Development Lab .....	2
<b>Total: (32 Units)</b>		



**CHILD DEVELOPMENT (CLDV)****CLDV-01 CHILD GROWTH AND DEVELOPMENT**

(C-ID CDEV 100) (CSU breadth area D/E) (IGETC area 4)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

Examines the major physical, cognitive, social and emotional developmental milestones for children, typical and atypical, from conception through adolescence. Emphasis on interactions between maturational processes and environmental factors. Students will observe children, evaluate individual differences and analyze characteristics of development at various stages according to developmental theories. (02/21)

**CLDV-02 CHILD, FAMILY AND COMMUNITY**

(C-ID CDEV 110) (CSU breadth area D/E) (IGETC area 4)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

An examination of the developing child in a societal context which focuses on the interrelationships of family, school, and community while emphasizing cultural, historical and socio-cultural contexts. (02/21)

**CLDV-03 PRINCIPLES AND PRACTICES OF TEACHING YOUNG CHILDREN**

(C-ID ECE 120)

3 units: 3 hours lecture.

One-way corequisite: CLDV-01.

Historical contexts and theoretical perspectives of developmentally and culturally appropriate practice in early care and education for children birth through age eight. Explores the typical roles and expectations of early childhood educators. Identifies professional ethics, career pathways, and professional standards. Introduces best practices for developmentally and culturally appropriate learning environments, curriculum, and effective pedagogy for young children including how play contributes to children's learning, growth, and development. (02/21)

**CLDV-04 OBSERVATION AND ASSESSMENT**

(C-ID ECE 200)

3 units: 2 hours lecture, 54 hours TBA lab.

Prerequisite: CLDV-01.

One-way corequisite: CLDV-03.

Advisory: ENGL-01A.

Limitation on enrollment: As per California Law SB792, all volunteers, students and employees of early care and education facilities which serve children 0-5 yrs must provide documented verification of immunizations and negative TB test.

Prepares Early Childhood Educators to incorporate observation, documentation and assessment into their daily classroom practices. How to use findings to inform classroom environments, interactions and curriculum will be emphasized. Various assessment tools and techniques to be used with typical and atypically developing children will be covered. The importance of collaborating with families and community professionals will be addressed. (02/21)

**CLDV-05 HEALTH, SAFETY AND NUTRITION**

(C-ID ECE 220)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

Laws, regulations, standards, policies, procedures, and best practices related to health, safety, and nutrition in care and education settings for children birth through middle childhood. Includes the teacher's role in prevention strategies, nutrition and meal planning, integrating health safety and nutrition experiences into daily routines, and overall risk management. (02/21)

**CLDV-06 TEACHING IN A DIVERSE SOCIETY**

(C-ID ECE 230)

3 units: 3 hours lecture.

Prerequisite: ENGL-01A.

Examines the impact of social diversity on human development in the United States. A self-examination regarding multicultural values and beliefs is explored with a focus on anti-bias educational philosophies. Social

justice and promoting an equitable society for all children and families will be addressed. (12/20)

**CLDV-07 INTRODUCTION TO CURRICULUM FOR THE YOUNG CHILD**

(C-ID ECE 130)

3 units: 3 hours lecture.

One-way corequisite: CLDV-03. Advisory: ENGL-01A.

Developmentally appropriate curriculum and environments for children birth through age eight. Students will use knowledge of children's development, theories of learning and development, and examples from various models of developmentally appropriate practice to plan environments and curriculum in all content areas to support children's development and learning integrated throughout indoor and outdoor settings. (02/21)

**CLDV-07L PRACTICUM**

(C-ID ECE 210)

3 units: 1 hour lecture, 6 hours lab TBA.

Prerequisite: CLDV-01; CLDV-02; CLDV-03, CLDV-04, CLDV-07.

Limitation on enrollment: As per California law SB792, all students who work in early care development facilities and programs must provide documented verification of mandatory immunizations and proof of a negative TB test. All student documentation must be verified prior to participating in the practicum course.

Demonstration of developmentally appropriate early childhood program planning and teaching competencies under the supervision of ECE/CD faculty and other qualified early education professionals. Students will utilize practical classroom experiences to make connections between theory and practice, develop professional behaviors, and build a comprehensive understanding of children and families. Reflective practice will be emphasized as student teachers design, implement, and evaluate approaches, strategies, and techniques that promote development and learning. Includes exploration of career pathways, professional development, and teacher responsibilities. (02/21)

**CLDV-09 HUMAN DEVELOPMENT (ALSO: PSYC-09)**

(C-ID PSY 180) (CSU breadth area E)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This course is an introduction to the scientific study of human development from conception through death. It examines interplay of biological, psychological, social, and cultural forces on the developing human being. (04/19)

**CLDV-10 STRATEGIES FOR WORKING WITH CHALLENGING BEHAVIORS**

3 units: 3 hours lecture.

Advisory: ENGL-01A.

Appropriate for classroom teachers in various settings, students will identify developmentally appropriate behaviors, challenging behaviors and the various influences that effect children's behavior. Students will analyze children's behaviors and select strategies to make positive changes. Emphasizes the connection between children's social and emotional development and their success in the classroom, and how the teachers' perceptions, experiences, and behavior influence child behaviors. (02/21)

**CLDV-11 INTRODUCTION TO CURRICULUM AND STRATEGIES IN EARLY INTERVENTION**

3 units: 2 hours lecture, 54 hours TBA lab.

Prerequisites: CLDV-01.

Limitation on enrollment: As per California Law SB792, all volunteers, students and employees of early care and education facilities which serve children 0-5 yrs must provide documented verification of immunizations and negative TB test.

Examines curriculum and early intervention strategies for working with children with special needs in partnership with their families. Focuses on the use of observation and assessment in meeting the individualized needs of children in inclusive and natural environments. Includes the role of the teacher as a professional working with families, collaboration with interdisciplinary teams, and cultural competence. (02/21)

**CLDV-24 WORK EXPERIENCE IN CHILD DEVELOPMENT**

1-8 units

Advisory: ENGL-01A

This course enables students to earn college credit for learning and/or improving skills or knowledge on-the-job. Occupational Work Experience is discipline specific and must connect to the student's major or occupational goal(s). Seventy-five (75) hours of documented paid work experience equals 1 unit of credit. Sixty (60) hours of documented volunteer experience equals 1 unit of credit. A student may enroll in up to 16 total units of work experience at Merced College. Students must have an established work site prior to enrolling in the course. (12/19)

**CLDV-30 INFANT AND TODDLER DEVELOPMENT**

3 units: 3 hours lecture.

Prerequisite: CLDV-01.

A study of infants and toddlers from pre-conception to age three including physical, cognitive, language, social, and emotional growth and development. Applies theoretical frameworks to interpret behavior and interactions between heredity and environment. Emphasizes the role of family and relationships in development. (02/21)

**CLDV-30D SCHOOL-AGE CURRICULUM**

2 units: 2 hours lecture.

Advisories: CLDV-01

This course is designed to help Early Childhood Education students and practicing child care professionals create developmentally appropriate curriculum ideas for children in school-age programs, ages 5-12 years old. Students will do hands-on work with materials. (02/21)

**CLDV-30L INFANT/TODDLER CARE AND EDUCATION PRACTICUM**

3 units: 1 hour lecture, 108 hours TBA lab.

Limitation on enrollment: As per California Law SB792, all volunteers, students and employees of early care and education facilities which serve children 0-5 yrs must provide documented verification of immunizations and negative TB test.

Prerequisite: CLDV-30.

Focusing on children ages birth to 3 years, this course applies current theory and research to the care and education of infants and toddlers in group settings. Coursework examines essential policies, principles and practices that lead to high quality care and developmentally appropriate curriculum. (02/21)

**CLDV-33 WORKING EFFECTIVELY WITH FAMILIES**

1 unit: 1 hour lecture.

This is a course designed for students who are interested in working with families in child care, early childhood and other school settings. Students will examine the diversity of families, effective home-school-community relationships and effective teacher-family communication. (02/21)

**CLDV-34A ADMINISTRATION I: EARLY CHILDHOOD PROGRAMS AND OPERATIONS**

3 units: 3 hours lecture.

Prerequisite: CLDV-01. Advisory: ENGL-01A.

This course is an introduction to the Administration of Early Childhood programs. It covers program types, budget management, regulations, laws, development and implementation of policies and procedures. It examines administrative tools, philosophies, and techniques needed to organize, open, and operate an Early Care and Education Program. (02/21)

**CLDV-34B ADMINISTRATION II: EARLY CHILDHOOD LEADERSHIP AND ADVOCACY**

3 units: 3 hours lecture.

Prerequisite: CLDV-34A. Advisory: ENGL-01A.

This course is an advanced Early Childhood Programs administrative course. It covers effective strategies for leadership, advocacy, and personnel management, in early care and education settings. Includes legal and ethical responsibilities, supervision techniques, professional development, and reflective practice for diverse, inclusive, and equitable Early Care and Education Programs. (02/21)

**CLDV-37 ADULT SUPERVISION AND MENTORING IN EARLY CARE AND EDUCATION**

2 units: 2 hours lecture.

Advisory: CLDV-01 or ENGL-01A.

This course is a study of the methods and principles of supervising student teachers, volunteers, staff, and other adults in Early Care and Education settings. Emphasis is on the roles and development of Early Childhood professionals as mentors and leaders. Course supports advancement on the Child Development Permit Matrix. (02/21)

**CLDV-38 CHILDREN WITH SPECIAL NEEDS**

3 units: 3 hours lecture.

Advisories: CLDV-01.

This course provides teachers the knowledge and skills to work with children with special needs. Students will be introduced to the principles of typical and atypical development, the assessment and identification in qualifying for services, the developmentally appropriate practices in the inclusive setting, and the inter/multidisciplinary approach to early intervention practices. (02/21)

**CLDV-41 INFANT AND TODDLER FEEDING (ALSO: NUTR-41)**

1 unit: 1 hour lecture.

This course focuses on feeding typical and atypical developing infants beginning at birth with breast milk, formulas, first foods and progresses to textures and foods appropriate for the toddler. Course focuses on how to feed a baby, prevent baby bottle tooth decay and choking prevention. Students will learn about appropriate snacks, food safety aspects and food preparation for children with varying needs. Finally students will have the opportunity to design an age appropriate menu meeting the Child Care Food Program Guidelines. This course is recommended for child development and foods and nutrition students (11/15)

**CLDV-54 SEXUAL DEVELOPMENT OF YOUNG CHILDREN**

1 unit: 1 hour lecture.

Prerequisite: CLDV-01.

Addressing healthy sexual development of young children may be awkward and uncomfortable for most adults. This course identifies stages of sexual development from infancy to adolescence. Students will learn techniques in how to address children's sexual development by utilizing accurate, age appropriate information to children to develop healthy, safe and secure attitudes of their bodies. (02/21)

**CLDV-56 SCHOOL-AGE DEVELOPMENT**

3 units: 3 hours lecture.

Prerequisite: CLDV-01

This introductory course on school-age development covers an overview of school-age care; the school-age professional; school-age theory and development ages 5-13; current issues facing school-age children; guidance of school-age children; regulations and program quality; and developing partnerships with communities and families. Students will participate in observations of school-age children and programs. (02/21)

**CLDV-56L SCHOOL-AGE DEVELOPMENT LAB**

3 units: 1 hour lecture, 108 hours TBA lab.

Limitation on Enrollment: Students must have a negative result on a TB test within the past four years. One-way corequisite: CLDV-56.

School-age programs will be studied for purposes of planning experiences which encourage physical, mental, social and emotional growth. The laboratory will consist of supervised work in a selected school-age care program and is designed to offer students continued and increased opportunities in working with children ages 5-12 years old. This course is required for the School-Age Certificate. (02/21)

**CLDV-57 CHILD ABUSE AND NEGLECT**

1 unit: 1 hour lecture.

Advisory: CLDV-01

Examine the role of practicing educators and professionals working with young children and families in identifying, treating, and preventing child maltreatment, including abuse and neglect. Emphasis on strategy and culturally competent practices will be explored. (02/21)

**CLDV-65A CA PRESCHOOL FOUNDATIONS AND FRAMEWORKS: LANGUAGE, LITERACY**

1 unit: 1 hour lecture.

This course is designed to introduce and apply the California Preschool Learning Foundations and Framework in the area of Language and Literacy. This course will guide teachers to visualize and consider how research and practices are appropriately implemented in Transitional Kindergarten (TK) and other early childhood preschool classrooms. Students will learn developmentally appropriate strategies providing children active learning experiences in language and literacy; including oral, writing and reading strategies. (02/21)

**CLDV-65B CA PRESCHOOL FOUNDATIONS AND FRAMEWORKS: MATH**

1 unit: 1 hour lecture.

This course is designed to introduce and apply the California Preschool Learning Foundation and Frameworks for Mathematics. This course will guide teachers to consider how research and best practices can be appropriately implemented in classrooms for Transitional Kindergarten (TK) and other preschool classes. Students will learn developmentally appropriate strategies providing children with the basic skills of mathematics: e.g. number sense, algebra and functions (classification and patterning), measurement, geometry, and mathematical reasoning. (02/21)

**CLDV-65C CA PRESCHOOL FOUNDATIONS AND FRAMEWORKS: SCIENCE**

1 unit: 1 hour lecture.

This is a course designed to introduce and apply California Preschool Learning Foundation and Frameworks of Science. This course will guide teachers to visualize and consider how the research and practices can be appropriately implemented in classrooms for transitional kindergarten and other preschool classes. Participants will learn strategies about providing children with the basic skills of scientific inquiry, such as observing and describing, comparing and contrasting, classifying, experimenting and recording and using the scientific vocabulary associated with these skills. (02/21)

**CLDV-65D CA PRESCHOOL FOUNDATIONS & FRAMEWORKS: HISTORY AND SOCIAL SCIENCE**

1 unit: 1 hour lecture.

Introduction to the history and social science domain of the California Preschool Learning Foundations and Frameworks including strands of self and society, civics, history, geography, ecology, and economics. Provides practical strategies for implementing the curriculum frameworks developed for this domain. Applicable to required or professional development units for Child Development Permit holders, pre-school, transitional kindergarten, and early-primary teachers. (02/21)

**CLDV-65E CA PRESCHOOL FOUNDATIONS & FRAMEWORKS: SOCIAL AND EMOTIONAL**

1 unit: 1 hour lecture.

Introduction to the social and emotional development domain of the California Preschool Learning Foundations and Frameworks including the strands of self, social interaction, and relationships. Provides practical strategies for implementing the curriculum frameworks developed for this domain. Applicable to required or professional development units for Child Development Permit holders, pre-school, transitional kindergarten, and early-primary teachers. (02/21)

**CLDV-65F CA PRESCHOOL FOUNDATIONS & FRAMEWORKS: ENGLISH LANG. DEVELOPMENT**

1 unit: 1 hour lecture.

Introduction to the English language learners domain of the California Preschool Learning Foundations and Frameworks including strands of listening, speaking, reading and writing. Provides practical strategies for implementing the curriculum frameworks developed for this domain. Applicable to required or professional development units for Child Development Permit holders, pre-school, transitional kindergarten, and early-primary teachers. (02/21)

**CLDV-65G CA PRESCHOOL FOUNDATIONS & FRAMEWORKS: PERFORMING ARTS**

1 unit: 1 hour lecture.

Introduction to the performing arts domain of the California Preschool Learning Foundations and Frameworks including strands of music, drama, and dance. Provides practical strategies for implementing the curriculum frameworks developed for this domain. Applicable to required or professional development units for Child Development Permit holders, pre-school, transitional kindergarten, and early-primary teachers. (02/21)

**CLDV-65H CA PRESCHOOL FOUNDATIONS & FRAMEWORKS: VISUAL ARTS**

1 unit: 1 hour lecture.

Introduction to the visual arts domain of the California Preschool Learning Foundations and Frameworks including artistic expression and response, and skills using various art mediums. Provides practical strategies for implementing the curriculum frameworks developed for this domain. Applicable to required or professional development units for Child Development Permit holders, preschool, transitional kindergarten, and early-primary teachers. (02/21)

**CLDV-65I CA PRESCHOOL FOUNDATIONS & FRAMEWORKS: PHYSICAL DEVELOPMENT**

1 unit: 1 hour lecture.

Introduction to the physical development domain of the California Preschool Learning Foundations and Frameworks including strands of fundamental movement skills, perceptual-motor skills and movement concepts, and active physical play. Provides practical strategies for implementing the curriculum frameworks developed for this domain. Applicable to required or Child Development Permit holders, pre-school, transitional kindergarten, and early-primary teachers. (02/21)

**CLDV-65J CA PRESCHOOL FOUNDATIONS & FRAMEWORKS: HEALTH**

1 unit: 1 hour lecture.

Introduction to the Health domain of the California Preschool Learning Foundations and Frameworks including strands of health habits, safety, and nutrition. Provides practical strategies for implementing the curriculum frameworks. Applicable to required or professional development units for Child Development Permit holders, as well as pre-school, transitional kindergarten, and early-primary teachers. (02/21)

# College

## STUDENT SERVICES

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**PHONE**  
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**AREA OFFICE**  
LESHER STUDENT SERVICES, 2ND FLOOR

### **COLL-47 UC STEM Transfer Experience**

0.5 unit: 1 hour lecture.

Advisory: ENGL-01A

This course covers important information for students who plan to transfer to one of the nine University of California campuses in one of the STEM disciplines. Topics include exploration of STEM academic and professional pathways, acceptance of UC admission, assessment of campus resources and methods for maintaining health and wellness in the transition to a new institution of higher education. Students have the opportunity to broaden their perspectives by examining the role of STEM education in society and explore the impact of STEM education as a holistic, transformative process. Students will complete a UC cost analysis, as well as explore resources pertaining to STEM disciplines to help fund their education while simultaneously improving their academic experience. (03/21)

### **COLL-53 ORIENTATION AND STRATEGIES FOR COLLEGE SUCCESS**

1 unit: 1 hour lecture.

The course is designed to orient students to Merced College and introduce practical strategies for college success. Topics addressed will include: Orientation; Assessment and Awareness of Values, Choices and Behaviors that Impact College Success; Understanding the College Catalog, College Policies, and Campus Resources; Navigating Technology; Goal Setting; Study Strategies; and Clarifying Major/Career Pathways in relation to the students' intended "School of" study. (12/18)

### **COLL-54 MATH STRATEGIES**

1 unit: 1 hour lecture.

This comprehensive course is designed for students who need additional instruction in compensatory strategies that typically lead to success within the traditional classroom. Specialized instruction will occur in formulating efficient personal, test-taking and study strategies specifically related to learning math. (05/19)

### **COLL-55 MAKING THE MOVE: TRANSITION TO COLLEGE**

1 unit: 1 hour lecture.

This course is designed for new and reentry students who need additional instruction and compensatory strategies to learn to be successful within the traditional classroom. (11/19)

### **COLL-56 FIRST YEAR SEMINAR**

2 units: 2 hours lecture.

This comprehensive course is designed to provide specialized instructions to students to maximize their learning potential and increase academic efficiency. (11/19)



# Communication Studies

SCHOOL OF SOCIAL SCIENCES AND EDUCATION



Associate Degree  
for Transfer  
*A Degree with a Guarantee.<sup>SM</sup>*

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## DEGREE

A.A.-T. - Communication Studies

### Program Description

The Communication Studies curriculum is designed to assist students from all majors in developing communication skills. Those students interested in majoring in communication studies, with possible emphasis in public speaking, small group discussion, interpersonal communication, intercultural communication, or oral interpretation, should consult the catalog of the college to which they plan to transfer for these and other options.

### Mission Statement

The mission of the Communication Studies A.A.-T. degree program is to prepare students for employment and/or for the pursuit of an advanced degree in communication studies or other similar areas by educating them in the fundamental concepts, knowledge, and skills of communication.

### Career Opportunities in Communication Studies

This degree prepares students for careers requiring communication skills, whether it be small group, interpersonal, public speaking, or intercultural.

## DEGREE <sup>(5/15)</sup>

**A.A.-T. - Communication Studies (15601.AAT)**

The Associate in Arts in Communication Studies for Transfer (AA-T) is designed for students as both a terminal degree as well as for those planning on transferring to a California State University. Upon completion of the associate degree, the student is eligible for transfer with junior standing into the California State University (CSU) system. Students will be given priority consideration when applying to a particular program that is similar to the student's community college area of emphasis.

For an Associate in Arts in Communication Studies for Transfer (AA-T), students must complete the following:

- (1) 60 semester CSU-transferable units.
- (2) the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- (3) a minimum of 18 semester in the major or area of emphasis as determined by the community college district.
- (4) obtainment of a minimum grade point average (GPA) of 2.0.
- (5) earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

Note: Students are not required to complete any additional local graduation requirements for the AA-T (e.g., PE).

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[Communication Studies Website](#)

### Program Student Learning Outcomes

- A. Appraise core concepts, skills, and/or theories in various communication contexts (public, interpersonal, small group, or intercultural).
- B. Construct written, oral, and visual communication appropriate for the purpose, audience, and context.
- C. Evaluate success of written, oral, and/or visual communication through critical thinking.

### Program Requirements:

#### Program Core: (18 Units)

	Units
COMM-01 Fundamentals of Speech .....	3
or	
COMM-01H** Honors Fundamentals of Speech .....	3
COMM-02* Oral Interpretation .....	3
or	
ENGL-02 Oral Interpretation .....	3

COMM-04 Small Group Discussion and Problem Solving .....	3
COMM-05 Interpersonal Communication .....	3
COMM-30 Introduction to Intercultural Communication.....	3

#### Plus three units from the following electives.

ANTH-02 Sociocultural Anthropology .....	3
ENGL-13 Critical Reasoning and Writing .....	3
ENGL-13H Honors Critical Reasoning and Writing .....	3
PHIL-13 Critical Reasoning and Writing .....	3
PHIL-13H Honors Critical Reasoning and Writing 3 .....	3
PSYC-01A Introduction to Psychology .....	3
PSYC-01AH Honors Introduction to Psychology .....	3
SOC-01 Introduction to Sociology .....	3

**Total: (18 Units)**

Total units that may be double counted: .....	9
General Education (CSU-GE or IGETC) Units: .....	37-39
Elective (CSU Transferable) Units: .....	12-14

**Total Degree Units: (60 Units)**

\*Offered in the spring semester only.

\*\* Only offered during the fall semester. Students must be enrolled in the Honors Program prior to registering for the course.



## COMMUNICATION STUDIES (COMM)

### COMM-01 FUNDAMENTALS OF SPEECH

(C-ID COMM 110) (CSU breadth area A1) (IGETC area 1C-CSU only)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This course is designed to instruct students in the fundamentals of composing, preparing and presenting speeches in front of audiences. The focus will be on researched speeches to inform and persuade. By the end of the course, students should be speaking confidently and skillfully and should be able to transfer their understanding and skills from the classroom to "real world" situations. (9/13)

### COMM-01H HONORS FUNDAMENTALS OF SPEECH

(C-ID COMM 110) (CSU breadth area A1) (IGETC area 1C - CSU only)

3 units: 3 hours lecture.

Advisory: ENGL-01A

Limitation on enrollment: Enrollment in the Honors Program. See the college catalog for a description of admission requirements.

This course is designed to instruct students in the fundamentals of composing, preparing and presenting speeches in front of audiences. The focus will be on researched speeches to inform and persuade. By the end of the course, students should be speaking confidently and skillfully and should be able to transfer their understanding and skills from the classroom to "real world" situations. (9/13)

### COMM-02 ORAL INTERPRETATION (ALSO: ENGL-02)

(C-ID COMM 170)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This course is designed to introduce students to performance studies through analysis, appreciation, and application of interpretive performance of the various forms of literature: poetry, prose and drama. (03/18)

### COMM-04 SMALL GROUP DISCUSSION AND PROBLEM SOLVING

(C-ID COMM 140) (CSU breadth area A1) (IGETC area 1C - CSU only)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This is a course designed to help students develop critical thinking and oral presentation skills for communicating and working together on small group tasks. Emphasis is placed on problem-solving, reasoning, conflict resolution, and leadership. (11/19)

### COMM-05 INTERPERSONAL COMMUNICATION

(C-ID COMM 130) (CSU breadth area A1)

3 units: 3 hours lecture.

Advisory: ENGL-01A

The focus of this course is to examine successful verbal and nonverbal communication in interpersonal relationships. Communication theory and skills will be investigated in order to help students interact more effectively in personal and professional relationships. (3/18)

### COMM-30 INTRODUCTION TO INTERCULTURAL COMMUNICATION

(C-ID COMM 150) (CSU breadth area D) (IGETC area 4)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This course is designed to examine the basic concepts, principles, and their application to communication between persons from different minority, ethnic, and co-cultural backgrounds within the United States and in the international arena through the scope of interpersonal communication skills. This class will assist in the understanding and evaluation of barriers to communicating with people from other cultures, which include ethnocentrism, prejudice, and lack of awareness. (11/16)

Computer-Aided  
Design & 3D Modeling

SCHOOL OF SCIENCE, TECHNOLOGY,  
ENGINEERING AND MATHEMATICS

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[CAD3D Website](#)

CERTIFICATE

Computer-Aided Design & 3D Modeling

Visit the [Program Mapper](#) for more information on when to take classes and career information.

Career Opportunities

CAD operator, detailer, draftsman, product designer, drafting technician, engineering assistant, home designer

CERTIFICATE (05/21)

Computer-Aided Design & 3D Modeling Certificate  
(09104.CM)

The Computer-Aided Design & 3D Modeling Certificate shows that a student is familiar with 2D, and basic 3D Computer-Aided Design (CAD) programs. Students who complete this certificate are able to use AutoCAD and SketchUp to create 2D drawings and 3D models, they are also familiar with ways to modify AutoCAD to suit their drawing style, and increase productivity. A Certificate of Achievement in Computer-Aided Design & 3D Modeling is available upon successful completion of the 12-unit core.

- Program Student Learning Outcomes
- A.

B.

C.
- Plan and Implement changes to the AutoCAD Interface.

Create 3D models effectively using AutoCAD, and SketchUp.

Use of Computers effectively for industrial applications.

Program Requirements:

Program Core: (12 Units)		Units
CADM-11	Fundamentals of Computer-Aided Drafting.....	3
CADM-10	Introduction to 3D.....	3
CADM-02	Descriptive Geometry.....	3
CADM-01	Print Reading and Sketching.....	3

Total: (12 Units)

COMPUTER-AIDED DESIGN & 3D MODELING  
(CADM)

CADM-01 PRINT READING AND SKETCHING

3 units: 2 hours lecture, 3 hours lab.

This course is for technical students and other personnel who must be skilled in reading industrial prints. The student will become familiar with industrial prints, industry standards, and current practices. There will be a basic coverage of sketching as it applies to the communication skills of reading prints. (02/22)

CADM-02 DESCRIPTIVE GEOMETRY

3 units: 2 hours lecture, 3 hours lab.

This course involves the use of computer-aided drafting and hand sketching to solve problems and communicate ideas. The course is also an introduction to descriptive geometry using computers and more traditional methods of problem solving through the auxiliary view and two-view methods. The development of graphical methods in their application to graphs, charts, and spatial and vector geometry will be studied. (02/22)

CADM-10 INTRODUCTION TO 3D

3 units: 2 hours lecture, 3 hours lab.

This course is an introduction to direct 3D modeling. Students will gain an understanding of how 3D modeling works, and how it can be used with other applications. (02/22)

CADM-11 FUNDAMENTALS OF COMPUTER-AIDED DRAFTING

3 units: 2 hours lecture, 3 hours lab.

This course uses AutoCAD. The student will progress through the fundamental and some intermediate commands. Topics included are: drawing set-up, drawing, editing, text, and dimensioning. Also, the student will construct multi-view drawings as used in industry. Most drawings will be printed from paper space. (02/22)

# Computer Science

SCHOOL OF SCIENCE, TECHNOLOGY,  
ENGINEERING AND MATH



Associate Degree  
for Transfer  
*A Degree with a Guarantee.<sup>SM</sup>*

## DEGREE

A.S.-T. - Computer Science

A.S. - Management Information Systems

### Program Description

The Associate in Science Degree in Management Information Systems is designed for students pursuing degrees in Business Administration, Computer Information Systems, or Management Information Systems. Students should determine what other lower division requirements are required by the institution to which they intend to transfer.

The Associate in Science Degree in Computer Science is designed for students pursuing degrees in Computer Science or Computer Engineering.

### Career Opportunities

Over the past three decades, there has been a sharp rise in the use of computers and information technology in every sector of our economy. The overall demand for computer professionals (systems analysts, programmers, and computer networking technicians) continues to expand, increasing every year with the future seemingly limitless. Many professions demand an understanding of information technology beyond computer literacy. This anticipated growth, according to the Bureau of Labor Statistics, surpasses many other occupations. Graduates of the computer science, computer technology and information systems and MIS Programs often transfer to a four-year college earning a bachelor's degree in business administration, management information systems, computer science, computer engineering, software engineering, business management, accounting, statistics, mathematics, physics or electronics.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## DEGREE (12/20)

### A.S.-T. - Computer Science (07200.AST)

The Associate in Science in Computer Science for transfer is designed for students pursuing degrees in Computer Science or Computer Engineering. Upon completion of the transfer associate degree, the student is eligible for transfer with junior standing into the California State University (CSU) system. Students will be given priority consideration when applying to a particular program that is similar to the student's community college area of emphasis.

For an Associate in Science in Computer Science for Transfer (AS-T), students must complete the following:

- (1) 60 semester CSU-transferable units.
- (2) the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- (3) a minimum of 18 semester units in the major or area of emphasis as determined by the community college district.
- (4) obtainment of a minimum grade point average (GPA) of 2.0.
- (5) earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

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[Computer Science Website](#)

**Note: Students are not required to complete any additional local graduation requirements for the AS-T (e.g., PE and Computer and Information Literacy courses.).**

Program Student Learning Outcomes:

- Demonstrate the ability to understand the ethical, mathematical, and physical concepts that underlie computer science.
- Demonstrate the ability to understand the different levels of abstraction that comprise computer science.
- Create efficient, working computer programs that use fundamental programming constructs to solve real-life problems.
- Prepare students to transfer to a four-year school and an internship, REU or job in Computer Science.

### Program Requirements:

Program Core: (29-30 Units)		Units
CPSC-06	Programming Concepts and Methodology I.....	3
or		
CPSC-14	C++ Programming.....	3
or		
ENGR-14	C++ Programming .....	3
CPSC-39	Programming Concepts and Methodology II.....	4
CPSC-42	Computer Architecture and Organization.....	3
CPSC-07	Discrete Structures.....	3
or		
MATH-07	Discrete Structures.....	3
MATH-04A	Calculus I .....	4
MATH-04B	Calculus II .....	4
PHYS-04A	Physics I.....	4
and		
CHEM-04A	General Chemistry .....	5
or		
PHYS-04B	Physics II.....	4
<b>Total Units Toward the Major: (29-30 Units)</b>		

Total Units that may be double-counted (IGETC).....(-7 units)  
General Education (IGETC) Units: ..... (37 Units)  
Elective (CSU Transferable) Units:.....(0-1 units)

**Total Degree Units: 60 Units**

*Care should be taken in selecting courses appropriate to meet the student's professional and intended transfer institution requirements.*

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## DEGREE (2/09)

### A.S. - Management Information Systems (07300.AS)

For an Associate of Science Degree in Management Information Systems, students must meet the graduation requirements and complete the following required courses.

Program Student Learning Outcomes

- Students will understand the mathematical and scientific concepts that underlie management information systems.
- Students will apply the cognitive method to analyze, synthesize and evaluate academic and real life problems relating to business and management.
- Students will assess requirements of an information system.
- Students will demonstrate an appreciation for lifelong learning.

**Program Requirements:**

<b>Program Core: (31 Units)</b>		<b>Units</b>
ACTG-04A	Financial Accounting .....	4
ACTG-04B	Managerial Accounting.....	4
BUS-18A	Business Law .....	4
CPSC-01	Introduction to Computer Information Systems.....	4
CPSC-05A	Application Development and Programming.....	3
CPSC-06	Programming Concepts and Methodology I.....	3
ECON-02	Introduction to Macroeconomics .....	3
MATH-10	Elementary Statistics.....	3
Plus at least three (3) units from the following courses:		
MATH-04A	Calculus I .....	3
MATH-15	Finite Mathematics .....	3

**Total: (31 Units)**

*Care should be taken in selecting courses appropriate to meet the student's professional and intended transfer institution requirements.*

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## COMPUTER SCIENCE (CPSC)

### CPSC-01 INTRODUCTION TO COMPUTER INFORMATION SYSTEMS

(C-ID ITIS 120)

4 units: 3 hours lecture, 3 hours lab.

Advisories: MATH-C, MATH-61, or MATH-62; ENGL-01A.

An introduction to the basics of computing systems, impact of computers on our society, and the future of computing. Focus on using applications, algorithm design, programming basics, database management systems, networking, ethics and security, information systems, internet and web technologies, and computer systems hardware and software components. Application of these concepts and methods through hands-on projects developing computer-based solutions to problems. (12/18)

### CPSC-05A APPLICATION DEVELOPMENT AND PROGRAMMING

3 units: 2 hours lecture, 3 hours lab.

Advisory: ENGL-01A

An introduction to the fundamental concepts and models of application development including the basic concepts of program design, data structures, programming, problem solving, programming logic, and fundamental design techniques for event-driven programs. Hands-on experience with a modern application programming language and development platform. (1/14)

### CPSC-06 PROGRAMMING CONCEPTS AND METHODOLOGY I

(C-ID COMP 122)

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: MATH C, MATH-61, or MATH-62.

Advisory: CPSC-01; ENGL-01A.

This course introduces the discipline of computer science using a high level language; provides an overview of computer organization and an introduction to software engineering. Topics include methodologies for program design, development, style, testing, and documentation; algorithms, control structures, methods, and elementary data structures. These skills will be used to solve a variety of application problems. (05/22)

### CPSC-07 DISCRETE STRUCTURES (ALSO: MATH-07)

(IGETC area 2) (CSU breadth area B4) (C-ID COMP 152)

3 units: 2.5 hours lecture, 1.5 hours lab.

Prerequisite: CPSC-06 or ENGR-14 or CPSC-14; MATH-04A.

This course is an introduction to the discrete structures used in Computer Science with an emphasis on their applications. Topics covered include: functions, relations and sets; basic logic; proof techniques; basics of counting; graphs and trees; and discrete probability. (12/15)

### CPSC-14 C++ PROGRAMMING (ALSO: ENGR-14)

(C-ID COMP 122)

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: MATH-C, MATH-61, or MATH-62.

Advisory: CPSC-01

This is the entry-level comprehensive concepts course for computer science majors and recommended for science and math majors. Algorithm design, logic diagrams, problem solving, coding and debugging are emphasized using a structured language such as C++. (05/22)

### CPSC-20 INTRODUCTION TO PROGRAMMING CONCEPTS AND METHODOLOGIES FOR ENGINEERS (ALSO: ENGR-20)

4 units: 3 hours lecture, 3 hours lab.

Prerequisite: MATH-02. Advisory: CPSC01.

Introduces the basics of software development and programming using a high level language. Students discover the interface of software with the physical world through working with hardware components. This class includes hands-on, project based learning. (05/22)

### CPSC-21 PROGRAMMING AND PROBLEM-SOLVING IN MATLAB (ALSO: ENGR-21)

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: MATH-04A.

This course utilizes the MATLAB environment to provide students with a working knowledge of computer-based problem-solving methods relevant to science and engineering. It introduces the fundamentals of procedural and object-oriented programming, numerical analysis, and data structures. Examples and assignments in the course are drawn from practical applications in engineering, physics, and mathematics. (05/22)

### CPSC-22 WEB APPLICATION DEVELOPMENT AND PROGRAMMING

3 units: 2 hours lecture, 3 hours lab.

Advisory: CPSC-01, CPSC-05A, CPSC-14, ENGR-14, CTIS-04 or CTIS-02.

Introduces students to programming, computational thinking, and problem solving concepts. In addition to programming skills, students also learn industry-standard practices, such as version control, unit testing and debugging. Follows a Project-Based Learning philosophy, with Python as the main programming language, students learn the basics of web application development with the use of HTML, CSS, JavaScript, and SQL. (05/22)

### CPSC-25 ADVANCED C++ PROGRAMMING

4 units: 3 hours lecture, 3 hours lab.

Advisory: CPSC-14, ENGR-14, CPSC-06.

Intended for students with basic to intermediate programming skills, and introduces them to advanced programming techniques such as pointers and memory management, exception handling, multi-threading, object oriented programming, and generic programming. The C++ language is used throughout the course. (05/22)

### CPSC-39 PROGRAMMING CONCEPTS AND METHODOLOGY II

(C-ID COMP 132)

4 units: 3 hours lecture, 3 hours lab.

Prerequisite: CPSC-06, CPSC-14, or ENGR-14.

This course is a continuation course in Computer Science which introduces further aspects of software design and implementation. Abstract data types, fundamental data structures and associated algorithms: lists, stacks, queues and trees. Students will be expected to design, implement, test and analyze a number of programs. (05/22)

### CPSC-42 COMPUTER ARCHITECTURE AND ORGANIZATION

(C-ID COMP 142)

3 units: 2 hours lecture, 3 hours lab.

Prerequisites: CPSC-06 or ENGR-14 or CPSC-14

Advisory: ENGL-01A

The organization and behavior of real computer systems at the assembly-language level. The mapping of statements and constructs in a high-level language onto sequences of machine instructions is studied, as well as the internal representation of simple data types and structures. Numerical computation is examined, noting the various data representation errors and potential procedural errors. (12/12)

**CPSC-45A INTRODUCTION TO NETWORKING**

3 units: 2 hours lecture, 3 hours lab.

Advisory: ELCT-51A.

This curriculum helps students develop the skills needed to obtain entry-level networking jobs. It provides a hands-on approach to networking education that allows students to gain practical experience working on PC's, their components, and applications. Students complete instructional labs to understand the general theory needed to build networks and connect them to the internet. Basic security and wireless concepts are covered. This course is for students with basic PC usage skills. (12/15)

**CPSC-45B CCNA ROUTING AND SWITCHING**

(C-ID COMP 142)

3 units: 2 hours lecture, 3 hours lab.

Prerequisites: CPSC-45A or ELCT-45A

This course prepares students for jobs as network technicians. Students develop soft skills required for computer and help desk technicians. Basic configurations of routing, remote access, addressing, and security are applied to routers and switches. Network monitoring and basic troubleshooting skills are examined. (12/15)



# Computer Technology and Information Systems

SCHOOL OF SCIENCE, TECHNOLOGY, ENGINEERING AND MATH

## DEGREE

A.S. Computer Technology and Information Systems  
A.S. Computer and Networking Technology

## CERTIFICATE

Computer and Networking Technology CT  
Computer Systems Professional  
Networking Professional  
Security Professional  
System Administrator

## Program Description

The Computer Technology and Information Systems AS degree prepares student to enter the fields of IT Support Specialist, Cybersecurity, System Administration or Networking Professional. Classes are focused on computer technology used to collect, record, organize and access data. Many career paths are available in this broad field.

## Career Opportunities

Over the past three decades, there has been a sharp rise in the use of computers and information technology in every sector of our economy. The overall demand for computer professionals (systems analysts, programmers, and computer networking technicians) continues to expand, increasing every year with the future seemingly limitless. Many professions demand an understanding of information technology beyond computer literacy. This anticipated growth, according to the Bureau of Labor Statistics, surpasses many other occupations. Graduates of the computer science, computer technology and information systems and MIS Programs often transfer to a four-year college earning a bachelor's degree in business administration, management information systems, computer science, computer engineering, software engineering, business management, accounting, statistics, mathematics, physics or electronics..

## DEGREE (04/22)

### A.S. - Computer and Networking Technology (09040.AS)

For an Associate of Arts Degree in Computer and Networking Technology, students must meet the graduation requirements and complete the required program courses with a minimum grade of a C in each course and have a minimum grade point average of 2.0.

#### Program Student Learning Outcomes

- Demonstrate the ability to communicate effectively in accomplishing job related tasks.
- Demonstrate field related entry level theoretical and practical skills.
- Employ the principles of job related safety requirements.

#### Program Requirements:

Program Core: (44-45 Units)		Units
CPSC-01	Introduction to Computer Information Systems.....	4
CTIS-03	Information and Communication Technology Essentials .....	4
CTIS-15	Computer Network Fundamentals .....	3
<b>Programming: Plus 3 units from the following:</b>		
CPSC-05A	Application Development and Programming.....	3
CTIS-02	Introduction to Programming Concepts and Methodologies .....	3
CTIS-04	Programming with Python.....	3

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[Computer Info Systems Tech](#)

CTIS-07	Linux Shell Scripting and Programming.....	3
<b>Specialization: Plus 27 units from the following:</b>		
ELCT-34	Digital Logic Circuits and Systems.....	3
ELCT-36	Networking Topologies and Cabling .....	3
CTIS-09	Cloud Computing Infrastructure and Services .....	3
CTIS-11	Linux System Administration .....	3
CTIS-12	Windows Server System Administration .....	3
CTIS-16	Routing and Switching .....	3
CTIS-18	Network Security and Automation .....	3
CTIS-20	Introduction to Information Systems Security .....	3
CTIS-23	Network Security .....	3
CTIS-33	Firewalls and VPN .....	3
<b>Mathematics: Plus 3-4 units from the following:</b>		
MATH-03	Calculus for Business .....	4
MATH-04A	Calculus I .....	4
MATH-10	Elementary Statistics .....	3
MATH-15	Finite Mathematics .....	3

**Total: (44-45 Units)**

Completion of MCCD-GE Breadth: (23 Units)

Elective (as needed to reach 60 units) Units:(0 units)

**Total Degree Units: (64-65 Units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## DEGREE (04/22)

### A.S. - Computer Technology and Information Systems (07201.AS)

The Associate of Science degree in Computer Technology and Information Systems is available for students who meet the graduation requirements and complete the following required courses, with a minimum grade of a "C" (or P) in each course in the degree and maintain a 2.0 GPA.

#### Program Learning Outcomes:

##### Program Student Learning Outcomes

- Demonstrate the fundamentals of computer hardware and software and the advanced concepts of computer security, networking, and the responsibilities of a Systems Administrator professional.
- Demonstrate competency in client computing and user support including the ability to configure, install, diagnose, and support hardware and software issues.
- Demonstrate competency in networking and convergence including the ability to design, analyze, and support computer networks.
- Demonstrate competency in working with servers, storage, and virtualization including implementing and evaluating network security solutions.
- Demonstrate competency in utilizing Math skills to assist in the solving of complex business, security, and networking problems.
- Demonstrate an ability to read and interpret technical information, as well as communicate with and write clearly for a wide ranges of audiences.

#### Program Requirements:

Program Core: (23-24 Units)		Units
CPSC-01	Introduction to Computer Information Systems .....	4
CTIS-03	Information and Communication Technology Essentials .....	4
CTIS-15	Computer Network Fundamentals .....	3
<b>Programming: Plus 3 units from the following:</b>		
CPSC-05A	Application Development and Programming .....	3
CTIS-02	Introduction to Programming Concepts and Methodologies .....	3

CTIS-04	Programming with Python	3
CTIS-07	Linux Shell Scripting and Programming	3
<b>Electives: Plus 6 units from the following:</b>		
CTIS-05	IT Project Management	3
CTIS-06	Python Programming for Cyber Security	3
CTIS-08	Introduction to Systems Analysis and Design	3
CTIS-09	Cloud Computing Infrastructure and Services	3
CTIS-10	Introduction to Database Management Systems	3
CTIS-11	Linux System Administration	3
CTIS-12	Windows Server System Administration	3
CTIS-14	Advanced Python Programming	3
CTIS-16	Routing and Switching	3
CTIS-17	Systems and Network Administration	3
CTIS-20	Introduction to Information Systems Security	3
CTIS-21	Introduction to Cybersecurity: Ethical Hacking	3
CTIS-22	Digital Forensics Fundamentals	3
CTIS-29	Cloud Computing and Microsoft Azure	3
<b>Mathematics: Plus 3-4 units from the following:</b>		
MATH-03	Calculus for Business	4
MATH-04A	Calculus I	4
MATH-10	Elementary Statistics	3
MATH-15	Finite Mathematics	3
		<b>Total: (23-24 Units)</b>

Completion of MCCD-GE Breadth: (23 Units)

Elective (as needed to reach 60 units) Units: (16-17 units)

**Total Degree Units: (64-65 Units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE (04/22)

#### Computer and Networking Technology (09040.CT)

The Certificate of Achievement degree in Computer and Networking Technology is available for students who complete the following required courses, with a minimum grade of a "C" (or P) in each course in the degree and maintain a 2.0 GPA.

##### Program Student Learning Outcomes

- Demonstrate the use of network devices, network operating systems, and networking models and their related protocols.
- Evaluate computer hardware components.
- Design a functional computer system.
- Explain the basics of network security systems.
- Evaluate networking problems and resolving system faults.

##### Program Requirements:

##### Program Core: (37 Units)

<b>Units</b>		
CTIS-03	Information and Communication Technology Essentials	4
CTIS-15	Computer Network Fundamentals	3

##### Programming: Plus 3 units from the following:

CPSC-05A	Application Development and Programming	3
CTIS-02	Introduction to Programming Concepts and Methodologies	3
CTIS-04	Programming with Python	3
CTIS-07	Linux Shell Scripting and Programming	3

##### Specialization: Plus 27 units from the following:

ELCT-34	Digital Logic Circuits and Systems	3
ELCT-36	Networking Topologies and Cabling	3
CTIS-09	Cloud Computing Infrastructure and Services	3
CTIS-11	Linux System Administration	3
CTIS-12	Windows Server System Administration	3
CTIS-16	Routing and Switching	3
CTIS-18	Network Security and Automation	3
CTIS-20	Introduction to Information Systems Security	3
CTIS-23	Network Security	3
CTIS-33	Firewalls and VPN	3

**Total: (37 Units)**

### CERTIFICATE (03/21)

#### Computer Systems Professional (07073.CM)

A Certificate of Achievement will be awarded upon satisfactory completion of the 13 unit core with a minimum grade of a "C" (or P) in each course in the certificate and maintains a 2.0 GPA.

##### Program Learning Outcomes

- Demonstrate competency in client computing and user support including the ability to configure, install, diagnose, and support hardware and software issues.
- Demonstrate an ability to read and interpret technical information, as well as communicate with and write clearly for a wide ranges of audiences.

##### Program Requirements:

##### Program Core: (13 Units)

<b>Units</b>		
CPSC-01	Introduction to Computer Information Systems	4
CTIS-08	Introduction to System Analysis and Design	3
CTIS-09	Cloud Computing Infrastructure and Services	3
CTIS-10	Introduction to Database Management Systems	3
		<b>Total: (13 Units)</b>

### CERTIFICATE (03/21)

#### Networking Professional (07081.CM)

A Certificate of Achievement will be awarded upon satisfactory completion of the 10 unit core and 3 unit elective from courses below with a minimum grade of a "C" (or P) in each course in the certificate and maintains a 2.0 GPA

##### Program Learning Outcomes

- Demonstrate the fundamentals of computer hardware and software and the advanced concepts of networking.
- Demonstrate competency in working with servers, storage, and virtualization including implementing and evaluating network security solutions.

##### Program Requirements:

##### Program Core: (10 Units)

<b>Units</b>		
CTIS-03	Information and Communication Technology Essentials	4
CTIS-15	Computer Network Fundamentals	3
CTIS-20	Introduction to Information Systems Security	3

##### Electives: Plus 3 units from the following:

CTIS-16	Routing and Switching	3
CTIS-17	Systems and Network Administration	3

**Total: (13 Units)**

**CERTIFICATE** (03/21)**Security Professional (07020.CM)**

A Certificate of Achievement will be awarded upon satisfactory completion of the 12 unit core with a minimum grade of a "C" (or P) in each course in the certificate and maintains a 2.0 GPA.

**Program Learning Outcomes**

- A. Demonstrate competency in providing network security solutions.
- B. Demonstrate an ability to read and interpret technical information, as well as communicate with and write clearly for a wide ranges of audiences.

**Program Requirements:**

<b>Program Core: (12 Units)</b>		<b>Units</b>
CTIS-15	Computer Network Fundamentals	3
CTIS-20	Introduction to Information Systems Security	3
CTIS-21	Introduction to Cybersecurity: Ethical Hacking	3
CTIS-22	Digital Forensics Fundamentals	3
<b>Total: (12 Units)</b>		

**CERTIFICATE** (03/21)**System Administrator (07021.CM)**

A Certificate of Achievement will be awarded upon satisfactory completion of the 12 unit core with a minimum grade of a "C" (or P) in each course in the certificate and maintains a 2.0 GPA.

**Program Learning Outcomes**

- A. Demonstrate competency in utilizing Math skills to assist in the solving of complex business, security, and networking problems.
- B. Demonstrate competency in working with servers as a system administrator.

**Program Requirements:**

<b>Program Core: (6 Units)</b>		<b>Units</b>
CTIS-15	Computer Network Fundamentals	3
CTIS-17	Systems and Network Administration	3
<b>System Administration: Plus 3 units from the following:</b>		
CTIS-11	Linux System Administration	3
CTIS-12	Windows Server System Administration	3
<b>Database Management: Choose 3 units from the following:</b>		
CTIS-08	Introduction to Systems Analysis and Design	3
CTIS-09	Cloud Computing Infrastructure and Services	3
CTIS-10	Introduction to Database Management Systems	3
<b>Total: (12 Units)</b>		

**COMPUTER TECHNOLOGY AND INFORMATION SYSTEMS (CTIS)****CTIS-02 INTRODUCTION TO PROGRAMMING CONCEPTS AND METHODOLOGIES**

3 units: 2 hours lecture, 3 hours lab.

An introduction to the fundamental concepts and models of application development including the basic concepts of program design, data structures, programming, problem solving, programming logic, and fundamental design techniques for event-driven programs. Hands-on experience with a modern application programming language and development platform. (03/21)

**CTIS-03 INFORMATION AND COMMUNICATION TECHNOLOGY ESSENTIALS**

4 units: 2 hours lecture, 6 hours lab.

This course provides an introduction to the computer hardware and software skills needed to help meet the growing demand for entry-level ICT professionals. The fundamentals of computer hardware and software as well as advanced concepts such as security, networking, and the responsibilities of an ICT professional will be introduced. Preparation for the CompTIA A+ certification exams. (03/21)

**CTIS-04 PROGRAMMING WITH PYTHON**

3 units: 2 hours lecture, 3 hours lab.

An introduction to the fundamental concepts and models of application development including the basic concepts of program design, data structures, programming, problem solving, programming logic, and fundamental design techniques for event-driven programs. Hands-on experience. Python is a dynamic, object oriented language, is perfect for beginner and also meets industry needs. (03/21)

**CTIS-05 IT PROJECT MANAGEMENT**

3 units: 2 hours lecture, 3 hours lab.

In this course students will learn the concepts and skills that build the foundations of project management—project integration, scope, time, cost, quality, human resources, communications, risk, and procurement—within an information technology (IT) environment. This course specifically builds project management skills in the information technology field and helps to prepare students for project management certifications exams, such as CompTIA Project+ or Certified Associate in Project Management (CAPM). (04/22)

**CTIS-06 PYTHON PROGRAMMING FOR CYBER SECURITY**

3 units: 2 hours lecture, 3 hours lab.

Students will be introduced to Python programming techniques needed for crafting scripting tools for system administration, web application auditing, cybersecurity, and penetration testing for which Python is the preeminent language. (04/22)

**CTIS-07 LINUX SHELL SCRIPTING AND PROGRAMMING**

3 units: 1.5 hours lecture, 4.5 hours lab.

Advisory: CTIS-11

This course introduces a variety of the tools and concepts used while working with a UNIX/Linux-based computer system. Students will learn to write shell scripts using basic commands and regular expressions. They will then use those tools to write scripts first with basic shell commands, then with grep, sed, and awk, then with more advanced decision-making and flow control commands. Other scripting tools such as Perl and Python will also be explored. Students will write shell script programs to exercise their understanding of tools and concepts. This course will be taught using a combination of lectures, demonstrations, discussions, and hands-on labs. (04/22)

**CTIS-08 INTRODUCTION TO SYSTEMS ANALYSIS AND DESIGN**

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: CPSC-01.

The course presents a systematic methodology for analyzing a business problem or opportunity, determining what role, if any, computer-based technologies can play in addressing the business need, articulating

business requirements for the technology solution, specifying alternative approaches to acquiring the technology capabilities needed to address the business requirements, and specifying the requirements for the information systems solution in particular, in-house development, development from third-party providers, or purchased commercial-off-the-shelf packages. (03/21)

#### **CTIS-09 CLOUD COMPUTING INFRASTRUCTURE AND SERVICES**

3 units: 2 hours lecture, 3 hours lab.

Advisory: CTIS-11 and CTIS-15

This course covers cloud deployment and service models, cloud infrastructure, and the key considerations in migrating to cloud computing. This course also provides the required technology essentials across all domains—including compute, storage, networking, applications, and databases to help develop a strong understanding of virtualization and cloud computing technologies. Prepares students for the AWS Cloud Practitioner and the CompTIA Cloud+ certifications. (04/22)

#### **CTIS-10 INTRODUCTION TO DATABASE MANAGEMENT SYSTEMS**

3 units: 2 hours lecture, 3 hours lab.

Advisory: CPSC-01

This course provides the students with an introduction to the core concepts in data and information management. It is centered around the core skills of identifying organizational information requirements, modeling them using conceptual data modeling techniques, converting the conceptual data models into relational data models and verifying its structural characteristics with normalization techniques, and implementing and utilizing a relational database using an industrial-strength database management system. The course will also include coverage of basic database administration tasks and key concepts of data quality and data security. In addition to developing database applications, the course helps the students understand how large-scale packaged systems are highly dependent on the use of Database Management Systems (DBMSs). Building on the transactional database understanding, the course provides an introduction to data and information management technologies that provide decision support capabilities under the broad business intelligence umbrella. Areas of focus are backup/recovery, business continuity, security, and management. (03/21)

#### **CTIS-11 LINUX SYSTEMS ADMINISTRATION**

3 units: 2 hours lecture, 3 hours lab.

Advisory: CPSC-01

This course will provide a student with the knowledge and skills required to build, maintain, troubleshoot and support server hardware and software technologies. The course also provides hands-on training of the Linux/Unix operating system. Topics include: installation, management, configuration, security, documentation, utilities, DOS, hacking and file protection on workstations in a LAN environment. This prepares CompTia Linux+ and Server+ (03/21)

#### **CTIS-12 WINDOWS SERVER SYSTEM ADMINISTRATION**

3 units: 2 hours lecture, 3 hours lab.

Advisory: CPSC-01

This course will provide a student with the knowledge and skills required to build, maintain, troubleshoot and support server hardware and software technologies. This course is an introduction to Microsoft Windows Server, with emphasis on system administration. Provides occupational preparation for information systems professionals, such as PC support personnel, computer programmers, network/systems managers, and related technical and operations administration personnel. The course will help in preparation in CompTia Server+ (03/21)

#### **CTIS-14 ADVANCED PYTHON PROGRAMMING**

3 units: 1.5 hours lecture, 4.5 hours lab.

Advisory: CTIS-04

This course introduces more advanced Python concepts. Topics will cover data structuring techniques using tuples, lists, and dictionaries, object-oriented programming concepts, and exception handling. Examples and labs used in this course will derive from library integration for applications in financial data processing, gaming applications, automation, machine

learning, bigdata and more.

(04/22)

#### **CTIS-15 COMPUTER NETWORK FUNDAMENTALS**

3 units: 2 hours lecture, 3 hours lab.

This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP (Internet Protocol) addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for further study of computer networks. It uses the OSI (Open Systems Interconnection) and TCP (Transmission Control Protocol) layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. Class 1/2 for preparation for the CompTIA Network+ certification exam. This course is course 2/4 of the new Google Career Certificate. It is class 1/3 for preparation for the CCNA exam (03/21)

#### **CTIS-16 ROUTING AND SWITCHING**

3 units: 1.5 hours lecture, 4.5 hours lab.

Advisory: CTIS-15

This course focuses on switching technologies and router operations that support small-to-medium business networks and includes Wireless Local Area Networks (WLANs) and security concepts. Students learn key switching and routing concepts. Students will perform basic network configuration and troubleshooting, identify and mitigate Local Area Network (LAN) security threats, and configure and secure a basic WLAN. (04/22)

#### **CTIS-17 SYSTEMS AND NETWORK ADMINISTRATION**

3 units: 1.5 hours lecture, 4.5 hours lab.

Advisories: CTIS-15 or CTIS-16

This course describes the architecture, components, and operations of routers and switches in larger and more complex networks. Students will learn how to configure routers and switches for advanced functionality. At the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, and STP in both IPv4 and IPv6 networks. Students will also develop the knowledge and skills needed to implement a WLAN in a small-to-medium network. (04/22)

#### **CTIS-18 NETWORK SECURITY AND AUTOMATION**

3 units: 1.5 hours lecture, 4.5 hours lab.

Advisory: CTIS-15 and CTIS-16

Cisco Certified Networking Associate (CCNA) curriculum describes the architecture, components, operations, and security to scale for large, complex networks, including wide area network (WAN) technologies. The course emphasizes network security concepts and introduces network virtualization and automation. Students learn how to configure, troubleshoot, and secure enterprise network devices and understand how application programming interfaces (API) and configuration management tools enable network automation. (04/22)

#### **CTIS-19 CYBER OPS**

3 units: 1.5 hours lecture, 4.5 hours lab.

Advisories: CTIS-15 or CTIS-20

This course introduces the core security concepts and skills needed to monitor, detect, analyze, and respond to cybercrime, cyberespionage, insider threats, advanced persistent threats, regulatory requirements, and other cybersecurity issues facing organizations. It also covers how to monitor, detect, and respond to cybersecurity threats, as outlined in the National Institute of Standards and Technology (NIST) Cybersecurity Framework. You will learn security concepts, security monitoring, host-based analysis, network intrusion analysis, and security policies procedures. This course also aligns with the National Initiative for Cybersecurity Education (NICE) Cybersecurity Workforce Framework to support consistent communication language for cybersecurity education, training, and workforce development. (04/22)



**CTIS-20 INTRODUCTION TO INFORMATION SYSTEMS SECURITY**

3 units: 1.5 hours lecture, 4.5 hours lab.

Advisory: CTIS-15

An introduction to the fundamental principles and topics of Information Technology Security and Risk Management at the organizational level. It addresses hardware, software, processes, communications, applications, and policies and procedures with respect to organizational Cybersecurity and Risk Management. Preparation for the CompTIA Security+ certification exams. (04/22)

**CTIS-21 INTRODUCTION TO CYBERSECURITY: ETHICAL HACKING**

3 units: 2 hours lecture, 3 hours lab.

Advisory: CTIS-15 and CTIS-20

This course that introduces students to the concepts, principles, and techniques, supplemented by hands-on exercises, for attacking and disabling a network within the context of properly securing a network. The course emphasizes network attack methods with the emphasis on student use of network attack techniques and tools and appropriate defenses and countermeasures. Students receive course content information through a variety of methods: lecture and demonstration of hacking tools will be used in addition to a virtual environment. Students experience a hands-on practical approach to penetration testing measures and ethical hacking. (03/21)

**CTIS-22 DIGITAL FORENSICS FUNDAMENTALS**

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: CTIS-20

This course is an introduction to the methods used to properly conduct a computer forensics investigation beginning with a discussion of ethics, while mapping to the objectives of the International Association of Computer Investigative Specialists (IACIS) certification. Topics covered include an overview of computer forensics as a profession; the computer investigation process; understanding operating systems boot processes and disk structures; data acquisition and analysis; technical writing; and a review of familiar computer forensics tools. (03/21)

**CTIS-23 NETWORK SECURITY**

3 units: 1.5 hours lecture, 4.5 hours lab.

Advisories: CTIS-15, CTIS-20, and CTIS-16.

This course enable students with knowledge and skills required to secure networks. With this course, a network professional can demonstrates the skills required to develop a security infrastructure, recognize threats and vulnerabilities to networks, and mitigate security threats. The course will cover core security technologies, the installation, troubleshooting and monitoring of network devices to maintain integrity, confidentiality and availability of data and devices, and competency in the technologies that networking uses in its security structure. (04/22)

**CTIS-25 APPLICATION DEVELOPMENT IN AMAZON WEB SERVICES**

3 units: 1.5 hours lecture, 4.5 hours lab.

Advisories: CTIS-09 and CTIS-15

This course helps students work with cloud computing systems based on AWS core technologies, algorithms, and design principles. The students will work with Amazon Web Services (AWS) to use services available to scale applications. The students will use design principles to develop scalable cloud applications. (04/22)

**CTIS-26 MACHINE LEARNING, ANALYTICS AND BIG DATA IN CLOUD SERVICES**

3 units: 1.5 hours lecture, 4.5 hours lab.

Advisory: CTIS-09 and CTIS-15.

This course will teach students how to use machine learning and conduct Big Data analysis with practical, real-world examples. Students will learn how to analyze extremely large data sets, and to create visual representations of that data, using a case-study approach. This is geared toward students interested in pursuing careers in data analysis, machine learning and cloud computing (04/22)

**CTIS-27 CLOUD SECURITY**

3 units: 1.5 hours lecture, 4.5 hours lab.

Advisory: CTIS-09 and CTIS-20.

This course provides a broad overview of cloud security, allowing students to gain critical insights into issues such as techniques to implement security controls and threat protection, data security, key management, and identity and access management. This course also covers networks in cloud and hybrid environments as part of an end-to-end infrastructure. (04/22)

**CTIS-29 CLOUD COMPUTING WITH MICROSOFT AZURE**

3 units: 1.5 hours lecture, 4.5 hours lab.

Advisory: CTIS-09 and CTIS-15.

In this course, students will learn to implement Infrastructure as a Service solutions on Azure cloud platform. Students will learn how to manage Azure resources, including deployment and configuration of virtual machines, virtual networks, storage accounts, and Azure active directory services to manage user and groups. (04/22)

**CTIS-30 CYBERSECURITY ANALYSIS**

3 units: 2 hours lecture, 3 hours lab.

Advisory: CTIS-20, CTIS-17 and CTIS-15.

In this course students will learn how to configure and use threat detection tools, perform data analysis, and interpret the results to identify vulnerabilities, threats, and risks to an organization with the end goal of securing and protecting applications and systems within an organization. The course covers skills used by Information Security (IT) security analysts, vulnerability analysts, or threat intelligence analysts with a technical, "hands-on" focus on IT security analytics. (04/22)

**CTIS-32 THREAT HUNTING, INCIDENT RESPONSE AND CRISIS MANAGEMENT**

3 units: 1.5 hours lecture, 4.5 hours lab.

Advisory: CTIS-20 and CTIS-22.

In this course students will explore an introduction to cyber incident response using industry-recognized tools. Topics covered include incident response case studies, incident response tools used in industry, advanced persistent threats, documentation and technical reporting, timeline analysis, case management, and hunting, gathering, and foraging for cyber threats. Hands-on assignments will be used to help students develop introductory technical skills relevant to entry-level cybersecurity professionals. (04/22)

**CTIS-33 FIREWALLS AND VPN**

3 units: 1.5 hours lecture, 4.5 hours lab.

Advisory: CTIS-20 and CTIS-15.

This course examines the major network security tools and equipment in use today, with the idea that firewalls are most effective when backed by thoughtful security planning, well-designed security policies, and integrated support from anti-virus software, intrusion detection systems, and related tools. Coverage includes packet filtering, authentication, proxy servers, encryption, bastion hosts, virtual private networks (VPNs), log file maintenance, and intrusion detection systems. (04/22)

**CTIS-35 SECURITY POLICIES AND COMPLIANCE**

3 units: 1.5 hours lecture, 4.5 hours lab.

Advisory: CTIS-20

This course enable students to learn how to write security policies for an organization and to be able to adapt an existing security policy to organizational needs. The students will understand the various areas that need to be addressed in implementing these policies. This course is Information technology professionals who are responsible for either creating, implementing, or complying with security policies. (04/22)



# Criminal Justice

SCHOOL OF HEALTH AND PUBLIC SAFETY



Associate Degree  
for Transfer

*A Degree with a Guarantee.<sup>SM</sup>*

## DEGREE

A.S.-T. - Administration of Justice

A.A. - Criminal Justice

## CERTIFICATE

Criminal Justice

### Program Description

The Criminal Justice program is multifaceted and serves the educational needs of both pre-service and law enforcement professionals as well as individuals interested in learning about the field. The program leads to an Associate's Degree in Criminal Justice, and transfer to Baccalaureate degree programs and or a Certificate of Achievement. Additionally, the first two of three modules of the Modular Police Academy are offered to qualified students. These courses meet the State of California, Commission on Peace Officers Standards and Training (POST) requirements.

### Career Opportunities

The demand for qualified men and women in the criminal justice field is present today more than ever before. Today's practitioners need to be able to deal with traditional law enforcement functions, and the complex social issues of our diverse society. Professional opportunities in law enforcement and related fields may be found on the federal, state, and local level as well as in the private sector and industry. Each agency or private entity provides unique career opportunities for the trained recruit. Many related career fields such as criminologist, fingerprint analyst, communications specialists, crime analyst, researcher, and educator are available.

### Highlights

Academic and hands on experiences

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## DEGREE (12/11)

**A.S.-T. - Administration of Justice (21075.AST)**

The Associate in Science in Administration of Justice for Transfer degree is designed for students planning on transferring to a California State University. Upon completion of the transfer associate degree, the student is eligible for transfer with junior standing into the California State University (CSU) system. Students will be given priority consideration when applying to a particular program that is similar to the student's community college area of emphasis.

For an Associate in Science in Administration of Justice for Transfer (AS-T), students must complete the following:

- (1) 60 semester CSU-transferable units.
- (2) the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- (3) a minimum of 18 semester units in the major or area of emphasis as determined by the community college district.
- (4) obtainment of a minimum grade point average (GPA) of 2.0.

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- (5) earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

*Important note: Students are not required to complete any additional local graduation requirements for the AS-T (e.g., PE and Computer and Information Literacy courses).*

### Career Opportunities in CRIMINOLOGY

This degree is designed for students who plan to transfer to a four year college or university, but also prepares students for careers in a variety of fields that require an understanding of criminal justice.

Advanced degree or professional certificate such as a baccalaureate degree will prepare students for careers in administration of justice such as police officers, sheriff's deputies, communications specialists, crime scene specialists, private security, criminologist, and researcher.

### Program Student Learning Outcomes

- A. Demonstrate an understanding of the fundamental principles, laws, processes, and individual constitutional rights related to the judicial system in the United States and potential conflict between diverse communities that are created.
- B. Identify and communicate criminal justice concepts and principals effectively verbally and in writing.
- C. Compare and evaluate diverse and competing arguments currently and historically in the justice system and interfacing components.
- D. Analyze critically the social, political, economic, and cultural context within the criminal justice system functions and the responsibilities of the agencies and individual practitioners with multicultural communities.

### Program Requirements:

#### Program Core: (18 Units)

	Units
CRIM-02 Introduction to Criminal Justice .....	3
CRIM-04 Criminal Law .....	3

#### LIST A

Select two courses (6 units) from List A

CRIM-03 Criminal Procedures .....	3
CRIM-05 Community & Human Relations .....	3
CRIM-06 Introduction to Evidence .....	3
CRIM-08 Introduction to Investigation .....	3
CRIM-11 Introduction to Corrections .....	3
CRIM-30 Juvenile Procedures .....	3

#### LIST B

Select two courses (6 units) from List B

MATH-10 Elementary Statistics .....	3
PSYC-01A Introduction to Psychology .....	3
SOC-01 Introduction to Sociology .....	3

### Total Units toward the Major: (18 Units)

Additional courses toward CSU Breadth or IGETC certification and transferable electives

**Degree Total: (60 Units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**DEGREE** (12/15)

**A.A. - Criminal Justice (21150.AA)**

For an Associate of Arts Degree in Criminal Justice, students must complete the graduation requirements and the 24-unit curriculum listed below. These courses must be in addition to the basic graduation requirements, and a 2.0 GPA or higher must be earned in each class.

**Program Student Learning Outcomes**

- A. Demonstrate at the entry level an understanding of the fundamental principles, laws, and processes related to the American judicial system and individual constitutional rights.
- B. Demonstrate at the entry level effective written, verbal, and nonverbal communication skills.
- C. Demonstrate at the entry level critical thinking skills, the ability methods using critical thinking skills, the ability to analyze and solve problems using logical and creative methods.
- D. Recognize at the entry level the social, political, economic, and cultural context within the criminal justice system and responsibilities to the community.

**Program Requirements:**

<b>Program Core: (24 Units)</b>		<b>Units</b>
CRIM-02	Introduction to Criminal Justice .....	3
CRIM-03	Criminal Procedures.....	3
CRIM-04	Criminal Law .....	3
CRIM-05	Community and Human Relations .....	3
CRIM-06	Introduction to Evidence.....	3
CRIM-10	Writing for Criminal Justice .....	3
CRIM-37	Communication and Ethics in Law Enforcement.....	3
Plus three units from the following electives:		
CRIM-01	Criminology .....	3
CRIM-08	Introduction to Investigation .....	3
CRIM-30	Juvenile Procedures .....	3
CRIM-33	Violence in the Family .....	3
CRIM-35	Narcotics .....	3
CRIM-39	Police Tactics .....	1
CRIM-42C	Reserve Officer Module Level 3 .....	7
CRIM-42D	Reserve Officer Module Level 2 .....	10
Total		<b>Total: (24 Units)</b>

**P.O.S.T. Modular Training**

The first two of three modules of the Modular Police Academy are offered for qualified students. These courses meet the State of California, Commission on Peace Officers Standards and Training (POST) requirements.

CRIM 42C	Reserve Officer Module Level 3.....	7
CRIM 42D	Reserve Officer Module Level 2.....	10

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**CERTIFICATE**
**Criminal Justice (21150.CT)**

A Certificate of Achievement in Criminal Justice can be obtained by completion of the following classes with a 2.0 GPA or higher in each class taken.

**Program Student Learning Outcomes**

- A. Demonstrate at the entry level an understanding of the fundamental principles, laws, and processes related to the American judicial system and individual constitutional rights.
- B. Demonstrate at the entry level effective written, verbal, and nonverbal communication skills.
- C. Demonstrate at the entry level critical thinking skills, the ability methods using critical thinking skills, the ability to analyze and solve problems using logical and creative methods.
- D. Recognize at the entry level the social, political, economic, and cultural context within the criminal justice system and responsibilities to the community.

**Program Requirements:**

<b>Program Core: (30 Units)</b>		<b>Units</b>
CRIM-01	Criminology .....	3
or		
CRIM-02	Introduction to Criminal Justice .....	3
CRIM-03	Criminal Procedures.....	3
CRIM-04	Criminal Law .....	3
CRIM-05	Community and Human Relations .....	3
CRIM-06	Introduction to Evidence.....	3
CRIM-08	Introduction to Investigation .....	3
CRIM-10	Writing for Criminal Justice .....	3
CRIM-35	Narcotics .....	3
CRIM-37	Communication and Ethics in Law Enforcement.....	3
Plus three units from the following classes:		
CRIM-30	Juvenile Procedures.....	3
CRIM-33	Family Violence.....	3
		<b>Total: 30 Units</b>

## CRIMINAL JUSTICE (CRIM)

### CRIM-01 CRIMINOLOGY

(C-ID SOCI 160) (CSU breadth area D)

3 units: 3 hours lecture.

This course is an analysis of the nature and patterning of criminality and theories of criminal behavior. Crime control policies are critically examined regarding linkages among 1) social conflicts and inequalities, 2) criminal laws and enforcement practices, and 3) social deviance. (09/19)

### CRIM-02 INTRODUCTION TO CRIMINAL JUSTICE

(C-ID AJ 110)

3 units: 3 hours lecture.

The course will emphasize the three major components of the system: court, corrections, law enforcement, and will then examine the role of each. This course pertains to the history and philosophy of criminal justice in America. (09/19)

### CRIM-03 CRIMINAL PROCEDURES

(C-ID AJ 122)

3 units: 3 hours lecture.

Prerequisite: CRIM-02.

This course covers the examination of due process from pre-arrest through trial and appeal. The history of due process and precedent will be examined through statutory law and interpretations of law reflected in court decisions with particular focus upon the impact of interpretations of Fourth, Fifth, Sixth, Eighth, and Fourteenth Amendments. (11/19)

### CRIM-04 CRIMINAL LAW

(C-ID AJ 120)

3 units: 3 hours lecture.

One-way corequisite: CRIM-02

This course offers an analysis of the doctrines of criminal liability in the United States and the classification of crimes against persons, property, morals, and public welfare. Special emphasis is placed on the classification of crime, the general elements of crime, the definitions of common and statutory law, and the nature of acceptable evidence. This course utilizes case law and case studies to introduce students to criminal law. The completion of this course offers a foundation upon which upper-division criminal justice courses will build. The course will also include some limited discussion of prosecution and defense decision making, criminal culpability, and defenses to crime. (09/19)

### CRIM-05 COMMUNITY AND HUMAN RELATIONS

(C-ID AJ 160)

3 units: 3 hours lecture.

One-way corequisite: CRIM-02.

This course covers the relationship of criminal justice agents and the community; causal and symptomatic aspects of community understanding; lack of cooperation and mistrust; study of behavioral causes; and ways to develop and maintain amicable relationships within a diverse multicultural population. (09/19)

### CRIM-06 INTRODUCTION TO EVIDENCE

(C-ID AJ 124)

3 units: 3 hours lecture.

One-way corequisite: CRIM-02.

This course is a study of the origin, development, philosophy, and constitutional basis of evidence; constitutional and procedural considerations affecting arrest; search and seizure; kinds and degrees of evidence and rules governing admissibility and exclusion of criminal evidence; judicial decisions interpreting individual rights, and case studies viewed from a conceptual level. (09/19)

### CRIM-08 INTRODUCTION TO INVESTIGATION

(C-ID AJ 140)

3 units: 3 hours lecture.

This course covers the fundamentals of investigation; techniques procedures, and ethical issues of investigation of crime, including organization of the investigative process, crime scene searches, recording, collection, and preservation of physical evidence, interviewing

and interrogating, surveillance, source of information, utility of evidence, scientific analysis of evidence and the role of the investigator in the trial process. (09/19)

### CRIM-10 WRITING FOR CRIMINAL JUSTICE

3 units: 3 hours lecture.

Prerequisite: CRIM-02, CRIM-04.

This course covers the techniques of communicating facts, information, and ideas effectively in a simple, clear, and logical manner in the various types of criminal justice system reports: letters, memoranda, directives, and administrative reports. Emphasis is placed on criminal justice terminology, the use of English, and the organization of information. The student will also receive practical experience in note taking and report writing; and the preparation for the presentation of testimony in court. (09/19)

### CRIM-11 INTRODUCTION TO CORRECTIONS

(C-ID AJ 200)

3 units: 3 hours lecture.

This course provides a critical analysis of punishment, the various types of punishment, alternatives to punishment, and the impact of punishment on the Criminal Justice System. A Critical examination of the types of Correctional Institutions and the clients housed in each institution are addressed. (09/19)

### CRIM-24 WORK EXPERIENCE IN CRIMINOLOGY

1-8 units: 0 hours lecture, 0 hours lab.

Advisory: ENGL-01A.

This course enables students to earn college credit for learning and/or improving skills or knowledge on-the-job. Occupational Work Experience is discipline specific and must connect to the student's major or occupational goal(s). Seventy-five (75) hours of documented paid work experience equals 1 unit of credit. Sixty (60) hours of documented volunteer experience equals 1 unit of credit. A student may enroll in up to 16 total units of work experience at Merced College. Students must have an established work site prior to enrolling in the course. (11/19)

### CRIM-30 JUVENILE PROCEDURES

(C-ID AJ 220)

3 units: 3 hours lecture.

One-way corequisite: CRIM-01 or CRIM-02 or CRIM-11.

This course is an examination of the origin, development, and organization of the Juvenile Justice System as it evolved in the American Justice System. The course explores the theories that focus on Juvenile Law, courts and processes, and the constitutional protections extended to juveniles administered in the American Justice System. (09/19)

### CRIM-33 VIOLENCE IN THE FAMILY

3 units: 3 hours lecture.

Advisories: CRIM-02

This course examines criminal law and the psycho-socio dynamics of child abuse, elder abuse, spousal abuse, and sexual assault. (09/19)

### CRIM-35 NARCOTICS

3 units: 3 hours lecture.

Advisories: CRIM-02

This course is a review of the laws restricting and governing the use of narcotics and dangerous drugs, the psychological and physiological effects of the use and addiction to narcotics and dangerous drugs, and the procedures used to combat the problems facing law enforcement and society in relation to narcotics and dangerous drugs. (11/19)

### CRIM-37 COMMUNICATION AND ETHICS IN LAW ENFORCEMENT

3 units: 3 hours lecture.

Advisories: CRIM-02

This course covers the ethical issues created by the congruent and incongruent match of criminal justice philosophy and law enforcement practice. Effective communication styles for courtroom, testimony, interrogation, and verbal judo will be examined, evaluated, and practiced. (09/19)

### CRIM-42C RESERVE OFFICER MODULE LEVEL 3

7 units: 6 hours lecture, 54 hours TBA lab.

Limitation on enrollment: Students must be cleared by the California Department of Justice (DOJ) to participate. DOJ clearance is evaluated through the LiveScan fingerprint process. This clearance will reveal a qualifying/disqualifying criminal history background. In addition, there must be an absence of medical conditions that would prevent strenuous physical training during arrest and control methods training, use of force, and crimes in progress. A physician's clearance indicating good physical health must be presented to the instructor at the first class meeting. Students must possess a California Driver's License.

This course meets the requirements of the State of California, Commission on Peace Officers Standards and Training (POST). It covers topics such as: ethics, professionalism, the criminal justice system, criminal law, property crimes, crime against persons, laws of arrest, laws of search and seizure, Investigative report writing, vehicle operations, use of force, crimes in progress, traffic enforcement, preliminary investigation, custodial issues, arrest and control methods including baton, first aid, CPR, chemical agents, information systems, and cultural diversity. In accordance with POST regulations, students missing more than 5% of class time will not be certified in this course. (09/19)

#### **CRIM-42D RESERVE OFFICER MODULE LEVEL 2**

10 units: 9 hours lecture, 54 hours TBA lab.

Limitation on enrollment: <sup>1</sup>Students must be cleared by the California Department of Justice (DOJ) to participate. DOJ clearance is evaluated through the LiveScan fingerprint process. This clearance will reveal a qualifying/disqualifying criminal history background. <sup>2</sup>The absence of medical conditions that would prevent strenuous physical training during arrest and control methods training, use of force, and crimes in progress. Physicians' clearance indicating good physical health must be presented to instructor at first class meeting. <sup>3</sup> Student must possess a valid California Drivers' License.

Prerequisite: CRIM-42C.

This course satisfies the Level 2 Modular Format Basic Course training requirements of the Commission on Peace Officer Standards and Training (POST). It covers community relations, victimology, crisis intervention, property crimes, crimes against persons, general criminal statutes, laws of arrest, laws of search and seizure, presentation of evidence, investigative report writing, use of force, patrol techniques, vehicle pullovers, crimes in progress, traffic enforcement, unusual occurrences, preliminary investigation, arrest and control methods-including baton, firearms, chemical agents, persons with disabilities, crimes against the justice system, weapons violations, hazardous materials, cultural diversity and discrimination issues. Students missing more than 5% of class time will not be allowed to complete the class (POST regulations). (10/19)

# Culinary Management

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### CERTIFICATE (05/21)

#### Culinary Management (13160.CT)

The goals and objectives are to gain skills and knowledge in the area of Culinary Management. This certificate will address specific occupational training needs. Students will be able to apply management skills which include food budgeting, customer service, utilization of kitchen procedures, public health requirements and skills required in a professional kitchen operation. These subjects will prepare students for career advancement in culinary supervisory positions. If students choose to continue their path and earn the Culinary Management Associate of Arts that would enable additional opportunities in larger school districts, hospitality industry and institutions.

The Certificate will be awarded upon satisfactory completion of the curriculum listed with a minimum grade of a "C" (or P) or better in each course required.

**Students must pass the ServSafe Manager or equivalent Food Safety Certification.**

#### Program Student Learning Outcomes

- Produce safe, satisfying and nutritionally adequate food for customers with attention to available resources.
- Develop management skills in a professional kitchen setting including the ability to train employees and oversee meal production and service.
- Evaluate and practice safety standards for the culinary industry.
- Collaborate effectively using good communication skills in a commercial kitchen setting with diverse cultures, emphasizing teamwork in a professional environment.

E.

#### Program Requirements:

##### Program Core: (25 Units)

	Units
CULN-39	Introduction to Professional Kitchen.....3
CULN-43	Introduction to Baking and Business.....3
CULN-48	Beverage Management.....2
NUTR-20	Principles of Foods.....3
NUTR-25	Introduction to Nutrition and Hospitality Careers.....1
NUTR-37	Nutrition and Hospitality Field Experience .....3
NUTR-40	Food Service Management.....3
NUTR-42	Food Production Management.....3
NUTR-44	Food Safety and Sanitation.....2
NUTR-45	Introduction to Medical Nutrition Therapy .....2

##### Electives: Choose 5 Units from the following:

AOM-30	Introduction to Computer Applications .....3
CULN-47	Mixology .....1
NUTR-12	Culture and Cuisine of the World .....3
NUTR-24	Work Experience in Nutrition .....2

**Total: 30 Units**

## CULINARY (CULN)

### CULN-39 INTRODUCTION TO PROFESSIONAL KITCHEN

3 units: 2 hours lecture, 3 hours lab.

Corequisite: NUTR-20 and NUTR-44.

Limitation on Enrollment: Student must have current ServSafe Food Handler Certificate or higher certification.

This course will focus on the management of a commercial kitchen. Students will implement all operations of a functioning mobile food laboratory and production kitchen. This course will also provide overview of various service industries including restaurant and hotels. Topics include restaurant operations, guest relations and customer service as well as quality control procedures. Students will complete laboratory hours by rotating through stations working at menu development, recipe testing, sales and marketing, cash systems, procurement, service, timing and teamwork to develop organizational skills. (05/21)

### CULN-43 INTRODUCTION TO BAKING AND BUSINESS

3 units: 2 hours lecture, 3 hours lab.

Advisory: NUTR-44

This course covers fundamental baking skills for students who intend to specialize in baking and pastry making for commercial production. Production of yeast and quick breads, cakes, cookies, pies and pastries, as well as decorating and icings are undertaken. Gourmet baked items and pastries are produced in a time-restricted quality-minded setting. This course is for students pursuing a career in culinary management. (05/21)

### CULN-47 MIXOLOGY

1 unit: 0.5 hours lecture, 1.5 hours lab.

Limitations on Enrollment: Students should be 21 years old, if under 21 they will not participate in tasting of alcoholic drinks.

This course covers preparation and service of beverages both alcoholic and non-alcoholic. Attention will be directed to a thorough knowledge of all beverages and the ability to make various drinks accurately and efficiently. Emphasis will be placed on the ability to determine the effects of alcoholic beverages on persons. Customer service and communication will be emphasized. Students under 21 will have alternate laboratory assignments. (05/21)

### CULN-48 BEVERAGE MANAGEMENT

2 units: 2 hours lecture.

Advisory: NUTR-44

Limitation on Enrollment: Students should be 21 years of age, if they are not they will have alternate laboratory assignments.

This course gives the student an introduction to managing a variety of beverage operations including buying, selling and serving both alcoholic and non-alcoholic beverages. Beer, wine, spirits, coffee and tea; businesses serving these products; purchasing, pricing and cost controls; customer service; and the legal and regulatory environment will be discussed. Students under 21 will complete alternate lab assignments. (05/21)



# CSU General Education (CSU-GE Breadth)

**CERTIFICATE**

CSU General Education (CSU-GE-Breadth)

**CERTIFICATE (1/14)****CSU General Education (CSU-GE-Breadth) (49100.CT)**

A minimum of 39 units from the following;

Students must complete a minimum of 39 units used to satisfy the CSU Transfer Breadth Requirements. Students must receive full certification of the CSU General Education Breadth lower division pattern, which requires a grade of "C" or better in Area A and Area B-4. See the CSU Transfer Breadth requirements patterns listed in the Merced College catalog or consult with a Merced College counselor.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## Drama

FINE AND PERFORMING ARTS

# SEE THEATRE ARTS

# Drone Technology

SCHOOL OF SCIENCE, TECHNOLOGY,  
ENGINEERING AND MATH (STEM)

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## CERTIFICATE

### Drone Technology

#### Program Description

The Drone Technology and Drone Media Certificates of Achievement will give students applicable skills to acquire jobs in the growing field of small unmanned aircraft systems (sUAS). Drone Technology students acquire skills to build, control, program and use drones safely, legally, and effectively to assist our society in solving problems. The student will attain the aeronautical knowledge needed to pass the FAA Remote Pilot Exam and receive a Remote Pilot License. Emphasis is placed on utilizing and learning Computational Science.

A Certificate of Achievement will be awarded upon successful completion of the required courses below. For successful completion, students must complete the requirements with a minimum grade of 2.0 in each course required for the certificate.

There are many career opportunities that these certificates could be applicable for, including, but not limited to: Business photography and marketing, including realty, golf course, and large buildings; Construction site photography and management; Photography and Cinematography; Agriculture photography and management; Agriculture crop data acquisition and analysis to assist in crop management; Traffic analysis and assistance in redirecting traffic; Law Enforcement; Inspection of tall structures such as used in roof or windmill repair.

#### Program Student Learning Outcomes

- Acquire knowledge to pass the Federal Aviation Administration's (FAA) Aeronautical Knowledge Exam and acquire a Remote Pilot Certificate.
- Develop computational science, basic electronics, and drone technology skills to solve real world problems.
- Produce photographs, video, and sensor data with the use of drone technology in making better decisions in the utilization of resources to sell a product.

## CERTIFICATE (09/19)

### Drone Technology (09170.CM)

#### Program Requirements:

Program Core: (12 Units)		Units
DRON-10	Drone Technology I.....	3
DRON-11	Drone Technology II.....	3
First Level Programming: Choose 3 units		
CPSC-06	Programming Concepts and Methodology.....	3
or		
ENGR-14	C++ Programming.....	3
or		
CPSC-14	C++ Programming.....	3
Choose 3 units from the following:		
AGRI-10	Agriculture, Environment, and Society.....	3
CPSC-05A	Application Development and Programming.....	3
CADM-11	Fundamentals of Compute-Aided Drafting.....	3
ENGR-15	Elementary Mechanics (Statics).....	3
PHYS-04A	Physics.....	3
<b>Total: (12 Units)</b>		

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Visit the [Program Mapper](#) for more information on when to take classes and career information.

## CERTIFICATE (03/21)

### Drone Media (09171.CM)

#### Program Student Learning Outcomes

- Acquire knowledge to pass the Federal Aviation Administration's (FAA) Aeronautical Knowledge Exam and acquire a Remote Pilot Certificate.
- Develop computational science, basic electronics, and drone technology skills to solve real world problems.
- Produce photographs, video, and sensor data with the use of drone technology in making better decisions in the utilization of resources to sell a product.

#### Program Requirements:

Program Core: (12 -13 Units)		Units:
DRON-20	Drone Media I.....	3
DRON-21	Drone Media II.....	3
Choose 3 units from the following		
DRON-01	Introduction to Drones.....	2
DRON-02	Federal Aviation Administration Drone Pilot Test Preparation.....	1
DRON-10	Drone Technology I.....	3
Choose 3-4 units from the following:		
BUS-10	Introduction to Business.....	3
CPSC-01	Introduction to Computer Information Systems.....	4
PHOT-10A	Introduction to Photography.....	3
VIRT-51	Social Media.....	3
<b>Total: (12-13 Units)</b>		

## DRONE (DRON)

### DRON-01 INTRODUCTION TO DRONES

2 units: 1 hour lecture, 3 hours lab.

This course introduces students to the foundations of unmanned aerial systems including the history, UAS systems, maintenance, payloads, data links, ground support equipment, classes of UAS systems, categories, applications, mission planning and control and recovery systems. Students will also learn the basics of piloting and operating a sUAS. Safety and ethics associated with drone flight as well as the law will also be stressed. (03/21)

### DRON-02 FEDERAL AVIATION ADMINISTRATION DRONE PILOT TEST PREPARATION

1 units: 1 hour lecture.

This course reviews and prepares students to take the Federal Aviation Administration's initial aeronautical knowledge test, and attain remote pilot license, through lecture, discussion and individual flying of drones. It will help guide students on basic aeronautics, safety, laws and operations as they pertain to drone piloting. (03/21)

### DRON-10 DRONE TECHNOLOGY I

3 units: 2 hours lecture, 3 hours lab.

Advisory: ENGL-01A

This class is a basic introduction to drone technology. Lab involves construction and repair of a drone including the software used to manage data and fly. The many uses of drone technology will be explored through projects. This course will also prepare students to successfully pass the FAA aeronautical knowledge test and receive Remote Pilot Certification. (04/21)

**DRON-11 DRONE TECHNOLOGY II**

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: CPSC-06 or ENGR-14 or CPSC-14.

Advisory: DRON-10; ENGL-01A.

This class covers drone technology data acquisition and analysis. Several different sensors and data analysis applications will be utilized. (04/21)

**DRON-20 DRONE MEDIA I**

3 units: 1.5 hour lecture, 4.5 hours lab.

This course is an introduction to using drones commercially and creatively for digital imaging, and provides a starting point to using drones in multiple careers. This hands-on course covers operating, and outfitting drones for video and still imaging. Emphasis is placed on using drone photography and videography equipment, drone safety, performing inspections, and producing professional media using professional editing software. (03/21)

**DRON-21 DRONE MEDIA II**

3 units: 1.5 hour lecture, 4.5 hours lab.

This course is designed to teach advanced skills in aerial photography, cinematography, construction management, and inspection with drones. Topics include inspection techniques, cinematic techniques during flight, video production techniques, 3D mapping, photographic techniques, panorama, video and photo editing, high resolution video, and intelligent mission planning. Students will use software to create original content that showcases a variety of professional aerial projects. (03/21)

# Economics

## SCHOOL OF BUSINESS



### Associate Degree for Transfer

*A Degree with a Guarantee.™*

Visit the [Program Mapper](#) for more information on when to take classes and career information.

#### DEGREE

A.A.-T. - Economics

#### DEGREE <sup>(10/21)</sup>

#### A.A.-T. - Economics (22200.AAT)

The Associate in Arts in Economics for Transfer degree (AA-T) is designed to give students a foundation in both introductory Microeconomics and Macroeconomics, as well as develop the mathematical skills necessary to begin upper division study in Economics. Upon completion, students with an AA-T in Economics will be eligible to transfer with Junior standing into an equivalent major within the California State University (CSU) system. Students will be given priority consideration when applying to a particular program that is similar to the student's community college area of emphasis. The Associate in Arts in Economics for Transfer degree is designed to prepare students for a seamless transfer into the CSU system to complete a baccalaureate degree in Economics or similar major.

#### Program Student Learning Outcomes:

- Correlate the relationship of microeconomic models to macroeconomic models.
- Analyze how monetary and fiscal policy impact various aspects of the economy including output and inflation.
- Analyze decision making of firms in the four market structures and the impact of government policies on firms output based on cost curves.
- Describe the four market structures and their relationship to allocative efficiency in the economy.

For an Associate in Arts in Economics for Transfer (AA-T), students must complete the following:

- 60 semester CSU-transferable units.
- the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- a minimum of 18 semester in the major or area of emphasis as determined by the community college district.
- obtainment of a minimum grade point average (GPA) of 2.0.
- earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

*Note: Students are not required to complete any additional local graduation requirements for the AA-T (e.g., PE and Computer and Information Literacy courses).*

#### Program Requirements:

#### Program Core: (19-21 Units)

	Units
ECON-01 Introduction to Microeconomics .....	3
ECON-02 Introduction to Macroeconomics .....	3
<b>Calculus</b>	

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MATH-03	Calculus for Business.....	4
or		
MATH-04A	Calculus I .....	4
<b>Statistics</b>		
MATH-10	Elementary Statistics.....	3
or		
PSYC-05	Introduction to Statistics in Psychology.....	3

List A: Select 1 course (3-4 units) of the following.

ACTG-04A	Financial Accounting .....	4
ACTG-04B	Managerial Accounting .....	4
MATH-04B	Calculus II .....	4
MATH-15	Finite Mathematics .....	3
SOC-01	Introduction to Sociology .....	3

List B: Select 1 course (3-4 units) of the following.

Any course in List A not already used.		
MATH-04C	Multivariable Calculus .....	4
MATH-08	Linear Algebra .....	3

#### Total Units toward the Major: (19-21 Units)

Total Units that may be double counted: (9-12 units)

General Education (CSU-GE or IGETC) Units: (37/39)

Elective (CSU Transferable) Units: (9-16 units)

**Total Degree Units: (60 Units)**

## ECONOMICS (ECON)

#### ECON-01 INTRODUCTION TO MICROECONOMICS

(CSU breadth area D) (IGETC area 4) (C-ID ECON 201)

3 units: 3 hours lecture.

Prerequisite: MATH-61, MATH-62, or MATH-C.

Advisory: ENGL-01A.

ECON-01 is an introductory course in microeconomic theories including maximization, benefit verses cost, rational choice, the analysis of demand and supply, the role of price in free markets, consumer behavior, market structure, production cost, competitive business models, and resource pricing. The course examines the nature of production, distribution, market outcomes, and the role of government in the market. (11/19)

#### ECON-02 INTRODUCTION TO MACROECONOMICS

(CSU breadth area D) (IGETC area 4) (C-ID ECON 202)

3 units: 3 hours lecture.

Prerequisite: AGAB-05 or ECON-01; MATH-62, MATH-61, or MATH C.

Advisory: ENGL-01A.

ECON-02 is an introductory course in macroeconomic theories including the determination of income, output, employment, and prices in the economy; the monetary system; governmental fiscal, monetary, and income policies; economic growth; international trade; and economic development. (11/19)

# Electricity-Electronics

## SCHOOL OF INDUSTRY AND MANUFACTURING

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### DEGREE

A.A. - Electronics Technician  
A.S. - Industrial Electrical Technician  
A.A. - Instrumentation and Process Control Technology

### CERTIFICATE

Electronics Technician  
Industrial Electrical Technician  
Instrumentation and Process Control Technology

### Program Description

The Electronics Department at Merced College is offering cross-disciplinary curricula that prepare students for rewarding entry-level technician positions in various high-tech fields as Electronics, Electrical, Computer Networking and Industrial Electronics, and Instrumentation and Process Control.

These programs introduce students to electrical and electronics tools, components, circuits, energy sources, analog and digital integrated devices that can be found in complex technical equipment. Hands-on laboratory exercises are designed to develop real-world practical skills in using modern test equipment for troubleshooting circuits and repairing various industrial computerized systems and networks, specific to each area of study.

### Career Opportunities

Students who graduate with a degree in electronics have many work opportunities. There are wide variety of businesses that are looking for workers with good electronics background to maintain, repair electronic equipment or to provide technical support to engineers in such areas as research, design, development, testing, or manufacturing process.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE <sup>(5/13)</sup>

#### A.A. - Electronics Technician (09250.AA)

For an Associate of Arts Degree in Electronics Technician, students must meet the general education requirements and complete the required program courses with a minimum grade of a C in each course and have a minimum grade point average of 2.0.

#### Program Student Learning Outcomes

- Develop the lifelong learning skills necessary to think and to act competently in a complex, diverse, and constantly changing technologies.
- Differentiate between "Active" and "Passive" electronics components and analyze a basic electronic circuit with DC and/or AC voltage source.
- Demonstrate autonomous thinking, problem-solving strategies to facilitate working effectively both, in teams and individually, to accomplish an assigned project.
- Develop practical skills in working with electronics test equipment to be able to trouble shoot electronic circuits.

#### Program Requirements:

Program Core: (30-32 Units)		Units
CADM-11	Fundamentals of Computer-Aided Drafting.....	3
ELCT-30 or ELCT-31	Exploring the World of Electricity and Electronics.....	3
	Foundations of Electronics - DC and AC Circuits .....	5
ELCT-32	Fundamentals of Analog Electronics.....	5
ELCT-34	Digital Logic Circuits and Systems.....	3
ELCT-35	Microcontrollers and Programming with Robotics Applications.....	4
ELCT-36	Networking Topologies and Cabling.....	3
ELCT-43A	Industrial Instrumentation and Process Control .....	3
ELCT-44	Electronics Project Design, Fabrication and Repair..	3
ELCT-51A	PC Configuration, Assembly & Repair .....	3

**Total: (30-32 Units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE <sup>(03/21)</sup>

#### A.S. - Industrial Electrical Technician (09510.AS)

The Associate of Science degree in Industrial Electrical Technician will be awarded upon the satisfactory completion of the required 33 units of course work listed below and students must meet the basic graduation requirements. For successful completion, a student must complete the requirements with a minimum grade of a C in each course with a grade point average of 2.0 or higher.

#### Program Student Learning Outcomes

- Demonstrate the ability to communicate effectively in accomplishing job-related tasks.
- Demonstrate field-related entry-level theoretical and practical skills.
- Employ the principles of job-related safety requirements.



**Program Requirements:**

<b>Program Core: (33 Units)</b>		<b>Units</b>
ELCT-41	Industrial Motor and Equipment Control.....	3
ELCT-42A	Principles and Applications of Programmable Logic Controllers .....	2
ELCT-47	Electrical Motors, Generators, Transformers and AC Distribution .....	3
ELCT-52	Introduction to Electricity and Electronics .....	3
ELCT-55	Electrical Conduit Bending Theory and Techniques ..	1
ELCT-56	Introduction to Mechatronics .....	4
ELCT-59	Electrical Safety and Industrial Skills .....	2
INDT-25	Fluid Power .....	3
INDT-35	Electrical Wiring: Residential and Industrial .....	3
INDT-41	Industrial Power Transmission .....	3
INDT-49	Electrical Codes and Ordinances .....	3
INDT-56	Industrial Facilities Maintenance .....	3

**Required Major Total: (33 units)**

Completion of MCCD-GE Breadth pattern: 23 units

Electives (as needed to reach 60 units): 4 units

**Total Degree Units: (60 units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**DEGREE** (5/13)**A.A. - Instrumentation and Process Control Technology (09650.AA)**

An Associate of Arts Degree in Instrumentation and Process Control Technology will be awarded upon the completion of the required program courses with a minimum grade of C and the requirements for the general education.

**Program Student Learning Outcomes**

- Exhibit the ability to communicate effectively in accomplishing job related tasks.
- Demonstrate field related entry level theoretical and practical skills.
- Employ the principles of job related safety requirements.

**Program Requirements:**

<b>Program Core: (29-31 Units)</b>		<b>Units</b>
ELCT-31 or ELCT-52	Foundations of Electronics - DC and AC Circuits .....	5
ELCT-34	Digital Logic Circuits and Systems.....	3
ELCT-41	Industrial Motor and Equipment Control.....	3
ELCT-42A	Principles and Applications of Programmable Logic Controllers.....	2
ELCT-42B	Advanced Topics in PLC Configuration and Programming.....	2
ELCT-43A	Industrial Instrumentation and Process Control .....	3
ELCT-47	Electrical Motors, Generators, Transformers and AC Distribution .....	3
ELCT-55	Electrical Conduit Bending Theory and Techniques..	1
ELCT-58	Electrical Printreading for Installation and Troubleshooting .....	3
INDT-25	Fluid Power .....	3
INDT-49	Electrical Codes and Ordinances.....	3

**Total: (29-31 Units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**CERTIFICATE** (2/14)**Industrial Electrical Technician (09510.CT)**

A Certificate of Achievement in Industrial Electrical Technician will be awarded upon the satisfactory completion of the required 33 units of course

work listed below. For successful completion, a student must complete the requirements with a minimum grade of "C" in each course with a grade point average of 2.0 or higher.

**Program Student Learning Outcomes**

- Demonstrate the ability to communicate effectively in accomplishing job-related tasks.
- Demonstrate field-related entry-level theoretical and practical skills.
- Employ the principles of job-related safety requirements.

**Program Requirements:**

<b>Program Core: (33 Units)</b>		<b>Units</b>
ELCT-41	Industrial Motor and Equipment Control.....	3
ELCT-42A	Principles and Applications of Programmable Logic Controllers .....	2
ELCT-47	Electrical Motors, Generators, Transformers and AC Distribution .....	3
ELCT-52	Introduction to Electricity and Electronics .....	3
ELCT-55	Electrical Conduit Bending Theory and Techniques ..	1
ELCT-56	Introduction to Mechatronics .....	4
ELCT-59	Electrical Safety and Industrial Skills .....	2
INDT-25	Fluid Power .....	3
INDT-35	Electrical Wiring: Residential and Industrial .....	3
INDT-41	Industrial Power Transmission .....	3
INDT-49	Electrical Codes and Ordinances .....	3
INDT-56	Industrial Facilities Maintenance .....	3

**Total: (33 units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**CERTIFICATE** (12/16)**Electronics Technician (09250.CT)**

A Certificate of Achievement in Electronics Technician will be awarded upon the satisfactory completion of the required program courses. Student must complete the required program courses with a minimum grade of a C in each course and have a minimum grade point average of 2.0.

**Program Student Learning Outcomes**

- Develop the lifelong learning skills necessary to think and to act competently in a complex, diverse, and constantly changing technologies.
- Differentiate between "Active" and "Passive" electronics components and analyze a basic electronic circuit with DC and/or AC voltage source.
- Demonstrate autonomous thinking, problem-solving strategies to facilitate working effectively both, in teams and individually, to accomplish an assigned project.
- Develop practical skills in working with electronics test equipment to be able to trouble shoot electronic circuits.

**Program Requirements:**

<b>Program Core: (30-32 Units)</b>		<b>Units</b>
CADM-11	Fundamentals of Computer-Aided Drafting.....	3
ELCT-30 or ELCT-31	Exploring the World of Electricity and Electronics.....	3
ELCT-31	Foundations of Electronics - DC and AC Circuits (5)	
ELCT-32	Fundamentals of Analog Electronics.....	5
ELCT-34	Digital Logic Circuits and Systems.....	3
ELCT-35	Microcontrollers and Programming with Robotics Applications.....	4
ELCT-36	Networking Topologies and Cabling.....	3
ELCT-43A	Industrial Instrumentation and Process Control .....	3
ELCT-44	Electronics Project Design, Fabrication and Repair..	3
ELCT-51A	PC Configuration, Assembly & Repair .....	3

**Total: (30-32 Units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**CERTIFICATE** (11/16)
**Instrumentation and Process Control Technology (09650.CT)**

A Certificate of Achievement in Instrumentation Process Control Technology will be awarded upon the satisfactory completion of the course work listed below. For successful completion, a student must complete the requirements with a minimum grade of C in each course required for the certificate.

**Program Student Learning Outcomes**

- Demonstrate the ability to communicate effectively in accomplishing job related tasks.
- Demonstrate field related entry level theoretical and practical skills.
- Employ the principles of job related safety requirements.

**Program Requirements:**

<b>Program Core: (29-31 Units)</b>		<b>Units</b>
ELCT-31	Foundations of Electronics - DC and AC Circuits .....	5
or		
ELCT-52	Introduction to Electricity and Electronics .....	3
ELCT-34	Digital Logic Circuits and Systems .....	3
ELCT-41	Industrial Motor and Equipment Control .....	3
ELCT-42A	Programmable Logic Controllers .....	2
ELCT-42B	Advanced Topics in PLC Configuration and Programming .....	2
ELCT-43A	Industrial Instrumentation and Process Control .....	3
ELCT-47	Electrical Motors, Generators, Transformers and AC Distribution .....	3
ELCT-55	Electrical Conduit Bending Theory and Techniques ..	1
ELCT-58	Electrical Printreading for Installation and Troubleshooting .....	3
INDT-25	Fluid Power .....	3
INDT-49	Electrical Codes and Ordinances .....	3
<b>Total: (29-31 Units)</b>		

**CERTIFICATE** (03/22)
**Fundamentals of Commercial and Residential Electrical (09402.CE)**

The Certificate in the Commercial and Residential Electrical program is designed to provide knowledge and skills in the electrical building trade. These include use of tools, installation of circuitry, equipment, and special service systems, reading blueprints, and a basic understanding of electronics and electronic devices. Installation, operation, maintenance and repair of electrical systems in buildings, including residential, commercial, and electrical-distribution panels.

**Program Student Learning Outcomes**

- Demonstrate ability to understand requirements of the National Electrical Code in wiring installations.
- Evaluate electrical components.
- Identify proper electrical safety equipment.
- Calculate electrical circuit loads.

**Program Requirements:**

<b>Program Core: (12 Units)</b>		
ELCT-30	Exploring the World of Electricity and Electronics .....	3
ELCT-53A	Solar Installer Course .....	3
ELCT-60	Commercial/Residential Electrical Design .....	3
ELCT-61	Introduction to Commercial/Residential Electrical Techniques .....	3
<b>Total: (12 Units)</b>		

**ELECTRICITY -- ELECTRONICS (ELCT)**
**ELCT-30 EXPLORING THE WORLD OF ELECTRICITY AND ELECTRONICS**

3 units: 3 hours lecture.

This is an overview of electricity and electronics presented in the context of the principles of science. Students will gain an understanding of electronic components and circuits and will learn how to use the scientific method to investigate the physical nature of electricity, magnetism and their applications. Topics such as electronics in biotechnology, communications, consumer electronics, and industrial technology will be addressed, along with the impact and context of the "electronic age" on modern society. (12/18)

**ELCT-31 FOUNDATIONS OF ELECTRONICS -DC AND AC CIRCUITS**

5 units: 3 hours lecture, 6 hours lab.

This course is an introduction to the fundamentals of electricity and electronics including basic direct and alternating current circuits, passive components, measuring instruments, circuit testing and troubleshooting. Students will learn about resistance, capacitance, inductance, and transformer action in direct and alternating current circuits. Laboratory activities are designed to offer practical experience in circuit assembly, use of test and measuring equipment, circuit analysis and troubleshooting. (12/18)

**ELCT-32 FUNDAMENTALS OF ANALOG ELECTRONICS**

5 units: 2 hours lecture, 9 hours lab.

Prerequisite: ELCT-31

This course introduces the fundamental concepts of analog electronics, semiconductor devices and integrated circuits. Topics include semiconductor devices such as diodes, BJTs, FETs, and MOSFETs transistors, as well as operational amplifiers and their practical applications (e.g. rectifiers, amplifiers, power supplies). The skills emphasized are interpretation of electronic schematic diagrams, software simulation, basic circuit analysis, assembly and testing. Laboratory activities are designed to offer practical experience in using test and measurement equipment to perform circuit analysis and troubleshooting. (2/13)

**ELCT-34 DIGITAL LOGIC, CIRCUITS, AND SYSTEMS (FOUNDATIONS OF ELECTRONICS)**

3 units: 2 hours lecture, 3 hours lab.

Advisories: ELCT-30, ELCT-31, ELCT-41, ELCT-52.

The aim of this course is to provide the student with an introduction to basic digital electronic devices (logic gates, flip-flops, seven-segment displays, counters, shift registers) and their applications in modern computing, mechatronics and automated systems. A/D and D/A converters and the basic operation of programmable logic controllers and microcomputers will be introduced. (12/18)

**ELCT-35 MICROCONTROLLERS AND PROGRAMMING WITH ROBOTICS APPLICATIONS**

4 units: 2 hours lecture, 6 hours lab.

Prerequisite: ELCT-34. Advisory: ELCT-30, ELCT-31.

This is an introductory course to the design and control of autonomous robots. Students will start by exploring microcontroller programming with PBASIC and Basic Stamp interface board. Students will gain first-hand experience with more advanced topics such as input and output processing, motion control, servo motor control, as well as ultrasound, tactile, light and robotic vision navigation. These topics will be explored through lectures, textbook assignments and ample hands-on laboratory experiments and project troubleshooting. (2/13)

**ELCT-36 NETWORKING TOPOLOGIES AND CABLING**

3 units: 2 hours lecture, 3 hours lab.

Advisory: ELCT-51B

This is a course designed to provide the student with information and knowledge to prepare for the industry-standard Building Industry Consulting Service International (BICSI) Register installer. Level I exam, and employment as a telecommunications cabling installer. Students will gain an understanding of the cabling industry, U.S. and international standards, basic networking, signal transmission, copper cabling, fiber

optics, installation, safety, structured cabling system basics, cable management, cable testing, and emerging technologies. Students will also be prepared to read network design documentation, architectural blueprints, set up part parts lists, purchase components, pull and mount cable, choose wiring closets, install jacks, and perform cable testing. (5/13)

#### **ELCT-41 INDUSTRIAL MOTOR AND EQUIPMENT CONTROL (APPLICATIONS OF ELECTRONICS)**

3 units: 2 hours lecture, 3 hours lab.

Advisory: ELCT-31.

This course is designed to present the principles and applications of electrical motor and equipment control techniques used in industry. Ladder logic diagrams, contactors, motor starters, and electronic controls and sensors are among the subjects to be studied. Lectures, demonstrations, and laboratory experiments will be the methods used to present and enrich the material to be learned. (12/18)

#### **ELCT-42A PRINCIPLES AND APPLICATIONS OF PROGRAMMABLE LOGIC CONTROLLERS**

2 units: 1 hour lecture, 3 hours lab.

Advisories: ELCT-34, ELCT-52, ELCT-41.

This course provides instruction in industrial type of computers called "Programmable Logic Controllers" (PLCs). The main topics introduce students to the PLC's basic hardware configuration and programming techniques. During the course students will learn how to configure and use programming instruction to create various applications. The students will program and operate on industrial PLCs as a part of laboratory assignments. (11/18)

#### **ELCT-42B ADVANCED TOPICS IN PLC CONFIGURATION AND PROGRAMMING**

2 unit: 1 hour lecture, 3 hours lab.

Advisory: ELCT-34, ELCT-41, ELCT-42A.

The course introduces students to a mid-size Programmable Logic Controller (Allen-Bradley SLC-500) hardware configuration, set-up and programming. During the course students will learn how to use advanced ladder addressing programming instructions as Math, Bit Shift, Compare, Jump, MCR and more, to develop various "real-world" industrial type of PLC applications. (11/18)

#### **ELCT-43A INDUSTRIAL INSTRUMENTATION AND PROCESS CONTROL**

3 units: 2.5 hours lecture, 1.5 hours lab.

Advisory: ELCT-31, ELCT-34, ELCT-42A, ELCT-42B.

This course is designed to study instrumentation, sensors and controls that are used in industrial process control and automation. The course includes the study of the principles of operation and the practical applications of instrumentation in industry. Topics such as: decibels, micro-controllers, levers, friction, clutches and brakes, tooth rotor tachometers, vision sensors, dynamic braking of Direct Current (DC) motors, linear motors, and flux vector Alternating Current (AC) drives may be addressed. (11/18)

#### **ELCT-44 ELECTRONICS PROJECT DESIGN, FABRICATION AND REPAIR**

3 units: 2 hours lecture, 3 hours lab.

Prerequisites: ELCT-30 or ELCT-31.

The aim of this course is to provide the student with an introduction to basic digital electronic devices (logic gates, flip-flops, seven-segment displays, counters, shift registers) and their applications in modern computing, mechatronics and automated systems. A/D and D/A converters and the basic operation of programmable logic controllers and microcomputers will be introduced. (10/14)

#### **ELCT-45A INTRODUCTION TO NETWORKING**

3 units: 2 hours lecture, 3 hours lab.

Advisory: ELCT-51A

This curriculum helps students develop the skills needed to obtain entry-level networking jobs. It provides a hands-on approach to networking education that allows students to gain practical experience working on PC's, their components, and applications. Students complete instructional labs to understand the general theory needed to build networks and

connect them to the internet. Basic security and wireless concepts are covered. This course is for students with basic PC usage skills. (02/19)

#### **ELCT-45B CCNA ROUTING AND SWITCHING**

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: CPSC-45A or ELCT-45A.

This course prepares students for jobs as network technicians. Students develop soft skills required for computer and help desk technicians. Basic configurations of routing, remote access, addressing, and security are applied to routers and switches. Network monitoring and basic troubleshooting skills are examined. (02/19)

#### **ELCT-45C SCALING NETWORKS**

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: CPSC-45B or ELCT-45B.

This course describes the architecture, components, and operations of routers and switches in larger and more complex networks. Students will learn how to configure routers and switches for advanced functionality. At the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, and STP in both IPv4 and IPv6 networks. Students will also develop the knowledge and skills needed to implement a WLAN in a small-to-medium network. (04/17)

#### **ELCT-45D CONNECTING NETWORKS**

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: ELCT-45C.

This course discusses the Wide Area Network (WAN) technologies and network services required by converged applications in a complex network. The course enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. They will also learn about Virtual Private Networks (VPNs) operations. (04/17)

#### **ELCT-47 ELECTRICAL MOTORS, GENERATORS, TRANSFORMERS, AND AC DISTRIBUTION**

3 units: 2 hours lecture, 3 hours lab.

Advisories: ELCT-31, ELCT-41, ELCT-52.

This course covers principles of AC and DC motors, generators, transformers, three-phase generation, and AC distribution systems. The course content will include lecture, demonstration, and laboratory projects using motors and transformers. (12/18)

#### **ELCT-51A PERSONAL COMPUTER CONFIGURATION, ASSEMBLY AND REPAIR**

3 units: 2 hours lecture, 3 hours lab.

This is a course addressed to students without any previous knowledge of personal computers (PC). The course introduces students to the fundamentals of desktop computer installation through simple, step-by-step instruction based on the most recent CompTIA A+ exam objectives. The course will cover the basic principles of PC operation, maintenance and troubleshooting techniques through lecture and various hands-on activities. (5/13)

#### **ELCT-51B A+ CERTIFICATION TRAINING**

3 units: 2 hours lecture, 3 hours lab.

Advisory: ELCT-51A

This is a course designed to provide the student with a working knowledge of the hardware and software used with personal computers (PCs). The course will cover the basic principles of operation, established standards for maintaining compatibility between components and boards, the use of diagnostic software and hardware, various types of operating systems, and standard troubleshooting techniques. (5/13)

#### **ELCT-52 INTRODUCTION TO ELECTRICITY AND ELECTRONICS**

3 units: 2.5 hours lecture, 1.5 hours lab.

Advisories: ELCT-30

This is an introductory course to basic electronics/electricity theory and applications including resistance, inductance, capacitance in the series, parallel, and series-parallel circuits with DC and AC power sources.

Circuit analysis is accomplished through basic circuit formulas according to Ohm's and Kirchhoff's laws. Fundamentals of Magnetism, DC and AC Motors, Diodes, Transistors and Integrated Circuits and the utilization of basic test equipment in electrical circuit construction and troubleshooting are also covered. (11/18)

**ELCT-53A SOLAR INSTALLER COURSE 1**

3 units: 2 hours lecture, 3 hours lab.

Advisory: ELCT-52, ELCT-30, and INDT-35.

This is an introductory course that will examine and implement the design and installation of a working solar photovoltaic power system. Students will learn how to safely use appropriate tools, make electrical load and solar system size calculations, and examine installation techniques for both grid-tie and off grid photovoltaic systems. This course is intended for students who are contemplating a career in the solar photovoltaic industry. (11/18)

**ELCT-55 ELECTRICAL CONDUIT BENDING THEORY AND TECHNIQUES**

1 unit: 0.5 hour lecture, 1.5 hours lab.

Advisory: INDT-35 and INDT-49.

This course provides a comprehensive overview of conduit bending, fabrication procedures and methods. It will develop basic competencies in electrical apprentices and beginning learners. It will discuss hand bending for 90 degree bends, offsets and kicks, saddles and corner offsets, segmented bends, threaders, benders and other conduit types. These conduit types will include electrical metallic tubing (EMT), galvanized rigid conduit (GRC), rigid aluminum, intermediate metallic conduit (IMC), various poly-vinyl chloride (PVC), and flexible plastic and metallic conduit. Wiring in accordance with the National Electrical Code (NEC) will be stressed. Students may petition, through the Office of Admissions and Records, to retake the course as the National Electrical Codes change. (11/18)

**ELCT-56 INTRODUCTION TO MECHATRONICS**

4 units: 2 hours lecture, 6 hours lab.

Prerequisite: ELCT-42A. Advisory ELCT-31, ELCT-42B.

This course introduces students to mechatronics, the rapidly developing field that integrates mechanical, electronic and software engineering in the service of advanced manufacturing. Students will develop an interdisciplinary and integrated approach to design, manufacturing and troubleshooting mechatronics systems. Students will learn how various components such as electronic sensors, electro-pneumatic valves, actuators, motors, and robotic arms work, and how they can be integrated with other mechanical components into complex automated systems. OSHA safety training and certification will be included. Hands-on experience in building and programming a variety of mechatronics projects that simulate real-life industrial automated systems will be provided in laboratory activities. (10/14)

**ELCT-58 ELECTRICAL PRINTREADING FOR INSTALLATION AND TROUBLESHOOTING**

3 units: 2 hours lecture.

Prerequisite: ELCT-52. Advisory: ELCT-41, ELCT-42A, and INDT-35.

This course is a study in electrical print reading for installing and troubleshooting electrical systems presents foundational print reading skills needed to install and troubleshoot commercial and industrial electrical systems and equipment. (11/16)

**ELCT-59 ELECTRICAL SAFETY AND INDUSTRIAL SKILLS**

2 units: 2 hours lecture.

This course is an introduction into basic electrical safety and industrial skills associated with the Electrical and Industrial Technology programs offered at Merced College. The course will give students an opportunity to learn industry standard safe working practices in the electrical and maintenance trades as well as the safe operation of industrial equipment. The student will be trained in the safe use of Merced College electrical trainer and equipment that will be used in more advanced Electrical and Industrial Technology classes. (04/18)

**ELCT-60 COMMERCIAL/RESIDENTIAL ELECTRICAL DESIGN**

3 units: 3 hours lecture.

This course details the concepts and procedures for commercial and residential electrical design and layout. This course covers the codes and ordinances for wiring, load calculations and clean energy integration to residential and commercial buildings. Students may petition, through the Office of Admissions and Records, to retake the course as the National Electrical Codes change. (02/20)

**ELCT-61 INTRODUCTION TO COMMERCIAL/RESIDENTIAL ELECTRICAL DESIGN**

3 units: 2 hours lecture, 3 hours lab.

Advisory: ELCT-59, ELCT-60, ELCT-30.

This course is a study of wiring and installation methods and practices used in residential and commercial electrical construction applications. Students may petition, through the Office of Admissions and Records, to retake the course as the National Electrical Codes change. (02/20)



# Emergency Medical Care

## SCHOOL OF HEALTH AND PUBLIC SAFETY

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[Emergency Medical Website](#)

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE

#### Emergency Medical Technician

##### Program Description

This program is designed to provide the education and training for individuals interested in sitting for the National Registry of Emergency Medical Technicians (NREMT) exam and obtaining Emergency Medical Technician certification. Upon receipt of this certificate, students are then eligible for an entry level position as an EMT.

##### Career Opportunities

This certificate leads to potential employment with ambulance providers, fire departments, police departments, hospitals, doctor's offices and private companies who require on-site emergency medical responders. Many who enter at the EMT level also choose to continue their education toward an advanced health care profession.

### CERTIFICATE (11/15)

#### Emergency Medical Technician (12100.CE)

Emergency Medical Technology is designed to provide students with the skills and knowledge necessary for them to excel as they enter the emergency medical services workforce.

##### Program Student Learning Outcomes

- Describe all facets of basic life support according to state and national standards, to include assessment, emergency treatment, and equipment operation.
- Effectively relate patient details to base hospital emergency department personnel.
- Successfully solve questions on the National Registry of Emergency Medical Technicians (NREMT) exam.

##### Program Requirements:

Program Core:		Units
EMER 50A	Emergency Medical Technician 1, Module A.....	2.5
EMER 50B	Emergency Medical Technician 1, Module B .....	4.5

*NOTE: These courses meet the requirements of Title 22, Division 9, Chapter 2 of California Administrative Code.*

*Students successfully completing the courses are eligible to take the EMT-1 certifying exam from the National Registry of Emergency Medical Technicians.*

## EMERGENCY MEDICAL CARE (EMER)

### EMER-10 PARAMEDIC I

12.5 units: 12.25 hours lecture, 13.5 hours TBA lab.

Two-way corequisite: EMER-11

Limitation on enrollment: EMT course, within the last collegiate calendar year, passed with a grade of B or better, and successfully pass entrance examination. OR, If NREMT certification held for greater than one (1) year- proof of field experience and successful completion of entrance examination. NREMT 1 Certification (current), and maintained throughout coursework. Minimum 18 years of age. Live scan background clearance. Health screen clearance. BLS Healthcare Provider card (current) and maintained throughout the course. Based upon State and Federal Regulations, CA Title 22.

This course introduces the student to the roles and responsibilities of the Paramedic within the EMS system, apply basic concepts of development, pathophysiology, pharmacology, patient assessment, medication administration, airway and ventilation concepts, the pulmonary, cardiac, neurological, and endocrine systems to be able to formulate a "field impression" of patient status. (09/19)

### EMER-11 PARAMEDIC I LAB

1.5 units: 81 hours TBA lab.

Two-way corequisite: EMER-10

Limitation on enrollment: Limitation on Enrollment EMT course, within the last collegiate calendar year, passed with a grade of B or better, and successfully pass entrance examination. If NREMT certification held for greater than one (1) year- proof of field experience and successful completion of entrance examination. NREMT 1 Certification (current), and maintained throughout coursework. Minimum 18 years of age. Live scan background clearance. Health screen clearance. BLS Healthcare Provider card (current) and maintained throughout the course. Based upon State and Federal Regulations, CA Title 22.

This course is the corequisite for Paramedic I and occurs in the skills lab or simulation lab. The student will practice and master skills that will allow the student to meet clinical performance objectives. Competency testing is the focus of this course and will include physical assessment, medication administration, IV skills, and airway maintenance including intubation. (09/19)

### EMER-20 ADVANCED PARAMEDIC

11.5 units: 11.5 hours lecture.

Advisories: ENGL-01A,.

Limitation on enrollment: Health Screening Clearance Live Scan clearance. Maintenance of current NREMT. Maintenance of current BLS Healthcare Provider card. Based upon State and Federal Regulations, CA Title 22. Prerequisite: EMER-10, EMER-11.

Two-way corequisite: EMER-21.

This theory course is the application of theory and skills in a wide variety of sick and injured clients in the pre-hospital setting. This course covers care of medical patients, trauma patients, special populations including obstetrical, pediatric, geriatric and mental health patients. This course is part of a program of study to prepare paramedics as described in California Code of Regulations, Title 22, Division 9, Chapter 4 and lists the required hours and subjects to be covered as set forth by the Department of Transportation curriculum. (09/19)



**EMER-21 ADVANCED PARAMEDIC LAB**

1.5 units: 81 hours TBA lab.

Limitation on enrollment: Health Screening Clearance Live Scan clearance. Maintenance of current NREMT certification. Maintenance of current BLS Healthcare Provider card. Based upon State and Federal Regulations, CA Title 22. Prerequisite: EMER-10, EMER-11. Two-way corequisite: EMER-20. Advisory: ENGL-01A.

This course is the corequisite for Advanced Paramedic (Paramedic II) and occurs in the skills lab or simulation lab. The student will practice and master skills that will allow the student to meet the clinical performance objectives of the program. Practice and competency testing is the focus of this course and will include physical assessment, care of the medical patient, special populations' needs, trauma management, communication with EMS base station and medical director, implementing safety precautions for hazardous materials exposure and manage the scene of an emergency. (2/13)

**EMER-24 WORK EXPERIENCE IN EMERGENCY MEDICAL CARE**

1-8 units

Advisory: ENGL-01A

This course enables students to earn college credit for learning and/or improving skills or knowledge on-the-job. Occupational Work Experience is discipline specific and must connect to the student's major or occupational goal(s). Seventy-five (75) hours of documented paid work experience equals 1 unit of credit. Sixty (60) hours of documented volunteer experience equals 1 unit of credit. A student may enroll in up to 16 total units of work experience at Merced College. Students must have an established work site prior to enrolling in the course. (11/19)

**EMER-30 PARAMEDIC, ACUTE CLINICAL LAB**

3 units: 9 hours lab TBA.

Limitation on enrollment: Health Screening Clearance. Current NREMT certification maintained throughout course. Current BLS Health Care Provider card maintained throughout course. Live Scan Clearance. Based upon State and Federal Regulations, CA Title 22. Prerequisites: EMER-10, EMER-11, EMER-20, EMER-21. Advisory: ENGL-01A

This course occurs in the acute care hospital setting in a precepted format. It is the hands-on application of theory and skills in a hospital setting to a wide variety of sick and injured clients. This course is part of a program of study to prepare paramedics as described in California Code of Regulations, Title 22, Division 9, Chapter 4 and lists the required hours and subjects to be covered as set forth by the Department of Transportation curriculum. (10/19)

**EMER-31 PARAMEDIC FIELD EXPERIENCE**

9 units: 27 hours lab TBA.

Limitation on enrollment: Health Screening Clearance. Current NREMT certification maintained throughout course. Current BLS Health Care Provider card maintained throughout course. Live Scan Clearance. Based upon State and Federal Regulations, CA Title 22. Prerequisite: EMER-10, EMER-11, EMER-20, EMER-21. One-way corequisite: EMER-30. Advisories: ENGL-01A.

This course is the final course in the paramedic series and occurs completely in the field under the direct supervision of a certified pre-arranged paramedic preceptor. It assists the student in developing and refining skills. A wide variety of client activities are taught, including: medical histories, physical examination, client management, triage, trauma care and supportive care of the sick or injured in a field setting. This course is part of a program of study to prepare paramedics as described in California Code of Regulations, Title 22, Division 9, Chapter 4 and lists the required hours and subjects to be covered as set forth by the Department of Transportation curriculum. (12/18)

**EMER-50A EMERGENCY MEDICAL TECHNICIAN 1, MODULE A**

2.5 units: 2.25 hours lecture, 13.5 hours lab TBA.

Limitation on enrollment: A CPR course based on American Red Cross Professional Rescuer or American Heart Association Healthcare Provider. Advisory ALLH-67

This is the first of two modules designed to teach basic emergency medical procedures and responsibilities, including stabilization of the sick

and injured for transportation to medical facilities, care during transport, communication with base-hospital personnel, and transfer of the injured to the base-hospital emergency room. This course meets the requirements of Title 22, Division of California Administrative Code. Students successfully completing EMER-50A and EMER-50B are eligible to take the EMT 1 certifying exam from the National Registry of Emergency Medical Technicians. (10/14)

**EMER-50B EMERGENCY MEDICAL TECHNICIAN 1, MODULE B**

4.5 units: 3.75 hours lecture, 40.5 hours lab TBA.

Limitation on enrollment: Negative TB skin test or negative chest x-ray for TB within 1 year; A CPR course based on American Red Cross Professional Rescuer or American Heart Association Healthcare Provider.

Prerequisite: EMER-50A. Advisories: ALLH-67

This is the second of two modules designed to teach basic emergency medical procedures and responsibilities, including stabilization of the sick and injured for transportation to medical facilities, care during transport, communication with base-hospital personnel, and transfer of the injured to the base-hospital emergency room. This course meets the requirements of Title 22, Division of California Administrative Code. Students successfully completing EMER-50A and EMER-50B are eligible to take the EMT 1 certifying exam from the National Registry of Emergency Medical Technicians. (12/18)

**EMER-52 EMERGENCY MEDICAL TECHNICIAN 1 REFRESHER**

1.5 units: 1.5 hours lecture.

Limitation on enrollment: Current EMT Certification and Current CPR course based on American Red Cross Professional Rescuer or American Heart Association Healthcare Provider or Successful completion of an approved EMT 1 course and current CPR course based on American Red Cross Professional Rescuer or American Heart Association Healthcare Provider.

The course is for currently certified Emergency Medical Technician 1's and for those that have successfully completed an approved EMT 1 course. The course is designed to provide the medical continuing education refresher component modules required for maintaining certification and for those that require remediation for taking the National Registry examination. Students may petition, through the Office of Admissions and Records, to retake the course for the purpose of re-certification as necessary. (02/19)

# Engineering

SCHOOL OF SCIENCE, TECHNOLOGY,

ENGINEERING AND MATH (STEM)

## DEGREE

A.S. - Engineering

A.S. - Engineering Technology

### Program Description

Widely diversified professional engineering programs are available at California universities. Merced College offers the first two years of engineering to prepare students for transfer at the junior class level into a bachelor's degree program.

Students must be aware that completion of the course selection does not necessarily satisfy all lower division requirements as specified by the Engineering Liaison Committee. The program is listed in such a way as to permit sufficient flexibility for students transferring to a variety of institutions. Students must work closely with their counselors to assure a smooth transition to the four-year institution of their choice.

Engineering Technology is that part of the technological field which requires the application of scientific and engineering knowledge and methods combined with technical skills in support of engineering activities; it lies in the occupational spectrum between the craftsman and the engineer.

Engineering Technology prepares the student for junior class standing at California State University at Pomona, San Jose, San Luis Obispo, and Sacramento, and Northrop Institute of Technology in most specialized fields of engineering technology. This program leads to a Bachelor's in Science Degree and classification as an engineering technologist.

### Career Opportunities

- Aerospace Engineers
- Agricultural Engineers
- Biomedical Engineers
- Chemical Engineers
- Civil Engineers
- Electrical Engineering
- Environmental Engineers
- Industrial Engineers
- Materials Engineers
- Mechanical Engineering
- Geological Engineers
- Petroleum Engineers
- Software Engineers

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[Engineering Website](#)

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## DEGREE (2/14)

### A.S. - Engineering (09300.AS)

The Associate of Science degree in Engineering is available for students who meet the graduation requirements and complete the following required courses, with a minimum grade of a "C" in each course in the degree and maintain a 2.0 GPA.

#### Program Student Learning Outcomes

- Demonstrate an understanding of the physical, mechanical, and electrical principles required in engineering analyses.
- Analyze data to make engineering problem decisions.
- Identify candidate materials based on composition and structure.
- Demonstrate proficiency in analytical problem solving skills.

#### Program Requirements:

##### Program Core: (39 Units)

	Units
CHEM-04A General Chemistry I .....	5
ENGR-15 Elementary Mechanics (Statics).....	3
ENGR-18 Electrical Circuits Analysis .....	4
ENGR-45 Engineering Materials .....	4
MATH-04A Calculus I .....	4
MATH-04B Calculus II .....	4
MATH-04C Multivariable Calculus .....	4
MATH-06 Differential Equations .....	3
PHYS-04A Physics I .....	4
PHYS-04B Physics II .....	4

**Total: (39 Units)**

#### Suggested Electives:

(Please talk to a counselor and Engineering Professional for guidance on which courses to take.)

CHEM-04B General Chemistry II .....	5
CPSC -06 Programming Concepts & Methodology I .....	3
or	
CPSC-14 C++ Programming .....	3
or	
ENGR-14 C++ Programming .....	3
CADM-02 Descriptive Geometry .....	3
ENGR-30 Introduction to Engineering .....	2
MATH-08 Linear Algebra .....	3
PHYS-04C Physics III .....	4

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## DEGREE (2/14)

### A.S. - Engineering Technology (09350.AS)

The Associate of Science degree in Engineering Technology is available for students who meet the graduation requirements and complete the following required courses, with a minimum grade of a "C" in each course in the degree and maintain a 2.0 GPA.

#### Program Student Learning Outcomes

- Demonstrate an understanding of the physical, mechanical, and electrical principles required in engineering analyses.
- Analyze data to make engineering problem decisions.
- Identify candidate materials based on composition and structure.
- Demonstrate proficiency in analytical problem solving skills.
- Use appropriate technology in a variety of engineering problems.

#### Program Requirements:

Program Core: (36 Units)		Units
CHEM-04A	General Chemistry I .....	5
CPSC-06 or CPSC-14 or ENGR-14	Programming Concepts & Methodology I .....	3
	C++ Programming .....	3
	C++ Programming .....	3
ENGR-18	Electrical Circuits Analysis .....	4
ENGR-45	Engineering Materials .....	4
MATH-04A	Calculus I .....	4
MATH-04B	Calculus II .....	4
MATH-04C	Multivariable Calculus .....	4
PHYS-04A	Physics I .....	4
PHYS-04B	Physics II .....	4
<b>Total: (36 Units)</b>		

#### Suggested Electives:

		Units
<i>(Please talk to a counselor and Engineering Professional for guidance on which courses to take.)</i>		
CADM-02	Descriptive Geometry .....	3
ENGR-15	Elementary Mechanics (Statics) .....	3
ENGR-30	Introduction to Engineering .....	2
MATH-06	Differential Equations .....	3
MATH-08	Linear Algebra .....	3

## ENGINEERING (ENGR)

### ENGR-14 C++ PROGRAMMING (ALSO: CPSC-14)

(C-ID COMP 122)

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: MATH-C, MATH-61, or MATH-62.

Advisory: CPSC-01; ENGL-01A.

This is the entry-level comprehensive concepts course for computer science majors, and recommended for science and math majors. Algorithm design, logic diagrams, problem-solving, coding, and debugging are emphasized using a structured language such as C++. (2/18)

### ENGR-15 ELEMENTARY MECHANICS (STATICS)

(C-ID ENGR 130)

3 units: 3 hours lecture.

Prerequisite: PHYS-04A. One-way corequisite: MATH-04C.

Advisory: ENGL-01A.

A first course in engineering mechanics: properties of forces, moments, couples and resultants; two- and three-dimensional force systems acting on engineering structures in equilibrium; analysis of trusses, and beams; distributed forces, shear and bending moment diagrams, center of gravity, centroids, friction, and area and mass moments of inertia. (10/19)

### ENGR-18 ELECTRICAL CIRCUITS ANALYSIS

(C-ID ENGR 260 and 260 L)

4 units: 3 hours lecture, 3 hours lab.

Prerequisite: PHYS-04B. One-way corequisite: MATH-06.

Advisory: ENGL-01A.

This course covers basic circuit analysis emphasizing resistive circuits, natural and forced response of inductive and capacitive circuits, phasor analysis, and semiconductor elements. Lab involves construction and measurement of circuits using power supplies, breadboards, multimeters, oscilloscopes, and function generators. (11/15)

### ENGR-20 INTRODUCTION TO PROGRAMMING CONCEPTS AND METHODOLOGIES FOR ENGINEERS (ALSO: CPSC-20)

4 units: 3 hours lecture, 3 hours lab.

Prerequisite: MATH-02. Advisory: CPSC01.

Introduces the basics of software development and programming using a high level language. Students discover the interface of software with the physical world through working with hardware components. This class includes hands-on, project based learning. (05/22)

### ENGR-21 PROGRAMMING AND PROBLEM-SOLVING IN MATLAB (ALSO: CPSC-21)

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: MATH-04A.

This course utilizes the MATLAB environment to provide students with a working knowledge of computer-based problem-solving methods relevant to science and engineering. It introduces the fundamentals of procedural and object-oriented programming, numerical analysis, and data structures. Examples and assignments in the course are drawn from practical applications in engineering, physics, and mathematics. (05/22)

### ENGR-30 INTRODUCTION TO ENGINEERING

2 units: 1 hour lecture, 3 hours lab.

Advisories: MATH-C, MATH-60, or MATH-61; ENGL-01A.

The course explores the branches of engineering, the functions of an engineer, and the industries in which engineers work. Explains the engineering education pathways and explores effective strategies for students to reach their full academic potential. Presents an introduction to the methods and tools of engineering problem solving and design including the interface of the engineer with society and engineering ethics. Develops communication skills pertinent to the engineering profession. (4/19)

### ENGR-35 ENGINEERING GRAPHICS

(C-ID ENGR-150)

3 units: 2 hours lecture, 3 hours lab.

Prerequisites: MATH-25.

This course covers the principles of engineering drawings in visually communicating engineering designs and an introduction to computer-aided design (CAD). Topics include the development of visualization skills; orthographic projections; mechanical dimensioning and tolerancing practices; and the engineering design process. Assignments develop sketching and 2-D and 3-D CAD skills. The use of CAD software is an integral part of the course. (12/19)

### ENGR-45 ENGINEERING MATERIALS

(C-ID ENGR 140 and ENGR 140 L)

4 units: 3 hours lecture, 3 hours lab.

Prerequisites: CHEM-04A; MATH-04A; PHYS-04A.

Advisory: ENGL-01A.

This course is an introduction to the atomic and microscopic structure of modern engineering materials. The effect of structure and manufacturing processes on the mechanical, electrical, and other physical properties of materials are studied. Metals, alloys, ceramics, polymers, and composites are explored. (5/13)

# English

## SCHOOL OF HUMANITIES, LANGUAGES AND FINE & PERFORMING ARTS



### Associate Degree for Transfer

*A Degree with a Guarantee.<sup>SM</sup>*

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE

#### A.A.T. - English

#### Program Description

The English curriculum prepares the student in written and analytical skills and acquaints the student with a wide range of literature. An English major qualifies a student for employment in educational institutions, business and industry, and communications. It is a frequently recommended major for students interested in pre-law, journalism, or library work.

For an Associate in Arts in English for Transfer (AA-T), students must complete 60 semester units that are eligible for transfer to the CSU with a minimum grade point average of 2.0, that include both of the following:

- (1) 60 semester CSU-transferable units.
- (2) the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- (3) a minimum of 18 semester units in the major or area of emphasis as determined by the community college district.
- (4) obtainment of a minimum grade point average (GPA) of 2.0.
- (5) earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

Note: Students are not required to complete any additional local graduation requirements for the AA-T (e.g., PE and Computer and Information Literacy courses).

#### Career Opportunities

- Advertising
- Interpreter
- Librarian
- Public Relations
- Columnist
- Grant Writer
- Paralegal
- Editor
- Teacher
- Publisher
- Attorney
- Manager
- Technical Writer

#### Highlights

The English cohort offers its literature classes on a rotating schedule. If students carefully plan their course work, they should be able to take the classes necessary to earn an English degree in two years. Below is the schedule for the upcoming years:

Some courses, such as ENGL-02 and LBST-30, are scheduled by other departments. See the Area Dean or English Faculty Lead for more information.

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[English Website](#)

### DEGREE <sup>(10/12)</sup>

#### A.A.T. - English (15200.AAT)

The Associate of Arts in English for Transfer degree (AA-T) is designed for students planning on transferring to a California State University (CSU). Upon completion of the transfer associate degree, the student is eligible for transfer with junior standing into the CSU system. Students will be given priority consideration when applying to a particular program that is similar to the student's community college area of emphasis.

#### Program Student Learning Outcomes

- A. Students will be able to compose a thesis-based essay that clearly communicates a logical, evidence-supported argument with documentation.
- B. Students will demonstrate, in writing, comprehension and critical analysis of college-level texts.

#### Program Requirements:

##### Program Core: (18-20 Units)

	Units
ENGL-01B Introduction to Literature .....	3
ENGL-13 Critical Reasoning and Writing .....	3
or	
ENGL-13H Honors Critical Reasoning and Writing .....	3
or	
PHIL-13 Critical Reasoning and Writing .....	3
or	
PHIL-13H Honors Critical Reasoning and Writing .....	3

##### List A: Select a minimum of 6 units from the following:

ENGL-04A Introduction to World Literature: Ancients to 1650 ....	3
ENGL-04B Introduction to World Literature: 1650 to Present ....	3
ENGL-06A Major English Writers to the Late 18th Century .....	3
ENGL-06B Major English Writers Since the Late 18th Century .....	3
ENGL-10 American Literature - Beginnings to Civil War .....	3
ENGL-11 American Literature - Civil War to Present .....	3

##### List B: Select a minimum of 3 units from the following:

Any course from List A not used above. ....	3
ENGL-05 Introduction to Fiction .....	3
ENGL-12 Creative Writing .....	3

##### List C: Select a minimum of 3 units from the following:

Any course from List A or List B not used above. ....	3
DRAM-01 Introduction to Theater .....	3
ENGL-02 Oral Interpretation .....	3
or	
COMM-02 Oral Interpretation 3 .....	3
ENGL-07 Studies in Literature--Poetry .....	3
ENGL-08 Introduction to Shakespeare .....	3
ENGL-14 Introduction to Film .....	3
ENGL-15 History of Dramatic Literature .....	3
ENGL-18 African and African American Literature .....	3
FREN-03 Intermediate French I .....	5
FREN-04 Intermediate French II .....	5
GERN-03 Intermediate German I .....	5
GERN-04 Intermediate German II .....	5
HUM-01 Studies in Humanities-- Ancient to Early Renaissance .....	3
SPAN-03 Intermediate Spanish I .....	5
SPAN-04 Intermediate Spanish .....	5



**Total Units toward the Major: (18-20 Units)**

Total Units that may be double counted: 19-21

General Education (CSU-GE or IGETC) Units: 37-39

Elective (CSU Transferable) Units: 11-14

**Total Degree Units: (60 Units)****ENGLISH (ENGL)****ENGL-01A COLLEGE COMPOSITION AND READING**

(C-ID ENGL 100) (CSU breadth area A2) (IGETC area 1A)

4 units: 4 hours lecture.

Prerequisite: ESL-40 Advisory: LRNR-30.

This course focuses on critical reading and thinking, research strategies, and scholarly composition with proper documentation at the college transfer level. Students write expository, analytical, and argumentative essays informed by assigned readings, discussion, and/or research. (02/22)

**ENGL-01B INTRODUCTION TO LITERATURE**

(C-ID ENGL 120) (CSU breadth area C2) (IGETC area 3B)

3 units: 3 hours lecture.

Prerequisite: ENGL-01A.

This course introduces representative works from four major genres: short story, novel, drama, and poetry. Students develop analytical and evaluative reading and writing skills while acquiring an appreciation for the cultural context and the aesthetic qualities of literature. Students read texts from various countries and periods in order to encourage an appreciation of literature's range, artistry, and insight into the human experience. (02/19)

**ENGL-01C: Critical Thinking Across the Curriculum**

(CSU breadth Area A3) (IGETC area 1B)(C-ID ENGL-105)

3 units: 3 hours lecture.

Prerequisites: ENGL 01A

Develops critical thinking, reading, and writing skills as they apply to textual analysis of primary and secondary sources, essays, articles, and a booklength work from a range of academic and cultural contexts. Theme based. Emphasis on the techniques and principles of effective written argument in research-based writing across the disciplines. (02/22)

**ENGL-02 ORAL INTERPRETATION (ALSO: COMM-02)**

(C-ID COMM 170)

3 units: 3 hours lecture.

Prerequisite: ENGL-01A

This course is designed to introduce students to performance studies through analysis, appreciation and application of interpretive performance of the various forms of literature: poetry, prose and drama. (02/19)

**ENGL-04A INTRODUCTION TO WORLD LITERATURE: ANCIENTS TO 1650**

(CSU breadth area C2) (IGETC area 3B) (C-ID ENGL 140)

3 units: 3 hours lecture.

Prerequisite: ENGL-01A. Advisory: ENGL-01B.

This course examines the origins and developments of world literatures and cultures from the ancients to 1650 through various literary genres and cultural traditions. Primary focus will fall on major works of certain periods and of geographic origins. Students will engage in comparative analysis and evaluation of the literary works as well as close study of the works in addition to the study of each text's merit. (12/18)

**ENGL-04B INTRODUCTION TO WORLD LITERATURE: 1650 TO PRESENT**

(C-ID ENGL 145) (CSU breadth area C2) (IGETC area 3B)

3 units: 3 hours lecture.

Prerequisite: ENGL-01A. Advisory: ENGL-01B.

This course examines the origins and subsequent developments of world literatures and cultures from 1650 to the present through various literary genres and cultural traditions. Primary focus will fall on major works of certain periods and of geographic origins. Students will engage in comparative analysis and evaluation of the literary works as well as close study of the works in addition to the study of each text's merits. (11/19)

**ENGL-05 INTRODUCTION TO FICTION**

(CSU breadth area C2) (IGETC area 3B)

3 units: 3 hours lecture.

Prerequisite: ENGL-01A. Advisory: ENGL-01B.

This course traces the origins and subsequent developments of short fiction and longer fiction (novels), and signals the specific characteristics of respective genres. Students will read a number of books of short fiction and three to five novels in order to study the various developments of style, form, structure, and other artistic choices associated with the history of fiction. (02/19)

**ENGL-06A MAJOR ENGLISH WRITERS TO THE LATE 18TH CENTURY**

(C-ID ENGL 160) (CSU breadth area C2) (IGETC area 3B)

3 units: 3 hours lecture.

Prerequisite: ENGL-01A. Advisory: ENGL-01B.

This course introduces students to the history and variety of English literature from its beginnings to the late eighteenth century. Representative works of major authors are read as examples of the various genres, literary trends, and historical eras in which they were written. (11/19)

**ENGL-06B MAJOR ENGLISH WRITERS SINCE THE LATE 18TH CENTURY**

(C-ID ENGL 165) (CSU breadth area C2) (IGETC area 3B)

3 units: 3 hours lecture.

Prerequisite: ENGL-01A. Advisory: ENGL-01B.

This course introduces students to the history and variety of English literature from the late eighteenth through the twentieth, to the twenty-first centuries. Representative works of major authors are read as examples of the various genres, literary trends, and historical eras in which they were written. (02/19)

**ENGL-07 STUDIES IN LITERATURE: POETRY**

(CSU breadth area C2) (IGETC area 3B)

3 units: 3 hours lecture.

Prerequisite: ENGL-01A. Advisory: ENGL-01B.

This course traces origins and developments of the poem as a major literary genre. Course includes an intensive study of the poetic process. Poems from ancient times to the present are analyzed in terms of form, idea, and language. (02/19)

**ENGL-08 INTRODUCTION TO SHAKESPEARE**

(CSU breadth area C2) (IGETC area 3B)

3 units: 3 hours lecture.

Prerequisite: ENGL-01A. Advisory: ENGL-01B.

Introduction to Shakespeare is a course of literary analysis based on reading and studying the major works of William Shakespeare. The course focuses on a number of Shakespeare's plays, especially the most widely-known ones, from the categories Comedy, History, and Tragedy, as well as a survey of his non-dramatic poetry. As this course is an introductory course, students will receive the opportunity to learn about Elizabethan England -- the England of the time of Shakespeare. (02/19)

**ENGL-10 AMERICAN LITERATURE FROM BEGINNINGS TO CIVIL WAR**

(C-ID ENGL 130) (CSU breadth area C2) (IGETC area 3B)

3 units: 3 hours lecture.

Prerequisite: ENGL-01A. Advisory: ENGL-01B.

This course is designed to introduce students to the history and variety of literature from American Literature's beginnings to the Civil War. Representative works are read as examples of various genres, literary trends, and historical eras. (09/19)

**ENGL-11 AMERICAN LITERATURE FROM POST-CIVIL WAR TO PRESENT**

(C-ID ENGL135) (CSU breadth area C2) (IGETC area 3B)

3 units: 3 hours lecture.

Prerequisite: ENGL-01A. Advisory: ENGL-01B.

This course is designed to introduce students to the history and variety of American literature from the end of the 1865 to the present. Representative works of major and influential authors are read as examples of various



genres, literary movements, and historical eras. (09/19)

### ENGL-12 CREATIVE WRITING

(C-ID ENGL 200)

3 units: 3 hours lecture.

Prerequisite: ENGL-01A. Advisory: ENGL-01B.

A course designed to provide experience in the writing of poetry, drama, fiction, and creative non-fiction and to aid the student in becoming aware of the craft of writing as described and/or demonstrated by professional writers. The class is conducted primarily as a workshop in which students read their works for constructive criticism. (11/19)

### ENGL-13 CRITICAL REASONING AND WRITING (ALSO: PHIL-13)

(CSU breadth area A3) (C-ID ENGL 105) (IGETC area 1B)

3 units: 3 hours lecture.

Prerequisite: ENGL-01A.

This course offers instruction in argumentative and critical writing, critical thinking, research strategies, information literacy, and proper documentation. Readings feature mostly non-fictional essays and books that reflect diverse cultural and gender perspectives on a variety of contemporary political and social issues, especially those involving race, ethnicity, and gender. ENGL-13/PHIL-13 meets the IGETC critical thinking/composition requirement. (02/22)

### ENGL-13H HONORS CRITICAL REASONING AND WRITING (ALSO: PHIL-13H)

(C-ID ENGL 105) (CSU breadth area A3) (IGETC area 1B)

3 units: 3 hours lecture.

Limitation on enrollment: Enrollment in the Honors Program.

Prerequisite: ENGL-01A.

This course offers instruction in argumentative and critical writing, critical thinking, research strategies, information literacy, and proper documentation. Readings feature mostly non-fictional essays and books that reflect diverse cultural and gender perspectives on a variety of contemporary political and social issues, especially those involving race, ethnicity, and gender. ENGL-13/PHIL-13 meets the IGETC critical thinking/composition requirement. (02/22)

### ENGL-14 INTRODUCTION TO FILM

(CSU breadth area C1) (IGETC area 3A)

3 units: 2 hours lecture, 3 hours lab.

Advisory: ENGL-01A.

This course includes critical and popular approaches to film. Students will study film form, genre, style, criticism, and history. They will read screenplays and film criticism and theory and view the films under consideration to obtain a better understanding of the film discipline. (02/19)

### ENGL-15 HISTORY OF DRAMATIC LITERATURE

(CSU breadth area C1)

3 units: 3 hours lecture.

Prerequisite: ENGL-01A. Advisory: ENGL-01B.

This course traces origins and development of drama from classic to contemporary periods. It examines drama as a literary genre, including analysis of theme, style, character, and dramatic sub-genres. (12/18)

### ENGL-18 AFRICAN LITERATURE AND STUDIES IN THE UNITED STATES (ALSO: ETHN-18)

(CSU breadth area C2) (IGETC area 3B)

3 units: 3 hours lecture.

Prerequisite: ENGL-01A. Advisory: ENGL-01B.

This course provides an overview of African American literature through the lens of ethnic studies theories such as resistance, self-affirmation, and agency. Students will explore, describe, and analyze a diverse range of literary texts from various genres and historical periods. The African American experience as expressed through literature will be contrasted with at least one other group such as Native American, Asian American, and Latinx/Chicano, with a particular focus on how the groups express resistance, social justice, and liberation on contemporary issues. (10/21)

### ENGL-19 CHICANA/O LITERATURE AND STUDIES IN THE UNITED STATES (ALSO: ETHN-19)

(CSU breadth area C2/F)

3 units: 3 hours lecture.

Prerequisite: ENGL-01A. Advisory: ENGL-01B.

This course surveys, interprets, compares, and explores the lived experiences of Latinx/Chicanx authors through a variety of texts and genres. Readings, discussions, lectures, and presentations will focus on the cultural, social, and historical aspects of Latinx/Chicanx literature. The course may include a variety of genres: fiction, poetry, drama, film, and non-fiction prose, etc. (10/21)

### ENGL-95S ENHANCED ACADEMIC LITERACY

2 units: 2 hours lecture.

Corequisite: ENGL-01A.

This course is designed to provide supplemental instruction and support for students enrolled in a linked section of English-01A. Students will further develop skills in reading, writing, and researching. In addition, they will learn to address strategies for academic success and be able to utilize computerized technology necessary for a composition course. (12/18)

# English as a Second Language

## HUMANITIES

**DEAN**  
TRAVIS HICKS

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**AREA OFFICE**  
IAC-C HUMANITIES BLDG., 2ND FLOOR

**COUNSELING**  
(209) 381-6478

### Program Description

This three-level ESL program helps students whose primary language is not English to acquire the English language skills and cultural awareness necessary to begin a program of study that prepares them to succeed in college level courses. Separate courses in grammar and linguistic competence, pronunciation and speaking, reading, and paragraph development prepare students to enter developmental reading and writing classes and do not count toward graduation. Because credit ESL courses begin on an intermediate level, it is recommended that students have three years of prior instruction in ESL, or speak, read, and write English regularly in their daily lives.

## ENGLISH AS A SECOND LANGUAGE (ESL)

### ESL-40 FOUNDATIONS IN ACADEMIC LITERACY I FOR NON-NATIVE SPEAKERS

5 units: 5 hours lecture.

This course is intended for ESL students. This course focuses on effective critical reading and thinking skills, research strategies, scholarly composition with proper documentation, and advanced editing skills. Students compose a range of academic writing informed by assigned readings, discussion, and/or research using primarily non-fiction source material. (11/20)

### ESL-84E FOUNDATIONS IN ACADEMIC LITERACY II FOR NON-NATIVE SPEAKERS

5 units: 5 hours lecture.

This course is intended for students whose primary language is not English. At a low-advanced ESL level, this course focuses on effective critical reading and thinking skills, research strategies and academic composition with proper documentation. Students write a range of increasingly complex short essays informed by assigned readings, discussion, and/or research using a variety of source material including non-fiction. (12/18)

# Entrepreneurship

## SCHOOL OF BUSINESS

### DEGREE

A.S. - Small Business Entrepreneurship

### CERTIFICATE

Small Business Entrepreneurship

#### Program Description

The Entrepreneurship programs at Merced College are designed to equip students with the necessary skills to start and operate a small business. Students who possess industry skills or talents will be educated in areas to help them be successful business people. Additionally, students who complete undergraduate coursework in the field of entrepreneurship will be prepared for transfer to a four-year institution.

#### Career Opportunities

Business Owner, Investor, Administrator, Consultant, Manager, Community Leader, CEO, Partner, Controller.

#### Highlights

Merced College is a member of the national Collegiate Entrepreneur's Organization (C-E-O), which supports the education of future entrepreneurs.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE (01/21)

#### A.S. - Small Business Entrepreneurship (05700.AS)

An Associate of Science Degree in Small Business Entrepreneurship is available upon satisfactory completion of the graduation requirements and completing the 29 units of course work. Students must meet the graduation requirements and complete the major requirements with the following core courses with a grade of "C" or higher in each course.

#### Program Student Learning Outcomes

- Assess a new business' potential in the external environment in order to distinguish between a business idea and a business opportunity.
- Analyze financial information associated with starting up a new business and maintaining an existing business.
- Present a business plan suitable for potential investors and/or financial lending institutions.
- Demonstrate techniques to promote a new business venture using current methods.

#### Program Requirements:

##### Program Core: (29 Units)

	Units
ACTG-31 Computerized Accounting .....	2
BUS-10 Introduction to Business .....	3
BUS-35 Money Management .....	3
AOM-30 Introduction to Computer Applications .....	3
AOM-43 Essentials of Business Communication .....	3
MGMT-31 Principles of Management.....	3
MGMT-33 Elements of Effective Leadership .....	3
BUS-37 Small Business Entrepreneurship .....	3
MKTG-30 Principles of Marketing .....	3
MKTG-33 Advertising .....	3
Select two courses from management Series	
MGMT-50A Challenges of Leadership: Difficult People/Tough Conversations .....	0.5
MGMT-50B Values and Ethics.....	0.5
MGMT-50C Time Management .....	0.5
MGMT-50D Communication in the Workplace .....	0.5
MGMT-50F Team Building.....	0.5

DEAN  
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[Entrepreneurship Website](#)

MGMT-50G Decision Making and Problem Solving.....	0.5
MGMT-50H Customer Service.....	0.5
MGMT-50I Attitude in the Workplace .....	0.5
MGMT-50J Thrive and Survive in the Workplace .....	0.5
MGMT-51C Leadership Essentials: What Emerging Leaders Need to Know.....	0.5
MGMT-51F Conflict Resolution .....	0.5
MGMT-51G Stress Management and Counseling.....	0.5
MGMT-52C Successful Business Speaking .....	0.5
MGMT-52D Managing Organizational Change.....	0.5

**Total: (30 Units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE (01/21)

#### Small Business Entrepreneurship (05700.CT)

A Certificate of Achievement will be awarded upon the satisfactory completion of 29 units of course work in this area of study. Students must meet the graduation requirements and complete the major requirements with the following core courses with a grade of "C" or higher in each course.

#### Program Student Learning Outcomes

- Assess a new business' potential in the external environment in order to distinguish between a business idea and a business opportunity.
- Analyze financial information associated with starting up a new business and maintaining an existing business.
- Present a business plan suitable for potential investors and/or financial lending institutions.
- Demonstrate techniques to promote a new business venture using current methods.

#### Program Requirements:

##### Program Core: (29 Units)

	Units
ACTG-31 Computerized Accounting .....	2
BUS-10 Introduction to Business .....	3
BUS-35 Money Management .....	3
AOM-30 Introduction to Computer Applications .....	3
AOM-43 Essentials of Business Communication .....	3
MGMT-33 Elements of Effective Leadership .....	3
BUS-37 Small Business Entrepreneurship .....	3
MKTG-30 Principles of Marketing .....	3
MKTG-33 Advertising .....	3
VIRT-51 Social Media.....	3
Select two courses from management Series	
MGMT-50A Challenges of Leadership: Difficult People/Tough Conversations .....	0.5
MGMT-50B Values and Ethics.....	0.5
MGMT-50C Time Management .....	0.5
MGMT-50D Communication in the Workplace .....	0.5
MGMT-50F Team Building.....	0.5
MGMT-50G Decision Making and Problem Solving.....	0.5
MGMT-50H Customer Service.....	0.5
MGMT-50I Attitude in the Workplace .....	0.5
MGMT-50J Thrive and Survive in the Workplace .....	0.5
MGMT-51C Leadership Essentials: What Emerging Leaders Need to Know.....	0.5
MGMT-51F Conflict Resolution .....	0.5
MGMT-51G Stress Management and Counseling.....	0.5
MGMT-52C Successful Business Speaking .....	0.5
MGMT-52D Managing Organizational Change.....	0.5

**Total: (30 Units)**

# Ethnic Studies

## SOCIAL SCIENCES

**DEAN**  
JOHN ALBANO

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### ETHN-01 INTRODUCTION TO ETHNIC STUDIES

(CSU breadth area D/F)

3 units: 3 hours lecture.

This course provides an introduction to the key concepts, theories, methodologies, and topics in the field of Ethnic Studies. It examines the socioeconomic, historical, cultural, and political conditions shaping the lived experiences and social struggles of Native American, African American, Asian American, and Chicana/Latina communities in the United States, with an emphasis on self-determination, agency, and anti-racist and anti-colonial movements to build a more just and equitable society. (10/21)

### ETHN-05 RACE, ETHNICITY, AND INEQUALITY (ALSO: SOC-05)

(CSU breadth area D/F) (IGETC area 4)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This course examines the cultural, political, and economic practices and institutions leading to racial and ethnic oppression in the United States, highlighting the agency and resistance of historically marginalized groups. It presents an overview of historical and contemporary patterns of interaction between various racial and ethnic groups through an intersectional and anti-racist perspective. (10/21)

### ETHN-07 AMERICAN DEMOCRACY: POLITICS OF RACE AND ETHNICITY (ALSO: POSC-07)

(CSU breadth area D)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This course traces the evolution of American visual art from its pre-contact Native North American roots through the immigration of multiple ethnic groups (African Americans, Asian Americans, Arab Americans, Hispanic Americans), as a cultural form of expression by examining two-dimensional and three-dimensional art, architecture, literature, philosophy, and lifestyles. Also, the arts will be analyzed from a social, economic, and political perspective. It will be explored as a product of the struggle of ethnic groups as reflected in their traditional artistic practice both visual, architectural, literary, musical and major issues associated with political art expressing racial and ethnic identity. (10/21)

### ETHN-11 ARTS IN AMERICA: A MULTICULTURAL AND POLITICAL PERSPECTIVE

(CSU breadth area C1)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This course traces the evolution of American visual art from its pre-contact Native North American roots through the immigration of multiple ethnic groups (African Americans, Asian Americans, Arab Americans, Hispanic Americans), as a cultural form of expression by examining two-dimensional and three-dimensional art, architecture, literature, philosophy, and lifestyles. Also, the arts will be analyzed from a social, economic, and political perspective. It will be explored as a product of the struggle of ethnic groups as reflected in their traditional artistic practice both visual, architectural, literary, musical and major issues associated with political art expressing racial and ethnic identity. (10/21)

### ETHN-12 ETHNIC STUDIES FOR EDUCATORS)

(CSU breadth area D/F)

3 units: 3 hours lecture.

Advisory: ENGL-01A

Prepares students to utilize the concepts and methods of Ethnic Studies in teaching and pedagogical practice in TK-12 education. Discusses the role of intersectionality identity, and collective struggle in educational institutions, focusing on Native American, African American, Asian American and

Latina and Latino American communities. Covers the historical inequalities reproduced within education and schools, the knowledge produced by these communities and the strategies used for resistance and liberation. (10/21)

### ETHN-15 ETHNICITY AND CULTURE (ALSO: HUM-15)

(CSU breadth area C2/D/F) (IGETC area 3B/4)

3 units: 3 hours lecture.

Advisory: ENGL-01A

Ethnicity and Culture examines the legacy of racial and ethnic inequalities in the United States, the sources of resistance and transformation, and the contemporary impacts of these changes on society. This is an interdisciplinary course that surveys and facilitates meaningful conversations about specific disadvantaged groups and encourages active engagement in overcoming the social struggles of these historically disadvantaged groups in the United States. It focuses on the experiences of Native Americans, African Americans, Latinx Americans, and Asian Americans, spanning from past to present, from politics to social reform, allowing students to identify similar patterns underlying the dynamics of discrimination. (07/22)

### ETHN-18 AFRICAN AMERICAN LITERATURE AND STUDIES IN THE UNITED STATES (ALSO: ENGL-18)

(CSU breadth area C2) (IGETC area 3B)

3 units: 3 hours lecture.

Prerequisite: ENGL-01A Advisory: ENGL-01B

This course provides an overview of African American literature through the lens of ethnic studies theories such as resistance, self-affirmation, and agency. Students will explore, describe, and analyze a diverse range of literary texts from various genres and historical periods. The African American experience as expressed through literature will be contrasted with at least one other group such as Native American, Asian American, and Latinx/Chicano, with a particular focus on how the groups express resistance, social justice, and liberation on contemporary issues. (10/21)

### ETHN-19 CHICANA/O LITERATURE AND STUDIES IN THE UNITED STATES (ALSO: ENGL-19)

(CSU breadth area C2/F)

3 units: 3 hours lecture.

Prerequisite: ENGL-01A Advisory: ENGL-01B

This course surveys, interprets, compares, and explores the lived experiences of Latinx/Chicana authors through a variety of texts and genres. Readings, discussions, lectures, and presentations will focus on the cultural, social, and historical aspects of Latinx/Chicana literature. The course may include a variety of genres: fiction, poetry, drama, film, and non-fiction prose, etc. (10/21)

### ETHN-20 HISTORY OF ASIAN AMERICANS (ALSO: HIST-20)

(CSU breadth area D/F) (IGETC area 4)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This course is an interdisciplinary study of Asian Americans from a historical, political, sociological, and aesthetic perspective. Social emphasis is placed on the contributions of Asian Americans scholars and activists by using an intersectional lens to explore the effects of colonialism, imperialism, white supremacy, and racism. This course offers pragmatic historical and political evaluations that aim to introduce students interested in Ethnic Studies, Asian American Studies, Gender Studies, and social movements. (05/21)

**ETHN-22 HISTORY OF BLACK AMERICANS (ALSO: HIST-22)**

(CSU breadth area D) (IGETC area 4)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This course is a social, cultural, political, and intellectual history of the Black American experience in America. This survey course examines the Black American experience through the dual lens of historical and ethnic studies perspectives—combining both to provide a deep range of views into the complex interaction of Black Americans in the American context. This course begins with the African origins of the Black American experience and follows that experience up to today. In particular, this course examines the historical record of the Black American experience in the context of the lived experience seen through the eyes of such figures as: Equiano, Jacobs, Tubman, Douglass, Washington, Wells, Du Bois, Randolph, Hurston, King, Hamer, Malcolm X, Baldwin, etc. Additionally, this course gives primacy to a full breadth of scholarship on the Black American experience from such seminal thinkers and observers of the Black American condition in the American context such as: Du Bois, Woodson, King, Baldwin, Franklin, Carmichael, Morrison, Davis, Angelou, Patterson, Gates, Foner, Lewis, Blight, Walker, Wilkerson, McWhorter, Kendi, Hannah Jones, etc. (05/21)

**ETHN-23 CHICANA/O AMERICAN HISTORY AND CULTURE****(ALSO: HIST-23)**

(CSU breadth area D/F) (IGETC area 4)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This interdisciplinary course examines the social, political, and cultural roots of Chicana/os, tracing history from their Indigenous, African, and Spanish beginnings to the present. It analyzes race, ethnicity, and culture, in relation to Chicana/o communities and their social justice movements and struggles. The course provides a basis for a better understanding of the socio-economic, cultural, and political conditions among Chicana/os through historical consideration of the creation and development of Ethnic Studies programs in the United States. Special emphasis is also placed on the contributions of Chicana/o scholars, artists, and activists by using an intersectional decolonial lens to explore the effects of (neo)colonialism, imperialism, white supremacy, Eurocentrism, and racism. (07/22)



# Fire Technology

## SCHOOL OF HEALTH AND PUBLIC SAFETY

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VALERIE ALBANO

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PSC-3

**COUNSELING**  
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[Fire Technology Website](#)

### DEGREE

A.S. - Fire Technology

### CERTIFICATE

Fire Technology

#### Program Description

The Fire Technology Program is composed of three goal areas: an Associate Degree and /or Certificate of Achievement, Fire Fighter I Academy, and professional growth. With successful completion of the AS or Certificate program, a fire academy, and possession of an EMT certification, the student will possess the basic qualifications for entry level fire service application at most fire prevention and suppression departments.

#### Career Opportunities

Fire prevention and suppression offers many career opportunities including positions in municipal fire departments, county departments, fire protection districts, and California Fire agencies. There are also employment opportunities in correctional institutions, military bases, and numerous federal agencies. Specialists are in demand by industry.

#### Highlights

Academic and hands on experiences.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE <sup>(10/16)</sup>

#### A.S. - Fire Technology (21400.AS)

For an Associate of Science in Fire Technology, students must meet the graduation requirements and complete the following required courses with a 2.0 GPA or higher in each class. The core must be completed for this degree.

#### Program Student Learning Outcomes

- Describe the principles of fire behavior, prevention, and emergency response.
- Evaluate emergency response information in order to relate it to appropriate tasks.
- Describe the proper medical, legal, and ethical treatment of patients and victims.

#### Program Requirements:

Program Core: (25 Units)		Units
FIRE-30	Fire Protection Organization .....	3
FIRE-31	Fire Behavior and Combustion.....	3
FIRE-32	Fire Prevention Technology.....	3
FIRE-33	Fire Protection Equipment and Systems.....	3
FIRE-34	Building Construction for Fire Protection.....	3
FIRE-40	Principles of Fire and Emergency Services Safety and Survival .....	3
EMER-50A	Emergency Medical Technician 1, Model A.....	2.5
EMER-50B	Emergency Medical Technician 1, Module B .....	4.5

#### Major Total: (25 Units)

GE Pattern MCCC GE Breadth: .....	23 units
Electives (as needed) (CSU transferrable): .....	12 units
Double-Counted: .....	0 units
<b>Total Degree (maximum): (60 units)</b>	

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE

#### Fire Technology (21400.CT)

A Certificate of Achievement will be awarded upon the satisfactory completion of 30 units of course work in this area of study, which must include the first five courses listed for the A.S. Degree in Fire Technology. A 2.0 GPA or higher must be earned in each class.

#### Program Student Learning Outcomes

- Demonstrate effective written communication skills.
- Demonstrate effective verbal and nonverbal communication skills.
- At a basic level apply the principles of fire technology.
- Demonstrate an appreciation of lifelong learning.
- Demonstrate the ability to evaluate and adhere to ethics and compassionate treatment of patients and victims.
- At a basic level demonstrate the ability to evaluate information and incorporate it into appropriate tasks.
- At a basic level demonstrate the ability to analyze and solve problems using logical and creative methods.

#### Program Requirements:

Program Core: (30 Units)		Units
FIRE-30	Fire Protection Organization .....	3
FIRE-31	Fire Behavior and Combustion.....	3
FIRE-32	Fire Prevention Technology.....	3
FIRE-33	Fire Protection Equipment and Systems.....	3
FIRE-34	Building Construction for Fire Protection.....	3
Plus 15 additional FIRE units .....		15
		<b>Total: (30 Units)</b>

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### ACADEMY

#### California Fire Service Certificate

Students must complete the courses listed in the following categories in order to meet NFPA Professional Standards for California Fire Service Certification. Additionally, students must fulfill state-mandated employment time requirements for each classification.

#### Program Student Learning Outcomes

- Demonstrate effective written communication skills.
- Demonstrate effective verbal and nonverbal communication skills.
- At a basic level apply the principles of fire technology.
- Demonstrate an appreciation of lifelong learning.
- Demonstrate the ability to evaluate and adhere to ethics and compassionate treatment of patients and victims.
- At a basic level demonstrate the ability to evaluate information and incorporate it into appropriate tasks.
- At a basic level demonstrate the ability to analyze and solve problems using logical and creative methods.

#### Program Requirements:

Program Core: (16 Units)		Units
FIRE-63A	Basic Firefighter I, Academy A .....	8
FIRE-63B	Basic Firefighter I, Academy B .....	8
		<b>Total: (16 Units)</b>

## FIRE TECHNOLOGY (FIRE)

### FIRE-24 WORK EXPERIENCE IN FIRE TECHNOLOGY

1-8 units

Advisory: ENGL-01A.

This course enables students to earn college credit for learning or improving skills or knowledge on-the-job. Occupational Work Experience is discipline-specific and must connect to the student's major or occupational goal(s). Seventy-five (75) hours of documented paid work experience equals 1 unit of credit. Sixty (60) hours of documented volunteer experience equals 1 unit of credit. A student may enroll in up to 16 total units of work experience at Merced College. Students must have an established work site prior to enrolling in the course. (10/19)

### FIRE-30 FIRE PROTECTION ORGANIZATION

3 units: 3 hours lecture.

This course provides an introduction to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; and introduction to fire strategy and tactics. (11/16)

### FIRE-31 FIRE BEHAVIOR AND COMBUSTION

3 units: 3 hours lecture.

Prerequisite: FIRE-30.

This course presents the theory and fundamentals of how and why fires start, spread, and are controlled; an in-depth study of fire chemistry and physics; fire characteristics of materials; extinguishing agents; and fire control techniques. (03/19)

### FIRE-32 FIRE PREVENTION TECHNOLOGY

3 units: 3 hours lecture.

Corequisite: FIRE-30

This course provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire safety education and suppression systems. (12/18)

### FIRE-33 FIRE PROTECTION EQUIPMENT AND SYSTEMS

3 units: 3 hours lecture.

Prerequisite: FIRE-30

This course provides information relating to features of design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection, and portable fire extinguishers. (12/18)

### FIRE-34 BUILDING CONSTRUCTION FOR FIRE PROTECTION

3 units: 3 hours lecture.

Prerequisite: FIRE-30

This course is the study of components of building construction that relate to fire safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations, and operating at fires. The development and evolution of building and fire codes will be studied in relationship to past fires in residential, commercial, and industrial occupancies. (12/18)

### FIRE-35 FIREFIGHTING TACTICS AND STRATEGY

3 units: 3 hours lecture.

Prerequisite: FIRE-30

This course relates basic fire chemistry, equipment, and manpower, to fire fighting tactics and strategy, methods of attack, and pre-planning. (12/18)

### FIRE-36 HAZARDOUS MATERIALS

3 units: 3 hours lecture.

Prerequisite: FIRE-30; One-way corequisites: FIRE-31.

This course presents the theory and fundamentals of how and why fires start, spread, and are controlled: an in-depth study of fire chemistry and physics, fire characteristics of materials, extinguishing agents, and fire control techniques. (12/18)

### FIRE-37 FIRE HYDRAULICS

3 units: 3 hours lecture.

Prerequisite: FIRE-30 or current volunteer, paid call, seasonal or full-time firefighter for a certified fire protection department.

This course is a basic review of mathematics, hydraulic laws and formulas, and water supply and pump requirements as applied to fire service. (11/16)

### FIRE-40 PRINCIPLES OF FIRE AND EMERGENCY SERVICES SAFETY AND SURVIVAL

3 units: 3 hours lecture.

Prerequisite: FIRE-30.

This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services. (10/16)

### FIRE-47A FIRE INVESTIGATION - 1A

2 units: 36 total hours lecture.

Prerequisite: FIRE-30 or current volunteer, paid call, or seasonal or full-time firefighter for a certified fire protection department.

This course is an introduction to arson, laws related to arson, types of incendiary fires, and methods of determining fire cause and recognizing and preserving evidence. A special emphasis will be placed on report-writing techniques. (11/18)

### FIRE-47B FIRE INVESTIGATION - 1B

2 units: 36 total hours lecture.

Prerequisite: FIRE-47A

This course covers evidence related to arson and fire deaths, interviewing, and interrogating. Investigation of structure, wildland, and vehicle fires are covered as well as fire scene documentation; search and seizure laws are also covered. (11/18)

### FIRE-58 FIREFIGHTER BASIC SKILLS

9 units: 7.5 hours lecture, 4.5 hours lab.

Limitation on Enrollment: Must pass requirements for the volunteer agency representing.

Provides the firefighter with basic knowledge of fire behavior and control and basic skills to safely perform essential fire ground tasks with minimal supervision. Student must supply instructor-approved personal protective equipment (required instructional supply). (02/22)

### FIRE-63A BASIC FIREFIGHTER I, ACADEMY A

8 units: 7 hours lecture, 54 hours lab TBA.

Limitation on enrollment: Physician's clearance for strenuous activity.

Prerequisite: FIRE-30 and Existing Paid Call (Volunteer) Firefighter.

This course provides manipulative and technical training in basic concepts of fire department organization, miscellaneous equipment and tools, fire behavior and extinguishment theory, fire fighter safety, self-contained breathing apparatus, and portable fire extinguishers. The course also provides training in ropes, knots, hitches, hoses, nozzles, appliances, ground ladders, forcible entry, and confined space rescue. Students must supply instructor-approved personal protective equipment (required instructional material). (09/19)

### FIRE-63B BASIC FIREFIGHTER I, ACADEMY B

8 units: 7 hours lecture, 54 hours lab TBA.

Limitation on enrollment: Physician's clearance for strenuous activity.

Prerequisite: FIRE-63A

This course provides manipulative and technical training in basic concepts of ventilation, fire control, salvage and overhaul operations, fire protection water systems, fire protection systems, fire prevention and investigation, communications, vehicle extrication, wildland fire fighting, urban interface, and hazardous materials. (09/19)

### FIRE-65C WILDLAND FIREFIGHTING STRATEGY & TACTICS

1 unit: 1 hour lecture.

Prerequisite: FIRE-30 or Existing Paid Call (Volunteer) Firefighter.

This course stresses the fundamentals of initial-attack wildland firefighting and how to apply wildland firefighting strategy and tactics during the suppression effort which also includes live fire control. Must have instructor approved fire protective gear. (09/19)

**FIRE-65E INTRODUCTION TO HAZARDOUS MATERIALS AWARENESS**

0.5 unit: 0.5 hour lecture.

Prerequisite: FIRE-30 or Existing Paid Call (Volunteer) Firefighter. This course is a general introduction to hazardous materials awareness with emphasis on placards, identification and recognition, decision-making in emergencies, detecting hazardous materials presence, and estimating the likely harm without intervention. (10/19)

**FIRE-65F HAZARDOUS MATERIALS – FIRST RESPONDER OPERATIONS (H M F.R.O.)**

1 unit: 20.7 total hours lecture.

Prerequisite: Existing Paid Call (Volunteer) Firefighter

Advisories: FIRE-30.

This course covers how hazardous materials can harm people, the environment, and property, and how the first responder may use clues to recognize a hazardous materials incident and implement actions to protect themselves and the public. (09/19)

**FIRE-65G FIRST RESPONDER OPERATIONS–DECONTAMINATION (DECON FRO)**

0.5 unit: 0.5 hour lecture.

Advisories: FIRE-30 or current volunteer, paid call, or seasonal or full-time firefighter for a certified fire protection department, FIRE-65F.

This course covers how to safely and competently perform "Fully/Primary" decontamination in at least "Level B" personal protective equipment based on agency or generic Decon SOP. This course builds upon FRO competencies to perform decontamination functions within the contamination reduction zone. (09/19)

**FIRE-66D EQUIPMENT OPERATOR FOR VOLUNTEER FIREFIGHTERS**

2 units: 2 hours lecture.

Limitation on enrollment: Full-time firefighter or minimum of one continuous year as a paid-call firefighter; valid California Class B (commercial or firefighter) permit with tank and air brake endorsements. If the student has a commercial California Driver's License, it must indicate manual transmission and have a current health questionnaire. Prerequisite: FIRE-30 or current volunteer, paid call, or seasonal or full-time firefighter for a certified fire protection department.

This course provides the firefighter with basic knowledge of radio communications use regarding size-up and report conditions. Forms and reports related to operating equipment and incidents are covered as well as emergency equipment placement, and strategy and tactics for structure, wildland, and vehicle fires. Auto extrication and defensive driving and pump theory are included. (09/19)

**FIRE-67A LOW-ANGLE ROPE RESCUE, OPERATIONAL**

1 unit: 1 hour lecture.

Prerequisite: FIRE-30

This course is designed to introduce the novice to the basics of equipment nomenclature, rope design and construction, care and maintenance, and knots and webbing as they apply to rope rescue emergencies. (09/19)

**FIRE-67B AUTO EXTRICATION**

0.5 unit: .5 hours lecture.

Prerequisite: FIRE-30 or currently a paid call, seasonal, or full-time firefighter.

This course provides classroom instruction of vehicle rescue concepts. It introduces students to common vehicle rescue tools and hands-on practice of basic techniques used to free persons entrapped in vehicles as a result of traffic collisions. To successfully complete the skills portion, students must have the ability to lift tools that may weigh in excess of 50 pounds and perform other rigorous physical tasks. Students must supply instructor approved personal protective equipment (required instructional material) equivalent to that of a structural firefighting ensemble. This shall, at a minimum, include a helmet with face shield and/or goggles, leather gloves, turnout coat and pants, and turnout boots (or steel toed lace-up leather boots at least 8" in height with lugged soles). (09/19)

**FIRE-68B BASIC INCIDENT COMMAND SYSTEM (I-200)**

1 unit: 1 hour lecture.

Limitation on enrollment: Instructor-verified ICS (I-100) completion. This course is designed for the entry-level and veteran firefighter. The subject matter relates to principles and features of ICS, organization, incident facilities, incident resources and responsibilities associated with ICS Assignments. Student must have instructor verified ICS (I-100) completion. (09/19)

**FIRE-68C INCIDENT COMMAND SYSTEM - INTERMEDIATE (I-300)**

1.5 units: 1.5 hours lecture.

Prerequisite: FIRE-68B

This course is designed for the entry-level and veteran firefighter. The subject matter relates to organization and staffing for incidents or events, incident resources management, air operations, and incident event planning. (11/17)

**FIRE-68D ADVANCED INCIDENT COMMAND SYSTEM (I-400)**

2 units: 2 hours lecture.

Prerequisite: FIRE-68C

This is an advanced course in the Incident Command System. This course is designed for senior personnel who are expected to perform in a management capacity in an Area Command or multi-agency coordination system. This course is designed to provide overall incident management skills rather than tactical expertise. (11/18)

**FIRE-69A FIRST RESPONDER MEDICAL**

2.5 units: 2.5 hours lecture.

Prerequisite: FIRE-30 or currently a paid call, seasonal, or full-time firefighter.

This course is designed to meet the state requirements for emergency medical personnel. The course relates to patient assessment, cardiovascular systems, fractures, splinting, childbirth, and environmental emergencies. (09/19)

**FIRE-69B FIRST RESPONDER RE-CERTIFICATION**

1.5 units: 1.5 hours lecture.

Limitation on enrollment: Must possess a current valid CPR card in Basic Life Support of Health Care Providers (or equivalent) as outlined by the American Heart Association.

Prerequisite: FIRE-69A

This course is designed to meet the state re-certification requirements for emergency medical personnel. The course relates to patient assessment, cardiovascular systems, fractures, splinting, childbirth and environmental emergencies. Must possess a current valid CPR card in Basic Life Support of Health Care Providers. (11/18)

**FIRE-71A FIRE INSTRUCTOR I**

2.25 units: 40.5 total hours lecture.

Prerequisite: FIRE-30 or current volunteer, paid call, or seasonal or full-time firefighter for a certified fire protection department.

This course is designed for the fire company officer who conducts in-service training programs. The course provides a variety of methods and techniques to help personnel select, develop and organize material for in-service programs. Methods of evaluation and opportunity to apply the major principles of learning through demonstrations are stressed. The course is certified by the office of the California State Fire Marshal. (11/18)

**FIRE-71B FIRE INSTRUCTOR II**

2 units: 2 hours lecture.

Prerequisite: FIRE-71A.

This course is designed for the fire company officer who conducts in-service training programs. The course provides instruction in the use of visual aids, test construction, and teaching demonstrations. The successful completion of this course and the State Fire Marshal's examination will result in State certification. (11/18)

**FIRE-72A FIRE COMMAND I -- MODULE A**

2 units: 40 total hours lecture.

Prerequisite: FIRE-73A.

This course is designed to provide the fire company officer with information and experience in command and control techniques at the scene of an emergency. (11/18)

**FIRE-72B FIRE COMMAND I -- MODULE B**

2 units: 40 total hours lecture.

Prerequisite: FIRE-72A.

This course is designed to provide the fire company officer with information and experience in command and control techniques at the scene of a hazardous materials emergency. (11/18)

**FIRE-73A FIRE INSPECTOR 1A**

2 units: 40 total hours lecture.

Prerequisite: FIRE-30 or current volunteer, paid call, or seasonal or full-time firefighter for a certified fire protection department.

This course provides students with a basic knowledge of the roles and responsibilities of a Fire Inspector I including legal responsibilities and authority, codes and standards, the inspection process, confidentiality and privacy requirements, and ethical conduct, and administrative tasks including preparing inspection reports, recognizing the need for a permit or plan review, investigating common complaints, and participating in legal proceedings. (10/17)

**FIRE-73B FIRE INSPECTOR 1B**

2 units: 40 total hours lecture.

Prerequisite: FIRE-73A.

This course provides students with a basic knowledge of fire and life safety aspects related to the roles and responsibilities of a Fire Inspector I including building construction, occupancy classifications, occupancy load, means of egress, hazardous conditions, fire growth potential, fire flow, and emergency planning and preparedness measures. (10/17)

**FIRE-75 FIRE MANAGEMENT I - MANAGEMENT FOR COMPANY OFFICERS**

2 units: 40 total hours lecture.

Prerequisite: FIRE-30 or current volunteer, paid call, or seasonal or full-time firefighter for a certified fire protection department.

This course will provide instruction to improve the student's managerial effectiveness and will require demonstration of growth and development in the use of managerial skills. The course will stress resource identification and utilization. (11/18)

**FIRE-76A FIRE APPARATUS DRIVER/OPERATOR 1A (EMERGENCY VEHICLE OPERATIONS)**

2 units: 40 total hours lecture.

Prerequisites: FIRE-63A, FIRE-63B.

Limitation on enrollment: Must possess a valid California Drivers License, Class B, firefighter restricted (minimum); must be physically fit per department standards; must not have a hearing loss of 25 decibels or more in 3 of 4 frequencies; must have vision better than, or corrected to, far visual acuity of 20/30 with contact lenses or spectacles; and must be a paid call, volunteer, or full-time firefighter at a certified fire protection agency.

This course will provide fire service personnel with knowledge of the laws and requirements that pertain to emergency vehicle operation, basic maintenance and troubleshooting, and documentation of fire apparatus. (11/18)

**FIRE-76B FIRE APPARATUS DRIVER/OPERATOR 1B (PUMP OPERATIONS)**

2 units: 40 total hours lecture.

Prerequisite: FIRE-76A

Limitation on enrollment: Must possess a valid California Drivers License, Class B, firefighter restricted (minimum); must be physically fit per department standards; must not have a hearing loss of 25 decibels or more in 3 of 4 frequencies; must have vision better than, or corrected to, far visual acuity of 20/30 with contact lenses or spectacles; and must be a paid call, volunteer, or full-time firefighter

at a certified fire protection agency.

This course will provide fire service personnel with information on pump construction, theory of pump operation, and methods for performing basic hydraulics. Further, students will receive information and techniques on basic inspections, documentation, maintenance, and troubleshooting fire pumps. This course provides the student with information on pump construction and theory of pump operations. Topics include methods for performing basic hydraulics and techniques on basic inspections, documentation, maintenance, and troubleshooting fire pumps. Each student also has the opportunity to increase his or her pumping skills during simulated pumping conditions. (11/18)

# French

## SCHOOL OF HUMANITIES, LANGUAGES AND FINE & PERFORMING ARTS

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[French Website](#)

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE

A.A. - French

#### Program Description

Studies in foreign languages provide specialists to work in areas such as anthropology, economics, political science, literature, international business, and the travel industry. While teaching is one of the principal areas of employment, other careers may be found in interpreting, translating, research, diplomacy, libraries, publishing, and the service industries.

### DEGREE

A.A. - French (11200.AA)

For an Associate of Arts Degree in French students should meet the graduation requirements and complete the 26-unit curriculum as listed below. The courses listed below must be in addition to the basic graduation requirements.

#### Program Student Learning Outcomes

- Speaking: Initiate, minimally sustain, and close in a simple way basic communicative tasks.
- Listening: Distill information from such discourse and demonstrate understanding.
- Writing: Compose a simple narrative and meet practical needs.
- Culture: Recognize pervasive values of the culture.
- Reading: Understand main ideas.

#### Program Requirements:

Program Core: (26 Units)		Units
FREN-01	Elementary French I.....	5
FREN-02	Elementary French II.....	5
FREN-03	Intermediate French I.....	5
FREN-04	Intermediate French II.....	5
HIST-04A	History of Civilization Part I.....	3
HIST-04B	History of Civilization: Part II.....	3
<b>Total: (26 Units)</b>		

## FRENCH (FREN)

### FREN-01 ELEMENTARY FRENCH I

(CSU breadth area C2) (IGETC area 6)

5 units: 5 hours lecture.

This is a beginner's course. The course will focus on the development of listening, speaking, reading, and writing in a cultural context, with primary emphasis on communicative competency. Students will learn how to express in French the most basic functions of everyday life. This course is not recommended for native speakers. (02/18)

### FREN-02 ELEMENTARY FRENCH II

(CSU breadth area C2) (IGETC area 6)

5 units: 5 hours lecture.

Prerequisite: FREN-01 or two years of high school French.

FREN-02 is the continuation of FREN-01. This course will focus on the further development of listening, speaking, reading, and writing in cultural context, with primary emphasis on communicative competency. Students will learn how to express in French basic functions of everyday life. This course is not recommended for native speakers. (02/18)

### FREN-03 INTERMEDIATE FRENCH I

(CSU breadth area C2) (IGETC area 3B/6)

5 units: 5 hours lecture.

Prerequisite: FREN-02 or two years of high school French.

Advisory: LRNR-30.

FREN-03 is a continuation of FREN-02. This course reviews and further develops grammatical concepts introduced in FREN 01 and FREN 02, as well as introduces the student to new concepts. Through varied readings, composition, and discussion, the student will increase with his or her vocabulary and cultural knowledge. (02/18)

### FREN-04 INTERMEDIATE FRENCH II

(CSU breadth area C2) (IGETC area 3B/6)

5 units: 5 hours lecture.

Prerequisite: FREN-03

Advisory: LRNR-30.

This course is a thorough review of the fundamentals of reading, writing, speaking and understanding French, designed to aid the student in preparing for advanced studies in French composition, grammar, and conversation as well as literature in French, history and culture. (02/18)



# Geography

## SCHOOL OF SOCIAL SCIENCES AND EDUCATION



Associate Degree  
for Transfer  
*A Degree with a Guarantee.<sup>SM</sup>*

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE

#### A.A.-T. - Geography

##### Program Description

Geography is the study of the physical aspects of the planet. Topics studied include population pressures, food supply, and resource availability. Physical Geography is a natural science about weather, climate, and earth processes creating different landforms, while World Geography is a social science of how mankind utilizes earth resources to create different cultures and standards of living. The study of Geography enables a student to better understand world problems and events; it prepares a student for a career as a planner, teacher, journalist, earth scientist, and for other occupations.

### DEGREE

#### A.A.-T. - Geography (22250.AAT)

The Associate in Arts in Geography for Transfer degree is designed to provide students with the common core of lower division courses required to transfer and pursue a baccalaureate degree in Geography within the California State University system. The Geography Department at Merced College is a program that facilitates the success of general education students and geography majors by offering lower-division geography courses.

The Geography Program offers students a variety of courses in physical, cultural, regional and applied geography. Students gain the ability to analyze geographical issues, read and interpret maps, and develop the skills to communicate local, national, and international geographic phenomena to others.

The Associate in Arts in Geography for Transfer degree is designed to prepare students for a seamless transfer into the CSU system to complete a baccalaureate degree in Geography or similar major.

##### Program Student Learning Outcomes:

- Analyze core geographic principles, concepts, models and phenomena.
- Demonstrate understanding of the global natural and cultural environments and the geographic methods by which they are studied.
- Examine the diversity of people, places and events globally as well as within specific geographic regions.
- Interpret maps and mapped data utilizing basic map elements.

For an Associate in Arts in Geography for Transfer (AA-T), students must complete the following:

- 60 semester CSU-transferable units.
- the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

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[Geography Website](#)

- a minimum of 18 semester in the major or area of emphasis as determined by the community college district.
- obtainment of a minimum grade point average (GPA) of 2.0.
- earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

*Note: Students are not required to complete any additional local graduation requirements for the AA-T (e.g., PE and Computer and Information Literacy courses).*

##### Program Requirements:

Program Core: (19-22 Units)		Units
GEOG-01	Physical Geography .....	3
GEOG-01L	Physical Geography Laboratory.....	1
GEOG-02	World Geography .....	3
GEOG-12	Introduction to Human Geography .....	3
GEOG-15	Introduction to Weather and Climate.....	3
List B: Select 2 courses (6 units) of the following.....		6
ANTH-02	Sociocultural Anthropology (3)	
BIOL-01	General Biology for Non-Majors (4)	
CHEM-02A	Introductory Chemistry (4)	
CHEM-04A	General Chemistry I (5)	
CPSC-01	Introduction to Computer Information Systems (4)	
GEOL-01	Physical Geology (4)	
MATH-10	Elementary Statistics (3)	
PHYS-02A	General Physics I (4)	
POSC-01	Essentials of American Political System (3)	

##### Total Units for Major: (19-22 Units)

Total Units that may be double counted: ..... -7-13 Units  
General Education (CSU-GE or IGETC) Units:.....37-39 Units  
Elective (CSU Transferable) Units:..... 6-17 Units

**Total Degree Units: (60 Units)**

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**GEOGRAPHY (GEOG)****GEOG-01 PHYSICAL GEOGRAPHY**

(C-ID GEOG 110) (CSU breadth area B1) (IGETC area 5A)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This course is a spatial study of the Earth's dynamic physical systems and processes. Topics include: Earth-sun geometry, weather, climate, water, landforms, soil, and the biosphere. Emphasis is on the interrelationships among environmental and human systems and processes and their resulting patterns and distributions. Tools of geographic inquiry are also briefly covered; they may include: maps, remote sensing, Geographic Information Systems (GIS) and Global Positioning Systems (GPS). (11/20)

**GEOG-01L PHYSICAL GEOGRAPHY LABORATORY**

(C-ID GEOG 111) (CSU breadth area B3) (IGETC area 5C)

1 unit: 3 hours lab.

One-way corequisite: GEOG -01.

This course focuses on the development of skills and analytic thinking in explaining landform processes, weather phenomena, climate patterns, and vegetation patterns. Exercises include contour map drawing, analysis of data and drawing graphs, study of weather maps, stereo photo interpretation, and landform processes. (05/19)

**GEOG-02 WORLD GEOGRAPHY**

(C-ID GEOG 125 ) (CSU breadth area D) (IGETC area 4)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

Survey of the world's culture regions and nations as interpreted by geographers, including physical, cultural, and economic features. Emphasis on spatial and historical influences on population growth, transportation networks, and natural environments. Identification and importance of the significant features of regions. (5/19)

**GEOG-12 INTRODUCTION TO HUMAN GEOGRAPHY**

(IGETC area 4) (C-ID GEOG 120) (CSU breadth area D)

3 units: 3 hours lecture.

Advisory: ENGL-01A

Introduction to origins and global distribution of cultures. Examines cultural adaptations to the earth, human modifications of the landscape, and patterns of human organization as exemplified in population, agriculture, language, religion, political organization, popular culture, and economic development. Issues addressed include famine, political conflict, multiculturalism, suburban sprawl, industrial relocation and third world development. (03/22)

**GEOG-15 INTRODUCTION TO WEATHER AND CLIMATE**

(IGETC area 5A) (C-ID GEOG 130) (CSU breadth area B1)

3 units: 3 hours lecture.

Advisory: ENGL-01A

Introduction to the Earth's atmosphere: topics include atmospheric structure and composition, solar radiation and energy balances, temperature, seasonal changes, atmospheric moisture, clouds and fog, precipitation, air pressure, winds, air masses and fronts, cyclones, weather forecasting, climate and climate change. (11/20)

**GEOG-20 INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS AND TECHNIQUES WITH LAB**

2 units: 1 hours lecture, 3 hours lab.

Study of Geographic Information Systems (GIS) science and its applications to spatial data management. Identification and acquisition of GIS data. Assessment of vector and raster systems, scale, resolution, map projection, coordinate systems, georeferencing and Global Positioning Systems (GPS). Spatial analysis and modeling with GIS. (05/22)

**GEOG-25 MAP INTERPRETATION AND REMOTE SENSING**

2 units: 2 hours lecture, 1 hours lab.

Introduction to maps, images and geographic techniques. Technologies include map and aerial photograph interpretation, tabular data, spatial statistics, cartography, Global Positioning Systems (GPS), Internet mapping, remote sensing and Geographic Information Systems (GIS) that aid in data collection, analysis and presentation. (05/22)

# Geology

SCHOOL OF SCIENCE, TECHNOLOGY,  
ENGINEERING AND MATH



Associate Degree  
for Transfer

*A Degree with a Guarantee.<sup>SM</sup>*

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## DEGREE

A.S.-T. - Geology

### Program Description

The Associate in Science in Geology for Transfer degree is designed for students planning on transferring to a California State University with a degree in geology. Upon completion of the transfer associate degree, the student is eligible for transfer with junior standing into the California State University (CSU) system. Students will be given priority consideration when applying to a particular program that is similar to the student's community college area of emphasis.

### Web Site

<http://www.mccd.edu/academics/sme/earth-science.html>

## DEGREE (03/21)

A.S.-T. - Geology (19400.AST)

The Geology curriculum is suggested for those students interested in any branch of earth science.

This curriculum is designed to meet the lower division requirements of most universities offering a major in the earth sciences. This curriculum, combined with the upper division curriculum required at a university, could lead to careers in fields such as paleontology, mineralogy, geophysics, hydrology, marine geology, and geochemistry, as well as general geology. People trained in these disciplines are employed in research companies as well as by companies associated with mining and petroleum industries.

### Program Student Learning Outcomes:

- Classify common geologic materials.
- Solve quantitative questions in geology.
- Compile evidence for Geologic principles.
- Assemble geologic data in to a geologic history.
- Summarize the events within geologic periods.

### Program Requirements

For an Associate in Arts in History for Transfer (AA-T), students must complete the following:

- 60 semester CSU-transferable units.
- the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- a minimum of 18 semester in the major or area of emphasis as determined by the community college district.
- obtainment of a minimum grade point average (GPA) of 2.0.
- earn a grade of C ( or P) or better in all courses required for the major or area of emphasis.

*Note: Students are not required to complete any additional local graduation requirements for the AA-T (e.g., PE and Computer and Information Literacy courses).*

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### Program Requirements:

Program Core: (26 Units)		Units
GEOL-01	Physical Geology .....	4
GEOL-02	Historical Geology .....	4
CHEM-04A	General Chemistry I .....	5
CHEM-04B	General Chemistry II .....	5
MATH-04A	Calculus I .....	4
MATH-04B	Calculus II .....	4

### Total Units for Major: (26 Units)

Total Units that may be double counted: ..... -7 Units  
General Education (CSU-GE or IGETC) Units: ..... 37 Units  
Elective (CSU Transferable) Units: ..... 4 Units

### Total Degree Units: (60 Units)

## GEOLOGY (GEOL)

### GEOL-01 PHYSICAL GEOLOGY

(C-ID GEOL 101) (CSU breadth area B1/B3) (IGETC area 5A/5C)  
4 units: 3 hours lecture, 3 hours lab.

Advisory: MATH-C, MATH-61 or MATH-62; ENGL-01A.

This is a beginning course in geology stressing the beneficial and destructive forces of nature and their causes. The course includes a study of the development of landscapes, origin of minerals and rocks, geologic work of ground water, the phenomena of earthquakes, volcanism, metamorphism and other fundamental concepts of geology. Lab work includes the identification and study of rocks and minerals, study of topographic and geologic maps and aerial photographs, and introduction to cross section and profiles of topographic maps. A field trip is required for this class. (12/19)

### GEOL-02 HISTORICAL GEOLOGY

(C-ID GEOL 111) (CSU breadth area B1/B3) (IGETC area 5A/5C)  
4 units: 3 hours lecture, 3 hours lab.

Advisory: GEOL-01; ENGL-01A.

This course covers the geological history of the earth and the development of plant and animal life as traced through the rock and fossil records. The correlation between geologic changes through time, the uses of the fossil record in determining geologic history, and the formation of economic mineral deposits is emphasized throughout the course. A field trip is required for this course. (03/22)

### GEOL-03 EARTH SCIENCE

(IGETC area 5A/5C) (C-ID GEOL 121) (CSU breadth area B1/B3)  
4 units: 3 hours lecture, 3 hours lab.

Advisory: ENGL-01A

An introduction to the essentials of Earth Science including the geosphere, atmosphere, hydrosphere, and solar system. This course focuses on the interactions between physical and chemical systems of the Earth such as the tectonic cycle, rock cycle, hydrologic cycle, weather and climate. This course is designed to meet the content requirement for earth and space science for the Liberal Studies - Elementary Teaching preparation pathway. (02/20)

# German

## SCHOOL OF HUMANITIES, LANGUAGES AND FINE & PERFORMING ARTS

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[German Website](#)

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE

A.A. - German

#### Program Description

German is one of the major world languages, and in spite of the relatively small size of the countries where the language is spoken officially, has had a disproportionate impact on many fields of knowledge, such as the sciences, philosophy, music, business, religion, and politics, among others. German is most effective when combined with other subject areas and thus makes a useful addition to majors in international business, international studies, religion, music, literature, and the travel industry, for example. The German program is a typical transfer program and it is recommended that the student take as many classes as possible in order to develop a high skill level which will serve to give him or her the extra edge in the job market.

### DEGREE (10/16)

#### A.A. - German (11400.AA)

For an Associate of Arts Degree in German students should meet the graduation requirements and complete the 26-unit curriculum as listed below. The courses listed below must be in addition to the basic graduation requirements.

#### Program Student Learning Outcomes

- Speaking: Create spoken German at the Intermediate-Mid level as described by the American Council on the Teaching of Foreign Languages (ACTFL).
- Listening: Assess spoken German at the Intermediate-Mid level as described by the American Council on the Teaching of Foreign Languages (ACTFL).
- Writing: Compose writings at the Intermediate-Mid level as described by the American Council on the Teaching of Foreign Languages (ACTFL).
- Culture: Recognize a number of pervasive values of the German-speaking cultures.
- Reading: Appraise reading materials at the Intermediate-Mid level as described by the American Council on the Teaching of Foreign Languages (ACTFL).

#### Program Requirements:

Program Core: (26 Units)		Units
GERN-01	Elementary German I .....	5
GERN-02	Elementary German II .....	5
GERN-03	Intermediate German I .....	5
GERN-04	Intermediate German II .....	5
HIST-04A or HUM-01	History of Civilization: Part I .....	3
or HUM-01H	Studies in Humanities--Ancient Through Renaissance .....	3
HIST-04B or HUM-02	History of Civilization: Part II .....	3
or HUM-02H	Studies in Humanities--Renaissance to Present .....	3
	Honors Studies in Humanities--Renaissance to Present .....	3

**Major Total: (26 Units)**

GE Pattern MCCC GE Breadth: 23  
Electives (as needed) (CSU transferrable): 17  
Double-Counted: 6

**Total Degree: (60 Units)**

## GERMAN (GERN)

### GERN-01 ELEMENTARY GERMAN I

(CSU breadth area C2) (IGETC area 6)

5 units: 5 hours lecture.

This is a beginner's course. The course will focus on the development of listening, speaking, reading, and writing in a cultural context, with primary emphasis on communicative competency. Students will learn how to express in German the most basic functions of everyday life. (04/19)

### GERN-02 ELEMENTARY GERMAN II

(CSU breadth area C2) (IGETC area 3B/6)

5 units: 5 hours lecture.

Prerequisite: GERN-01 or two years of high school German.

GERN-02 is a continuation of GERN-01. This course will focus on the further development of listening, speaking, reading, and writing in a cultural context, with primary emphasis on communicative competency. Students will learn how to express in German basic functions of everyday life. (10/16)

### GERN-03 INTERMEDIATE GERMAN I

(CSU breadth area C2) (IGETC area 3B/6)

5 units: 5 hours lecture.

Prerequisite: GERN-02. Advisory: LRNR-30.

GERN-03 is a continuation of GERN-02. This course reviews and further develops grammatical concepts introduced in GERN-01 and GERN-02, as well as introduces the student to new concepts. Through varied readings, composition, and discussion, the student will increase his or her vocabulary and cultural knowledge. (10/16)

### GERN-04 INTERMEDIATE GERMAN II

(CSU breadth area C2) (IGETC area 3B/6)

5 units: 5 hours lecture.

Prerequisite: GERN-03. Advisory: LRNR-30.

This course is a thorough review of the fundamentals of reading, writing, speaking and understanding German, designed to aid the student in preparing for advanced studies in German composition, grammar, and conversation, as well as literature in German, history and culture. (10/16)

# Guidance

## STUDENT SERVICES

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### GUIDANCE (GUID)

#### GUID-30 FOUNDATIONS AND STRATEGIES FOR COLLEGE

##### SUCCESS

(CSU breadth area E)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This comprehensive course integrates the cultivation of skills, values, and attitudes indicative of confident, capable students/individuals with problem solving and critical/creative thinking. The course focuses on the following topics: life management, goal setting, career decision making, educational planning, college expectations and opportunities, instructor-student relationships, cultural diversity, lifestyle choices affecting health maintenance, stress management, campus resources, learning styles and strategies, and study skills. This course is recommended for all new students. (02/19)

#### GUID-45 PATHWAYS TO TRANSFER

3 units: 3 hours lecture.

Advisory: ENGL-01A

This course is an introduction to the process of transfer from community college to a four-year college or university. Students will research and evaluate colleges and universities based on degrees offered, transfer requirements, application process, housing, financial aid, scholarships, support services, and student life. Students will develop an education plan and a portfolio of personalized research information to assist them in the transfer process. (10/10)

#### GUID-46 UC TRANSFER EXPERIENCE

0.5 units: 0.5 hours lecture.

Advisory: ENGL-01A.

This course covers important information for students who plan to transfer to one of the nine University of California campuses. Topics include admission requirements, general education options, transfer admission guarantee programs, the application process, and helpful online resources. Students have the opportunity to broaden their perspectives by examining the role of higher education in society and explore the impact of higher education as a holistic, transformative process. Students will complete a UC cost analysis, as well as explore resources to help fund their education. (03/21)

#### GUID-48 LIFE AND CAREER PLANNING

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This is a structured sequential course in life and career planning. Experiences are provided that encompass education, occupation, and job trends. The total individual is explored; issues such as life roles, values, goals, life styles, preferences, coping skills, and personal barriers as they relate to decisions will be covered. (02/19)

#### GUID-53 PRACTICAL STRATEGIES FOR COLLEGE SUCCESS

1 unit: 1 hour lecture.

The course is designed to introduce practical strategies for college success. Topics addressed will include: orientation, assessment and awareness of values, choices and behaviors that impact college success, understanding the college catalog, college policies, and campus resources, choosing a major and understanding graduation and transfer requirements, goal setting, study strategies, and educational planning. (12/15)

#### GUID-54 FOUNDATIONS AND STRATEGIES FOR ACADEMIC RECOVERY

3 units: 3 hours lecture.

This course is appropriate for students wishing to improve their academic standing. Each student will identify his/her educational goal and develop an appropriate plan for achieving that goal. Academic policies will be addressed and strategies to get off and stay off probation, such as, informed decision-making, problem solving, classroom behavior, and behavior modification will also be studied. This course is recommended for all students on academic and/or progress probation. (9/13)



# Health

## KINESIOLOGY

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### HEALTH (HLTH)

#### HLTH-10 CONTEMPORARY HEALTH

(CSU breadth area E)  
3 units: 3 hours lecture.  
Advisory: ENGL-01A

This course surveys the human condition from birth to death. Emphasis is placed on the impact of personal choice throughout life. Mental health, stress, alcohol, drugs, tobacco, disease processes, nutrition, fitness, sexuality, aging, environmental issues, and other related topics are studied and examined. The student is challenged to assume responsibility for his or her own health, well being, and lifestyle. (12/19)

#### HLTH-15 DRUGS, ALCOHOL, AND TOBACCO

3 units: 3 hours lecture.

Advisory: ENGL-01A

This course will give students a basic understanding of the psycho-physiological effects of drugs, alcohol, and tobacco. Included in the study will be use patterns, individual and societal problems that arise from abuse, and the medicinal effects. Personal coping skills will be included that can help individuals develop drug-free lifestyles. (11/19)

# Health Sciences

## SCHOOL OF HEALTH AND PUBLIC SAFETY

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[Health Sciences Website](#)

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE

A.A. - Health Sciences

**Degree** (11/08)

#### A.A. - Health Sciences (12300.AA)

The Associate of Arts Degree in Health Sciences is intended for students planning to transfer into an Allied Health program. To earn the degree, a student must complete the basic graduation requirements (CHEM-02A is recommended for science breadth) and the courses listed below.

#### Program Student Learning Outcomes

- Understand and describe the basic fundamental principles of body structure and function in health and disease and communicate this knowledge in both written and oral form.
- Understand and implement the scientific method.
- Research, comprehend and analyze etiologic factors; and then communicate the evaluation supported by a documented review of relevant literature.
- Use critical thinking skills based on a chemical, structural, and functional foundation to gather and critically analyze, describe, and disseminate quantitative and qualitative information.

#### Program Requirements:

Program Core: (19 Units)		Units
BIOL-01	General Biology for Non-Majors.....	4
or		
BIOL-02	Human Biology.....	4
CHEM-02B	Introduction to Chemistry .....	4
NUTR-10	Nutrition.....	3
And select eight units from the following:		
BIOL-16	General Human Anatomy.....	4
BIOL-18	Principles of Physiology .....	4
BIOL-20	Microbiology .....	4
<b>Total: (19 Units)</b>		

# History

## SCHOOL OF SOCIAL SCIENCES AND EDUCATION



Associate Degree  
for Transfer

*A Degree with a Guarantee.<sup>SM</sup>*

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE

#### A.A.-T. - History

##### Program Description

The Associate in Arts in History for Transfer combines two critical and interrelated focuses: 1) students will acquire an increasingly sophisticated reservoir of historical data, such as, issues, eras, chronology, and thought systems without which historical analysis is not possible, and, 2) armed with this knowledge, students will develop historical thinking skills, and their articulation, that enable one to critically assess and respond to the past and present. Students will comprehend the forces that have shaped both the United States and other nations around the world within a larger global perspective. They will gain skills in historical research and analysis, historiography, critical thinking, factual knowledge of specific historical periods, and a chronological understanding of the past. As a discipline, history helps to nurture an informed public and is, therefore, of vital importance to a democratic society. Further, it complements the mission of the college by having students develop a respect for and awareness of all cultures and the dignity and worth of all individuals. Upon completion, students with an AA-T in History will be eligible to transfer with junior standing into an equivalent major within the California State University (CSU) system.

##### Career Opportunities

As part of a career path, historical study excels in advantageously developing career skills in research, writing, argumentation (interpersonal communication), and documentation. Such skills and knowledge prepare students for careers in the field of history, education, law, government, business, management, public relations, writing, and research.

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[History Website](#)

DEGREE <sup>(11/20)</sup>

#### A.A.-T. - History (22300.AAT)

For an Associate in Arts in History for Transfer (AA-T), students must complete the following:

- (1) 60 semester CSU-transferable units.
- (2) the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- (3) a minimum of 18 semester in the major or area of emphasis as determined by the community college district.
- (4) obtainment of a minimum grade point average (GPA) of 2.0.
- (5) earn a grade of C ( or P) or better in all courses required for the major or area of emphasis.

*Note: Students are not required to complete any additional local graduation requirements for the AA-T (e.g., PE and Computer and Information Literacy courses).*

##### Program Student Learning Outcomes

- A. Evaluate primary and secondary sources by composing an argument which uses them for support.
- B. Analyze major political trends, attitudes, conflicts, events, etc. and their historical significance.
- C. Assess the major social and cultural developments, their causes and effect and their historical significance.

##### Program Requirements:

##### Program Core: (18 Units)

Units

##### Required Core: (6 units)

HIST-17A United States History and U.S. Constitution ..... 3  
or  
HIST-17AH Honors United States History and U.S. Constitution.. 3

HIST-17B U.S. History & California State & Local Government 3  
or  
HIST-17BH Honors United States History and California State and Local Government ..... 3

##### List A:

Select 2 courses (6 units) from the following:

HIST-04A History of Civilization: Part I ..... 3  
or  
HIST-03A History or Western Civilization, Part I..... 3

HIST-04B History of Civilization: Part II ..... 3

or

HIST-03B History or Western Civilization, Part II..... 3

##### List B:

##### Area 1 Diversity

Select a minimum of 3 units from the following:

HIST-07 History of Southeast Asia ..... 3  
HIST-09A China: Introduction to East Asian Civilization ..... 3  
HIST-09B Japan: Introduction to East Asian Civilization ..... 3  
HIST-10 History of the Middle East ..... 3  
HIST-19 Women in American History ..... 3  
HIST-22 History of Black Americans ..... 3  
HIST-23 **Chicana/o American History and Culture** ..... 3  
ANTH-10 Southeast Asian Culture: Hmong ..... 3  
ENGL-18 African and African American Literature ..... 3  
HUM-01 Studies in Humanities--Ancient through Renaissance ..... 3

or

HUM-01H Honors Studies in Humanities--Ancient through Renaissance ..... 3

HUM-02	Studies in Humanities--Renaissance to Present .....	3
or		
HUM-02H	Honors Studies in Humanities—Renaissance to Present .....	3
HUM-15	Comparative Cultures .....	3
Area 2: Elective		
Select a minimum of 3 units from the following:		
Any course not already used in List A		
HIST-05	History of Europe from 1901 to the Present .....	3
HIST-29	History of California .....	3
POSC-01	Essentials of American Political System .....	3
POSC-02	An Introduction to World Political Systems .....	3
POSC-03	Introduction to International Relations.....	3
POSC-04	Introduction to Political Theory and Thought.....	3

**Total Units toward the Major: (18 Units)**

Total Units that may be double counted: (-12-15 Units)

General Education (CSU-GE or IGETC) Units: (37 Units)

Elective (CSU Transferable) Units: (17-20 Units)

**Total Degree Units: (60 Units)**

## HISTORY (HIST)

### HIST-03A HISTORY OF WESTERN CIVILIZATION, PART 1

(C-ID HIST 170) (CSU breadth area C2/D) (IGETC area 3B/4)

3 units: 3 hours lecture.

Advisories: ENGL-01A.

This course provides a broad historical survey of humanity's social, political, economic, and intellectual experiences for Western Civilization from prehistory to 1650. (01/18)

### HIST-03B HISTORY OF WESTERN CIVILIZATION, PART 2

(CSU breadth area C2/D) (IGETC area 3B/4)

3 units: 3 hours lecture.

Advisories: ENGL-01A.

This course provides a broad historical survey of humanity's social, political, economic, and intellectual experiences for Western Civilization from 1650 to the present (01/18)

### HIST-04A WORLD HISTORY PART 1

(C-ID HIST 150) (CSU breadth area C2/D) (IGETC area 3B)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This course provides a broad historical survey of humanity's social, political, economic, and intellectual experiences for all major world civilizations from pre-history through approximately 1650. (03/19)

### HIST-04B HISTORY OF CIVILIZATION: PART 2

(CSU breadth area C2/D) (IGETC area 3B)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This course provides a broad historical survey of humanity's social, political, economic and intellectual experiences for all major world civilizations from the 17<sup>th</sup> century to the present. (03/19)

### HIST-05 HISTORY OF EUROPE FROM 1901 TO THE PRESENT

(CSU breadth area C2/D) (IGETC area 3B/4)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

HIST-05 is a one-semester survey course on 20th century and early 21st century European history (1901 to the present). The political, economic, cultural, and social development of 20th century and recent European history will be covered. There will be emphasis on the traumatic changes brought about by political realignment, colonialism, war, revolution, and economic upheaval. (12/06)

### HIST-07 HISTORY OF SOUTHEAST ASIA

(CSU breadth area D) (IGETC area 4)

3 units: 3 hours lecture.

Advisories: ENGL-01A.

This course provides a broad historical survey of Southeast Asia from pre-historic times to the present. This course includes the study of traditional and modern Southeast Asia, cultural achievements, and contributions to both Eastern and Western civilizations. (01/18)

### HIST-09A CHINA: INTRODUCTION TO EAST ASIAN CIVILIZATION

(CSU breadth area C2) (IGETC area 3B/4)

3 units: 3 hours lecture.

Advisories: ENGL-01A; PHIL-10.

This course provides a broad historical survey of China, the Far East's oldest civilization, from prehistoric times to the present, with emphasis on China's cultural achievements and contributions to both Eastern and Western civilizations. (03/19)

### HIST-09B JAPAN: INTRODUCTION TO EAST ASIAN CIVILIZATION

(CSU breadth area C2) (IGETC area 3B)

3 units: 3 hours lecture.

Advisories: ENGL-01A.

This course provides a broad historical survey of Japan from pre-historic times to the present. The course includes the study of traditional and modern Japan, significant institutions, cultural achievements, and contributions to both Eastern and Western civilizations. (03/19)

### HIST-10 HISTORY OF THE MIDDLE EAST

(CSU breadth area D) (IGETC area 4)

3 units: 3 hours lecture.

Advisories: ENGL-01A.

This course provides a broad historical survey of the Middle East from the ancient civilizations of Mesopotamia to the present. Topics of focus will include the impact of pre-Islamic civilization on the modern Middle East: the advent, progression, and influence of Islamic faith and culture in the Middle East; the global interplay between the Middle East and the larger world through various eras of Middle Eastern history; the religious, ethnic, social, economic, military, and political developments that shape the modern Middle East; examination contemporary issues facing the Middle East. (12/17)

### HIST-17A UNITED STATES HISTORY AND UNITED STATES

#### CONSTITUTION

(CSU breadth area C2/D) (IGETC area 3B/4) (C-ID HIST 130)

3 units: 3 hours lecture.

Advisories: ENGL-01A.

This is an extensive survey course of United States history from the period of exploration to the Reconstruction Period. The course covers the social, political, economic, and constitutional development of the nation. Course will emphasize the development of critical and historical thinking skills. (03/19)

### HIST-17AH HONORS UNITED STATES HISTORY AND UNITED STATES CONSTITUTION

(CSU breadth area C2/D) (IGETC area 3B/4) (C-ID HIST-130)

3 units: 3 hours lecture.

Limitation on enrollment: Enrollment in the Honors Program. (See the college catalog for a description of enrollment requirements.)

Advisories: ENGL-01A; ENGL-13/13H or PHIL-13/13H.

This course covers the social, political, economic and constitutional development of the nation. There will be an emphasis on academic rigor, analytical research, writing, critical thinking, and collaborative learning. (03/19)

**HIST-17B UNITED STATES HISTORY AND CALIFORNIA STATE AND LOCAL GOVERNMENT**

(CSU breadth area C2/D) (IGETC area 3B/4) (C-ID 140)

3 units: 3 hours lecture.

Advisories: ENGL-01A.

This course is a continuation of HIST-17A from the end of the Reconstruction Period in 1877 to the present. It examines national, state, and local history from the late 19th century to the present. The course covers the social, political, economic, and constitutional development of the nation. (03/19)

**HIST-17BH HONORS UNITED STATES HISTORY AND CALIFORNIA STATE AND LOCAL GOVERNMENT**

(CSU breadth area C2/D) (IGETC area 3B/4) (C-ID HIST 140)

3 units: 3 hours lecture.

Limitation on enrollment: Enrollment in the Honors Program. (See the college catalog for a description of enrollment requirements.)

Advisories: ENGL-01A; ENGL-13/13H or PHIL-13/13H.

This course examines our national, state, and local history and government from the late 19th century to the present. There will be an emphasis on academic rigor, analytical research, writing, critical thinking, and collaborative learning. (5/12)

**HIST-19 WOMEN IN AMERICAN HISTORY**

(IGETC area 4) (CSU breadth area C2/D)

3 units: 3 hours lecture.

Advisories: ENGL-01A.

This course is a review of the history of women in America covering the period from 1600 to the present. The emphasis of the course is a multicultural and multi-class approach, examining the problems of women of various ethnicities, races and classes in America. The formation of gender roles is discussed along with an analysis of women's political and economic status across the period. The course will analyze women's struggle for equal rights, the impact of women's participation in significant events in American history, and regional and cultural differences in the way women are treated in society. Emphasis will be on California local and state governments, their operations and how women have politically participated in California. (03/22)

**HIST-20 HISTORY OF ASIAN AMERICANS (ALSO: ETHN-20)**

(CSU breadth area D/F) (IGETC area 4)

3 units: 3 hours lecture.

Advisories: ENGL-01A.

This course is an interdisciplinary study of Asian Americans from a historical, political, sociological, and aesthetic perspective. Social emphasis is placed on the contributions of Asian Americans scholars and activists by using an intersectional lens to explore the effects of colonialism, imperialism, white supremacy, and racism. This course offers pragmatic historical and political evaluations that aim to introduce students interested in Ethnic Studies, Asian American Studies, Gender Studies, and social movements. (05/21)

**HIST-22 HISTORY OF BLACK AMERICANS (ALSO: ETHN-22)**

(CSU breadth area D) (IGETC area 4)

3 units: 3 hours lecture.

Advisories: ENGL-01A.

This course is a social, cultural, political, and intellectual history of the Black American experience in America. This survey course examines the Black American experience through the dual lens of historical and ethnic studies perspectives—combining both to provide a deep range of views into the complex interaction of Black Americans in the American context. This course begins with the African origins of the Black American experience and follows that experience up to today. In particular, this course examines the historical record of the Black American experience in the context of the lived experience seen through the eyes of such figures as: Equiano, Jacobs, Tubman, Douglass, Washington, Wells, Du Bois, Randolph, Hurston, King, Hamer, Malcolm X, Baldwin, etc. Additionally, this course gives primacy to a full breadth of scholarship on the Black American experience from such seminal thinkers and observers of the Black American condition in the American context such as: Du Bois, Woodson, King, Baldwin, Franklin, Carmichael, Morrison, Davis, Angelou, Patterson, Gates, Foner, Lewis, Blight, Walker, Wilkerson, McWhorter, Kendi, Hannah Jones, etc. (05/21)

**HIST-23 CHICANA/O AMERICAN HISTORY AND CULTURE****(ALSO: ETHN-23)**

(CSU breadth area D/F) (IGETC area 4)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This interdisciplinary course examines the social, political, and cultural roots of Chicana/os, tracing history from their Indigenous, African, and Spanish beginnings to the present. It analyzes race, ethnicity, and culture, in relation to Chicana/o communities and their social justice movements and struggles. The course provides a basis for a better understanding of the socio-economic, cultural, and political conditions among Chicana/os through historical consideration of the creation and development of Ethnic Studies programs in the United States. Special emphasis is also placed on the contributions of Chicana/o scholars, artists, and activists by using an intersectional decolonial lens to explore the effects of (neo)colonialism, imperialism, white supremacy, Eurocentrism, and racism. (07/22)

**HIST-29 HISTORY OF CALIFORNIA**

(IGETC area 3B/4) (CSU breadth area C2/D)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This course is a survey of the early history of California through to the present, starting with the original peoples of California, the discovery and settlement of the area by the Spanish, the Mexican period, American conquest and occupation, and the gold rush. The course also examines topics including the economic, social, cultural, and political consequences of railroad expansion, and early twentieth-century urbanization. It also includes the impact of the Great Depression and World War II, water projects, protest and reform movements of the 1960's, the rise of conservatism and recent political trends. (02/21)

Hmong

HUMANITIES

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HMONG (HMNG)

HMNG-01 ELEMENTARY HMONG I

(CSU breadth area C2) (IGETC area 6)

5 units: 5 hours lecture.

This course is a study of the fundamentals of pronunciation, audio-lingual training, and phonology; syllabication; appreciation of basic elements of the Hmong culture; use of the most frequent words in Hmong; basic sentences in conversation; reading and mastery of verb forms; practical vocabulary through conversation and practice in class and at home; elementary composition. (09/19)

HMNG-02 ELEMENTARY HMONG II

(CSU breadth area C2) (IGETC area 3B/6)

5 units: 5 hours lecture.

Prerequisite: HMNG-01.

This course is for the continuation of HMNG-01. The focus will be on further development of listening, speaking, reading and writing in a cultural context. There will be extensive use of Hmong grammar, written composition and oral communication. Selections from Hmong literature and history will be read and discussed in Hmong. Stress is given to reading, writing, speaking and understanding Hmong as these communication skills apply to practical situations. (09/19)



# Honors

## HUMANITIES

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### TAKING THE HONORS CHALLENGE

Honors Classes at Merced College are designed to provide learning environments that foster creative thinking and critical discussion. The purpose of Honors Classes is to offer challenging assignments and learning activities that will spark intellectual curiosity, while sharpening the skills required for transfer and career success.

Any new student with a 3.5 cumulative grade point average, or any continuing student with a 3.25 cumulative grade point average, may enroll in honors classes. Students who do not meet one of these enrollment requirements may also enroll in individual honors classes by successfully completing the challenge process. Inquiries regarding the Honors Program should be directed to Dr. Max Hallman, Honors Program Coordinator, at (209) 384-6327 or at [hallman.m@mccd.edu](mailto:hallman.m@mccd.edu)

#### Advantages of Taking Honors Classes:

- Smaller classes that provide the opportunity for more individualized instruction and more stimulating discussion.
- Honors recognition on transcripts to underscore achievement.
- Special academic advising.
- Opportunities to attend a variety of seminars, cultural events, and conferences.
- Eligibility to apply for McConnell Honors Scholarships.

### Projected Honors Course Offerings

Fall	
COMM-01H	Honors Fundamentals of Speech..... 3
HIST-17AH	Honors United States History and United States Constitution ..... 3
HUM-01H	Honors Studies in Humanities--Ancient Through Renaissance ..... 3
PSYC-01AH	Honors Introduction to Philosophy ..... 3
Spring	
ENGL-13H	Honors Critical Reasoning and Writing ..... 3
HIST-17BH	Honors U.S. History and California State & Local Government ..... 3
HUM-02H	Honors Studies in Humanities - Renaissance to Present..... 3
MATH-02H	Honors Precalculus..... 4
PHIL-13H	Honors Critical Reasoning and Writing ..... 3
PHIL-01H	Honors introduction to Psychology..... 3

### Classes Approved for Honors

(Course descriptions of these classes can be found under the appropriate discipline.)

COMM-01H	Honors Fundamentals of Speech..... 3
ENGL-13H	Honors Critical Reasoning and Writing ..... 3
HIST-17AH	Honors United States History and United States Constitution ..... 3
HIST-17BH	Honors U.S. History and California State & Local Government ..... 3
HUM-01H	Honors Studies in Humanities--Ancient Through Renaissance ..... 3
HUM-02H	Honors Studies in Humanities--Renaissance to Present..... 3
MATH-02H	Honors Precalculus ..... 4
PHIL-01H	Honors Introduction to Philosophy ..... 3
PHIL-13H	Honors Critical Reasoning and Writing ..... 3
PSYC-01AH	Honors introduction to Psychology..... 3

## HONORS (HNRS)

### HNRS-40A HONORS SEMINAR: THE 60'S EXPERIENCE

2 units: 2 hours lecture.

Limitation on enrollment: Enrollment in the Honors Program.

This course will focus on the in-depth discussion and analysis of the philosophy, politics, and music of the 1960's. (04/19)

### HNRS-40B HONORS SEMINAR: NATIVE AMERICAN PHILOSOPHY

2 units: 2 hours lecture.

Limitation on enrollment: Enrollment in the Honors Program.

This course will focus on the in-depth discussion and analysis of Native American philosophy, politics, and music. (04/19)

### HNRS-40C HONORS SEMINAR: PHILOSOPHY AND ROCK MUSIC

2 units: 2 hours lecture.

Limitation on enrollment: Enrollment in the Honors Program.

This course will discuss and analyze traditional philosophical questions through the use of classic rock music. (04/19)

### HNRS-40D HONORS SEMINAR: THE PHILOSOPHY OF SEX AND LOVE

2 units: 2 hours lecture.

Limitation on enrollment: Enrollment in the Honors Program.

This course will focus on the in-depth discussion and analysis of religious and philosophical theories pertaining to sex and love. (04/19)

# Human Services

## SCHOOL OF SOCIAL SCIENCES AND EDUCATION

### DEGREE

A.A. - Human Services

### CERTIFICATE

Human Services

#### Program Description

The Human Services A.A. program provides a basic academic background for the student seeking a career working with people in a variety of social settings. The program is based on a synthesis of knowledge from several social sciences, together with methodologies of intervention at the individual, group and community levels. The Human Service profession promotes improved service delivery systems by addressing not only the quality of direct services, but by also seeking to improve accessibility, accountability, coordination, and collaboration among professionals and agencies to attain the highest quality of life with the least amount of intervention.

Over a two year course of study students engage in a rich learning experience to explore theory, and acquire knowledge and skills in intervention, community organization, social welfare policy, and basic social work strategies. In addition, students are guided to a better understanding of self, and their abilities to make a difference in individuals, families and communities.

As a basic introductory program graduates may find entry level positions as advocates, youth workers, volunteer coordinators, fund-raisers or advocacy specialists for victims of child abuse, domestic violence, homelessness, or other social issues. A significant number of graduates from this program are employed in agencies, federal, state and non-profit organizations, for profit enterprises, and a variety of societal settings.

Many graduates continue their education completing B.A. or B.S. degrees in social work, counseling, psychology, vocational rehabilitation, public administration or education. Students who intend to continue their studies at one of the California State Colleges or at the University of California; students should work with their counselors for specific requirements.

The Associate in Arts Degree in Human Services is available for students who meet the graduation requirements and complete the following required courses, with a minimum grade of a "C" in each course in the degree and maintain a 2.0 GPA.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

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### DEGREE (11/14)

#### A.A. - Human Services (21500.AA)

The Associate of Arts Degree in Human Services is available for students who meet the graduation requirements and complete the following required courses.

#### Program Student Learning Outcomes

- Describe the historical development of social work, social welfare, and human services systems.
- Explain and analyze contemporary policies and social problems and services available to meet the needs of various disadvantaged populations.
- Identify and discuss the values and ethics of the profession.
- Identify models of service delivery, including community resources, with specific emphasis on the Human Services model.
- Understand and identify the roles of a human services professional, emphasizing the Helping Process, basic helping skills, identifying behaviors of challenging clients, and the application of crisis intervention strategies.

#### Program Requirements:

##### Program Core: (25 Units)

	Units
HMSV-20 Social Welfare and Social Work.....	3
HMSV-21 Human Behavior and the Helping Process .....	3
HMSV-22 Survey and Utilization of Community Services .....	3
HMSV-24 Work Experience in Human Services.....	4
Take 6 units from the following courses:	
HMSV-41 Case Management .....	3
HMSV-42 Introduction to Counseling Skills .....	3
HMSV-43 Ethics in Counseling .....	3
HMSV-44 Leadership and Counseling in Groups .....	3
Take 6 units from the following electives:	
ANTH-02 Sociocultural Anthropology .....	3
ANTH-10 Southeast Asian Culture: Hmong .....	3
CRIM-33 Family Violence .....	3
HIST-22 History of Black Americans .....	3
HIST-23 History of Mexican Americans .....	3
HLTH-15 Drugs, Alcohol, and Tobacco .....	3
HUM-15 Comparative Cultures .....	3
PSYC-01A Introduction to Psychology .....	3
or	
PSYC-01AH Honors Introduction to Psychology .....	3
CLDV-09 Human Development .....	3
or	
PSYC-09 Human Development .....	3
PSYC-22 Human Sexuality .....	3
PSYC-23 Personal and Social Adjustment .....	3
PSYC-40 Drugs and Behavior .....	3
SOC-01 Introduction to Sociology .....	3
SOC-03 Marriage and the Family .....	3

#### Required Major Total: (25 Units)

Completion of MCCD-GE Breadth pattern: 23 Units

Electives (as needed to reach 60 units): 12 Units

**TOTAL UNITS: (60 Units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## CERTIFICATE (11/14)

### Human Services (21500.CT)

A Certificate of Achievement will be awarded upon the satisfactory completion of the curriculum listed below.

#### Program Student Learning Outcomes

- Recognize community resources that facilitate the helping process, including the importance of advocating for community empowerment, participation, and change.
- Explain the historical development and philosophical paradigms of the social work, social welfare, and human services systems.
- Understand and identify the roles of a human services professional, emphasizing the Helping Process, basic helping skills, identifying behaviors of challenging clients, and the application of crisis intervention strategies.

#### Program Requirements:

##### Program Core: (31 Units)

	Units
HMSV-20 Social Welfare and Social Work.....	3
HMSV-21 Human Behavior and the Helping Process .....	3
HMSV-22 Survey and Utilization of Community Resources .....	3
HMSV-24 Work Experience in Human Services.....	4
HMSV-41 Case management.....	3
HMSV-42 Introduction to Counseling Skills .....	3
HMSV-43 Ethics in Counseling.....	3
HMSV-44 Leadership and Counseling in Groups.....	3
Take 2 courses (6 Units) from the following:	
ANTH-02 Sociocultural Anthropology .....	3
ANTH-10 Southeast Asian Culture: Hmong .....	3
CRIM-33 Family Violence .....	3
HIST-22 History of Black Americans .....	3
HIST-23 <b>Chicana/o American History and Culture</b> .....	3
HLTH-15 Drugs, Alcohol, and Tobacco .....	3
HUM-15 Comparative Cultures .....	3
CLDV-09 Human Development .....	3
or	
PSYC-09 Human Development .....	3
PSYC-01A Introduction to Psychology .....	3
or	
PSYC-01AH Honors Introduction to Psychology .....	3
PSYC-22 Human Sexuality .....	3
PSYC-23 Personal and Social Adjustment .....	3
PSYC-40 Drugs and Behavior .....	3
SOC-01 Introduction to Sociology .....	3
SOC-03 Marriage and the Family .....	3
<b>Total: (31 Units)</b>	

## HUMAN SERVICES (HMSV)

### HMSV-20 SOCIAL WELFARE AND SOCIAL WORK

3 units: 3 hours lecture.  
Advisories: ENGL-01A.

A practical and general study of theoretical concepts and institutional frameworks that guide social welfare policy and practice. This course provides an overview of the social work profession and the social welfare system within which it operates, including federal, state, and county organizations. Students will also review employment opportunities and requirements in social welfare. (05/22)

### HMSV-21 HUMAN BEHAVIOR AND THE HELPING PROCESS

3 units: 3 hours lecture,  
Advisories: ENGL-01A.

This course examines the history and philosophies of human services; identifies what constitutes genuine and empathic relationships; analyzes the role of conflict in individual and societal systems; demonstrates a broad range of relevant communication skills and strategies, and assists students in designing integrated services using innovative practices in diverse settings. The course includes components on personality development; social and political influences that shape interactive behavior, and guidelines for identifying normal and exceptional behavior, as well as, practical ways of helping people who have problems in living. (05/22)

### HMSV-22 SURVEY AND UTILIZATION OF COMMUNITY RESOURCES

3 units: 3 hours lecture.  
Advisories: ENGL-01A.

This course is designed to introduce students who are seeking careers in Human Services to community resources that facilitate the helping process. Students will become acquainted with various agencies, organizations (profit & nonprofit), and institutions that offer promotion, prevention, treatment, and rehabilitation within the community. Other components of this course address the importance of advocating for community empowerment, participation, and change. Students will also begin the process of gaining a sense of self in relationship to community, and develop an understanding of social dynamics as they relate to power structures. (05/22)

### HMSV-24 WORK EXPERIENCE IN HUMAN SERVICES

1-8 Units  
Advisory: ENGL-01A

This course enables students to earn college credit for learning or improving skills or knowledge on-the-job. Occupational Work Experience is discipline-specific and must connect to the student's major or occupational goal(s). Seventy-five (75) hours of documented paid work experience equals 1 unit of credit. Sixty (60) hours of documented volunteer experience equals 1 unit of credit. A student may enroll in up to 16 total units of work experience at Merced College. Students must have an established work site prior to enrolling in the course. (05/22)

### HMSV-41 CASE MANAGEMENT

3 units: 3 hours lecture.  
Advisories: ENGL-01A

This course is designed to give the student an introduction to case management skills, including screening, assessment, treatment planning, and referral support. (05/22)

### HMSV-42 INTRODUCTION TO COUNSELING SKILLS

3 units: 3 hours lecture.  
Advisories: ENGL-01A

This course is oriented to counseling clients within the field of human services. Course work is designed to give the student an introduction to counseling theory and classroom experience in applying basic counseling skills. (05/22)

### HMSV-43 ETHICS IN COUNSELING

3 units: 3 hours lecture.  
Advisories: ENGL-01A

This course focuses on professional responsibilities in the field of human services. Awareness of state and federal laws and regulations, and the codes of conduct governing counseling in the human services are examined. Effective approaches and the examination of legal, ethical, and moral responsibilities and referral practices of the counselor will also be presented. (05/22)

### HMSV-44 LEADERSHIP AND COUNSELING IN GROUPS

3 units: 3 hours lecture.  
Advisories: ENGL-01A

This course is an introduction to the dynamics of group counseling. The group will study itself (under supervision) and learn various leadership skills. The factors involved in problems of communication, effective emotional responses and personal growth will be highlighted. (05/22)

# Humanities

## SCHOOL OF HUMANITIES, LANGUAGES AND FINE & PERFORMING ARTS

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### HUMANITIES (HUM)

#### HUM-01 STUDIES IN HUMANITIES: ANCIENT THROUGH RENAISSANCE

(CSU breadth area C2) (IGETC area 3B)  
3 units: 3 hours lecture.  
Advisory: ENGL-01A.

The principal aims of this course are to examine human existence and cultural endeavors from earliest ancient civilizations through the Renaissance. Students will examine the continuities of human endeavors through fine arts, literatures, philosophies, religions, and the sciences with an integration of certain non-Western cultures. (04/20)

#### HUM-01H HONORS STUDIES IN HUMANITIES: ANCIENT THROUGH RENAISSANCE

(CSU breadth area C2) (IGETC area 3B)  
3 units: 3 hours lecture.

Limitation on enrollment: Enrollment in the Honors Program. See the college catalog for a description of enrollment requirements.

Advisory ENGL-01A.

The principal aim of this course is to examine human existence and cultural endeavor from the earliest ancient civilizations through the Renaissance. Students will examine developments in the fine arts, literature, philosophy, religion, and the sciences from a variety of cultures, both Western and non-Western. There will be an emphasis on collaborative learning, research, and writing. (04/20)

#### HUM-02 STUDIES IN HUMANITIES: RENAISSANCE TO PRESENT

(CSU breadth area C2) (IGETC area 3B)  
3 units: 3 hours lecture.  
Advisory: ENGL-01A.

The principal aims of this course are to examine human existence and cultural endeavors from the Renaissance to the present. Students will examine the continuities of human endeavors through fine arts, literatures, philosophies, religions, and the sciences, with an integration of certain non-Western cultures. (04/20)

#### HUM-02H HONORS STUDIES IN HUMANITIES: RENAISSANCE TO PRESENT

(CSU breadth area C2) (IGETC area 3B)  
3 units: 3 hours lecture.

Limitation on enrollment: Enrollment in the Honors Program. See the college catalog for a description of enrollment requirements.

Advisory ENGL-01A.

The principal aim of this course is to examine human existence and cultural endeavors from the Renaissance to the present. Students will examine developments in the fine arts, literature, philosophy, religion, and the sciences from a variety of cultures, both Western and non-Western. There will be an emphasis on collaborative learning, research, and writing. (04/20)

#### HUM-15 ETHNICITY AND CULTURE (ALSO: ETHN-15)

(CSU breadth area C2/D/F) (IGETC area 3B/4)  
3 units: 3 hours lecture.  
Advisory: ENGL-01A.

Ethnicity and Culture examines the legacy of racial and ethnic inequalities in the United States, the sources of resistance and transformation, and the contemporary impacts of these changes on society. This is an interdisciplinary course that surveys and facilitates meaningful conversations about specific disadvantaged groups and encourages active engagement in overcoming the social struggles of these historically disadvantaged groups in the United States. It focuses on the experiences of Native Americans, African Americans, Latinx Americans, and Asian

Americans, spanning from past to present, from politics to social reform, allowing students to identify similar patterns underlying the dynamics of discrimination. (07/22)

#### HUM-21 HUMANITIES AND FILM (CSU BREADTH AREA C2) (IGETC AREA 3A)

3 units: 2 hours lecture, 3 hours lab.  
Advisory: ENGL-01A.

This course is an introduction to the humanities through the study of film. Film criticism will be combined with the analysis of philosophical, literary, and/or artistic themes. Feature-length films will be screened. (09/19)

# HVAC Technology

## SCHOOL OF INDUSTRY AND MANUFACTURING

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### DEGREE

A.S. - Commercial Refrigeration Technician  
A.A. - HVAC Technician

### CERTIFICATE

Commercial Refrigeration Technician  
HVAC Technician

### Program Description

The Heating, Ventilation, and Air conditioning / Refrigeration (HVAC/R) Program at Merced College is a comprehensive training program. The student will become knowledgeable in Refrigeration Systems, Basic Electrical Concepts, Air Systems & Air Conditioning Fundamentals, Heating Systems, and Commercial Refrigeration.

The students will learn from lecture as well as laboratory experience. The instructor has practical experience in the field and the formal education to provide the students with the necessary skills as well as equip them for HVAC/R employment.

Students will use the College HVAC/R Simulators during classroom training. Successful completion of the class will result in attainment of a Merced College Certificate of Completion.

The Heating, Ventilation, Air Conditioning / Refrigeration Program are designed to meet the increasing need within the local Business Community for trained technicians.

### Career Opportunities

An Advisory Board was formed with the Private Industry Training Department and local businesses to offer internship opportunities to students in the program. This program prepares students for a variety of different fields: Heating and Air Conditioning Technician, Industrial Maintenance where heating, air conditioning, and ventilation is a requirement, Commercial Refrigeration Technician, HVAC specialist or maintenance in food processing industries as Refrigeration technicians, heating and air conditioning sales, entry level skills into HVAC Union apprenticeship, schools, hospitals, hotel / motel.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE <sup>(11/21)</sup>

#### A.S. - Commercial Refrigeration Technician (09401.AS)

An Associate in Science Degree in Commercial Refrigeration Technician is available for students who successfully complete the graduation requirements and complete the following program. For successful completion, a student must complete the requirements with a minimum grade of a "C" in each course with a grade point average of 2.0 or higher.

#### Program Student Learning Outcomes

- Explain the basic theory of the subject matter or HVAC/R system for the course of instruction based on industry standards.
- Analyze a scenario based upon an HVAC/R equipment system failure/problem/complaint.
- Employ a systematic approach to troubleshooting a HVAC/R system malfunction and prepare an effective repair solution.
- Analyze component failures to determine the root cause of the component failure.

#### Program Requirements:

##### Program Core: (31 Units)

	Units
ELCT-41	Industrial Motor and Equipment Control.....3
ELCT-47	Electrical Motors, Generators, Transformers, and AC Distribution .....3
ELCT-52	Introduction to Electricity and Electronics .....3
INDT-40	Commercial Refrigeration Systems.....3
INDT-49	Electrical Codes and Ordinances.....3
INDT-50	HVAC - Heating and Control Systems .....6
INDT-51	Ventilation and Air Conditioning Systems.....6
INDT-52	Refrigeration Usage Certification & R-410a Safety... 1
WELD-07	Fundamentals of T.I.G. and M.I.G. Welding .....3
<b>Total: (31 Units)</b>	

Completion of MCCD-GE Breadth: (23 Units)

Electives (as needed to reach 60 units) Units: (6 units)

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE

#### A.S. - HVAC Technician (09400.AS)

An Associate in Science Degree in HVAC Technician is available for students who successfully complete the graduation requirements and complete the following program. For successful completion, a student must complete the requirements with a minimum grade of a "C" (or P) in each course with a grade point average of 2.0 or higher.

#### Program Student Learning Outcomes

- Explain the basic theory of the subject matter or HVAC/R system for the course of instruction based on industry standards.
- Analyze a scenario based upon an HVAC/R equipment system failure/problem/complaint.
- Employ a systematic approach to troubleshooting a HVAC/R system malfunction and prepare an effective repair solution.



- D. Analyze component failures to determine the root cause of the component failure.
- E. Verify if the path of repair was correct by testing and/or completing a work order/report.
- F. Demonstrate the correct usage of tools/supplies required to diagnose/repair a malfunction.

**Program Requirements:**

<b>Program Core: (19 Units)</b>		<b>Units</b>
INDT-50	HVAC--Heating and Control Systems .....	6
INDT-51	Ventilation and Air Conditioning .....	6
INDT-52	Refrigerant Usage Certification and R-410A Safety..	1
INDT-53	Heat Pump Systems .....	3
INDT-54	Residential HVAC Installation .....	3
<b>Total: (19 Units)</b>		

Completion of MCCD-GE Breadth: (23 Units)

Electives (as needed to reach 60 units) Units: (18 units)

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**CERTIFICATE** <sup>(11/21)</sup>

**Commercial Refrigeration Technician (09401.CT)**

A Certificate of Achievement will be awarded upon successful completion of the full certificate options listed below. For successful completion, a student must complete the requirements with a minimum grade of a "C" (or P) in each course with a grade point average of 2.0 or higher,

**Program Student Learning Outcomes**

- A. Explain the basic theory of the subject matter or HVAC/R system for the course of instruction based on industry standards.
- B. Analyze a scenario based upon an HVAC/R equipment system failure/problem/complaint.
- C. Employ a systematic approach to troubleshooting a HVAC/R system malfunction and prepare an effective repair solution.
- D. Analyze component failures to determine the root cause of the component failure.

**Program Requirements:**

<b>Program Core: (31 Units)</b>		<b>Units</b>
ELCT-41	Industrial Motor and Equipment Control.....	3
ELCT-47	Electrical Motors, Generators, Transformers, and AC Distribution .....	3
ELCT-52	Introduction to Electricity and Electronics .....	3
INDT-40	Commercial Refrigeration Systems.....	3
INDT-49	Electrical Codes and Ordinances.....	3
INDT-50	HVAC--Heating and Control Systems .....	6
INDT-51	HVAC--Ventilation and Air Conditioning .....	6
INDT-52	Refrigeration Usage Certification & R-410A Safety...	1
WELD-07	Fundamentals of T.I.G. and M.I.G. Welding .....	3
<b>Total: (31 Units)</b>		

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**CERTIFICATE**

**HVAC Technician (09400.CN)**

A Certificate of Achievement will be awarded upon successful completion of the full certificate listed below. For successful completion, a student must complete the requirements with a minimum grade of a "C" (or P) in each course with a grade point average of 2.0 or higher.

**Program Student Learning Outcomes**

- A. Explain the basic theory of the subject matter or HVAC/R system for the course of instruction based on industry standards.
- B. Analyze a scenario based upon an HVAC/R equipment system failure/problem/complaint.
- C. Employ a systematic approach to troubleshooting a HVAC/R system malfunction and prepare an effective repair solution.
- D. Analyze component failures to determine the root cause of the component failure.
- E. Verify if the path of repair was correct by testing and/or completing a work order/report.
- F. Demonstrate the correct usage of tools/supplies required to diagnose/repair a malfunction.

**Program Requirements:**

<b>Program Core: (19 Units)</b>		<b>Units</b>
INDT-50	HVAC--Heating and Control Systems .....	6
INDT-51	HVAC--Ventilation and Air Conditioning .....	6
INDT-52	Refrigerant Usage Certification and R-410A Safety..	1
INDT-53	Heat Pump Systems .....	3
INDT-54	Residential HVAC Installation .....	3
<b>Total: (19 Units)</b>		

# Intersegmental General Education Transfer Curriculum (IGETC)

## CERTIFICATE

Intersegmental General Education Transfer Curriculum (IGETC)

## CERTIFICATE (1/14)

**Intersegmental General Education Transfer Curriculum (IGETC) (49200.CT)**

A minimum of 34 units from the following;

Students must complete a minimum of 34 units used to satisfy the IGETC Transfer Breadth Requirements. Students must receive full certification of the IGETC pattern, which requires a minimum grade of "C" or better in each IGETC course. See the IGETC Transfer Breadth requirement patterns in the Merced College catalog or consult with a Merced College counselor.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

# Industrial Technology

## SCHOOL OF INDUSTRY AND MANUFACTURING

### DEGREE

A.S. - Industrial Maintenance Technology

### CERTIFICATE

Industrial Maintenance Technology

#### Program Description

Industrial Technology is a program which blends technical, scientific, and business principles, and which prepares versatile individuals for technological management, production supervision, and related leadership positions.

For locating the various degrees and certificates that fall under Industrial Technology, students should refer to the following degree and certificate titles in this portion of the catalog:

Automotive Technology  
Computer-Aided Design and 3D Modeling  
HVAC Technology  
Welding Technology

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE (11/21)

#### A.S. - Industrial Maintenance Technology (09550.AS)

An Associate of Science Degree in Industrial Maintenance Technology is available for students who successfully complete the graduation requirements and complete the following certificate program. For successful completion, a student must complete the requirements with a minimum grade of a "C" (or P) in each course with a grade point average of 2.0 or higher

#### Program Student Learning Outcomes

- Explain the basic theory of the subject matter or industrial system for the course of instruction based on industry standards.
- Analyze a scenario based upon an industrial equipment system failure/problem/complaint.
- Employ a systematic approach to troubleshooting an industrial system malfunction and prepare an effective repair solution.
- Analyze component failures to determine the root cause of the component failure.
- Verify if the path of repair was correct by testing and/or completing a work order/report.
- Demonstrate the correct usage of tools/supplies required to diagnose/repair a malfunction

#### Program Requirements:

##### Program Core: (37 Units)

	Units
ELCT-41	Industrial Motor and Equipment Control.....3
ELCT-47	Electrical Motors, Generators, Transformers, and AC Distribution .....3
ELCT-52	Introduction to Electricity and Electronics .....3
INDT-25	Fluid Power .....3
INDT-40	Commercial Refrigeration Systems.....3
INDT-41	Industrial Power Transmission .....3
INDT-49	Electrical Codes and Ordinances.....3
INDT-51	HVAC - Ventilation and Air Conditioning Systems.....6
INDT-52	Refrigerant Usage Certification and R-410A Safety.. 1
INDT-56	Industrial Facilities Maintenance .....3
WELD-06	Fundamentals of Oxy-Fuel Welding and Shielded Metal Arc Welding .....3

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WELD-07 Fundamentals of T.I.G. and M.I.G. Welding .....3  
WELD-51 Introduction to Pipe Welding

**Required Major Total: (39 Units)**

Completion of MCCD-GE Breadth pattern: 23 Units  
Electives (as needed to reach 60 units): 0 Units

**Total Degree Units: (60 Units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE (11/21)

#### Industrial Maintenance Technology (09550.CT)

A Certificate of Achievement will be awarded upon successful completion of the full certificate listed below. For successful completion, a student must complete the requirements with a minimum grade point of 2.0 in each course required for the certificate.

#### Program Student Learning Outcomes

- Explain the basic theory of the subject matter or industrial system for the course of instruction based on industry standards.
- Analyze a scenario based upon an industrial equipment system failure/problem/complaint.
- Employ a systematic approach to troubleshooting an industrial system malfunction and prepare an effective repair solution.
- Analyze component failures to determine the root cause of the component failure.
- Verify if the path of repair was correct by testing and/or completing a work order/report.
- Demonstrate the correct usage of tools/supplies required to diagnose/repair a malfunction

#### Program Requirements:

##### Program Core: (37 Units)

	Units
ELCT-41	Industrial Motor and Equipment Control.....3
ELCT-47	Electrical Motors, Generators, Transformers, and AC Distribution .....3
ELCT-52	Introduction to Electricity and Electronics .....3
INDT-25	Fluid Power .....3
INDT-40	Commercial Refrigeration Systems.....3
INDT-41	Industrial Power Transmission .....3
INDT-49	Electrical Codes and Ordinances.....3
INDT-51	HVAC - Ventilation and Air Conditioning Systems.....6
INDT-52	Refrigerant Usage Certification and R-410A Safety.. 1
INDT-56	Industrial Facilities Maintenance .....3
WELD-06	Fundamentals of Oxy-Fuel Welding and Shielded Metal Arc Welding .....3
WELD-07	Fundamentals of T.I.G. and M.I.G. Welding .....3
WELD-51	Introductory Pipe Welding .....3

**Required Major Total: (37 Units)**

**INDUSTRIAL TECHNOLOGY (INDT)****INDT-25 FLUID POWER**

3 units: 2 hours lecture, 3 hours lab.

This course covers the operational theory and practical applications of hydraulics, pneumatics and vacuum components and systems. This includes adjustment, service, and functional operation of pumps, controls, transmission systems, actuators and fluidics. The design and application of fluidic systems as they relate to industrial machinery will be covered together with systematic methods of trouble shooting. (12/18)

**INDT-32 BUILDING CONSTRUCTION CONCEPTS**

3 units: 2 hours lecture, 3 hours lab.

This course will provide the student with an understanding of construction concepts by building scaled modulars of each area of house construction (floor, wall, and roof framing; installation of windows and doors). The student will learn the concepts of stairwell and fireplace framing. (11/18)

**INDT-35 ELECTRICAL WIRING: INDUSTRIAL**

3 units: 2 hours lecture, 3 hours lab.

This course covers basic wiring for industrial applications. Topics include electrical theory, wiring in accordance with the latest version of the National Electrical Code, blueprint reading, layout of electrical circuits according to blueprints, switches, electrical connections, grounding and electrical safety, materials, appliance connections, industrial wiring and components, power poles and low voltage remote control devices. Students may petition, through the Office of Admissions and Records, to retake the course as the National Electrical Codes change. (04/20)

**INDT-40 COMMERCIAL REFRIGERATION SYSTEMS**

3 units: 2 hours lecture, 3 hours lab.

This course presents Commercial Refrigeration Systems to students. Systems studied will range from fractional to large tonnage refrigeration systems. Medium and low temperature systems, multiple defrost methods, and energy efficiency will be studied. Diagnostic and repair procedures on commercial systems and related equipment will be covered. (11/18)

**INDT-41 INDUSTRIAL POWER TRANSMISSION**

3 units: 2 hours lecture, 3 hours lab.

This course covers industrial power transmission systems. The components studied are gear reduction, torque multiplication, direct drive, belt drive, chain drive, bearings, seals, and related components. (11/18)

**INDT-49 ELECTRICAL CODES AND ORDINANCES**

3 units: 3 hours lecture.

This is a course in the interpretation and application of the National Electrical Code (NEC), and other national, state and local electrical codes and ordinances which regulate the installation, alteration and maintenance of electrical circuits, systems and equipment. Students may petition, through the Office of Admissions and Records, to retake the course as the National Electrical Codes change. (11/18)

**INDT-50 HVAC -- HEATING AND CONTROL SYSTEMS**

6 units: 4 hours lecture, 6 hours lab.

This course will enable students to identify and understand the operation of the various components found in heating and air conditioning units. Students will perform diagnostic and repair procedures on the above units and apply basic electrical concepts as they relate to HVAC industry heating and control technology. (12/18)

**INDT-51 HVAC -- VENTILATION AND AIR CONDITIONING SYSTEMS**

6 units: 4 hours lecture, 6 hours lab.

Advisories: INDT-50, INDT-52;

This course will enable students to identify and understand the operation of various components and systems found in air conditioning refrigeration systems. Students will perform diagnostic and repair procedures on air conditioning refrigeration systems and related equipment. Thermodynamic and psychometric principles as they relate to air conditioning systems will be covered. (12/18)

**INDT-52 REFRIGERANT USAGE CERTIFICATION AND R-410A SAFETY**

1 unit: 1 hour lecture.

This course prepares students for EPA certification in refrigerant handling and R410A safety. The Clean Air Act and Montreal protocol will be discussed. Types I, II and III certification test requirements will be discussed. EPA testing will be accomplished as a component of the course. A testing fee will be required for those who wish certification. Certified technicians will perform laboratory exercises utilizing recovery equipment and procedures. (01/14)

**INDT-53 HEAT PUMP SYSTEMS**

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: INDT-51 and INDT-52.

This course studies the operation, installation, and service of heat pump systems. (12/18)

**INDT-54 RESIDENTIAL HVAC INSTALLATION**

3 unit: 2 hours lecture, 3 hours lab

This course prepares the learner for entry-level employment in the HVAC installation trade. Topics covered in the course are installation materials, techniques and California mechanical / electrical codes related to residential HVAC system installation. (12/18)

**INDT-56 INDUSTRIAL FACILITIES MAINTENANCE**

3 unit: 2 hours lecture, 3 hours lab.

Advisory: ELCT-52, ELCT-47, and ELCT-42A.

This course is designed to provide industrial maintenance and electrical technician students with the skills they need to be successful. Students will gain skills in: print reading, safety, troubleshooting, mechanical system components, boiler systems, industrial refrigeration systems and industrial facility electrical systems. (04/20)

# Japanese

## HUMANITIES

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### JAPANESE (JPNS)

#### JPNS-01A ELEMENTARY JAPANESE

(CSU breadth area C2)

2.5 units: 2.5 hours lecture.

This course will focus on the development of listening, speaking, reading, and writing in a cultural context, with primary emphasis on communicative competency. Students will learn to express in Japanese the most basic functions of everyday life. (10/19)

#### JPNS-01B ELEMENTARY JAPANESE

(CSU breadth area C2) (IGETC area 6)

2.5 units: 2.5 hours lecture.

Prerequisite: JPNS-01A.

This course will continue to focus on the development of listening, speaking, reading, and writing in a cultural context, with primary emphasis on communicative competency. Students will learn how to express in Japanese the most basic functions of everyday life. (12/11)

#### JPNS-02 ELEMENTARY JAPANESE

(CSU breadth area C2) (IGETC area 6)

5 units: 5 hours lecture.

Prerequisite: JPNS-01B.

JPNS-02 is the continuation of JPNS-01B. This course will focus on the further development of listening, speaking, reading, and writing in a cultural context, with primary emphasis on communicative competency. Students will learn how to express in Japanese basic functions of everyday life. (10/19)



# Kinesiology

SCHOOL OF HEALTH AND PUBLIC SAFETY



Associate Degree  
for Transfer

*A Degree with a Guarantee.<sup>SM</sup>*

## DEGREE

A.A.T - Kinesiology

## CERTIFICATE

Fitness Specialist

### Program Description

The goal of the Associate in Arts in Kinesiology for Transfer degree (AA-T in Kinesiology) is designed to prepare students for transfer into the CSU system to complete a baccalaureate degree in Kinesiology or similar major.

For an Associate in Arts in Kinesiology for Transfer (AA-T), students must complete the following:

- (1) 60 semester CSU-transferable units.
- (2) the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- (3) a minimum of 18 semester in the major or area of emphasis as determined by the community college district.
- (4) obtainment of a minimum grade point average (GPA) of 2.0.
- (5) earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

Note: Students are not required to complete any additional local graduation requirements for the AA-T (e.g., PE and Computer and Information Literacy courses).

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE (02/21)

A.A.-T. - Kinesiology (12400.AAT)

The Associate in Arts in Kinesiology for Transfer degree (AA-T) is designed for students who are planning on transferring to a California State University (CSU). Upon completion of the transfer associate degree, the student is eligible for transfer with junior standing into the CSU system. Students will be given priority consideration when applying to a particular program that is similar to the student's community college area of emphasis.

### Program Student Learning Outcomes:

- A. Develop an integrated kinesiological approach to encourage the adoption of healthy and physically active lifestyles, across diverse populations.
- B. Relate personal development, such as positive self-esteem, self-responsibility, leadership, decision-making, cooperation, self-reflection and empowerment during physical activity.
- C. Identify and analyze the fundamental concepts and scientific foundations of kinesiology.

### Program Requirements:

Program Core: (20-23 Units)

	Units
BIOL-16 General Human Anatomy.....	4
BIOL-18 Principles of Physiology .....	4

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KINE-01 Introduction to Kinesiology..... 3  
Select courses from any three (3) of the following areas for a minimum of three (3) units.

### Movement Based Courses: Minimum 3 Units

#### Area 1: Aquatics:

KINE-20 Aqua Aerobics .....	1
KINE-24A Beginning Swimming .....	1
KINE-24B Techniques and Stroke Development for Swimming .....	1
KINE-24C Swimming for Fitness .....	1

#### Area 4: Fitness:

KINE-30 Group Exercise .....	1
KINE-31 Aerobic Training .....	1
KINE-32 Circuit Weight Training .....	1
KINE-33 Weight Training .....	1
KINE-34 Fitness Through Activity .....	1
KINE-35 Flexibility and Cardiovascular Fitness .....	2
KINE-36 Walking for Fitness.....	2

#### Area 5: Individual Sports

KINE-41 Tennis .....	1
KINE-42 Golf .....	1

#### Area 6: Team Sports

KINE-12A Beginning Baseball .....	1
KINE-12B Intermediate Baseball .....	1
KINE-13 Beginning Basketball .....	1
KINE-14 Beginning Volleyball .....	1
KINE-15 Softball .....	1
KINE-16 Football-Offensive Development .....	1
KINE-17 Soccer .....	1
KINE-19 Water Polo .....	1

### List A: Select two courses (minimum 6 units) from the following:

MATH-10 Elementary Statistics .....	3
or	
PSYC-05 Introduction to Statistics in Psychology .....	3
BIOL-02 Human Biology .....	4
CHEM-02A Introductory Chemistry .....	4
or	
CHEM-02B Introductory Chemistry: Introduction to Organic and Biochemistry .....	4
or	
CHEM-04A General Chemistry I .....	5
PHYS-02A General Physics I .....	4
KINE-02 First Aid and CPR for the Professional Rescuer .....	3

### Total Units toward the Major: (20-23 Units)

Total Units that may be double counted: .....	(4-9 Units)
General Education (CSU-GE or IGETC) Units: .....	(37 Units)
Elective (CSU Transferable) Units: .....	(3-12 Units)

**Total Degree Units: (60 Units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE (02/20)

Fitness Specialist (12401.CN)

This program prepares candidates for National Academy of Sports Medicine (NASM), American Council on Exercise (ACE), and the National Strength & Conditioning Association Certified Personal Trainer (NSCA-CPT) certification exams.

**Program Student Learning Outcomes:**

- A. Design fitness programs for a diverse population.
- B. Demonstrate knowledge and skills necessary to pass national certification exams in personal training and group fitness instructor.
- C. Demonstrate the core components of personal training including understanding nutrition, business, fitness, and strength training.

**Program Requirements:****Program Core: (18 Units)**

	<b>Units</b>
KINE-04 Essentials of Exercise Science .....	3
KINE-05 Foundations of Exercise Program Design.....	3
KINE-06 Group Fitness Instruction .....	3
NUTR-46 Sports and Exercise Nutrition.....	3
BUS-10 Introduction to Business.....	3

Select one course (3 units) from the following:

BIOL-50 Survey of Anatomy and Physiology.....	3
KINE-02 First Aid and CPR for the Professional Rescuer .....	3
KINE-03 Introduction to Athletic Training .....	3
PSYC-37 Sport Psychology .....	3

**Total: (18 Units)**

## KINESIOLOGY (KINE)

**KINE-01 INTRODUCTION TO KINESIOLOGY**

(C-ID KIN 100)

3 units: 3 hours lecture.

Prerequisite: ENGL-01A.

This course is an introduction to the interdisciplinary approach to the study of human movement. An overview of the importance of the sub-disciplines in kinesiology will be discussed. Career opportunities in the areas of teaching, coaching, allied health, and fitness professions. (02/19)

**KINE-02 FIRST AID AND CPR FOR THE PROFESSIONAL RESCUER**

(C-ID KIN 101)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This course involves the theory and detailed demonstration of the first aid care of the injured. The student will learn to assess a victim's condition and incorporate proper treatment. Standard first aid, CPR for the professional rescuer, and AED certification(s) can be granted upon successful completion of requirements. (11/19)

**KINE-03 INTRODUCTION TO ATHLETIC TRAINING**

3 units: 2 hours lecture, 3 hours lab.

Advisory: ENGL-01A

This is an introductory course in recognition, assessment, management, care and prevention of injuries occurring in physical activities. (2/14)

**KINE-04 ESSENTIALS OF EXERCISE SCIENCE**

3 units: 3 hours lecture.

Advisory: ENGL-01A

The purpose of this course is to introduce students to foundational scientific principles related to exercise science. Students will be introduced to the structures and functions of the systems of the body. Additionally, the basic principles of exercise science and training adaptations will be discussed. The students will also be introduced to the proper administration of fitness testing. (11/16)

**KINE-05 FOUNDATIONS OF EXERCISE PROGRAM DESIGN**

3 units: 2.5 hours lecture, 1.5 hours lab.

Advisory: ENGL-01A

The purpose of this course is to introduce the fundamentals of personal fitness training. This course will successfully prepare students to take a national personal training certification. Participants will receive practical experience in fitness testing, injury prevention, client assessment and training concepts. The course examines different components of fitness, exercise science, assessment, and exercise program design. (11/16)

**KINE-06 GROUP FITNESS INSTRUCTION**

3 units: 2.5 hours lecture, 1.5 hours lab.

Advisory: ENGL-01A

This course introduces students to exercise science concepts and their use in teaching group exercise. The course emphasizes the integration of anatomy and applied kinesiology with teaching principles and techniques for a variety of group exercise formats. Additionally, the course focuses on motor learning and effective group leadership, while teaching and monitoring human movement. Students will receive technical information and practical experience as preparation for group fitness instructor certification and exam. (11/16)

**KINE-07 REHABILITATION TECHNIQUES FOR ATHLETIC TRAINING**

3 units: 2.5 hours lecture, 1.5 hours lab.

Prerequisite: KINE-03

This course will provide students with applications and methods in athletic injury treatment and rehabilitation. A practical approach to rehabilitation programs will be presented through design, implementation, and supervision. This course will include a lab component to provide students the opportunity to apply the concepts that are introduced. (11/16)

**KINE-09 ADAPTIVE PHYSICAL EDUCATION**

(CSU breadth area E)

1 unit: 3 hours lab.

Advisory: Advise that student provide medical verification of disability and recommendation of medical intervention.

This course is a continuing program of individualized instruction for the physically disabled student allowing that student long-range participation in an adapted exercise physiology environment designed to create more physical independence for the student. (9/15)

**KINE-12A BEGINNING BASEBALL**

1 - 2 units: 3-6 hours lecture.

Advisory: 2 years varsity high school playing experience and/or instructors approval.

This is a course designed to teach the basic fundamentals of baseball. Hitting, fielding, throwing, base running, team play, and basic rules and strategies will be covered. Team competition is also included. (12/19)

**KINE-12B INTERMEDIATE BASEBALL**

(CSU breadth area E)

1 - 2 units: 3-6 hours lecture.

Advisory: KINE-12A.

Intermediate Baseball will cover techniques of the game, rules, and strategy. Individual and team techniques will be emphasized. Students will participate in intermediate level individual and team techniques in relationship to baseball strategy. (11/19)

**KINE-13 BEGINNING BASKETBALL**

1 unit: 3 hours lab.

Advisory: Good general health; absence of medical conditions that would prevent planned physical activity.

This course offers the beginning student the opportunity to develop and improve fundamental skills involved in basketball, such as, ball handling, shooting, defensive and offensive tactics, and physical endurance. It also covers team strategy and play. Rules, strategy, and sportsmanship are also stressed. (10/19)

**KINE-14 BEGINNING VOLLEYBALL**

(CSU breadth area E)

1 unit: 3 hours lab.

Advisory: Good general health; absence of medical conditions that would prevent planned physical activity.

This course begins with the basic skills and court positions necessary to enjoy the sport. Each class session begins with warm-up exercises and "dry-land" drills. Skill period ends with class participation in a volleyball match. (02/20)

**KINE-15 SOFTBALL**

(CSU breadth area E)

1 unit: 3 hours lab.

Advisory: Good general health; absence of medical conditions that would prevent planned physical activity.

This is a course designed to teach the fundamentals of softball. Batting, throwing, catching, base running, team play, rules and strategy will be covered. (11/15)

**KINE-16 FOOTBALL-OFFENSIVE DEVELOPMENT**

(CSU breadth area E)

1 unit: 3 hours lab.

Advisory: Good general health; absence of medical conditions that would prevent planned physical activity.

This course offers the student the opportunity to develop and improve the fundamental skills involved in football, such as passing, receiving, kicking, blocking (with the aid of blocking dummies), team play and strategy. The observation of live practices as well as educational topics related to the sport. (09/20)

**KINE-17 SOCCER**

(CSU breadth area E)

1 unit: 3 hours lab.

Limitation on Enrollment: Good general health; absence of medical conditions that would prevent planned physical activity.

The purpose of this course is to provide beginning instruction in the techniques, tactics, and strategies associated with competitive soccer. Special emphasis is placed on drills and competitive play situation. (11/18)

**KINE-19 WATER POLO**

1 unit: 3 hours lab.

Advisory: KINE-24B.

This course is designed to develop the basic fundamentals of water polo. Focus will be placed on fundamental skill development, conditioning, rules, and terminology. This course provides the opportunity for intermediate and advanced swimmers to develop a greater understanding of the game of water polo. (12/19)

**KINE-20 AQUA AEROBICS**

(CSU breadth area E)

1 unit: 3 hours lab.

Limitation on Enrollment: Good general health; absence of medical conditions that would prevent planned physical activity.

This course is designed to improve cardio respiratory fitness, muscular fitness, and flexibility. Exercises are performed in the pool to add resistance and minimize impact on bones and joints. Non-swimmers and swimmers will benefit from this course. (05/20)

**KINE-23 LIFEGUARD TRAINING**

2 units: 1.5 hours lecture, 1.5 hours lab.

Limitation on Enrollment: Students must pass American Red Cross lifeguarding prerequisite skills. Advisory: KINE-24B.

This course provides entry-level lifeguard participants with the knowledge and skills to prevent, recognize and respond to aquatic emergencies and to provide care for breathing and cardiac emergencies, injuries and sudden illnesses until emergency medical services (EMS) personnel take over. Upon completion of the course students can earn certification through the American Red Cross in lifeguard training, first aid, Title 22, and CPR/AED for the professional rescuer. (11/13)

**KINE-24 WORK EXPERIENCE IN KINESIOLOGY**

1-8 units

Advisory: ENGL-01A

This course enables students to earn college credit for learning or improving skills or knowledge on-the-job. Occupational work experience is discipline-specific and must connect to the students' major or occupational goal(s). Seventy-five (75) hours of documented paid work experience equals 1 unit of credit. Sixty (60) hours of documented volunteer experience equals 1 unit of credit. A student may enroll in up to 16 total units of work experience at Merced College. Students must have an established work site prior to enrolling in the course (02/20)

**KINE-24A BEGINNING SWIMMING**

1 unit: 3 hours lab.

Limitation on Enrollment: Good general health; absence of medical conditions that would prevent planned physical activity.

This course is a general introduction to swimming and aquatics. It is designed for the beginner or non-swimmer who wants to learn aquatic fundamentals and receive stroke instruction in the front crawl, elementary backstroke, and sidestroke. (11/19)

**KINE-24B TECHNIQUES AND STROKE DEVELOPMENT FOR SWIMMING**

1 unit: 3 hours lab.

Advisory: KINE-24A.

This course is designed for the intermediate swimmer. Emphasis is placed on technique and stroke development of the front crawl, elementary backstroke, and side stroke. Back crawl, breaststroke, butterfly, turns, dives, and fitness and training concepts will also be introduced. (11/19)

**KINE-24C SWIMMING FOR FITNESS**

1 unit: 3 hours lab.

Advisory: KINE-24B.

This course is designed for the swimmer who has mastered the basic skills and is ready for more advanced swimming techniques. Emphasis is placed on the competitive swimming strokes, turns, starts, and principles of training. (11/19)

**KINE-30 GROUP EXERCISE**

(CSU breadth area E)

1 unit: 3 hours lab.

Limitation on Enrollment: Good general health; absence of medical conditions that would prevent planned physical activity.

This course uses a variety of group exercise to improve cardiorespiratory fitness, muscular fitness, and flexibility. Strenuous physical activity is required. Good general health advised. (2/15)

**KINE-31 AEROBIC TRAINING**

1 unit: 3 hours lab.

Limitation on Enrollment: Good general health; absence of medical conditions that would prevent planned physical activity.

This class uses a variety of aerobic activities to improve cardio-respiratory endurance. Machines used include stair climber, treadmills, cycles, rowing, recumbent bikes and cross trainers. Emphasis will be placed on monitoring physiological response to exercise and teaching proper warm-up, training at target rate, and cool down. A pre-test and post-test will be administered to evaluate fitness level and monitor improvement. (11/19)

**KINE-32 CIRCUIT WEIGHT TRAINING**

(CSU breadth area E)

1 unit: 3 hours lab.

Limitation on Enrollment: Good general health; absence of medical conditions that would prevent planned physical activity.

The equipment provided for both cardiovascular endurance and strength training (single station exercise machines) in the fitness lab are designed to exercise all major muscle groups for a well-rounded fitness program with the non-athletic in mind. Circuit weight training has proven beneficial for people of all ages and genders, who are interested in weight training, with the emphasis on increasing muscle tone and cardiovascular fitness. (04/20)

**KINE-33 WEIGHT TRAINING**

1 unit: 3 hours lab.

Limitation on Enrollment: Good general health; absence of medical conditions that would prevent planned physical activity.

An open laboratory experience for those people who desire an individualized strength program using a combination of exercise machines and free weights. This class is designed specifically to improve strength. The class is suited for athletes and men and women of all age groups who are interested in muscle toning and muscle building. (2/14)

**KINE-34 FITNESS THROUGH ACTIVITY**

1 unit: 3 hours lab.

Limitation on Enrollment: Good general health; absence of medical conditions that would prevent planned physical activity.

Students will attain optimal levels of fitness by applying techniques used in a variety of team and/or individual activities. Drills and activities closely emulate actual conditions of competition performance. (10/19)

**KINE-35 FLEXIBILITY AND CARDIOVASCULAR FITNESS**

(CSU breadth area E)

2 units: 6 hours lab.

Limitation on Enrollment: Good general health; absence of medical conditions that would prevent planned physical activity.

Practical application of all aspects of flexibility and cardiovascular conditioning are presented and performed. A system of class presentation is used to insure gradual, safe, and total physiological adaptation of the student to exercise. A gradual progressive, safe and eventually total body fitness experience is pursued. (1/15)

**KINE-36 WALKING FOR FITNESS**

(CSU breadth area E)

1 units 3 hours lab.

Limitation on Enrollment: Good general health; absence of medical conditions that would prevent planned physical activity.

This course is designed to improve cardiovascular efficiency, flexibility and strength through the use of walking and related activities. Students will use the latest techniques to improve walking performance. (4/16)

**KINE-41 TENNIS**

(CSU breadth area E)

1 unit: 3 hours lab.

Limitation on Enrollment: Upon entering the course it is recommended that the student be able to: Good general health; absence of medical conditions that would prevent planned physical activity.

This course teaches basic skills of tennis including gripping the racket, body positioning, foot work, swing and follow through. Emphasis is placed on forehand, backhand, and the serve fundamentals. Drills and actual game participation are emphasized. History, rules, scoring and tennis etiquette are also taught. (2/15)

**KINE-42 GOLF**

(CSU breadth area E)

1 unit 3 hours lab.

Limitation on Enrollment: Good general health; absence of medical conditions that would prevent planned physical activity.

Through lecture, demonstration, video tapes, and drills, the basic principles of the golf swing will be studied and analyzed. Golf course and player etiquette will be stressed in addition to the rules of golf. This class also includes student participation, practicing golf shots, playing golf holes and learning about tournament competition. (2/15)

# Learning Resources

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LEARNING RESOURCES CENTER

## LEARNING RESOURCES (LRNR)

### LRNR-30 INFORMATION CONCEPTS AND RESEARCH SKILLS

3 units: 3 hours lecture.

Advisories: ENGL-01A. AOM-50B, keyboard at a minimum rate of 25 wpm at 95% accuracy.

This course is designed to introduce students to library research concepts, skills and resources. Course work will include information and digital literacy, research methods, and consideration of social, ethical and legal implications of information use. The student will learn the concepts and skills for successful research at the college level. (05/22)



# Liberal Studies

## SCHOOL OF SOCIAL SCIENCES AND EDUCATION



### Associate Degree for Transfer

*A Degree with a Guarantee.<sup>SM</sup>*

Visit the [Program Mapper](#) for more information on when to take classes and career information.

#### DEGREE

##### A.A.-T. - Elementary Teacher Education

#### Program Description

Liberal Studies is committed to preparation of pre-service elementary teachers who are competent in subject matter areas, capable of integrating knowledge across discipline boundaries, culturally sensitive to diverse learners, effective communicators, sound critical thinkers, and skilled in educational technology.

#### DEGREE (12/21)

##### A.A.-T. - Elementary Teacher Education (49810.AAT)

The Elementary Teacher Education program is committed to preparation of pre-service elementary teachers who are competent in subject matter areas, capable of integrating knowledge across discipline boundaries, culturally sensitive to diverse learners, effective communicators, sound critical thinkers, and skilled in educational technology.

The Associate in Arts in Elementary Teacher Education for Transfer degree at Merced College is designed to prepare students to successfully transfer to a CSU campus to complete a pre-professional program leading to a multiple subject or special education credentialing program. Upon completion of the associate for transfer degree, the student is eligible for transfer with junior standing in the California State University (CSU) system.

#### Program Student Learning Outcomes:

- Formulate explicit connections between California K-8 Content Standards and subject matter knowledge in Elementary Education coursework.
- Demonstrate integrative thinking through the development of projects that connect and integrate discipline knowledge across subject matter areas, including effective oral, written, and interpersonal communication skills in a variety of communication contexts.
- Develop sensitivity to the diverse cultural, linguistic, and learning abilities of elementary-age students.
- Formulate an understanding of a variety of teaching strategies to teach all learners effectively.

For an Associate in Arts in Elementary Teacher Education for Transfer (AA-T), students must complete the following:

- 60 semester CSU-transferable units.
- the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- a minimum of 18 semester in the major or area of emphasis as determined by the community college district.
- obtainment of a minimum grade point average (GPA) of 2.0.
- earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

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[Liberal Studies Website](#)

*Note: Students are not required to complete any additional local graduation requirements for the AA-T (e.g., PE and Computer and Information Literacy courses).*

#### Program Requirements:

##### Program Core: (52 Units)

##### Required Core Courses: (43 Units)

	Units
LBST-10	Introduction to Education I ..... 3
CLDV-01	Child Growth and Development ..... 3
BIOL-01	General Biology for Non-Majors ..... 4
PHSC-02	Survey of Chemistry and Physics ..... 3
PHSC-02L	Survey of Chemistry and Physics Laboratory ..... 1
GEOL-03	Earth Science ..... 4
MATH-20A	Basic Structure of Mathematics I ..... 3
ENGL-01A	College Composition and Reading ..... 4
ENGL-01B	Introduction to Literature ..... 3
GEOG-02	World Geography ..... 3
HIST-04A	History of Civilization: Part I ..... 3
POSC-01	Essentials of American Political System ..... 3

##### Speech: Take 3 units from the following:

COMM-01	Fundamentals of Speech ..... 3
COMM-01H	Honors Fundamentals of Speech ..... 3

##### United States History and Constitution: Take 3 units:

HIST-17A	U.S History and United States Constitution ..... 3
HIST-17AH	Honors U.S History and U.S Constitution ..... 3

##### List A: Select 1 course (3 Units) from the following:

ENGL-01C	Critical Thinking Across the Curriculum ..... 3
ENGL-13	Critical Reasoning and Writing ..... 3
ENGL-13H	Honors Critical Reasoning and Writing ..... 3
PHIL-13	Critical Reasoning and Writing ..... 3
PHIL-13H	Honors Critical Reasoning and Writing ..... 3

##### List B: Select 1 course (3 Units) from the following:

ART-01	Survey of Western Art from Prehistory through the Middle Ages ..... 3
ART-02	Survey of Western Art from Renaissance to Contemporary ..... 3
ART-06	Survey of Modern Art ..... 3
DRAM-01	Introduction to Theater ..... 3
MUSG-10	Fundamentals of Music ..... 3
MUSG-12	Classical Music History II ..... 3
MUSG-14	American Popular Music History ..... 3
MUSG-15	Music Appreciation ..... 3

##### List C: Up to 3 additional units\*:

**Any course(s) not selected above, and/or any courses that are lower preparation for the targeted major at a university.**

HUM-01	Studies in Humanities-Ancient-- Renaissance ..... 3
HUM-01H	Honors Studies in Humanities-Ancient Renaissance ..... 3
HUM 15	Comparative Cultures ..... 3
LBST-20	Introduction to Education II ..... 3
LBST-30	Children's Literature ..... 3
MATH-20B	Basic Structure of Mathematics II ..... 3
PSYC-09	Human Development ..... 3
CLDV-09	Human Development ..... 3

##### Total Units toward the Major: (52 Units)

Total Units that may be double counted: ..... (28-34)
General Education (CSU-GE or IGETC) Units: ..... (37-39)
Elective (CSU Transferable) Units: ..... (0-3)

##### Total Degree Units: (60 Units)

**\*Additional requirements for the Elementary Teacher Education major may vary at each CSU campus. It is highly recommended that students speak to a counselor to discuss other possible courses that are part of major preparation at a local CSU campus.**

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**LIBERAL STUDIES (LBST)****LBST-10 INTRODUCTION TO EDUCATION I**

(C-ID EDUC 200)

3 units: 2 hours lecture, 54 hours lab TBA.

Advisories: ENGL-01A; AOM-30

Limitation on enrollment: Students must obtain a fingerprint clearance and negative TB clearance.

Students are introduced to the profession of teaching through an understanding of California's content standards and frameworks, the historical foundations of the American educational system, and teacher performance standards. Practical experiences in the classroom will include a minimum of 45 hours of observation in the classroom of a campus-approved certificated classroom teacher. Students must provide their own transportation to off-campus school sites. Note: Fingerprint clearance and TB clearance are required. Students must dress appropriately as recommended by off-campus school sites. Observation placements will not be available for students with felony convictions. (12/21)

**LBST-20 INTRODUCTION TO EDUCATION II**

3 units: 2 hours lecture, 54 hours lab TBA.

Prerequisite: LBST-10.

Limitation on enrollment: Students must obtain a fingerprint clearance and a negative TB clearance.

In this course, students are provided additional opportunities to explore the teaching profession and how their personalities will fit with their career choice. Students will observe students and teachers in 4-8 Math and Science classroom environments and share observations with faculty and peers in weekly meetings to note differences in students, teaching/learning styles, and their personal reactions to the classroom setting. This course is intended for students who plan to teach in the K-8 levels. Note: Students must provide their own transportation to off-campus school sites. Fingerprint clearance and TB clearance are required. Any costs incurred by the Live Scan and TB clearance are the student's responsibility. Students must dress appropriately as recommended by off-campus school sites. Observation placements are required for class and will not be available for students with felony convictions. (12/21)

**LBST-24 WORK EXPERIENCE IN EDUCATION**

1-8 Units: 0 hours lecture, 0 hours lab.

Advisory: ENGL-01A.

This course enables students to earn college credit for learning or improving skills or knowledge on-the-job. Occupational Work Experience is discipline-specific and must connect to the student's major or occupational goal(s). Seventy-five (75) hours of documented paid work experience equals 1 unit of credit. Sixty (60) hours of documented volunteer experience equals 1 unit of credit. A student may enroll in up to 16 total units of work experience at Merced College. Students must have an established work site prior to enrolling in the course. (12/19)

**LBST-30 CHILDREN'S LITERATURE**

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This course is designed for prospective and current teachers who wish to acquire in-depth knowledge of children's literature to better inform decisions about the selection and use of children's literature in the K-8 classroom. The students will explore school district policies regarding literature selection and different genres, including, but not limited to, culturally diverse graphic novels, picture and storybooks, folklore and folktales, young adult literature, and non-fiction such as biographies and informational texts. (12/21)

# Management

## SCHOOL OF BUSINESS

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Visit the [Program Mapper](#) for more information on when to take classes and career information

### DEGREE

A.A. - Management/Supervisory Training

### CERTIFICATE

Customer Service Academy

Emerging Leaders Institute

Management/Supervisory Training

### Program Description

The mission of the Merced College Management Program is to equip students with the skills necessary to advance in a management career. The Management Program prepares students for both the challenges and changes faced in the workplace today. Students can earn an A.A. Degree or Certificate of Completion or simply take classes for professional development growth.

The Associate in Arts Degree in Management/Supervisory Training is in preparation for entry level jobs in management/supervision as well as for advanced preparation for those employed in supervisory positions.

The Customer Service Academy conducts practical, hands-on workshops to enhance a business' ability to gain and retain both customers and quality employees. This program delivers high quality, energetic, cutting edge training to equip your employees with the skills they need to effectively work together and serve both internal and external customers.

The Customer Service Academy is offered on campus and is also delivered locally through several chambers of commerce. The program can also be delivered on-site in your workplace. For more information about the Customer Service Academy visit us on-line at <http://www.mccd.edu/explore/training.html>.

### Career Opportunities:

- Management
- Supervision
- Sales
- Executive Assistant
- Administration
- Small Business Owner/Entrepreneur

### DEGREE (12/20)

#### A.A. - Management/Supervisory Training (05450.AA)

The Associate of Arts Degree in Management/Supervisory Training is in preparation for entry levels in management/supervision as well as for advanced preparation for those employed in supervisory positions. Students must meet the graduation requirements and complete the major requirements with the following courses.

#### Program Student Learning Outcomes

- Explain the fundamental theories of management and leadership in the workplace.
- Identify various management styles.
- Develop managerial/supervisory skills.

#### Program Requirements:

##### Program Core: (26-27 Units)

	Units
ACTG-04A Financial Accounting .....	4
or	
ACTG-51 Applied Accounting .....	4
BUS-10 Introduction to Business .....	3
BUS-18A Business Law .....	4
CPSC-01 Introduction to Computer Information Systems .....	4
or	
AOM-30 Introduction to Computer Applications .....	3
ECON-01 Introduction to Microeconomics .....	3
MGMT-31 Principles of Management .....	3
MGMT-32 Human Resource Management .....	3
MGMT-33 Elements of Effective Leadership .....	3

#### Management 50 series (Select 3 units)

MGMT-50A Challenges of Leadership .....	0.5
MGMT-50B Values and Ethics .....	0.5
MGMT-50C Time Management .....	0.5
MGMT-50D Communication in the Workplace .....	0.5
MGMT-50F Team Building .....	0.5
MGMT-50G Decision Making and Problem Solving .....	0.5
MGMT-50H Customer Service .....	0.5
MGMT-50I Attitude in the Workplace .....	0.5
MGMT-50J Thrive and Survive in the Workplace .....	0.5
MGMT-50K Generational Diversity .....	0.5
MGMT-50L Authentic Leadership .....	0.5
MGMT-50N Employee Engagement .....	0.5
MGMT-50P Emotional Intelligence .....	0.5
MGMT-50S Leading with Your Strengths .....	0.5
MGMT-51C Leadership Essentials .....	0.5
MGMT-51F Conflict Resolution .....	0.5
MGMT-51G Stress Management .....	0.5
MGMT-52C Successful Business Speaking .....	0.5
MGMT-52D Managing Organizational Change .....	0.5
MGMT-52H The Science of Happiness .....	0.5
MGMT-52N Fuel Your Body for Success .....	0.5
MGMT-52R Building Resilience .....	0.5
MGMT-52W Foundations of Well Being in the Workplace .....	0.5

#### Major Total: (29-30 Units)

GE Pattern MCCD GE Breadth: ..... (23 units)  
Electives (as needed) (CSU transferrable): ..... (13-14 units)  
Double-Counted: ..... (-6 units)

**Total Degree (maximum): (60 units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**CERTIFICATE** <sup>(11/20)</sup>**Customer Service Academy (05200.CO)**

For a Customer Service Academy Certificate, students must complete all ten management courses listed below.

## Program Student Learning Outcomes

- A. Apply the following skills to their interactions with both internal and external customers: Customer service, communication, attitude, team work, values and ethics, time management, stress management, conflict management, unconscious bias, and wellbeing in the workplace.

**Program Requirements:**

<b>Program Core: (5 Units)</b>		<b>Units</b>
MGMT-50B	Values and Ethics.....	0.5
MGMT-50C	Time Management .....	0.5
MGMT-50D	Communication in the Workplace .....	0.5
MGMT-50F	Team Building.....	0.5
MGMT-50H	Customer Service.....	0.5
MGMT-50I	Attitude in the Workplace .....	0.5
MGMT-50U	Unconscious Bias Reduction .....	0.5
MGMT-51F	Conflict Resolution .....	0.5
MGMT-51G	Stress Management .....	0.5
MGMT-52W	Foundations of Wellbeing in the Workplace.....	0.5
<b>Total: (5 Units)</b>		

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**CERTIFICATE** <sup>(04/18)</sup>**Emerging Leaders Institute (05250.CO)**

The Emerging Leaders Institute is for high potential employees and new managers who are ready to focus on core leadership skills and who are poised to move up in their organization. Seasoned managers would benefit from this program as well, as they would refresh themselves with current and proven leadership strategies. The theme of the program is Employee Engagement. All courses will help equip leaders with the skills and strategies to engage their team.

## Program Student Learning Outcomes

- A. Examine the key strategies that can engage employees in the workplace.  
 B. Analyze various elements that contribute to professionalism in the workplace.  
 C. Assess the various components that build trust between leaders and their followers.  
 D. Identify team member's strengths to leverage the effectiveness of a team.  
 E. Examine values and how they influence our actions.

**Program Requirements:**

<b>Program Core: (4 Units)</b>		<b>Units</b>
MGMT-50A	Challenges of Leadership: Difficulty People/Tough Conversations .....	0.5
MGMT-50B	Values and Ethics.....	0.5
MGMT-50K	Generational Diversity: Managing Cross Generational Teams.....	0.5
MGMT-50L	Authentic Leadership: Know Yourself/Lead Your People .....	0.5
MGMT-50N	Employee Engagement.....	0.5
MGMT-50P	Emotional Intelligence .....	0.5
MGMT-50S	Leading With your Strengths.....	0.5
MGMT-51C	Leadership Essentials: What Emerging Leaders Need to Know.....	0.5
<b>Total: (4 Units)</b>		

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**CERTIFICATE** <sup>(12/20)</sup>**Management/Supervisory Training (05450.CN)**

A Certificate of Achievement will be awarded upon the satisfactory completion of 29 units of course work in this area of study which includes the core courses indicated for the A.A. Degree in Management/Supervisory Training.

## Program Student Learning Outcomes

- A. Student will be able to explain the fundamental theories of management and leadership in the workplace.  
 B. Student will be able to identify and describe various management styles and how to be an effective team leader.  
 C. Student will develop an awareness of skills needed to be successful in Management/Supervision, including communication, decision making, planning, and motivation.

**Program Requirements:**

<b>Program Core: (29 Units)</b>		<b>Units</b>
ACTG-04A	Financial Accounting .....	4
or		
ACTG-51	Applied Accounting (4) .....	
BUS-10	Introduction to Business.....	3
BUS-18A	Business Law .....	4
AOM-30	Introduction to Computer Applications .....	3
ECON-01	Introduction to Microeconomics .....	3
MGMT-31	Principles of Management.....	3
MGMT-32	Human Resource Management .....	3
MGMT-33	Elements of Effective Leadership.....	3

## Management 50 series (Select 3 units)

MGMT-50A	Challenges of Leadership .....	0.5
MGMT-50B	Values and Ethics.....	0.5
MGMT-50C	Time Management .....	0.5
MGMT-50D	Communication in the Workplace .....	0.5
MGMT-50F	Team Building.....	0.5
MGMT-50G	Decision Making and Problem Solving.....	0.5
MGMT-50H	Customer Service.....	0.5
MGMT-50I	Attitude in the Workplace .....	0.5
MGMT-50J	Thrive and Survive in the Workplace .....	0.5
MGMT-50K	Generational Diversity.....	0.5
MGMT-50L	Authentic Leadership .....	0.5
MGMT-50N	Employee Engagement.....	0.5
MGMT-50P	Emotional Intelligence .....	0.5
MGMT-50S	Leading with Your Strengths .....	0.5
MGMT-51C	Leadership Essentials .....	0.5
MGMT-51F	Conflict Resolution .....	0.5
MGMT-51G	Stress Management .....	0.5
MGMT-52C	Successful Business Speaking .....	0.5
MGMT-52D	Managing Organizational Change.....	0.5
MGMT-52H	The Science of Happiness .....	0.5
MGMT-52N	Fuel Your Body for Success .....	0.5
MGMT-52R	Building Resilience.....	0.5
MGMT-52W	Foundations of Well Being in the Workplace .....	0.5

**Total: (29 Units)**



**MANAGEMENT (MGMT)****MGMT-31 PRINCIPLES OF MANAGEMENT**

3 units: 3 hours lecture.

Advisory: ENGL-01A

This introductory management course gives an overview of the management function and its role in organizations. It is designed to provide the fundamentals of management theories. This course will focus on the management concepts of planning, ethics, motivation, communication and leading. (03/22)

**MGMT-32 HUMAN RESOURCE MANAGEMENT**

3 units: 3 hours lecture.

Advisories: AOM-30; ENGL-01A.

This course involves the study of the principles and methods involved in effective human resource utilization in organizations. It provides an overview of responsibilities and practices involved in recruiting, selecting, promoting, terminating and retiring employees, performance appraisal, job development and analysis, wage and salary administration, and effective working relationships. (03/22)

**MGMT-33 ELEMENTS OF EFFECTIVE LEADERSHIP**

3 units: 3 hours lecture.

Advisories: AOM-30; ENGL-01A.

This course deals primarily with the techniques of leadership in organizational settings. Topics discussed include leadership styles, the behavioral aspects of leadership, and effective leadership characteristics. (03/22)

**MGMT-50A CHALLENGES OF LEADERSHIP: DIFFICULT PEOPLE/TOUGH CONVERSATIONS**

0.5 unit: 0.5 hour lecture.

This course is designed to equip the participant with skills needed to deal with the various challenges of leading people. Special emphasis will be placed on practical and proven tools to deal with difficult people and have tough conversations. The topic of accountability will be explored in regard to individual performance and organizational success. Participants will learn about progressive discipline and how to resolve performance problems. Pass/No Pass only. (04/19)

**MGMT-50B VALUES AND ETHICS**

0.5 unit: 0.5 hour lecture.

This course is designed to acquaint the participant with the importance of values and ethics in the workplace. Emphasis will be placed on how values influence actions, evaluating ones ethical behavior, and helping people do the right thing. Pass/No Pass only. (04/19)

**MGMT-50C TIME MANAGEMENT**

0.5 unit: 0.5 hour lecture.

This course is designed to introduce the student to time management principles and specific tools that assist in making maximum use of time. Emphasis will be placed on how to prioritize, identifying time wasters, and goal setting. Pass/No Pass only. (04/19)

**MGMT-50D COMMUNICATION IN THE WORKPLACE**

0.5 unit: 0.5 hour lecture.

This course is designed to introduce the student to key elements in communication within business organizations. Topics will include verbal and nonverbal communication, listening skills and specific workplace communication skills. Pass/No Pass only. (04/19)

**MGMT-50F TEAM BUILDING**

0.5 unit: 0.5 hour lecture.

This course is designed to provide the student with an understanding of how teams work together, common problems teams encounter, and how to solve them. Students will learn to recognize various personalities and how their strengths and weaknesses impact a team. Students will be introduced to team building in the workplace. Pass/No Pass only. (04/19)

**MGMT-50G DECISION MAKING AND PROBLEM SOLVING**

0.5 unit: 0.5 hour lecture.

This course is designed to introduce the student to decision making and problem solving techniques including brainstorming, creativity in the workplace, how to find new perspectives, and seeking alternatives. Pass/No Pass only. (04/19)

**MGMT-50H CUSTOMER SERVICE**

0.5 unit: 0.5 hour lecture.

This course is designed to provide the student with key skills and attitudes in order to effectively meet the needs of customers. Participants will be introduced to the key elements of outstanding customer service. Topics will also include understanding and exceeding customer expectations, and how to deal with unrealistic expectations. The course addresses both internal and external customers. Pass/No Pass only. (04/19)

**MGMT-50I ATTITUDE IN THE WORKPLACE**

0.5 unit: 0.5 hour lecture.

This course is designed to provide students with certain key skills in the area of attitude so that they may effectively maintain a positive attitude in the workplace and at home. Students will be introduced to the concepts of how attitudes are communicated, and how to adjust one's attitude. Pass/No Pass only. (04/19)

**MGMT-50J THRIVE AND SURVIVE IN THE WORKPLACE**

0.5 unit: 0.5 hour lecture.

This course focuses on the qualities that employers desire in employees and what it takes to thrive and survive in the workplace. Attitude, communication, and work ethics will be stressed. Pass/No Pass only. (09/19)

**MGMT-50K GENERATIONAL DIVERSITY: MANAGING CROSS GENERATIONAL TEAMS**

0.5 unit: 0.5 hour lecture.

America has multiple generations working side by side in the workplace. This course is designed to equip students with knowledge and skills to work with and lead cross-generational teams. Pass/No Pass only. (04/19)

**MGMT-50L AUTHENTIC LEADERSHIP: KNOW YOURSELF/LEAD YOUR PEOPLE**

0.5 unit: 0.5 hour lecture.

This course is designed to help participants recognize the importance of authenticity in leadership. Participants will learn what followers look for in a leader. The importance of trust in a leader and on a team will be explored. The connection of authenticity and employee engagement will be defined. Pass/no pass only. (04/19)

**MGMT-50N EMPLOYEE ENGAGEMENT**

0.5 unit: 0.5 hour lecture.

This course will define what Employee Engagement is and what it looks like in the workplace. Participants will learn the difference between engaged, disengaged, and actively disengaged employees and how they impact the workplace. Participants will learn five key ways to engage employees. They will learn strategies to implement to help keep employees engaged. Participants will also learn how to re-engage disengaged employees. Pass/No Pass only. (04/19)

**MGMT-50P EMOTIONAL INTELLIGENCE**

0.5 unit: 0.5 hour lecture.

This course is an introduction to the principles of Emotional Intelligence (EQ). EQ is the ability to identify and understand your emotions and those of others and use this understanding to guide your behavior and manage relationships. Topics covered include the five competencies of EQ: self-awareness, self-regulation, motivation, and effective relationships. Pass/No Pass only. (04/19)



**MGMT-50S LEADING WITH YOUR STRENGTHS**

0.5 unit: 0.5 hour lecture.

This course will help students understand their unique Strengths and how applying their Strengths can give them their best opportunity for success in leadership. Through the Discover Your CliftonStrengths/StrengthsFinder 2.0 assessment, students will learn strategies to apply their strengths in the workplace, in everyday life, and in leadership. Students will also learn how to recognize the strengths of others and how to apply this knowledge to help teams work effectively together. Pass/No Pass only. (09/19)

**MGMT-50T STRENGTHS BASED LEADERSHIP**

1 unit: 0.5 hour lecture.

This course will help students understand their unique strengths and how applying their strengths can give them their best opportunity for success. Through the Strengthsfinder 2.0 assessment, students will learn strategies to apply their strengths in the workplace and in everyday life. Students will also learn how to recognize the strengths of others and how to apply this knowledge to help teams work effectively together. Pass/No Pass only. (09/19)

**MGMT-50U UNCONSCIOUS BIAS REDUCTION IN THE WORKPLACE AND COMMUNITY**

0.5 unit: 0.5 hour lecture.

This course investigates the attitudes and behaviors formed around unconscious bias. Unconscious bias affects human understanding and decisions in an implicit manner. Students will study various forms of bias including gender, racial, and occupational bias. They will look at the influence of diversity, culture, and the significance of ingroup, outgroup, privilege and equity. Emphasis is placed on creating connection in organizations and communities through research and diverse conversations. Pass/No Pass only. (09/19)

**MGMT-51C LEADERSHIP ESSENTIALS: WHAT EMERGING LEADERS NEED TO KNOW**

0.5 unit: 0.5 hour lecture.

This course is designed to acquaint the student with the essential things new and emerging leaders need to know. The roles, functions and responsibilities of a leader will be examined, as well as professionalism, coaching and mentoring. Pass/No Pass only. (2/14)

**MGMT-51F CONFLICT RESOLUTION**

0.5 unit: 0.5 hour lecture.

This course is designed to introduce participants to the meaning of conflict, the causes of conflict, and strategies for resolving interpersonal conflict as well as dealing with difficult customers. Pass/No Pass only. (1/08)

**MGMT-51G STRESS MANAGEMENT**

0.5 unit: 0.5 hour lecture.

This course is designed to acquaint the participant with key elements of stress management. Topics will include the recognition of stress, causes of stress, and the benefits of stress management. Various stress management techniques will be covered. Pass/No Pass only. (1/08)

**MGMT-52C SUCCESSFUL BUSINESS SPEAKING**

0.5 unit: 0.5 hour lecture.

This course is designed to assist the student in developing the skills necessary to successfully speak in a variety of business situations. Topics will include overcoming stage fright, how to gain credibility with the audience, how to make a presentation appealing and tips and techniques to be a better presenter. Pass/No Pass only. (11/15)

**MGMT-52D MANAGING ORGANIZATIONAL CHANGE**

0.5 unit: 0.5 hour lecture.

This course is designed to provide the participant with an understanding of change and the influence it has on an organization and the individuals in that organization. Topics will include understanding organizational change, stages of change, and how to manage organizational change. Pass/No Pass only. (1/08)

**MGMT-52H THE SCIENCE OF HAPPINESS: THE CONNECTION BETWEEN WELL BEING, HAPPINESS, AND PRODUCTIVITY AND HOW TO CULTIVATE IT AT WORK**

0.5 unit: 0.5 hour lecture.

This course will explore why happiness matters and how to increase it within yourself, among colleagues, and across your organization. The course will look at actionable strategies for boosting happiness at work, leading to better performance, innovation, higher productivity and well-being. Pass/No Pass only. (5/20)

**MGMT-52N FUEL YOUR BODY FOR SUCCESS: THE LINK BETWEEN FOOD, QUALITY SLEEP, AND SUCCESS (ALSO: NUTR-52N)**

0.5 unit: 0.5 hour lecture.

This course focuses on how healthy eating and quality sleep can help your energy level, work performance, and overall health. Students will have an opportunity to evaluate their own eating and sleep habits and strategize on how to make improvements. The subjects of microbiome/gut health, meal planning and creating a healthy work environment will also be presented. This course is recommended for Nutrition and Foods majors and individuals wanting to improve their health, productivity, and well-being. Pass/No Pass only. (5/20)

**MGMT-52R BUILDING RESILIENCE: ESSENTIAL SKILLS TO BOUNCE BACK AND GROW DURING CHALLENGES AND CHANGE**

0.5 unit: 0.5 hour lecture.

This course offers strategies for building resilience to stress and strengthening our well-being in the face of challenges at work. The practice of Mindfulness will be covered as well as an exploration of how resilient mental habits are foundational to well-being and productivity in the workplace. Pass/No Pass only. (5/20)

**MGMT-52W FOUNDATIONS OF WELL BEING IN THE WORKPLACE**

0.5 unit: 0.5 hour lecture.

This course will cover the foundations of Well-Being in the workplace and will explore the relationship between employee well-being and how it ties in with employee engagement, productivity, customer service and team work. The course will cover the essential elements of Well-Being including gratitude and career, social, financial, emotional, physical, and community Well-Being. Strategies will be introduced to increase Well-Being. Pass/No Pass only. (5/20)

# Marketing

## SCHOOL OF BUSINESS

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[Marketing Website](#)

### DEGREE

A.S. - Marketing

### CERTIFICATE

Marketing

#### Program Description

The Associate of Science degree in Marketing is designed for students who desire to transfer to a 4-year institution to complete a baccalaureate program in a marketing-related field, and it is also designed to support students who seek future employment in a field related to marketing.

#### Career Opportunities

Marketing Manager, Sales, Distribution, Retailing, Entrepreneur, Creative Director, Public Relations, Business Owner, Advertising Executive.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE (12/19)

#### A.S. - Marketing (05460.AS)

The Associate of Science in Marketing degree is intended to prepare students for employment in the broad field of marketing, which includes (but is not limited to) sales, promotion, design, copy writing, distribution, research, and public relations. Additionally, the A.S. degree in Marketing can be used to prepare students for transfer to a four year institution where they can earn their bachelor's degree. Potential four year schools offering programs in Marketing include Fresno State University, CSU Stanislaus, San Jose State University, and many others.

Students must meet the graduation requirements as well as the Marketing core requirements. Students must earn a grade of "C" or higher for courses within the Marketing core.

#### Program Student Learning Outcomes

- Recognize the major benefits of segmenting a market.
- Demonstrate an understanding of the marketing mix.
- Analyze the psychological factors affecting the consumer buying process.
- REcommend distribution systems for various products or services as it relates to their respective target markets.
- Analyze effective forms of communication with a target market.

#### Program Requirements:

##### Program Core: (29 Units)

	Units
ACTG-04A Financial Accounting .....	4
or	
ACTG-51 Applied Accounting .....	4
AOM-30 Introduction to Computer Applications .....	3
BUS-10 Introduction to Business .....	3
BUS-18A Business Law .....	4
COMM-30 Introduction to Intercultural Communication .....	3
MATH-10 Elementary Statistics.....	3
or	
PSYC-05 Introduction to Statistics in Psychology.....	3
MKTG-30 Principles of Marketing.....	3
MKTG-33 Advertising .....	3
VIRT-55 Social Media Marketing and Strategy .....	3

**Major Total: (29 units)**

GE Pattern MCCD: ..... (23 units)

Electives (as needed): ..... (13 units)

Double Counted: ..... (6 units)

**Total Degree (maximum): (60 units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE (12/19)

#### Marketing (05460.CN)

The Certificate of Achievement in Marketing is intended to prepare students for employment in the broad field of marketing, which includes (but is not limited to) sales, promotion, design, copy writing, distribution, research, and public relations.

A Certificate of Achievement in Marketing will be awarded upon the satisfactory completion of 29 units of course work in this area of study which includes the core courses indicated for the Certificate of Achievement in Marketing. Students must complete the requirements with a minimum grade point of "C" in each course required for the certificate.

#### Program Student Learning Outcomes

- Recognize the major benefits of segmenting a market.
- Demonstrate an understanding of the marketing mix.
- Analyze the psychological factors affecting the consumer buying process.
- Recommend distribution systems for different products or services and their respective target markets.
- Analyze effective communication methods for a target market.

#### Program Requirements:

##### Program Core: (29 Units)

	Units
ACTG-04A Financial Accounting .....	4
or	
ACTG-51 Applied Accounting .....	4
AOM-30 Introduction to Computer Applications .....	3r
BUS-10 Introduction to Business .....	3
BUS-18A Business Law .....	4
COMM-30 Introduction to Intercultural Communication .....	3
MATH-10 Elementary Statistics.....	3
or	
PSYC-05 Introduction to Statistics in Psychology.....	3
MKTG-30 Principles of Marketing.....	3
MKTG-33 Advertising .....	3
VIRT-55 Social Media Marketing and Strategy .....	3
<b>Total: (29 Units)</b>	

**MARKETING (MKTG)****MKTG-30 PRINCIPLES OF MARKETING**

3 units: 3 hours lecture.

Advisories: ENGL-01A and BUS-10.

This course provides a broad understanding of the promoting, pricing, and distribution of products and services. Promotional mixes are studied including sales promotion, advertising, packaging, personal selling, public relations, and publicity. A study is made of understanding customer needs and behaviors; developing a product and/or service mix to satisfy customer needs, and profitability. Legal, political, cultural, social, economic, competitive, and ethical aspects of marketing are discussed. (03/22)

**MKTG-33 ADVERTISING**

3 units: 3 hours lecture.

Advisories: AOM-30; ENGL-O1A.

This is an introductory course in advertising principles and techniques. Areas of study will include advertising agencies, preparation of advertisements, including copywriting, illustration and layouts, media selection, budgeting for advertising, psychology and persuasion of advertisements, and the use of advertising as a tool in sales promotion. (03/22)

# Mathematics

SCHOOL OF SCIENCE, TECHNOLOGY,  
ENGINEERING AND MATH

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Associate Degree  
for Transfer  
*A Degree with a Guarantee.™*

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## DEGREE

### A.S.-T. - Mathematics

#### Program Description

The Mathematics curriculum at Merced College prepares students to transfer to four-year institutions. Students are strongly encouraged to consult with a counselor for information regarding educational planning and for specific requirements in the catalog of the college to which he/she plans to transfer. Students that complete an Associate in Science in Mathematics for Transfer from Merced College will be prepared for upper division course work in Mathematics at a California State University.

For an Associate in Science in Mathematics for Transfer (AS-T), students must complete the following:

- (1) 60 semester CSU-transferable units.
- (2) the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- (3) a minimum of 18 semester units in the major or area of emphasis as determined by the community college district.
- (4) obtainment of a minimum grade point average (GPA) of 2.0.
- (5) earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

Note: Students are not required to complete any additional local graduation requirements for the AS-T (e.g., PE and Computer and Information Literacy courses).

#### Web Site

<http://www.mccd.edu/academics/sme/math.html>

#### Career Opportunities

This degree is designed for students who plan to transfer to a California State University, but also provides students with mathematical knowledge that can be used in variety of careers.

## DEGREE (2/14)

### A.S.-T. - Mathematics (17400.AST)

The Associate in Science in Mathematics for Transfer is designed around a core education. Upon completion, students with an Associate in Science in Mathematics for Transfer will be eligible to transfer with junior standing into an equivalent major within the California State University (CSU) system. Students will be given priority consideration when applying to a particular program that is similar to the student's community college area of emphasis. The Associate in Science in Mathematics for Transfer is to assist students in the seamless transferring to a California State University. Upon completion of the AS-T in Mathematics, students will be able to:

#### Program Learning Outcomes

- A. Use Calculus techniques to solve mathematical problems involving functions of one or more variables.
- B. Demonstrate appropriate techniques to solve mathematical problems.
- C. Apply mathematical models to real-world problems.
- D. Use technology to support mathematical problem solving.

#### Program Requirements:

Program Core: (21 Units)		Units
MATH-04A	Calculus I .....	4
MATH-04B	Calculus II .....	4
MATH-04C	Multivariable Calculus .....	4

#### List A: Select 3 units from the following

MATH-06	Elementary Differential Equations .....	3
MATH-08	Linear Algebra .....	3

#### List B: Select 6 units from the following

Any course from List A not used (3)		
CPSC-06	Programming Concepts & Methodology I .....	3
ENGR-14	C++ Programming .....	3
or		
MATH-14	C++ Programming .....	3
MATH-07	Discrete Structures .....	3
MATH-10	Elementary Statistics .....	3
PHYS-04A	Physics I .....	4

#### Total Units Toward Major: (21 Units)

Total units that may be double counted .....	(3-7 Units)
General Education (CSU-GE or IGETC) units .....	(37-39 Units)
Elective (CSU Transferable) units .....	(2-9 Units)

**Degree Total: (60 Units)**

**MATHEMATICS (MATH)****MATH-C INTERMEDIATE ALGEBRA**

4 units: 4 hours lecture.

This course covers factoring, functions and graphs, solving linear, quadratic, piecewise defined, exponential, and logarithmic equations, rational expressions and equations, complex numbers, and conic sections. (10/19)

**MATH-02 PRECALCULUS**

(CSU breadth area B4) (IGETC area 2) (C-ID MATH 155)

4 units: 4 hours lecture.

Prerequisite: MATH-25. Advisory: ENGL-01A.

This course is designed to prepare students for calculus. Topics of study include polynomials, complex numbers, algebra of functions, inverse functions, exponential, logarithmic, trigonometric functions and their graphs, systems of equations and inequalities, topics in analytic geometry, and polar coordinates. (12/15)

**MATH-02H HONORS PRECALCULUS**

(IGETC area 2) (CSU breadth area B4) (C-ID MATH 155)

4 units: 4 hours lecture.

Prerequisite: MATH-25. Advisory: ENGL-01A.

Limitation on enrollment: Enrollment in the Honors Program; see the college catalog for a description of enrollment requirement.

This course is designed to prepare students for calculus. Topics of study include polynomials, complex numbers, algebra of functions, inverse functions, exponential, logarithmic, trigonometric functions and their graphs, systems of equations and inequalities, topics in analytic geometry, and polar coordinates. There will be an emphasis in the use of available technology, mathematical writing, and collaborative learning. (12/15)

**MATH-03 CALCULUS FOR BUSINESS**

(CSU breadth area B4) (IGETC area 2)

4 units: 4 hours lecture.

Prerequisite: MATH-C, MATH-61, or MATH-62.

Advisory: ENGL-01A

This course covers the techniques of calculus in the business world: functions, graphs, limits, exponential and logarithmic functions, differentiation, integration, techniques and applications of integration, partial derivatives, optimization, and the calculus of several variables. (12/15)

**MATH-04A CALCULUS I**

(C-ID MATH 211) (CSU breadth area B4) (IGETC area 2)

4 units: 4 hours lecture.

Prerequisite: MATH-02 or MATH-02H and completion of Intermediate Algebra or equivalent.

Advisory: ENGL-01A.

This course covers limits, continuity, differentiation and integration of algebraic and transcendental functions along with their respective applications. (11/21)

**MATH-04B CALCULUS II**

(C-ID MATH 221) (CSU breadth area B4) (IGETC area 2)

4 units: 4 hours lecture.

Prerequisite: MATH-04A. Advisory: ENGL-01A.

This course is a continuation of MATH-04A, addressing application of integration, methods of integration, improper integrals, Taylor's Formula, infinite series, and plane curves and polar coordinates. (11/21)

**MATH-04C MULTIVARIABLE CALCULUS**

(C-ID MATH 230) (CSU breadth area B4) (IGETC area 2)

4 units: 4 hours lecture.

Prerequisite: MATH-04B. Advisory: ENGL-01A.

This course covers vectors and solid analytic geometry, vector-valued functions, partial differentiation, multiple integrals, and topics in vector calculus including Green's and Stokes' theorems. (12/14)

**MATH-06 ELEMENTARY DIFFERENTIAL EQUATIONS**

(C-ID MATH 240) (CSU breadth area B4) (IGETC area 2)

3 units: 3 hours lecture.

Prerequisite: MATH-04C. Advisories: ENGL-01A; MATH-08.

This course is an introduction to ordinary differential equations (ODEs), including analytical, graphical and numerical methods, as well as a variety of modeling applications. It introduces both theoretical and practical considerations, including definitions, existence and uniqueness of solutions, techniques for solving first-order ODEs and higher-order linear ODEs, series solutions and singular points for linear differential equations, Laplace transforms, homogeneous versus nonhomogeneous equations, linear systems, and numerical methods. (10/16)

**MATH-07 DISCRETE STRUCTURES (ALSO: CPSC-07)**

(IGETC area 2) (C-ID MATH 160) (CSU breadth area B4)

3 units: 2.5 hours lecture, 1.5 hours lab.

Prerequisite: CPSC-06 or ENGR-14 or CPSC-14; MATH-04A.

This course is an introduction to the discrete structures used in Computer Science with an emphasis on their applications. Topics covered include: functions, relations and sets; basic logic; proof techniques; basics of counting; graphs and trees; and discrete probability. (12/15)

**MATH-08 LINEAR ALGEBRA**

(C-ID MATH 250) (CSU breadth area B4) (IGETC area 2)

3 units: 3 hours lecture.

Prerequisite: MATH-04B. Advisory: ENGL-01A.

This course is an introduction to systems of linear equations, matrices, determinants, vector spaces, linear transformations, eigenvalues and eigenvectors with a strong emphasis on applications. (09/19)

**MATH-09 DIFFERENTIAL EQUATIONS WITH LINEAR ALGEBRA**

4 units: 4 hours lecture.

Prerequisite: MATH-04B

Advisories ENGL-01A and MATH-04C.

This course is a combination of Differential equations and Linear algebra. The topics for Differential equations include solutions to first order equations, higher order linear equations, series solutions, systems of equations, and Laplace transforms. The topics for Linear algebra include linear equations, vector spaces, scalar products, linear transformations, determinants, and eigenvalues. (05/21)

**MATH-10 ELEMENTARY STATISTICS**

(C-ID MATH 110) (CSU breadth area B4) (IGETC area 2)

3 units: 3 hours lecture.

Prerequisite: MATH-C or MATH-61 or MATH-62.

Advisory: ENGL-01A

This course covers descriptive statistics, including organization and presentation of data; elementary probability including permutations, combinations, binomial and normal distributions; inferential statistics, including random sampling, hypothesis testing, regression, and correlation and chi-square distribution. (11/17)

**MATH-11 ELEMENTARY STATISTICS**

(CSU breadth area B4) (IGETC area 2)

3 units: 3 hours lecture.

Prerequisite: MATH-C or MATH-61 or MATH-62.

Advisory: ENGL-01A

This course covers descriptive statistics, including organization and presentation of data; common distributions such as the binomial, normal, and chi-squared distributions; inferential statistics including confidence intervals, hypothesis testing, correlation, and regression. (02/18)

**MATH-15 FINITE MATHEMATICS**

(C-ID MATH 130) (CSU breadth area B4) (IGETC area 2)

3 units: 3 hours lecture.

Prerequisite: MATH-C or MATH-61 or MATH-62.

Advisory: ENGL-01A

This course covers algebra review, linear models, systems of linear equations, matrices, linear programming, mathematics of finance, set theory, and probability. (12/20)



**MATH-20A BASIC STRUCTURE OF MATHEMATICS I**

(CSU breadth area B4) (C-ID MATH 120)

3 units: 3 hours lecture.

Prerequisite: MATH-C or MATH-61 or MATH-62.

Advisory: ENGL-01A

This course is designed to complete the first course of a two-course sequence in basic concepts of mathematics required for students preparing to teach at the elementary school level. It covers elementary set theory, numeration systems, number theory, the set of integers, the set of rational numbers, and the set of real numbers. (04/19)

**MATH-20B BASIC STRUCTURE OF MATHEMATICS II WITH SUPPORT**

(CSU breadth area B4)

3 units: 3 hours lecture.

Prerequisite: MATH-C or MATH-61 or MATH-62.

Advisories: ENGL-01A; MATH-20A.

This course is designed to complete the second course of a two-course sequence in basic concepts of mathematics required for students preparing to teach at the elementary school level. This course covers the structure of plane and solid geometry, measurement, introduction to coordinate geometry, elementary probability, and statistics. (11/17)

**MATH-22 MODERN MATHEMATICS**

(CSU area B4)

3 units: 3 hours lecture.

Prerequisite: MATH-C, MATH-61, or MATH-62.

Advisory: ENGL-01A

A survey course in mathematical problem solving using modern topics including social choice, management science, finance, and statistics. (11/21)

**MATH-25 TRIGONOMETRY**

(CSU breadth area B4)

3 units: 3 hours lecture.

Prerequisite: Completion of Intermediate algebra or equivalent.

Advisory: ENGL-01A

This course is a review of right triangle geometry, real numbers, functions and graphs, trigonometric functions and their graphs, identities, inverse trigonometry functions, solve trigonometric equations, solve right triangles, solve triangles using the Law of Sines, and Law of Cosines. (11/17)

**MATH-26 COLLEGE ALGEBRA FOR LIBERAL ARTS**

(C-ID MATH 150) (CSU breadth area B4) (IGETC area 2A)

3 units: 3 hours lecture.

Prerequisite: MATH-C, MATH-61, or MATH-62

Advisory: ENGL-01A

This is a college level course in algebra for majors in the Liberal Arts. The course will cover topics on functions, including polynomial, rational, radical, exponential, absolute value, and logarithmic functions. Solving various types of equations, linear systems, and their applications for problem solving will also be discussed. (04/19)

**MATH-27 PRECALCULUS AND TRIGONOMETRY**

(CSU breadth area B4) (IGETC area 2)

6 units: 6 hours lecture.

Prerequisite: MATH-C, MATH-61 or MATH-62

Advisory: ENGL-01A

This course is designed to prepare students for calculus. Topics of study include polynomials, complex numbers, algebra of functions, inverse functions, exponential, logarithmic, trigonometric functions and their graphs, systems of equations and inequalities, topics in analytic geometry, , polar coordinates and vectors. (02/18)

**MATH-32 PROBABILITY AND STATISTICS FOR STEM**

4 units: 4 hours lecture

Prerequisite: MATH-04C; Advisory: ENGL-01A

This course covers concepts of probability and statistics using Calculus methods. Topics include conditional probability, independence, random variables, distribution functions, descriptive statistics, transformations, sampling errors, confidence intervals, least squares and maximum

likelihood. Exploratory data analysis and interactive computing. (05/21)

**MATH-61 BEGINNING & INTERMEDIATE ALGEBRA FOR STEM**

6 units: 6 hours lecture.

This course covers topics in both beginning and intermediate algebra. The beginning algebra topics include order of operations, graphing linear equations, solving equations and inequalities that are linear in form, operations on polynomials, and a brief introduction to functions. The intermediate algebra topics include factoring, graphing linear and non-linear functions, including piecewise defined graphs, problem solving with nonlinear equations, working with complex numbers, and graphing conic sections. This course is designed to prepare students for mathematics course work in trigonometry and precalculus. (11/17)

**MATH-62 BEGINNING & INTERMEDIATE ALGEBRA FOR LIBERAL ARTS**

5 units: 5 hours lecture.

This course covers the four basic operations on real numbers and algebraic expressions. Topics include order of operations, graphing and solving linear and absolute value equations and inequalities, systems of linear equations, quadratic, variation, geometric, financial, polynomial, exponential, and logarithmic models. This course is designed for non-STEM majors. (11/17)

**MATH-95A BASIC STRUCTURES I SUPPORT**

1 units: 3 hours lab.

Corequisite: MATH-20A.

A review of the core prerequisite skills, competencies, and concepts needed in Math 20A. Topics include concepts from beginning, elementary algebra, and geometry. Intended for students who are concurrently enrolled in Math-20A. (12/20)

**MATH-95B BASIC STRUCTURES II SUPPORT**

1 units: 3 hours lab.

Corequisite: MATH-20B.

A review of the core prerequisite skills, competencies, and concepts needed in Math 20B. Topics include concepts from beginning, elementary algebra, and geometry. Intended for students who are concurrently enrolled in Math-20B. (12/20)

**MATH-95C COLLEGE ALGEBRA SUPPORT**

1 units: 3 hours lab.

Corequisite: MATH-26.

A review of the core prerequisite skills, competencies, and concepts needed in College Algebra. Topics include concepts from elementary and intermediate algebra. Intended for students who are concurrently enrolled in College Algebra. (12/20)

**MATH-95F FINITE MATHEMATICS SUPPORT**

1 units: 3 hours lab.

Corequisite: MATH-15.

A review of the core prerequisite skills, competencies, and concepts needed in Finite Mathematics. Topics include concepts from prealgebra, elementary algebra, and intermediate algebra and the development of critical thinking skills necessary for Finite Math.. Intended for students who are currently enrolled in Finite Math. (12/20)

**MATH-95M MODERN MATHEMATICS SUPPORT**

1 unit: 3 hours lab.

Corequisite: MATH-22

A review of the core prerequisite skills, competencies, and concepts needed in Modern Mathematics. Topics include concepts from prealgebra, elementary algebra, and intermediate algebra and the development of critical thinking skills necessary for Modern Mathematics. Intended for students who are currently enrolled in Math 22. (05/22)

**MATH-95P PRECALCULUS SUPPORT**

1 units: 3 hours lab.

Corequisite: MATH-02.

A review of the core prerequisite skills, competencies, and concepts needed in precalculus. Topics include concepts from elementary algebra, intermediate algebra, and trigonometry. Intended for students who are concurrently enrolled in precalculus. (12/20)

**MATH-95S STATISTICS SUPPORT**

1 unit: 3 hours lab.

Corequisite: MATH-10. Advisory: ENGL-01A.

A review of the core prerequisite skills, competencies, and concepts needed in statistics. Topics include concepts from prealgebra, elementary and intermediate algebra, and the development of critical thinking skills needed for statistical analysis. Intended for students who are concurrently enrolled in Elementary Statistics. (11/18)

**MATH-95T TRIGONOMETRY SUPPORT**

1 units: 3 hours lab.

Corequisite: MATH-25.

A review of the core prerequisite skills, competencies, and concepts needed in trigonometry. Topics include concepts from elementary algebra, intermediate algebra, and geometry. Intended for students who are concurrently enrolled in trigonometry. (12/20)

**MATH-95Z BUSINESS CALCULUS SUPPORT** 1 units: 3 hours lab.

1 unit: 3 hours lab.

Corequisite: MATH-03.

A review of the core prerequisite skills, competencies, and concepts needed in business calculus. Topics include concepts from elementary algebra, intermediate algebra, and geometry. Intended for students who are concurrently enrolled in business calculus. (05/22)

# Music

## SCHOOL OF HUMANITIES, LANGUAGES AND FINE & PERFORMING ARTS



### Associate Degree for Transfer

*A Degree with a Guarantee.<sup>SM</sup>*

#### DEGREE

A.A.-T. - Music

A.A. - Music

#### Program Description

The Associate in Arts in Music for Transfer degree at Merced College is designed to prepare students to successfully transfer to a CSU campus as music majors. The AA-T Music degree offers students the opportunity to obtain basic music skills in theory and musicianship, applied music, and ensemble performance. It is designed for students to complete the first two years of core major coursework required at CSU campuses. Students enrolling in the AA-T Music degree will be required to pass a keyboard proficiency exam in order to receive their degree. Upon beginning the program, students will need to determine an area of Applied Performance and will be placed on the basis of audition.

Music faculty are dedicated to assisting students at every step in their studies in the music department of Merced College and are committed to helping students explore their performance, teaching, and professional opportunities, and the process of transferring to baccalaureate programs in music.

#### Career Opportunities

Careers in music include performer, educator, conductor, composer, arranger, digital music technician, accompanist, church musician, music therapist, and private instructor.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

#### DEGREE (4/14)

### A.A.-T. - Music (10400.AAT)

Students completing this degree are guaranteed admission to the CSU system, but not a particular campus or major. Students should be aware that most CSU campuses require placement exams for music majors, even with a completed AA-T Music degree.

For more information on the AA-T Music degree, contact your counselor or Merced College music faculty.

#### Program Student Learning Outcomes

- Perform selected exercises and compositions that reflect the standard repertoire of lower division instrumental or vocal performance courses at four-year institutions.
- Apply standard theoretical concepts in the understanding of existing compositions, the organization of musical sounds, and in the creation of original compositions.
- Demonstrate an understanding of performance ensemble skills including blend, balance, intonation and interpretation as a part of either vocal or instrumental performance groups using a variety of musical styles
- Demonstrate piano proficiency.

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[Music Website](#)

For an Associate in Arts in Music for Transfer (AA-T), students must complete the following:

- 60 semester CSU-transferable units.
- the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- a minimum of 18 semester in the major or area of emphasis as determined by the community college district.
- obtainment of a minimum grade point average (GPA) of 2.0.
- earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

*Note: Students are not required to complete any additional local graduation requirements for the AA-T (e.g., PE and Computer and Information Literacy courses).*

#### Program Requirements:

##### Program Core: (22 Units)

	Units
MUST-01 Music Theory I (Diatonic Harmony) .....	3
MUST-02 Music Theory II (Diatonic Harmony II) .....	3
MUST-03 Music Theory III (Chromatic Harmony) .....	3
MUST-04 Music Theory IV (Music Theory of the 20th & 21st Centuries) .....	3
MUST-05 Aural Skills I .....	1
MUST-06 Aural Skills II .....	1
MUST-07 Aural Skills III .....	1
MUST-08 Aural Skills IV .....	1
Music Applied: (2 units)	
MUSA-20 Applied Music .....	0.5
Music Ensembles: (4 units)	
MUSE-41 Concert Band .....	1
MUSE-42 Jazz Ensemble .....	1
MUSE-43 Guitar Ensemble .....	1
MUSE-44 Chorale .....	1
MUSE-45 Chamber Singers .....	1

##### Total Units toward the Major: (22 Units)

Total Units that may be double counted: ..... (0 Units)  
General Education (IGETC) Units: ..... (37 Units)  
Elective Units: ..... (0-1 Units)

**Total Degree Units: (60 Units)**

#### Program Description

The A.A. Music Degree fulfills lower-division requirements for students planning to transfer to a four-year college or university culminating in employment the areas of music teaching, performance or other fields within the music industry.

While courses in basic music theory, musicianship, techniques, and performance ensembles are at the core of the A.A. music degree, electives in music history and digital music will also be available.

Upon entering the program, the student will declare a primary performance medium (instrument or voice) and will follow a plan of techniques classes, applied lessons and performance ensemble participation based on that choice. Students must also demonstrate fundamental keyboard skills by passing a piano proficiency exam or completing appropriate coursework.

Graduates of the A.A. Music Degree will be equipped to move on with their academic training, but the degree will also be beneficial to those seeking employment in the fields of private teaching, recording, and performance.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE (12/20)

### A.A. - Music (10400.AA)

The Associate of Arts Degree in Music is available for students who meet the graduation requirements and complete the following 31-unit curriculum below, with a minimum grade of a "C" in each course in the degree and maintain a 2.0 GPA.

#### Program Student Learning Outcomes

- Perform selected exercises and compositions that reflect the standard repertoire of lower division instrumental performance courses at four-year institutions.
- Apply standard theoretical concepts in the understanding of existing compositions, the organization of musical sounds, and in the creation of original compositions.
- Demonstrate an understanding of performance ensemble skills including blend, balance, intonation and interpretation as a part of either vocal or instrumental performance groups using a variety of musical styles.
- Demonstrate piano proficiency.

#### Program Requirements:

Program Core: (31 Units)		Units
MUSG-10	Music Fundamentals .....	3
MUST-01	Music Theory I (Diatonic Harmony).....	3
MUST-02	Music Theory II (Diatonic Harmony II).....	3
MUST-03	Music Theory III.....	3
MUST-04	Music Theory IV .....	3
MUST-05	Aural Skills I .....	1
MUST-06	Aural Skills II .....	1
Music Applied: (1 Unit)		
MUSA-20*	Applied Music .....	0.5
MUSA-20*	Applied Music .....	0.5
Music Techniques: Select one pair (6 Units)		
MUSA-21A	Voice I .....	3
and		
MUSA-21B	Voice II .....	3
MUSA-25A	Guitar I .....	3
and		
MUSA-25B	Guitar II .....	3
MUSA-27A	Class Piano I .....	3
and		
MUSA-27B	Class Piano II .....	3
Music Ensembles: Select four courses (4 Units)		
MUSE-41 *	Concert Band .....	1
MUSE-42 *	Jazz Ensemble .....	1
MUSE-43 *	Guitar Ensemble .....	1
MUSE-44 *	Chorale .....	1
MUSE-45 *	Chamber Singers .....	1
Music Electives: Select 3 units from the following: (3 Units)		
MUSG-12	Classical Music History II .....	3
MUSG-13	Jazz Music History .....	3
MUSG-14	American Popular Music History .....	3
MUSG-15	Music Appreciation .....	3
MUSG-17	Introduction to Digital Music .....	3
<b>Total: (31 Units)</b>		

\*Repeatable for credit.

**Note: Many four-year colleges have a maximum number of acceptable performance course units.**

### MUSIC, APPLIED

#### MUSA-20 APPLIED MUSIC

(C-ID MUS 160)

.50 unit: 1.5 hours lab.

Limitation on enrollment: Enrollment by audition and interview with the instructor. Instructor signature is required to enroll in the course.

Corequisites: Choose one course in each group:

MUSE-41, MUSE-42, MUSE-43, or MUSE-44; and

MUST-01, MUST-02, MUST-03 or MUST-04; and

MUST-05, MUST-06, MUST-07 or MUST-08.

Course may be repeated 3 times.

This course provides private individual instruction in voice, piano, wind, or string instruments at a level equivalent to that of a music major in the appropriate term of the their freshman or sophomore year of music studies. It requires one lesson per week with a private instructor approved by the music department faculty. A minimum of 14 weekly lessons must be verified. In addition, this course includes a weekly group workshop detailing various aspects of music performance. A jury examination by the music department faculty is required at the conclusion of the course. This course can be repeated three times and is intended for music majors only. Students enrolled in this course are required to be in at least one ensemble and one theory class concurrently. (04/22)

#### MUSA-21A VOICE I

3 units: 3 hours lecture.

Limitation on enrollment: Must demonstrate the ability to match pitch; see instructor

This is a course in elementary voice training. It emphasizes posture, diaphragmatic-intercostal breathing, breath support, breath control, tonal placement, articulation, stage presence, and overcoming performance anxiety. Critical evaluation, demonstration, and written reviews will be required. A basic understanding of music fundamentals and reading sheet music is not required, but highly desirable. (04/22)

#### MUSA-21B VOICE II

3 units: 3 hours lecture.

Prerequisite: MUSA-21A

This is a course for those singers who desire to develop their abilities in song interpretation. Particular emphasis is placed on music theatre literature and presentation. Character development, motivation, blocking, facial and body gestures, and emotional discovery are all incorporated into the song presentation. (04/22)

#### MUSA-25A GUITAR I

3 units: 3 hours lecture.

This course is an introduction to the basic playing techniques, theory, and history of the guitar. Students will develop an essential foundation for playing the guitar while surveying its historical development and various stylistic uses in artistic, folk, and popular music. (04/22)

#### MUSA-25B GUITAR II

3 units: 3 hours lecture.

Prerequisite: MUSA-25A.

This course is a continuation of skills and techniques learned in MUSA-25A Guitar I. Additional emphasis will be placed on classical and popular guitar styles. This course introduces Chord-melody, bar chords, and hybrid picking techniques. (04/22)

#### MUSA-27A CLASS PIANO I

3 units: 3 hours lecture.

This course designed for the beginning piano student with little or no background in piano develops sight-reading skills and keyboard techniques incorporated into solo and ensemble music. (04/22)

#### MUSA-27B CLASS PIANO II

3 units: 3 hours lecture.

Prerequisite: MUSA-27A.

This course is a continuance of MUSA-27A, the second semester of piano studies class. The student will perform musical pieces with greater accuracy and musical expression. (04/22)

## MUSIC, ENSEMBLE

**MUSE-41 CONCERT BAND**

(C-ID MUS 180)

1 unit: 3 hours lab.

Limitation on enrollment: Audition by instructor.

This course provides experience in performing concert and symphonic band literature chosen from Classical, Romantic, Modern and contemporary eras. Literature may range from sacred to secular in the genres of classical, traditional, pop, and jazz band repertoire. Attention will be given to the composers of the literature and particular performance practices historically applicable. Public performance and exchange concerts are scheduled in addition to class rehearsals. This course may be repeatable three times. (3/16)

**MUSE-42 JAZZ ENSEMBLE**

(C-ID MUS 180)

1 units: 3 hours lab.

Limitation on enrollment: Audition by instructor.

This course is a study of jazz music in the big band tradition and modern eras, as is standard first semester lower division college performance ensemble classes. Attention will be given to the composers of the literature and those particular performance practices which are historically applicable. The course emphasizes individual, sectional and ensemble instrumental performance. Tone, intonation, balance, precision, breath control, articulation, style, and improvisation are included. The jazz ensemble makes several public performances each year. This course may be repeatable three times. (3/16)

**MUSE-43 GUITAR ENSEMBLE**

(C-ID MUS 180)

1 unit: 3 hours lab.

Limitation on enrollment: Audition by instructor.

Prerequisite: MUSA-25A. Advisory: MUSA-25B.

This course specializes in the study and performance of guitar literature chosen from a wide range of classical, modern and contemporary musical eras. The Merced College Guitar Ensemble is a continuation of the skills and techniques learned in Guitar II. Students taking this course perform together in small and large group formats. Music selected to perform will be in a variety of styles including classical, jazz, popular, and international folk genres. Emphasis on group playing and the development of individual style will be encouraged. This course may be repeated up to three times. (04/22)

**MUSE-44 CHORALE**

(C-ID MUS 180)

1 units: 3 hours lab.

Limitation on enrollment: Audition by instructor.

This course specializes in the study and performance of choral literature chosen from Renaissance, Baroque, Classical, Romantic, Modern and contemporary eras and may include both sacred and secular genres of classical, pop, and jazz choral literature. Attention will be given to the composers of the literature and particular performance practices historically applicable. An emphasis will be made on literature written or arranged for large vocal ensembles. Emphasis includes part-singing, intonation, breath control, vocal development, blend, tone coloring, and choral balance. The Chorale performs several times throughout the year. This course may be repeated three times. (03/16)

**MUSE-45 CHAMBER SINGERS**

(C-ID MUS 180)

1 unit: 3 hours lab.

Limitation on enrollment: Audition by instructor.

This course specializes in the study and performance of choral literature chosen from all historic eras and may include both sacred and secular genres of classical, pop, and jazz choral literature. Attention will be given to the composers of the literature and particular performance practices historically applicable. Focus will be placed on literature written or arranged for small vocal ensembles. Emphasis includes part-singing, intonation, breath control, vocal development, blend, tone coloring, and choral balance. The Chamber Singers perform several times throughout

the year. This course may be repeated three times. (03/16)

## MUSIC, GENERAL

**MUSG-10 MUSIC FUNDAMENTALS**

(C-ID MUS 110) (CSU breadth area C1) (IGETC area 3A)

3 units: 3 hours lecture.

This course is a study of music fundamentals, including principles and procedures of rhythm and pitch notation, musical symbols, scales, key signatures, intervals, and diatonic chords. The course applies to musicians who have learned to play/sing without training in fundamentals and to beginners in music. This course is open to all students. (04/22)

**MUSG-12 CLASSICAL MUSIC HISTORY II**

(CSU breadth area C1) (IGETC area 3A)

3 units: 3 hours lecture.

This course is a study of the important composers and their works in classical music from the classical era to the present day. Emphasis is on classical, romantic, impressionistic, nationalistic, and contemporary periods in classical music history. Students will develop an understanding and appreciation of various types of classical music from different eras as a medium of cultural development and as a background toward further musical study. (12/17)

**MUSG-13 JAZZ MUSIC HISTORY**

(CSU breadth area C1) (IGETC area 3A)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This course presents the history of jazz music from 1890 to the present, including an introduction and analysis of significant jazz artists and their contributions to this American art form. Particular emphasis is given to developing listening skills appropriate to the understanding and appreciation of jazz. In addition, the instructor will discuss international influences and the development of jazz as a world musical form. This course is a listener's guide to the appreciation of jazz and incorporates principles of structure, expression, instrumentation, cultural and social issues integral to jazz music. (04/22)

**MUSG-14 AMERICAN POPULAR MUSIC HISTORY**

(CSU breadth area C1) (IGETC area 3A)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This course presents an introduction to the history and literature of the popular music movement in the United States; it is a study of the relationships of popular music to the social history of America. Emphasis is on styles and personalities of folk, blues, jazz, musical theatre, country & western, and rock 'n' roll. This course is designed for the non-music major. (04/22)

**MUSG-15 MUSIC APPRECIATION**

(CSU breadth area C1) (IGETC area 3A) (C-ID MUS 100)

3 units: 3 hours lecture.

Advisory: ENGL-01A

A survey of art music in western civilization. Topics studied include but are not limited to elements of music, basic musical forms, music periods, styles, and role of music and musicians in the western world. (04/22)

**MUSG-17 INTRODUCTION TO DIGITAL MUSIC**

3 units: 3 hours lecture.

Prerequisite: MUSG-10; Advisory: ENGL-01A

This course is an introduction to the principles, uses, and applications of professional music software and MIDI hardware. Students work with MIDI software and equipment to explore the fundamental possibilities of digital music technology, including composition, sequencing, arranging, digital recording, and printing music. (04/22)



## MUSIC, THEORY

**MUST-01 MUSIC THEORY I (DIATONIC HARMONY)**

(C-ID MUS 120)

3 units: 3 hours lecture.

Advisory: MUSG-10.

This course provides a thorough study of diatonic harmony found in the music of the common practice era. This class introduces harmonic and voice-leading principles, triads & seventh chords, and harmonic progression. This course is open to all students. While previous music training is not required, the expectation is that the student understands fundamental music principles (e.g., reading standard music notation). This class is a core requirement for the student who is pursuing an AA or AA-T in music. (04/22)

**MUST-02 MUSIC THEORY II (DIATONIC HARMONY)**

(C-ID MUS 130)

3 units: 3 hours lecture.

Prerequisite: MUST-01.

A continuation of MUST-01, this course is the second semester of the music theory sequence. It completes an examination of diatonic harmony while introducing basic concepts found in chromatic harmony. This course is open to all students who meet the prerequisites but designed for the music major. This course is a core requirement for a student who is pursuing an AA in music. (04/22)

**MUST-03 MUSIC THEORY III (CHROMATIC HARMONY)**

(C-ID MUS 140)

3 units: 3 hours lecture.

Prerequisite: MUST-02. Advisory: MUSA-27B.

This course examines chromatic music theory related to classical and popular music using skills acquired in MUS-04A and MUS-04B. This course covers concepts that help the student develop as a musician. These skills are essential to both performance and songwriting. It is open to all students interested in music who have met the prerequisites of the course. This course is a core requirement for a student who is pursuing an AA in music. (04/22)

**MUST-04 MUSIC THEORY IV (MUSIC THEORY OF THE 20<sup>TH</sup> & 21<sup>ST</sup> CENTURIES)**

(C-ID MUS 150)

3 units: 3 hours lecture.

Prerequisite: MUST-03. Advisory: MUSA-27B.

This course incorporates the concepts from Music Theory III. In addition, through writing and analysis, the course will include: post-Romantic techniques such as borrowed chords and modal mixture, chromatic mediants, Neapolitan and augmented-sixth chords, 9th, 11th, and 13th chords, altered chords, and dominants; and 20th/21st-century techniques such as Impressionism, tone rows, set theory, pandiatonicism, and polytonalism, meter and rhythm. (04/22)

**MUST-05 AURAL SKILLS I**

(C-ID MUS 125)

1 unit: .5 hour lecture, 1.5 hours lab.

Advisory: MUSG-10.

MUST-05 is the foundational course in the Aural skills sequence offered at Merced College, introducing ear-training, sight-singing, sight-reading, and elementary dictation to the student. Developing musical skills, including recognizing intervals, scales, and diatonic melodies will prepare the music student for transfer to a music program in a four-year setting. (04/22)

**MUST-06 AURAL SKILLS II**

(C-ID MUS 135)

1 unit: .5 hour lecture, 1.5 hours lab.

Prerequisite: MUST-05.

Basic drill in the singing and recognition of intervals, scales, and diatonic melodies, in the treble, bass, alto, and tenor clefs, dictation of diatonic melodies, and counterpoint in the first and second species. This course includes the use of computer music programs. Students must have completed MUST-05 (Aural Skills I) to enroll in this course. (04/22)

**MUST-07 AURAL SKILLS III**

(C-ID MUS 145)

1 unit: .5 hour lecture, 1.5 hours lab.

Prerequisite: MUST-06.

This course applies and develops the rhythmic, melodic, and harmonic materials of Music Theory III through ear training, sight singing, analysis, and dictation. (04/22)

**MUST-08 AURAL SKILLS IV**

(C-ID MUS 155)

1 unit: .5 hour lecture, 1.5 hours lab.

Prerequisite: MUST-07. Advisory: MUSA-27B.

This course applies and develops the rhythmic, melodic, and harmonic materials of Music Theory IV through ear training, sight singing, analysis, and dictation. (04/22)

# Nursing, Assistant

## SCHOOL OF HEALTH AND PUBLIC SAFETY

DEAN  
VALERIE ALBANO

PHONE  
(209) 384-6309

AREA OFFICE  
AHC-126

COUNSELING  
(209) 381-6478

[Nursing Assist Website](#)

### CERTIFICATE

#### Nurse Assistant (CNA)

#### Program Description

The Nurse Assistant program is offered during the Spring and Fall semesters for 18 weeks and the Summer semester for 9 weeks in Merced and Los Banos.

The course provides clinical instruction and practice of basic nursing skills required of nursing assistants employed in skilled nursing facilities and extended care facilities. The course emphasizes care of the older adult client which includes assistance with the activities of daily living: bathing, dressing, exercise, movement, eating, eliminating safety measures, cardiopulmonary resuscitation and rehabilitation techniques.

The Nurse Assistant program also provides clinical instruction. Students will practice skills in lab and then be assigned to assist clients in a skilled nursing facility. This training meets the \*California Department of Public Health requirements for eligibility to take the Nurse Assistant certification examination.

#### Mandatory Orientation

The orientation is required for all perspective students. The orientation will provide the information needed to successfully complete the requirements and paperwork.

#### Program Requirements and Information:

Program requirements are covered in the mandatory orientation.

For Program application and Mandatory orientation schedules, go to:

<http://www.mccd.edu/academics/alliedhealth/nurse-assistant/getstarted.html>

Upon successful completion of the Nurse Assistant Program, the student must pass the Certification Exam in order to become a Certified Nurse Assistant. The exam has been developed to meet the evaluation requirements of the federal and state Nurse Assistant competency evaluation legislation. The test is offered throughout the state. The test may be offered at Merced college upon completion of each training course. The test consists of two parts: written and skills exam.

#### Highlights

The Allied Health Center houses two complete Nursing Skills Labs, large computer lab, conference room, study rooms and multiple large and small classrooms. The Nursing Skills Labs have state-of-the art equipment and software that assist students with learning current procedures.

#### Accreditation

The Nurse Assistant Program is approved by the CA Department of Public Health (CDPH).

California Department of Public Health (CDPH)  
Licensing and Certification Program (L&C)  
Aide and Technician Certification Section (ATCS)  
MS 3301, P.O. Box 997416  
Sacramento, CA 95899-7416  
PHONE: (916) 327-2445  
FAX: (916) 552-8785  
EMAIL: [cna@cdph.ca.gov](mailto:cna@cdph.ca.gov)

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE (02/18)

#### Nursing Assistant (12150.CO)

**Program prerequisites:** Mandatory orientation; CPR card - Module A/C; negative TB skin test or chest X-ray within past six months; physical within past six months; DOJ fingerprint clearance; Penal Code violations clearance.

A statement of eligibility will be awarded upon the satisfactory completion of the following course.

#### Program Student Learning Outcomes

- Evaluate the responsibilities of a nursing assistant
- Distinguish safety hazards in described simulated clinical situations
- Explain the need for good hand washing techniques
- Choose good body mechanics used by self and others
- Plan techniques needed to assist clients with activities of daily living
- Plan techniques needed to assist clients with rehabilitation procedures

***Students successfully completing the course listed above are awarded a Certificate in Nursing Assistant.***

#### Program Requirements:

##### Program Core: (6 Units)

	Units
ALLH-63	Nurse Assistant ..... (6 Units)
	<b>Total: (6 Units)</b>

## ALLIED HEALTH (ALLH)

### ALLH-63 NURSE ASSISTANT

6 units: 3.5 hours lecture, 7.5 hours lab TBA.

Limitation on Enrollment: 1) Mandatory orientation; 2) CPR card-Module AC; 3) negative TB screening test within past 6 months or negative chest x-ray within past year; 4) physical within past 6 months; 5) DOJ fingerprint clearance; 6) Penal Code Violations Clearance.

The course provides clinical instruction and practice of basic nursing skills required of nursing assistants employed in skilled nursing facilities and extended care facilities. The course emphasizes care of the older adult client, assistance with the activities of daily living, bathing, dressing, exercise movement, eating, eliminating safety measures, cardiopulmonary resuscitation and rehabilitation techniques. Meets State Department of Health Services requirements for eligibility to take the Nursing Assistant Certification examination. (2/18)

# Nursing, Registered

## SCHOOL OF HEALTH AND PUBLIC SAFETY

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VALERIE ALBANO  
**PHONE**  
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**AREA OFFICE**  
AHC-126

**COUNSELING**  
(209) 381-6478  
[Registered Nursing Website](#)

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE

A.S. - Nursing, Registered

#### Program Description

The Registered Nursing Program at Merced College prepares students to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN), leading to licensure as a Registered Nurse (RN) and is designed to prepare competent nurses for service in the community. The Registered Nursing Program requires two academic years beyond the completion of the prerequisite courses and non-nursing breadth requirements. Graduates will earn the Associate of Science Degree upon completion of designated courses and competency requirements.

#### Program Requirements and Information

Prerequisites: BIOL-16, BIOL-18, BIOL-20, ENGL-01A or ENGL-13/PHIL-13/H, and MATH-61, 62 or higher level Math course. All program prerequisites must be passed with a grade of "C" or better **and** combined GPA of 2.5 or higher.

Minimum of 62% on FIRST ATTEMPT of the ATI TEAS test.

For program application and additional information go to:

<http://www.mccd.edu/academics/alliedhealth/nurse-registered/apply.html>

For **Military Credit** information go to:

<http://www.mccd.edu/academics/alliedhealth/nurse-registered/apply.html>

**Applications** will be accepted during the spring semester only.

#### Selection Process

The Merced College RN Program selection process is determined using the multi-criteria screening process established by the California Community College Chancellor's office in accordance with AB 239 (expires January 2025). A multi-criteria score is determined for each candidate based on previous degrees/certificates, work/volunteer experience in a healthcare setting, identified coursework GPA, life experience/special circumstances, foreign language proficiency and ATI TEAS assessment score. These students will be sequentially numbered from one to the maximum allowed for the in-coming class, including a predetermined number of alternate students. Depending on the number of qualified applicants and constraints of the Chancellor's Office multi-criteria screening model, the selection pool will vary in size from year to year.

**Accepted** students must provide proof of the following requirements:

Tdap, MMR, HEP B, Varicella, Current Flu Vaccine, Negative TB Test or Negative chest X-Ray, CPR Certification (American Heart Association - BLS), Physical, criminal background and drug screening clearances.

**Note:** Criminal background check and drug screening clearances are repeated between the third and fourth semesters as a requirement prior to the mental health rotation.

Further information will be provided at the MANDATORY orientation. If a student is unable to provide proof of these requirements within the designated timeframe, the student will be deemed ineligible for admission.

While enrolled in the program, you will be assigned to various clinic facilities

in addition to the on-campus portions of the program. By enrollment into the program, you agree to accept clinical assignments in whatever clinical site you are assigned. Clinical assignments will be scheduled during the normal working day hours.

#### Policy for Denial of Licensure

The California BRN protects the public by screening applicants for licensure in order to identify potentially unsafe practitioners. Statutory authority for denial of licensure is contained in the Business and Professions Code. Any student considering a career in nursing who has a criminal record is advised to go to the BRN website at [rn.ca.gov](http://rn.ca.gov) and search Enforcement and then License Discipline and Convictions prior to applying to the nursing program.

#### Mission Statement

The mission of the Merced College Registered Nursing Program is to prepare our students for careers as professional Registered Nurses that will best serve the community to a recognized standard of excellence. The Merced College Registered Nursing program focuses on:

- 1) student success;
  - 2) cultural diversity;
  - 3) interrelationships of life experiences and knowledge;
- by providing a continually improving educational program which is accredited by the California Board of Registered Nursing. The Merced College Registered nurse graduate is educated for full participation in the life of the community, both professionally and as a citizen, and is instilled with a commitment to continue professional growth and lifelong learning.

#### Highlights

The Allied Health Center houses a complete Registered Nursing Skills Lab, large computer lab, conference rooms, study rooms and multiple large and small classrooms. The Registered Nursing Program has state-of-the-art equipment and software that assist students with learning current procedures, including 3 high-fidelity manikins for Simulation.

#### Accreditation:

The Registered Nursing Program is accredited by the Board of Registered Nursing (BRN).

Board of Registered Nursing  
1747 N. Market Blvd., Suite 150  
Sacramento, CA 95834-1924  
(916) 322-3350  
[rn.ca.gov](http://rn.ca.gov)

**DEGREE** (11/16)

**A.S. - Nursing, Registered (12500.AS)**

**Program Student Learning Outcomes**

- A. Administer quality, safe, patient-centered nursing care through evidence-based practice.
- B. Collaborate with members of the interdisciplinary team to provide and improve patient care.
- C. Connect critical thinking skills, strategies, and clinical reasoning necessary to provide quality patient care.
- D. Demonstrate leadership in a variety of healthcare settings for diverse patient populations.
- E. Use information technology to communicate, manage knowledge, mitigate error, and support decision-making.
- F. Practice as a competent nurse, assimilating all professional, ethical, and legal principles.

**Prerequisite courses: (19-22 Units)**

(Complete 12 units)

BIOL-16	General Human Anatomy .....	4**
BIOL-18	Principles of Physiology .....	4**
BIOL-20	Microbiology .....	4**

(Complete at least one (1) of the following)

ENGL-01A	College Composition and Reading .....	4
ENGL-13	Critical Reasoning and Writing .....	3
ENGL-13H	Honors Critical Reasoning and Writing .....	3
PHIL-13	Critical Reasoning and Writing .....	3
PHIL-13H	Honors Critical Reasoning and Writing .....	3

(Complete at least one (1) of the following)

MATH-C	Intermediate Algebra .....	4
MATH-62	Beginning & Intermediate Algebra for Liberal Arts ....	5
MATH-61	Beginning & Intermediate Algebra for STEM .....	6

or equivalent or higher level Math course

*Note: \*\*It is highly recommended that once enrolled in these classes, students do not drop them. Program applicants need to understand that multiple attempts to improve grades earned in these classes can negatively affect their eligibility.*

**Program Requirements:**

**Required courses (non-nursing) which also fulfil A.S. Breadth requirements: (9 Units)**

(Complete at least one (1) of the following)

COMM-01	Fundamentals of Speech .....	3
COMM-01H	Honors fundamentals of Speech .....	3
COMM-04	Small Group Discussion & Problem Solving .....	3
COMM-05	Interpersonal Communication .....	

(Complete at least one (1) of the following)

SOC-01	Introduction to Sociology .....	3
SOC-02	Contemporary Social Problems .....	3
SOC-03	Marriage and the Family .....	3
ANTH-02	Sociocultural Anthropology .....	3

(Complete at least one (1) of the following)

PSYC-01A	Introduction to Psychology .....	3
PSYC-01AH	Honors Introduction to Psychology .....	3
PSYC-09	Human Development .....	3
CLDV-09	Human Development .....	3

*Note: Students are encouraged to meet with a counselor to ensure all other graduation breadth requirements have been met to complete an AS Degree in Nursing.*

**Required courses (nursing): (41 units)**

REGN-15	Foundations of Nursing .....	9
REGN-18	Pharmacology in Nursing Practice .....	3
REGN-24	Acute Medical/Surgical and Nursing of the .....	
	Childbearing Family .....	10
REGN-34	Acute Medical/Surgical Nursing and Pediatric .....	
	Nursing .....	10
REGN-44	Acute Medical/Surgical Nursing and Pediatric .....	
	Nursing .....	9

**Units towards the Major: (41 Units)**

Prerequisite for Admission: (19-22 Units)

Additional BRN Requirement: (3 Units)

Completion of MCCD-GE Breadth pattern: (23 Units)

Double Counting (15 Units)

**Total units: (69-72 Units)**

**Competencies as required by Merced College for graduation:**

**Writing:** Met by completion of ENGL-01A within program prerequisites.

**Math:** Met by MATH-C or MATH-62 or MATH-61 or equivalent or higher level Math course.

**Reading:** Met by completion of A.S. Breadth courses with "C" grade or better.

**REGISTERED NURSING (REGN)**

**REGN-01 TRANSITION LVN TO RN**

2 units: 1 hour lecture, 3 hours lab.

Prerequisites: BIOL-16, BIOL-18, BIOL-20; ENGL-01A; MATH-C, MATH-61, or MATH-62.

Limitation on enrollment: California VN license.

Registered Nursing 01 is a series of lectures and discussions that provides the concepts and principles necessary to facilitate the transition of the Licensed Vocational Nurse to the changing role of the Registered Nurse. Incorporates best practices, professional standards, and legal and ethical responsibilities of the professional nurse as applied in various health care settings. Emphasis will be placed upon the registered nurse as a decision-making member of the health care team and the responsibilities to be assumed by such a practitioner. (03/19)

**REGN-02 CLINICAL SKILLS TRANSITION - LVN TO RN**

1 unit: 3 hours lab TBA.

Limitation on enrollment: California VN license, CPR Certificate, Acceptance into the REGN Program. Prerequisites: REGN-01.

Registered Nursing 02 consists of practice in the clinical setting with the skills and principles necessary to facilitate the transition of the Licensed Vocational Nurse to the changing role of the Registered Nurse. Emphasis is placed on nursing skills related to first year RN nursing concepts in clinical practice. (04/19)

**REGN-03 WORK EXPERIENCE IN REGISTERED NURSING**

1-8 units

Advisory: ENGL-01A

This course enables students to earn college credit for learning or improving skills or knowledge on-the-job. Occupational Work Experience is discipline-specific and must connect to the student's major or occupational goal(s). Seventy-five (75) hours of documented paid work experience equals 1 unit of credit. Sixty hours (60) of documented volunteer experience equals 1 unit of credit. A student may enroll in up to 16 total units of work experience at Merced College. Students must have an established work site prior to enrolling in the course. (02/21)

**REGN-15 FOUNDATIONS OF NURSING**

9 units: 4 hours lecture, 15 hours lab TBA.

Prerequisites: BIOL-16, BIOL-18, BIOL-20; ENGL-01A; MATH-C, MATH-61, or MATH-62. Two-way corequisites: REGN-18.

Limitation on enrollment: 1) Enrollment in the REGN program, 2) CPR card Module AC, 3) physical within past 6 months, 4) negative TB screening test within past 6 months or negative chest x-ray within past year, 5) proof of current immunizations, 6) criminal background clearance, 7) drug screening.

Registered Nursing 15 (Foundations of Nursing) focuses on foundational concepts necessary for safe, patient-centered nursing care to a diverse patient population while integrating legal and ethical responsibilities of the nurse. Introduces critical thinking applied to nursing, the nursing process, diversity, and communication techniques used when interacting with patients and members of the interdisciplinary team, and applies evidence-based nursing practice. Includes acquisition of basic nursing skills. Application of knowledge and skills occurs in the nursing skills laboratory and a variety of acute and long-term care clinical settings. (04/19)



**REGN-18 PHARMACOLOGY IN NURSING PRACTICE**

3 units: 3 hours lecture.

Limitation on enrollment: Enrollment in the REGN Program. Two-way corequisite: REGN-15. Advisory: VOCN-46A.

Registered Nursing 18, Pharmacology in Nursing Practice, presents an overview of the basic principles of pharmacology including major drug classifications and prototypes. Principles of medication administration include all aspects of best practice for safe, quality, patient-centered care including developmentally and culturally appropriate interventions. Includes dosage calculations. (04/19)

**REGN-24 ACUTE MEDICAL/SURGICAL AND NURSING OF THE CHILDBEARING FAMILY**

10 units: 5 hours lecture, 15 hours lab TBA.

Limitation on enrollment: Enrollment in the REGN program 2nd semester. Prerequisite: REGN-15, REGN-18.

Registered Nursing 24 provides for the acquisition and application of nursing theory, communication, collaboration, and critical thinking skills necessary for safe, patient-centered nursing care to a developmentally and culturally diverse patient populations experiencing various common medical/surgical interventions and to the childbearing family. Incorporates best practices, professional standards, and legal and ethical responsibilities of the professional nurse as applied in various healthcare settings. Includes acquisition of nursing skills required in acute care and childbearing family settings. Application of knowledge and skills occurs in the nursing skills laboratory and clinical settings. (04/19)

**REGN-34 ADVANCED MEDICAL/SURGICAL NURSING AND PEDIATRIC NURSING**

(CSU breadth area E)

10 units: 5 hours lecture, 15 hours lab TBA.

Limitation on enrollment: Enrollment in the REGN program 3rd semester; CPR card Module AC; physical within past 6 months; negative TB screening test within past 6 months or negative chest x-ray within past year; proof of current immunizations; criminal background clearance; drug screening. Prerequisite: REGN-01 or REGN-24.

This course enlarges upon the concepts presented in REGN-15 and REGN-24 by introducing principles of care to maintain and/or restore homeostatic mechanisms in acute health problems. Prototype disease processes associated with each concept are studied in relation to preventive and restorative nursing care. Concurrent practice in the college laboratory and clinical experience in community facilities are required. (04/18)

**REGN-44 ACUTE MEDICAL/SURGICAL NURSING AND MENTAL HEALTH NURSING**

9 units: 4 hours lecture, 15 hours lab TBA.

Limitation on enrollment: Enrollment in the REGN program 4th semester. Prerequisite: REGN-34.

Registered Nursing 44 builds on REGN-34, focusing on complex medical/surgical conditions of the high acuity patient and the patient at various levels of mental health promotion and mental illness management. Builds on nursing theory, communication, collaboration, and critical thinking skills necessary for safe, patient-centered nursing care to developmentally and culturally diverse patient populations. Incorporates best practices, professional standards, and legal and ethical responsibilities of the professional nurse as applied in the acute care and mental health settings incorporating all aspects of the professional nurse. Application of knowledge and skills occurs in the acute care and community settings to facilitate an effective transition from student to registered nurse. (04/19)

**LVN TO RN PATHWAY**

The pathway for California Licensed Vocational Nurses requires one academic year beyond completion of the prerequisite courses, non-nursing breadth requirements, and competencies. LVN to RN students enter into the third semester of the RN curriculum identified above after completion of REGN-01 and REGN-02 and all other prerequisites. Applicants submit an application found on the Allied Health web site. Graduates will earn the Associate in Science Degree on completion of designated courses and competency requirements. Communication, natural and social science, and nursing courses must be completed with a grade of "C" or better to be eligible for licensure requirements of the State Board of Nursing.

Enrollment eligibility to the LVN to RN pathway requires the completion of previously identified prerequisite courses. Applicants must meet the same selection requirements as generic RN students entering the program in the first semester. Randomized selection is used to select a cohort from the pool of qualified applicants according to available seats.

**Application Process:**

The LVN to RN pathway application process replicates the generic RN application process.

For program application and additional information, go to:

<http://www.mccd.edu/academics/alliedhealth/nurse-registered/apply.html>

Applications will be accepted during the Spring semester only.

To progress into the RN program, students must successfully complete the REGN-01 and REGN-02 LVN to RN transition courses which are offered at least once a year.

Space in the RN program is determined based on the number of RN students progressing from the second semester to the third semester. Applicants selected from the pool must complete the ATI TEAS test. Only those students formally accepted into the program may register for courses identified as Registered Nursing Curriculum. Students may, however, enroll in other courses designated as non-nursing program requirements while awaiting selection into the program.

**Program Requirements:****Program Core: (22 units)****Prior to Third Semester**

**\*\*\*\*Required for LVN's who have met admission selection criteria and have successfully enrolled in REGN-01.**

REGN-01	Transition LVN to RN.....	2
REGN-02	Clinical Skills Transition - LVN to RN .....	1****
REGN-34	Advanced Medical/Surgical Nursing and Pediatric Nursing.....	10
REGN-44	Acute Medical/Surgical Nursing and Mental Health Nursing.....	9
<b>Total: (22 Units)</b>		

**Transfer**

Credits earned in the Merced College Registered Nursing Program may be transferable to California State Universities. Since prerequisite science and social science courses vary at each institution, students are advised to consult the catalog of their intended transfer school and establish a transfer plan with the Allied Health Counselor.



# Nursing, Vocational

## SCHOOL OF HEALTH AND PUBLIC SAFETY

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE

A.A. - Nursing, Vocational

### CERTIFICATE

Nursing, Vocational

#### Program Description

The Vocational Nursing curriculum comprises three semesters of combined didactic and clinical work on campus and at affiliated healthcare facilities. Upon satisfactory completion of the prerequisites and the nursing courses, a Certificate of Achievement is awarded and the student is then eligible for the National Licensure Examination. An Associate in Arts degree is also available for those students who complete the Merced College General Education requirements.

#### Program Prerequisites and Information:

\*ALLH-67; ^BIOL-50 or ^BIOL-16; ^NUTR-10 and ^VOCN-46A  
All program prerequisites must be passed with a grade of "C" or better and combined GPA of 2.0 or higher.

\*Must be completed within five (5) year of the date of application.

\*ALLH-67 has no recency

#### Program Start Dates - Only one cohort is in session at a time.

August 2020 (Fall semester), January 2022 (Spring semester),  
August 2023 (Fall semester), January 2025 (Spring semester), etc.

For program application and additional information go to:

<http://www.mccd.edu/academics/alliedhealth/nurse-vocational/apply.html>

Accepted students must provide proof of the following requirements: Tdap, MMR, HEP B, Varicella, Current Flu Vaccine, Negative TB test or Negative Chest X-ray, CPR Certification, (American Heart Association - BLS), Physical, criminal background and drug screening clearances.

Further information will be provided at the MANDATORY orientation. If a student is unable to provide proof of these requirements within the designated timeframe, the student will be deemed ineligible for admission.

While enrolled in the program, you will be assigned to various clinic facilities in addition to the on-campus portions of the program. By enrollment into the program, you agree to accept clinical assignments in whatever clinical site you are assigned. Clinical assignments will be scheduled during the normal working day hours.

#### Highlights

The Allied Health Center houses a complete Vocational Nursing Skills Lab, large computer lab, conference rooms, study rooms and multiple large and small classrooms. The Vocational Nursing Program has state-of-the-art equipment and software that assist students with learning current procedures.

#### Accreditation:

The Vocational Nursing Program is accredited by the Board of Vocational Nursing and Psychiatric Technicians (BVNPT):

DEAN  
VALERIE ALBANO

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AREA OFFICE  
AHC-126

COUNSELING  
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[Vocational Nursing Website](#)

Board of Vocational Nursing and Psychiatric Technicians  
2535 Capitol Oaks Dr., Suite 205  
Sacramento, CA 95833  
(916) 263-7800 [bvnpt@dca.ca.gov](mailto:bvnpt@dca.ca.gov)

### DEGREE

#### A.A. - Nursing, Vocational (12550.AA)

An Associate of Arts Degree is available for those students who complete the Merced College General Education requirements and the following courses.

#### Program Student Learning Outcomes

- Collaborate with the health care team in providing care.
- Incorporate knowledge of nursing curriculum to pass the NCLEX exam.
- Utilize the nursing process to establish a plan of care, recognizing value and commitment to the practice of nursing standards.
- Apply a code of ethics in solving ethical dilemmas while providing patient/family care.
- Utilize therapeutic communication to obtain positive outcome sin planning and goal setting for patient care.
- Demonstrate effective knowledge, skills, and abilities to a nursing career that is constantly evolving and to focus intently on innovative approaches to patient care.

Students successfully completing the courses listed below are awarded a Certificate of Achievement in Vocational Nursing and are eligible to sit for the NCLEX-VN examination. An Associate in Arts Degree is available for those students who complete the Merced College General Education requirements and the following courses:

#### Program Requirements:

Program Core: (55 Units)		Units
BIOL-16	General Human Anatomy.....	4
or		
BIOL-50	Survey of Anatomy and Physiology.....	3
NUTR-10	Nutrition.....	3
ALLH-67	Medical Terminology .....	3
VOCN-46A	Applied Math for Pharmacology.....	1
VOCN-40	Foundations of Nursing.....	11
VOCN-46B	Pharmacology for Nurses.....	2
VOCN-47A	Nursing Guidance I .....	1
VOCN-42	Principles and Practices of Nursing Care I.....	14
VOCN-47B	Nursing Guidance II .....	1
VOCN-44	Principles and Practices of Nursing Care II.....	14
VOCN-47C	Nursing Guidance III .....	1
<b>Total: (55 Units)</b>		

**Note: A student must achieve a final score of 75% or better in each of the core nursing courses to continue in the program. When two courses must be taken concurrently, passing grades must be maintained in both for the student to continue in either course.**

Students successfully completing the courses listed below are awarded a Certificate of Achievement in Vocational Nursing and are eligible to sit for the NCLEX-VN examination. An Associate in Arts Degree is available for those students who complete the Merced College General Education requirements and the following courses:

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## CERTIFICATE

### Nursing, Vocational (12550.CT)

#### Program Requirements:

Program Core: (55 Units)		Units
BIOL-16	General Human Anatomy.....	4
or		
BIOL-50	Survey of Anatomy and Physiology.....	3
NUTR-10	Nutrition.....	3
ALLH-67	Medical Terminology .....	3
VOCN-46A	Applied Math for Pharmacology .....	1
VOCN-40	Foundations of Nursing.....	11
VOCN-46B	Pharmacology for Nurses.....	2
VOCN-47A	Nursing Guidance I .....	1
VOCN-42	Principles and Practices of Nursing Care I.....	14
VOCN-47B	Nursing Guidance II .....	1
VOCN-44	Principles and Practices of Nursing Care II.....	14
VOCN-47C	Nursing Guidance III .....	1
<b>Total: (55 Units)</b>		

**Note: A student must achieve a final score of 75% or better in each of the core nursing courses to continue in the program. When two courses must be taken concurrently, passing grades must be maintained in both for the student to continue in either course.**

## VOCATIONAL NURSING (VOCN)

### VOCN-40 FOUNDATIONS OF NURSING

11 units: 5 hours lecture, 18 hours lab TBA.

Limitation on enrollment: Enrollment in the Vocational Nursing Program; current CPR Card; physical; immunizations; a negative TB skin test or negative chest x-ray within the last 6 months; background check and urine drug screen. Proof of completion of an educational course of study through the 12th grade or evidence of completion of equivalency thereof (C2530-VN Practice Act).

Prerequisites: ALLH-67; BIOL-16 or BIOL-50; NUTR-10; VOCN-46A. Corequisites: VOCN-46B, VOCN-47A.

This course covers theory, principles, and practice of fundamental nursing skills needed to care for adult patients. Health and its preservation is stressed. Interpersonal relationships, community resources, and prevention and treatment of disease are studied. Clinical experience is integrated with classroom theory, and is provided at affiliating hospitals, under direct supervision of Merced College nursing instructors. This is the first semester of nursing theory of a three-semester sequence. Clinical experience is integrated. (05/19)

### VOCN-42 PRINCIPLES AND PRACTICES OF NURSING CARE I

14 units: 8 hours lecture, 18 hours lab TBA.

Limitation on enrollment: Enrollment in the Vocational Nursing Program; current CPR Card; a negative TB skin test or negative chest x-ray. Prerequisite: VOCN-40. Two-way corequisite: VOCN-47B.

This course emphasizes theoretical principles and clinical experience in meeting Maslow's basic human needs of nutrition, oxygenation, elimination, and affiliation. It involves clinical experiences in meeting the basic human needs of individuals of all ages with commonly occurring health problems. This course is part of the second semester of a three-semester program. Clinical experience is integrated. (05/19)

### VOCN-44 PRINCIPLES AND PRACTICES OF NURSING CARE II

14 units: 8 hours lecture, 18 hours lab TBA.

Limitation on enrollment: Enrollment in the Vocational Nursing Program; current CPR card; a negative TB skin test or negative chest x-ray. Prerequisite: VOCN-42. Two-way corequisite: VOCN-47C.

This course emphasizes theoretical principles of Maslow's basic human needs of safety, hygiene, rest, activity, comfort, and self-actualization as it relates to common and complex health problems occurring in individuals of all age groups. Pathophysiologic and psychosocial assessment and management of medical-surgical disorders are stressed. General pharmacological and nutritional considerations are included. This course is part of the third semester of a three-semester program. Clinical experience is integrated. (05/19)

### VOCN-46A APPLIED MATHEMATICS FOR PHARMACOLOGY

1 unit: 1 hour lecture.

Prerequisites: ENGL-01A; MATH-C, MATH-61, or MATH-62.

This is an introductory pharmacology course which includes an introduction to the professional context of drug administration, and study of the metric, apothecary, and household systems of measurement. Nursing responsibility to patient safety is included. Completion of this course requires accurate interpretation of doctors' order, reading medication bottles, calculating drug dosages, and the reason for their application. (01/19)

### VOCN-46B PHARMACOLOGY FOR NURSES

2 units: 2 hours lecture.

Limitation on enrollment: Enrollment in the Vocational Nursing Program. Prerequisite: VOCN-46A. Two-way corequisites: VOCN-40, VOCN-47A.

This is an introductory pharmacology course which uses effects and safe administration of medications. Common local and systemic drugs are studied. Nursing responsibilities and client safety are emphasized. (05/19)

### VOCN-47A NURSING GUIDANCE I

1 unit: 1 hour lecture.

Limitation on enrollment: Enrollment in the Vocational Nursing program. Two-way corequisites: VOCN-40, VOCN-46B.

This course examines socialization and interpersonal communications related to vocational nursing. Course topics include verbal and non-verbal communication; communication problems in the nurse-patient relationship; the hospital as a working and learning environment; self-actualization relating to the elderly; and death and dying. (05/19)

### VOCN-47B NURSING GUIDANCE II

1 unit: 1 hour lecture.

Limitation on enrollment: Enrollment in the Vocational Nursing program. Prerequisite: VOCN-40, VOCN-47A. Two-way corequisite: VOCN-42.

This course examines the nature of stress and its influences on coping and adapting. Related topics examine include crisis and crisis intervention, and psychophysiological and somatopsychic responses to stress and anxiety. (05/19)

### VOCN-47C NURSING GUIDANCE III

1 unit: 1 hour lecture.

Limitation on enrollment: Enrollment in the Vocational Nursing program. Prerequisite: VOCN-42. Two-way corequisite: VOCN-44.

This course examines current and evolving patterns of mental health care and the shifts from inpatient custodial care to community-based treatment for the mentally ill. This course also examines the health-illness continuum, psychopathology, neuroses and psychoses, clinical disorders and maladaptations of behavior, and psychopharmacological approaches to treatment. (05/19)

### VOCN-48 INTRAVENOUS THERAPY/BLOOD WITHDRAWAL

2 units: 2 hours lecture.

Limitation on enrollment: Licensed as a Vocational Nurse (required by section 2860.5 of the Board of Vocational Nurses and Psychiatric Technicians) or Registered Nurse.

This short-term course is designed to prepare nurses to start and superimpose intravenous fluid and perform blood withdrawal as ordered by the physician. The course will cover psychological preparation of the patient, selection of equipment, aseptic technique, relevant anatomy and physiology, pharmacology of intravenous solutions, and administering blood components. Students will perform simulated and actual intravenous catheterization and blood withdrawals. (05/19)

# Nutrition and Foods

## SCHOOL OF HEALTH AND PUBLIC SAFETY



### Associate Degree for Transfer

*A Degree with a Guarantee.™*

#### DEGREE

A.S.-T. - Nutrition and Dietetics

A.S. - Nutrition and Foods

#### CERTIFICATE

Culinary Management

Dietetic Services Supervisor

Nutrition and Foods

#### Program Description

The Foods and Nutrition Department at Merced College offers students a foundation and some specialty courses for their career in Foods and Nutrition. The curriculum provides diverse coursework that satisfies the needs of Dietetic Service Supervisory Level, food service management as well as those seeking a career with healthcare, public health programs as well as the restaurant field. Childcare programs, nursing and allied health majors benefit as well from the diverse variety of coursework.

#### Career Opportunities

Employment of Registered Dietitians/Registered Dietitian Nutritionists is expected to grow about as fast as the average for all occupations because of increased emphasis on disease prevention, obesity prevention, a growing and aging population, and public interest in nutrition and food sustainability. Growth is anticipated in nursing homes, residential care facilities, physician's clinics and public health. There are always opportunities for all levels of food service.

Dietary Service Supervisor  
Foods and Nutrition  
Registered Dietitian

#### Off-Site Resources:

American Dietetic Association: [www.eatright.org](http://www.eatright.org)

Programs with bachelor degrees: [www.fresnostate.edu](http://www.fresnostate.edu)

[www.calpoly.edu](http://www.calpoly.edu), [www.ucdavis.edu](http://www.ucdavis.edu), [www.sacramentostate.edu](http://www.sacramentostate.edu),  
[www.sanjoestate.edu](http://www.sanjoestate.edu)

Visit the [Program Mapper](#) for more information on when to take classes and career information.

#### DEGREE (10/15)

#### A.S.-T. - Nutrition and Dietetics (13160.AST)

The Foods and Nutrition Department at Merced College offers students a robust and interesting curriculum. It is designed to provide students with understanding in food safety, nutrition and food preparation and be able to utilize those skills in a management setting. The primary goals of the Associate in Science in Nutrition and Dietetic for Transfer are: 1) To enable students to demonstrate an understanding of the fundamental principles of chemistry and 2) To analyze nutrition with a focus on the scientific processes of nutrients 3) To help students compare properties of food composition in preparation and 4) To identify critical components, and prevention procedures for food safety and sanitation. The Associate

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[Nutrition and Foods Website](#)

in Science in Nutrition and Dietetic for Transfer degree is designed to prepare students for a seamless transfer into the CSU system to complete a baccalaureate degree in Nutrition and Dietetic or similar major.

Upon completion, students with an Associate in Science in Nutrition and Dietetics for Transfer will be eligible to transfer with junior standing into an equivalent major within the California State University (CSU) system.

#### Program Student Learning Outcomes:

- Demonstrate an understanding of the fundamental principles of chemistry by solving problems utilizing concepts and equations.
- Analyze Nutrition with a focus on the scientific processes of nutrients including digestion and absorption.
- Compare properties of food composition in preparation including phytochemicals.
- Evaluate critical components, and prevention of food borne illness for food safety and sanitation.

For an Associate in Science in Nutrition and Dietetics for Transfer (AS-T), students must complete the following:

- 60 semester CSU-transferable units.
- the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- a minimum of 18 semester in the major or area of emphasis as determined by the community college district.
- Obtainment of a minimum grade point average (GPA) of 2.0.
- earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

*Note: Students are not required to complete any additional local graduation requirements for the AS-T (e.g., PE and Computer and Information Literacy courses).*

#### Program Requirements:

Program Core: (25-28 Units)		Units
NUTR-10	Nutrition .....	3
BIOL-20	Microbiology .....	4
CHEM-04A	General Chemistry I .....	5
PSYC-01A	Introduction to Psychology .....	3
or		
PSYC-01AH	Honors Introduction to Psychology .....	3
List A: Select 2 courses from the following: (7-10 Units)		
BIOL-16	General Human Anatomy .....	4
or		
BIOL-18	Principles of Physiology .....	4
CHEM-04B	General Chemistry II .....	5
CHEM-12A	Organic Chemistry .....	5
MATH-10	Elementary Statistics .....	3
or		
PSYC-05	Introduction to Statistics in Psychology .....	3
List B: Select 1 course from the following: (3-4 Units)		
NUTR-20	Principles of Foods .....	3

	IGETC	CSU GE
<b>Major Total:</b>	<b>25-28</b>	
GE Pattern IGETC OR CSU-GE	37	39
Electives (as needed) (CSU transferrable):	5-11	6-12
Double-Counted:	10-13	13-16
<b>Total Degree (maximum)</b>	<b>(60 Units)</b>	

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**DEGREE** (09/19)**A.S. - Nutrition and Foods (13161.AS)**

An Associate of Science Degree in Nutrition and Foods prepares students for entry-level management/supervisory roles in the food service area. Upon satisfactory completion (a minimum grade of a "C" is required in all courses and maintain a 2.0 GPA) students will receive their Dietetic Service Supervisor Certificate as well as their AS Degree. Students completing this degree have demonstrated the knowledge and hands on experience with specialized coursework in their area of interest to work effectively in the field of Foods and Nutrition. Students must pass the ServSafe Manager or equivalent Food Safety Certification, earn a minimum of a "C" in each major course, maintain a 2.0 GPA, and meet the graduation requirements.

**Program Student Learning Outcomes**

- A. Produce safe, satisfying and nutritionally adequate food for patients/customers with attention to available resources.
- B. Examine supervisory skills in a food service setting including the ability to train in food safety, participate in quantity meal production and create menus to for special populations.
- C. Formulate effective communication in a food service setting with diverse cultures.
- D. Evaluate and utilize materials in the specialization coursework.
- E. Distinguish and understand the importance of various disciplines in the learning process for global awareness and appreciation for the environment.

**Program Requirements:****Program Core: (30 Units)**

	Units
NUTR-10	Nutrition.....3
NUTR-12	Culture and Cuisine of the World .....3
NUTR-20	Principles of Foods.....3
NUTR-25	Introduction to Nutrition and Food Careers .....1
NUTR-37	Nutrition & Food Service Supervised Field Exper. ....3
NUTR-40	Food Service Management .....3
NUTR-42	Food Production Management.....3
NUTR-44	Food Safety and Sanitation.....2
NUTR-45	Introduction to Medical Nutrition Therapy .....2
Restricted Electives from the following courses (7 Units)	
AOM-30	Introduction to Computer Applications .....3
NUTR-24	Work Experience in Nutrition .....1
NUTR-46	Sports and Exercise Nutrition .....3
NUTR-50	Baking Basics and Business .....1.5
NUTR-41	Infant and Toddler Feeding .....1
NUTR-43	Children and Weight Concerns .....1
AGPS-01	Elements of Plant Science .....3

**Major Total: (30 Units)**

GE Pattern MCCD GE Breadth: (23 Units)

Electives (as needed) (CSU transferrable): (12-15 Units)

Double-Counted: (3-6 Units)

**Total Degree (maximum): (60 Units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**CERTIFICATE** (09/19)**Nutrition and Foods (13161.CT)**

A Certificate of Achievement in Foods and Nutrition provides a foundation and introduction to the core courses in the program as well as a choice of other more specialized courses. A student may select the seven additional units in their area of study. This Certificate will be awarded upon satisfactory completion of the curriculum listed below with a minimum grade of a "C" in each course required for the certificate.

**Program Student Learning Outcomes**

- A. Demonstrates ability to provide safe, satisfying, and nutritionally adequate food for patients/customers with attention to available resources.
- B. Apply supervisory skills in a food service setting including the ability to train in food safety, participate in quantity meal production and create menus for special populations.
- C. Communicate effectively in a food service setting with diverse cultures.
- D. Use critical thinking skills to evaluate and utilize material in the specialization coursework.

**Program Requirements:****Program Core: (30 Units)**

	Units
NUTR-10	Nutrition.....3
NUTR-12	Culture and Cuisine of the World .....3
NUTR-20	Principles of Foods.....3
NUTR-25	Introduction to Nutrition and Food Careers .....1
NUTR-37	Nutrition & Food Service Supervised Field Experience .....3
NUTR-40	Food Service Management .....3
NUTR-42	Food Production Management.....3
NUTR-44	Food Safety and Sanitation.....2
NUTR-45	Introduction to Medical Nutrition Therapy .....2
Restricted Electives from the following courses (7 Units)	
AOM-30	Introduction to Computer Applications .....3
NUTR-24	Work Experience in Nutrition .....1
NUTR-46	Sports and Exercise Nutrition .....3
NUTR-50	Baking Basics and Business .....1.5
NUTR-41	Infant and Toddler Feeding .....1
NUTR-43	Children and Weight Concerns .....1
AGPS-01	Elements of Plant Science .....3

**Total: 30 Units**



Visit the [Program Mapper](#) for more information on when to take classes and career information.

## CERTIFICATE (09/19)

### Dietetic Services Supervisor (13180.CN)

The Dietetic Services Supervisor Program prepares students for entry level management in a food service department. This program fulfills the required training for supervisory positions in acute care hospitals, skilled nursing facilities, acute psychiatric hospitals, intermediate care facilities and school food service. The Merced College Dietetic Service Supervisor Program is approved by the California Department of Public Health.

Upon satisfactory completion(a minimum grade of a "C" is required in all courses) of the 17-unit core listed below, students meet the California Department of Public Health certification licensing requirements for Dietetic Service Supervisor. Earning the Dietetic Service Supervisor Certificate with appropriate work experience may allow the student to take the Certified Dietary Manager's Exam.

#### Program Student Learning Outcomes

- Demonstrates ability to provide safe, satisfying, and nutritionally adequate food for patients/customers with attention to available resources.
- Apply supervisory skills in a food service setting including the ability to train in food safety, participate in quantity meal production and create menus for special populations.

#### Program Requirements:

Program Core: (17 Units)	Units
NUTR-20 Principles of Foods.....	3
NUTR-25 Introduction to Nutrition and Food Careers .....	1
NUTR-37 Nutrition and Food Service Supervised Field Experience .....	3
NUTR-40 Food Service Management.....	3
NUTR-42 Food Production Management.....	3
NUTR-44 Food Safety and Sanitation.....	2
NUTR-45 Introduction to Therapeutic Diets .....	2
<b>Total: (17 Units)</b>	

## NUTRITION (NUTR)

### NUTR-10 NUTRITION

(C-ID NUTR 110) (CSU breadth area E)

3 units: 3 hours lecture

Advisory: ENGL-01A.

This course presents an in-depth study of the essential nutrients and their functions, and the chemical composition of foods and their utilization in the body. It includes discussion on the nutritional values of foods, current topics in nutrition and nutritional needs throughout the life cycle. The relationship between diet and diseases will also be covered. (02/22)

### NUTR-12 CULTURE AND CUISINE OF THE WORLD

(CSU breadth area D)

3 units: 2.5 hours lecture, 1.5 hours lab.

Advisory: ENGL-01A.

This course will explore both traditional and contemporary food customs and cultures of people around the world. Comparisons of food patterns related to social, religious, economic, and geographic significance will be studied. The availability, distribution and preparation of food throughout the world is considered as well as nutritional status of various cultures as it relates to agricultural, food safety and health factors. Opportunities to explore cultural food identity and experiences will be offered. (11/20)

### NUTR-20 PRINCIPLES OF FOODS

(C-ID NUTR 120)

3 units: 2 hours lecture, 3 hours lab.

Advisories: ENGL-01A; NUTR-44.

This course will study the application of food science principles with emphasis on ingredient function and interaction, food preparation techniques, sensory evaluation standards, food safety and sanitation, and nutritional values. (05/21)

### NUTR-24 WORK EXPERIENCE IN NUTRITION

1-8 Units

Advisory: ENGL-01A

This course enables students to earn college credit for learning or improving skills or knowledge on-the-job. Occupational Work Experience is discipline-specific and must connect to the student's major or occupational goal(s). Seventy-five (75) hours of documented paid work experience equals 1 unit of credit. Sixty (60) hours of documented volunteer experience equals 1 unit of credit. A student may enroll in up to 16 total units of work experience at Merced College. Students must have an established work site prior to enrolling in the course. (12/19)

### NUTR-25 INTRODUCTION TO NUTRITION AND HOSPITALITY CAREERS

1 units: 1 hour lecture.

This introductory course will orient students to careers in the culinary, dietetics, food service management and food science field. An overview of both educational and experiential requirements for professionals as well as ethics will be presented. Students will prepare portfolios, research professional organizations, and nutrition and food information literacy. In addition, students planning on taking field experience and/or volunteer work in the field will complete necessary background checks, locate and complete vaccination records and other additional requirements. (11/20)

### NUTR-37 NUTRITION AND HOSPITALITY FIELD EXPERIENCE

3 units: 0.5 hour lecture, 8 hours lab.

One-way corequisites: NUTR-42, NUTR-44, NUTR 45.

Limitation on enrollment: 1) physical within past 6 months 2) negative TB screening test within past 6 months or negative chest x-ray within past year 3) proof of current immunizations 4) criminal background clearance 5) drug screening

This course is designed to help students learn problem solving and communication skills in a professional working environment. The student is engaged in on-the-job learning activities under the supervision of a Certified Dietary Manager, Registered Dietitian, Production Supervisor or Executive Chef and Nutrition Professor. Learning objectives are established based on the competencies defined in the Certifying Board for Dietary Managers Exam Content Outline. Students rotate through experiences in healthcare facilities, schools and professional production kitchens. Students will be required to follow dress standards required by the facility in which they work. This course is recommended at or near the completion of the Nutrition or Culinary Management Program. (02/22)

### NUTR-40 FOOD SERVICE MANAGEMENT

3 units: 3 hours lecture.

Advisories: NUTR-45; ENGL-01A.

This course covers the principles of menu planning for a variety of food service operations including childcare, schools, hospitals, eldercare, and restaurants. Emphasis is on multicultural and healthful menus as well as menu management, marketing and the significance of the menu in diverse settings. (05/21)

### NUTR-41 INFANT AND TODDLER FEEDING (ALSO: CLDV-41)

1 unit: 1 hour lecture.

This course focuses on feeding typical and atypical developing infants beginning at birth with breast milk, formulas, first foods and progresses to textures and foods appropriate for the toddler. Course focuses on how to feed a baby, prevent baby bottle tooth decay and choking prevention. Students will learn about appropriate snacks, food safety aspects and food preparation for children with varying needs. Finally students will have the opportunity to design an age appropriate menu meeting the Child Care Food Program Guidelines. This course is recommended for child development and foods and nutrition students (11/20)

### NUTR-42 FOOD PRODUCTION MANAGEMENT

3 units: 2.5 hours lecture, 1.5 hours lab.

One-way corequisites: NUTR-44.

This course addresses the planning and preparation for quantity food service operations. The focus is on food production, menu development, recipe standardization, equipment and layout, and supervisory functions. Principles and procedures for the management of institutional, restaurant



and catering food service settings are reviewed. (05/21)

#### **NUTR-43 CHILDREN AND WEIGHT CONCERNS**

1 unit: 1 hour lecture.

Advisory: ENGL-01A

This course is designed to provide an overview of the problem of childhood obesity. Students will explore reasons for the epidemic in our country and review the trends. Factors including pressure by the media and the connection to eating disorders will be studied. Students will look at the role of the family, school and community in addressing childhood obesity. This course is recommended for Foods, Nutrition and Child Development. (10/19)

#### **NUTR-44 FOOD SAFETY AND SANITATION**

2 units: 2 hours lecture.

This beginning course is designed to teach basic food safety principles of personal and institutional sanitation. This includes the proper storage, preparation, and service as well as HACCP, food allergies, regulations and pest management. An emphasis is placed on the Supervisor's role in maintaining high standards for these principles. This course meets the California Retail Food Code requirement section numbers 113947.1 through 113947.6. This course is required by the Dietary Service Supervisory and Certified Dietary Manager Programs. Students in those programs are required to take and pass the ServSafe Food Handler and ServSafe Manager Exam or equivalent. This course is highly recommended to those interested in working in Food Service industry as well as application to lifelong learning. (02/22)

#### **NUTR-45 INTRODUCTION TO MEDICAL NUTRITION THERAPY**

2 units: 2 hours lecture.

Advisory: ENGL-01A.

This course is designed to acquaint students with therapeutic and modified diets used in health care facilities. Topics include nutrition for disease states as well as normal nutrition needs. Students will become familiar with principles of nutrition intervention and client care. Students will be able to evaluate menus to meet the nutritional needs of patients. Cultural considerations and the management of long term care residents will be emphasized. This course is required for the student planning a career in food service supervision and plans to become a Certified Dietary Manager. It is especially beneficial for those planning employment in health care institutions and is recommended for nursing students. (05/21)

#### **NUTR-46 SPORTS AND EXERCISE NUTRITION**

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This course focuses on examining the effect of diet on physical performance. Students will have the opportunity to evaluate an athlete's dietary intake and physical activity. The subjects of nutritional supplements, sports drinks, and carbohydrate loading will also be presented. This course is required for Kinesiology Personal Training Certificate Program, and is an elective course for Nutrition and Foods majors. (11/19)

#### **NUTR-50 BAKING BASICS AND BUSINESS**

1.5 units: 1 hour lecture, 1.5 hours lab.

This is a course designed to introduce basic bakery production. With the growing interest and demand in the food industry it is imperative that students are introduced to basics of food safety practices, quantifying recipes and understand the business sense to provide a quality product. This lecture and laboratory class will plan baked items to prepare, consider costs involved making that product and prepare various products. Sensory evaluation techniques and quality control will be taught and practiced. (11/20)

#### **NUTR-52N FUEL YOUR BODY FOR SUCCESS: THE LINK BETWEEN FOOD, QUALITY SLEEP, AND SUCCESS (ALSO: MGMT-52N)**

0.5 unit: 0.5 hour lecture.

This course focuses on how healthy eating and quality sleep can help your energy level, work performance, and overall health. Students will have an opportunity to evaluate their own eating and sleep habits and strategize on how to make improvements. The subjects of microbiome/gut health, meal

planning and creating a healthy work environment will also be presented. This course is recommended for Nutrition and Foods majors and individuals wanting to improve their health, productivity, and well-being. Pass/No Pass only. (5/20)

# Philosophy

SCHOOL OF HUMANITIES, LANGUAGES AND FINE  
& PERFORMING ARTS



## Associate Degree for Transfer

*A Degree with a Guarantee.™*

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE

#### A.A.T.- Philosophy

##### Program Description

The Philosophy curriculum is designed to meet the lower division requirements of most universities offering a major in Philosophy. Students that complete an Associate in Arts in Philosophy for Transfer from Merced College will be prepared for upper division course work in Philosophy at a California State University. The Associate in Arts in Philosophy for Transfer is to assist students in the seamless transferring to a California State University.

For an Associate in Arts in Philosophy for Transfer (AA-T), students must complete the following:

- (1) 60 semester CSU-transferable units.
- (2) the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- (3) a minimum of 18 semester units in the major or area of emphasis as determined by the community college district.
- (4) obtainment of a minimum grade point average (GPA) of 2.0.
- (5) earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

Note: Students are not required to complete any additional local graduation requirements for the AA-T (e.g., PE and Computer and Information Literacy courses).

##### Career Opportunities

Philosophical training at Merced College prepares the A.A.-T graduate for transfer to four-year institutions, or to enter into the work force in many fields. Graduates of philosophy traditionally enter fields that include education, research, law, business, high technology, government, and ministry. Beyond preparing students for professional life, the Philosophy Department at Merced College is dedicated to personal enrichment through deep reflection on all facets of human life.

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[Philosophy Website](#)

### DEGREE <sup>(10/21)</sup>

#### A.A.-T. - Philosophy (15400.AAT)

The Associate in Arts in Philosophy for Transfer is designed around a core education that includes the history of philosophy, ethics, and logic. Students choose among elective courses in humanities and comparative religions. Upon completion, students with an Associate in Arts in Philosophy for Transfer will be eligible to transfer with junior standing into an equivalent major within the California State University (CSU) system. Students will be given priority consideration when applying to a particular program that is similar to the student's community college area of emphasis. The Associate in Arts in Philosophy for Transfer is to assist students in the seamless transferring to a California State University. Upon completion of the AA-T in Philosophy, students will/ be able to:

Program Student Learning Outcomes:

- A. Demonstrate a basic knowledge of the fundamental concepts of the major figures in the history of Western philosophy, as well as some figures outside the traditional Western canon.
- B. Analyze primary philosophical texts and the philosophical arguments contained in them.
- C. Defend positions on important philosophical issues, questions, and/or problems in written form.

##### Program Requirements:

##### Program Core: (18 Units)

	Units
PHIL-01 Introduction to Philosophy.....	3
or	
PHIL-01H Honors Introduction to Philosophy (3)	

PHIL-05 Contemporary Ethical Issues .....	3
PHIL-12 Introduction to Logic.....	3

##### Supplemental courses: Select 2 of the following (6 units)

PHIL-02 Social and Political Philosophy .....	3
PHIL-03 Ancient Philosophy.....	3
PHIL-04 Modern Philosophy .....	3
PHIL-15 Comparative Religions .....	3

##### Elective: Select 1 of the following (3 units)

Any course from Supplemental Course list not already used.

PHIL-10 Critical Thinking.....	3
ENGL-13 Critical Reasoning and Writing.....	3
PHIL-13 Critical Reasoning and Writing.....	3
ENGL-13H Honors Critical Reasoning and Writing .....	3
PHIL-13H Honors Critical Reasoning and Writing .....	3
HUM-01 Studies in Humanities--Ancient through Renaissance .....	3
HUM-01H Honors Studies in Humanities--Ancient through Renaissance .....	3
HUM-02 Studies in Humanities--Renaissance to Present .....	3
HUM-02H Honors Studies in Humanities--Renaissance to Present .....	3

##### Total Units toward the Major: (18 Units)

Total Units that may be double counted: (6-9 Units)

General Education (CSU-GE or IGETC) Units: (37-39 Units)

Elective (CSU Transferable) Units: (9-14 Units)

**Total Degree Units: (60 Units)**

## PHILOSOPHY (PHIL)

### PHIL-01 INTRODUCTION TO PHILOSOPHY

(CSU breadth area C2) (IGETC area 3B) (C-ID PHIL 100)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This course introduces philosophical ideas and methods concerning self-identity, knowledge, reality and values. These topics will be discussed through reading primary philosophical texts taken from the traditional and modern Western philosophical canon, as well as from non-canonical sources. (04/20)

### PHIL-01H HONORS INTRODUCTION TO PHILOSOPHY

(CSU breadth area C2) (IGETC area 3B) (C-ID PHIL 100)

3 units: 3 hours lecture.

Limitation on enrollment: Enrollment in the Honors program.

Prerequisite: ENGL-01A

This course introduces philosophical ideas and methods concerning self-identity, knowledge, reality and values. These topics will be discussed through reading primary philosophical texts taken from the traditional and modern Western philosophical canon, as well as from non-canonical sources. There will be an emphasis on philosophical research and writing. Students taking this class must be enrolled in the Honors Program. See the college catalog for a description of enrollment requirements. (04/19)

### PHIL-02 SOCIAL AND POLITICAL PHILOSOPHY

(CSU breadth area C2, D) (IGETC area 3B/4)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This course examines philosophical issues concerning the nature of society and justifications for the authority of government. Concepts to be discussed include liberty, equality, justice, the common good, and the legitimate use of state power. (04/20)

### PHIL-03 ANCIENT PHILOSOPHY

(CSU breadth area C2) (IGETC area 3B) (C-ID PHIL 130)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This course presents an introduction to the history of philosophy from the ancient world through the Middle Ages, with emphasis on the development of Greek philosophy from the Pre-Socratics through Aristotle. (04/20)

### PHIL-04 MODERN PHILOSOPHY

(CSU breadth area C2) (IGETC area 3B) (C-ID PHIL 140)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This course presents an introduction to the history of philosophy from the Renaissance to the present, with emphasis on Descartes through Kant. (04/20)

### PHIL-05 CONTEMPORARY ETHICAL ISSUES

(CSU breadth area C2) (IGETC area 3B) (C-ID PHIL 120)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This course examines the concept of morality and values, representative ethical theories, and their application to contemporary ethical issues such as capital punishment, abortion, war, animal rights and economic justice. (04/20)

### PHIL-10 CRITICAL THINKING

(CSU breadth area A3)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This is a practical course in sound and logical reasoning. The focus of this course is to develop the abilities to analyze, to criticize, and to reach reasoned conclusions. This includes the ability to recognize and avoid common fallacies in reasoning, and to construct cogent arguments and essays. (04/20)

### PHIL-12 INTRODUCTION TO LOGIC

(CSU breadth area A3) (C-ID PHIL 110)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This course introduces the study of valid reasoning with emphasis on deductive logic. Informal fallacies and the scientific method are also covered. (04/20)

### PHIL-13 CRITICAL REASONING AND WRITING (ALSO: ENGL-13)

(C-ID ENGL 105) (CSU breadth area A3) (IGETC area 1B)

3 units: 3 hours lecture.

Prerequisite: ENGL-01A.

This course offers instruction in argumentative and critical writing, critical thinking, research strategies, information literacy, and proper documentation. Readings feature mostly non-fictional essays and books that reflect diverse cultural and gender perspectives on a variety of contemporary political and social issues, especially those involving race, ethnicity, and gender. ENGL-13/PHIL-13 meets the IGETC critical thinking/composition requirement. (12/19)

### PHIL-13H HONORS CRITICAL REASONING AND WRITING (ALSO: ENGL-13H)

(C-ID ENGL 105) (CSU breadth area A3) (IGETC area 1B)

3 units: 3 hours lecture.

Limitation on enrollment: Enrollment in the Honors Program.

Prerequisite: ENGL-01A.

This course offers instruction in argumentative and critical writing, critical thinking, research strategies, information literacy, and proper documentation. Readings feature mostly non-fictional essays and books that reflect diverse cultural and gender perspectives on a variety of contemporary political and social issues, especially those involving race, ethnicity, and gender. ENGL-13/PHIL-13 meets the IGETC critical thinking/composition requirement. (12/19)

### PHIL-15 COMPARATIVE RELIGIONS

(CSU breadth area C2) (IGETC area 3B)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This course surveys the historical background and fundamental philosophical concepts of the major religions of the world, including Hinduism, Buddhism, Shinto, Confucianism, Judaism, Christianity, Islam, and some typical basic religions. (02/20)

# Photography

SCHOOL OF HUMANITIES, LANGUAGES AND FINE  
& PERFORMING ARTS

DEAN  
JOHN ALBANO

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[Photography Website](#)

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## DEGREE

A.A. - Photography

## CERTIFICATE

Photography

### Program Description

The study of photography will enrich the student's experience of the world and encourage the student to draw upon creative resources. An education in photography can lead to professional or vocational careers, as well as enhance abilities in other fields. The photography department offers a foundation in theoretical and practical skills, and the opportunity to work in a wide variety of photographic and digital media.

The Photography Program provides transfer, professional preparation, personal development, general interest, and general education, as well as an Associate in Arts degree and a Certificate in Photography.

### Career Opportunities

- Portrait and Wedding Photography
- Photojournalism
- Industrial/Architectural/Business Advertising
- Commercial Product Photography
- Fine Art Photography

## DEGREE <sup>(2/14)</sup>

### A.A. - Photography (10500.AA)

The Photography program provides thorough preparation for careers and visual expression in photographic fields. The Associate of Arts degree in Photography is available for students who meet the graduation requirements and complete the 27-unit curriculum listed below, with a minimum grade of a "C" in each course in the degree and maintain a 2.0 GPA.

### Program Student Learning Outcomes

- Demonstrate a knowledge of the techniques and processes involved in a variety of photographic art forms including traditional black and white photography, digital image captures and emerging photographic mediums.
- Create photographic works of art integrating visuals with the elements and principles of design theory and composition.
- Compare and contrast individual photographic styles as contextualized through their aesthetic and cultural significance.
- Develop personal awareness and understanding of the various multicultural and philosophical patterns of traditional and contemporary photography as the medium relates to the development of art throughout history.

### Program Requirements:

#### Program Core: (27 Units)

	Units
ART-15	Design: 2-D Foundations ..... 3
ARTD-40A	Introduction to Digital Art ..... 3
ARTD-40B	Intermediate Digital Art ..... 3
PHOT-10A	Introduction to Photography ..... 3
PHOT-10B	Intermediate Photography ..... 3
PHOT-11A	Introduction to the Digital Camera ..... 3
PHOT-35	Studio Careers in Photography ..... 3
or	
PHOT-36	Photo Portfolio Expressions ..... 3

#### Three units of Art or Photography History:

ART-06	Survey of Modern Art ..... 3
PHOT-33	The History of Photography ..... 3

#### Plus three units from the following electives:

AOM-43	Essentials of Business Communication ..... 3
MGMT-37	Small Business Entrepreneurship ..... 3
PHOT-49	Independent Study in Photography ..... 1

**Total: (27 Units)**

*Note: Students may either enroll in PHOT-49 three times or take AOM-43 or MGMGT-37 to fulfill the elective component of the degree.*

**CERTIFICATE** <sup>(2/14)</sup>**Photography (10500.CN)**

A Certificate of Achievement in Photography may be earned by completing the 27-unit curriculum listed below.

**Program Student Learning Outcomes**

- A. Demonstrate a knowledge of the techniques and processes involved in a variety of photographic art forms including traditional black and white photography, digital image captures and emerging photographic mediums.
- B. Create photographic works of art integrating visuals with the elements and principles of design theory and composition.
- C. Compare and contrast individual photographic styles as contextualized through their aesthetic and cultural significance.
- D. Develop personal awareness and understanding of the various multicultural and philosophical patterns of traditional and contemporary photography as the medium relates to the development of art throughout history.

**Program Requirements:**

Program Core: (27 Units)		Units
ART-15	Design: 2-D Foundations .....	3
ARTD-40A	Introduction to Digital Art .....	3
ARTD-40B	Intermediate Digital Art .....	3
PHOT-10A	Introduction to Photography .....	3
PHOT-10B	Intermediate Photography .....	3
PHOT-11A	Introduction to the Digital Camera .....	3
PHOT-35	Studio Careers in Photography .....	3
or		
PHOT-36	Photo Portfolio Expressions .....	3
Three units of Art or Photography History: .....		3
ART-06	Survey of Modern Art .....	3
PHOT-33	The History of Photography .....	3
Plus three units from the following electives: .....		3
AOM-43	Essentials of Business Communication .....	3
MGMT-37	Small Business Entrepreneurship .....	3
PHOT-49	Independent Study in Photography .....	1
		<b>Total: (27 Units)</b>

*Note: students may either enroll in PHOT-49 three times or take AOM-43 or MGMT-37 to fulfill the elective component of the degree.*

**PHOTOGRAPHY (PHOT)****PHOT-10A INTRODUCTION TO PHOTOGRAPHY**

3 units: 2 hours lecture, 3 hours lab.

Introduction to Photography covers camera and darkroom principles of black and white photography. Topics include current aesthetic trends and compositional elements, image capture techniques, exposure control, film developing, contact prints, enlargements, lighting, filters, print finishing and photo mounting. (03/19)

**PHOT-10B INTERMEDIATE PHOTOGRAPHY**

3 units: 2 hours lecture, 3 hours lab.

Prerequisites: PHOT-10A or PHOT-11A.

Advisory: AOM-50C.

This course deals with the aesthetic underpinnings and practical application of intermediate photographic principles relevant to film and digital cameras. The course emphasizes technical and compositional control and the perfection of image processing. Broad-based professional studio lighting practices factor into the course. (03/19)

**PHOT-11A INTRODUCTION TO THE DIGITAL CAMERA**

3 units: 2 hours lecture, 3 hours lab.

Advisory: AOM-50C.

This course introduces students to the creative use of digital cameras through lectures, hands-on experience and computer use. Instruction includes digital camera functions, technical and creative control, computer processing of images, and digital output options. Students gain essential knowledge of digital photographic strategies through image capture and creative Photoshop and Lightroom manipulation. (03/19)

**PHOT-33 THE HISTORY OF PHOTOGRAPHY**

(IGETC area 3A) (CSU breadth area C1)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This historical survey course covers image capture techniques from the camera obscura through current digital technologies. The artistic significance and broad social implications of photography provide an underlying basis for critical analysis. The course includes lecture and discussion components coupled with visual presentations. (03/19)

**PHOT-35 STUDIO CAREERS IN PHOTOGRAPHY**

3 units: 2 hour lecture, 3 hours lab.

Prerequisite: PHOT-11A.

This course covers advanced studio lighting through black and white and color assignments. Students become acquainted with commercial equipment and image processing related to portraiture, weddings, fashion, product, and fine art photography. Assignments emphasize concept development, lighting, location work, and small and large products. Design and layout may be incorporated into specialized portfolio pieces. (05/22)

**PHOT-36 PHOTO PORTFOLIO EXPRESSIONS**

(CSU breadth area C1)

3 units: 2 hour lecture, 3 hours lab.

Prerequisite: PHOT-11A.

This course explores the possibilities of visual language in-relation to photographic self-promotion. Advanced camera techniques, film handling, digital methodology, professional portfolio construction and printing formats suggest the emphasis on personal expression and a marketable skill set. (05/22)

**PHOT-49 INDEPENDENT STUDY IN PHOTOGRAPHY**

1 units: 3 hours lab.

Prerequisite: PHOT-11A.

This course covers a variety of topics and/or activities of current interest in the field of photography. The student chooses the topic(s) of study for the semester. (03/19)



# Physical Science

**MATH, SCIENCE AND ENGINEERING****DEAN**  
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## PHYSICAL SCIENCE (PHSC)

### PHSC-01 INTRODUCTION TO PHYSICAL AND EARTH SCIENCE

(CSU breadth area B1) (IGETC area 5A)

3 units: 3 hours lecture.

Advisories: ENGL-01A

This is an introductory course presenting the nature of physical, earth, and space sciences and their relationship to other areas of scientific knowledge. The course will develop the major concepts and give an understanding of the general principles of physical, earth, and space science. As an introductory class, the course of study will focus on major principles and applications to modern observations and phenomena. This course is designed to meet the content requirement for physical science and for earth and space science for the Liberal Studies - Elementary Teaching preparation pathway. (02/20)

### PHSC-01L INTRODUCTION TO PHYSICAL AND EARTH SCIENCE LABORATORY

(CSU breadth area B3) (IGETC area 5C)

1 unit: 3 hours lab.

One-way corequisite: PHSC-01. Advisories: ENGL-01A

This introductory laboratory is designed to provide hands-on exploration in parallel with topics covered in the lecture course, PHSC-01. Emphasis will be placed on 1) classical science experimentation, 2) laboratory activities in the real world, and 3) support of the laboratory activities through use of modern technologies. Students planning on becoming K-12 teachers will find materials applicable to their future profession. (02/20)

### PHSC-02 SURVEY OF CHEMISTRY AND PHYSICS

(IGETC area 5A) (CSU breadth area B1) (C-ID PHYS 140)

3 units: 3 hours lecture.

Prerequisite: MATH-C, MATH-61, or MATH-62.

Advisory: ENGL-01A.

An investigation of basic principles of physics and chemistry including matter, physical and chemical properties, energy, motion, light, atomic structure, bonding, solutions and chemical reactions. The inter-dependence of chemistry and physics will be emphasized. This course is intended for non-science majors. (05/21)

### PHSC-02L SURVEY OF CHEMISTRY AND PHYSICS LABORATORY

(IGETC area 5C) (CSU breadth area B3) (C-ID PHYS 140)

1 unit: 3 hours lab.

Prerequisite: MATH-C, MATH-61, or MATH-62.

One-way corequisite: PHSC-02.

Advisory: ENGL-01A

This introductory laboratory is designed to provide a hands-on exploration in parallel with the topics covered in the introduction to Survey of Chemistry and Physics lecture course - Physical Science 2. Emphasis will be placed on (1) classical science experimentation, (2) laboratory activities in the real world, and (3) support of the laboratory activities through use of modern technologies. This course is intended for non-science majors. (05/21)

# Physics

SCHOOL OF SCIENCE, TECHNOLOGY,  
ENGINEERING AND MATH (STEM)



Associate Degree  
for Transfer  
*A Degree with a Guarantee.<sup>SM</sup>*

## DEGREE

A.S.T. - Physics

UCTP: A.S.-T. - Physics

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## DEGREE <sup>(12/12)</sup>

### A.S.-T. - Physics (19700.AST)

#### Program Description

The Associate in Science in Physics for Transfer degree (AS-T in Physics) is designed to prepare students for transfer into the California State University (CSU) system to complete a baccalaureate degree in Physics or similar major.

For an Associate in Science in Physics for Transfer (AS-T), students must complete the following:

- (1) 60 semester CSU-transferable units.
- (2) the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- (3) a minimum of 18 semester units in the major or area of emphasis as determined by the community college district.
- (4) obtainment of a minimum grade point average (GPA) of 2.0.
- (5) earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

*Note: Students are not required to complete any additional local graduation requirements for the AS-T (e.g., PE and Computer and Information Literacy courses).*

The Associate in Science in Physics for Transfer degree is designed for students planning on transferring to a California State University (CSU). Upon completion of the transfer associate degree, the student is eligible for transfer with junior standing into the California State University system. Students will be given priority consideration when applying to a particular program that is similar to the student's community college area of emphasis.

The Physics curriculum is designed to meet the lower division requirements of most universities offering a major in physics. This curriculum, combined with the upper division curriculum required at a university, could lead to careers in fields such as astronomer, engineer, geophysicist, mathematician, research scientist, as well as a physicist. People trained in these disciplines are employed in research companies as well as with different governmental agencies.

#### Program Student Learning Outcomes

- A. Solve using appropriate physics/physical/mathematical principles and express their answers in appropriate form.
- B. Determine the nature of and the causal relationships to the situation and use appropriate tools and technology to analyze and measure the behavior.
- C. Demonstrate the ability to communicate their knowledge of physics principles in oral and written form using the language of physics.

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[Physics Website](#)

- D. Deduce the properties, outcome, mathematical or physical result of a physical situation.
- E. Identify applications to other scientific, technological, or society areas.

#### Program Requirements:

Program Core: (24 Units)		Units
PHYS-04A	Physics I .....	4
PHYS-04B	Physics I .....	4
PHYS-04C	Physics III .....	4
MATH-04A	Calculus I .....	4
MATH-04B	Calculus II .....	4
MATH-04C	Multivariable Calculus .....	4

#### Total Units toward the Major: (24 Units)

Total Units that may be double counted: (-8 Units)

General Education (CSU-GE or IGETC) Units: (39-42 Units)

Elective (CSU Transferable) Units: (2-5 Units)

**Total Degree Units: (60 Units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## DEGREE <sup>(12/20)</sup>

### UCTP: A.S.-T. - Physics (19701.AST)

#### Program Description

The Associate in Science in Physics for UC Transfer degree is designed for students planning on transferring to a University of California (UC). Students who complete this program and who maintain a grade point average (GPA) of 3.5 in the major will be guaranteed admission into the University of California system in a Physics program.

The Physics curriculum is designed to meet the lower division requirements of most University of California offering a major in physics. This curriculum, combined with the upper division curriculum required at a university, could lead to careers in fields such as astronomer, engineer, geophysicist, mathematician, research scientist, as well as a physicist. People trained in these disciplines are employed in research companies as well as with different governmental agencies.

For an Associate in Science for Transfer in Physics for UC Transfer, students must complete the following:

- (1) minimum 60 semester (90 quarter) units of UC-transferable credit.  
No more than 14 semester (21 quarter) units of the 60 semester (90 quarter) units may be taken pass/fail or credit/no credit.
- (2) the Intersegmental General Education Transfer Curriculum (IGETC) for UC Transfer pattern.
- (3) a minimum of 18 semester (27 quarter) units in the major or area of emphasis as determined by the community college district.
- (4) obtainment of a minimum grade point average (GPA) of 2.0.
- (5) earn a grade of C (or P) or better in all courses required for the major or area of emphasis

*Note: Students are not required to complete any additional local graduation requirements for the AS-T in Physics for UC Transfer (e.g., PE and Computer and Information Literacy courses).*

#### Program Student Learning Outcomes

- A. Formulate proper solutions to physical problems with appropriate physics/mathematical principles.
- B. Correlate physical properties with analytical measurements.
- C. Demonstrate the ability to communicate knowledge of physics principles either written or orally

D. Connect physical principles to cross-disciplinary contexts.

**Program Requirements:****Program Core: (40 Units)**

	Units
CHEM-04A General Chemistry I .....	5
CHEM-04B General Chemistry II .....	5
PHYS-04A Physics I .....	4
PHYS-04B Physics II .....	4
PHYS-04C Physics III .....	4
MATH-04A Calculus I .....	4
MATH-04B Calculus II .....	4
MATH-04C Multivariable Calculus .....	4
MATH-06 Elementary Differential Equations .....	3
MATH-08 Linear Algebra .....	3

**Total Units toward the Major: (40 Units)**

\*General Education (CSU-GE or IGETC) Units: (16-20 Units)

Elective (UC Transferable) Units: (0-4 Units)

**Total Degree Units: (60 Units)**

*\*This AS-T degree general education requirements presumes completion of two courses in Area 3 and two courses in Area 4 after transfer to the University of California to complete the entire IGETC pattern.*

Area 1A Freshman Composition (3 units)

Area 1B Critical Thinking (3 units)

Area 3 Arts and Humanities (3 units)

Area 4 Social and Behavioral Science (3 units)

Area 5 Biological Science (4 units)

Area 6 Languages other than English (0-4 units)

**PHYSICS (PHYS)****PHYS-02A GENERAL PHYSICS I**

(C-ID PHYS 105) (CSU breadth area B1/B3) (IGETC area 5A/5C)

4 units: 3 hours lecture, 3 hours lab.

Prerequisite: MATH-02 or MATH-02H; or MATH-25 and MATH-26.

Advisory: ENGL-01A.

This course is intended for students other than physics and engineering majors. PHYS-02A is the first semester of a one-year physics course designed to develop major concepts and give an understanding of general principles of physics. This course will also try to relate physics to other areas of knowledge and discuss science in general, and physics specifically, as part of the concept of culture and time. The development of ideas will begin with those of Aristotle and terminate with present-day concepts of the atom and nucleus. PHYS-02A will emphasize the universe, motion, forces in nature, energy, fields, conservation laws, waves, sound, light, and thermal phenomena. (02/21)

**PHYS-02B GENERAL PHYSICS II**

(CSU breadth area B1/B3) (IGETC area 5A/5C) (C-ID PHYS 110)

4 units: 3 hours lecture, 3 hours lab.

Prerequisite: PHYS-02A. Advisory: ENGL-01A

PHYS-02B is a continuation of PHYS-02A with emphasis on electricity, magnetism, radiation, relativity, atomic and nuclear processes, astrophysics, cosmology, and a look toward the future. (02/21)

**PHYS-04A PHYSICS I**

(C-ID PHYS 205/200S) (CSU breadth area B1/B3) (IGETC area 5A/5C)

4 units: 3 hours lecture, 3 hours lab.

Prerequisite: MATH-04A. Advisory: ENGL-01A; MATH-04B.

This course is a calculus-based physics course intended for physics and engineering majors as well as some chemistry and math majors. PHYS-04A is the first semester of a three-semester sequence intended to give a technical introduction to physics with emphasis on concepts and principles of physics and problem-solving. PHYS-04A includes the areas of mechanics, wave motion, fluids, and thermal phenomena. (09/20)

**PHYS-04B PHYSICS II**

(C-ID PHYS 210/200S) (CSU breadth area B1/B3) (IGETC area 5A/5C)

4 units: 3 hours lecture, 3 hours lab.

Prerequisites: PHYS-04A. One-way corequisite: MATH-04B.

Advisory: ENGL-01A.

PHYS-04B is a continuation of PHYS-04A with emphasis on the areas of electricity, magnetism, and light. (09/20)

**PHYS-04C PHYSICS III**

(CSU breadth area B1/B3) (IGETC area 5A/5C) (C-ID PHYS 200S)

4 units: 3 hours lecture, 3 hours lab.

Prerequisite: MATH-04B; PHYS-04B. Advisory: ENGL-01A.

PHYS-04C is a continuation of PHYS-04B. It emphasizes the laws of thermodynamics, relativity, and topics of modern physics. (02/21)

**PHYS-10 CONCEPTS IN PHYSICS**

(CSU breadth area B1) (IGETC area 5A)

3 units: 3 hours lecture.

Advisories: ENGL-01A; MATH-C, MATH-61 or MATH-62.

This course is a survey of major concepts covered in physics. The concepts, as well as the understanding of general principles, will be developed through lecture, demonstrations, and discussion of everyday phenomena. Both classical and modern topics will be covered, to include mechanics, properties of matter, heat, sound, electricity, magnetism, light, atomic and nuclear physics, relativity, and astrophysics. This course provides an opportunity to work with the concepts of physics in a qualitative manner. (02/21)

# Political Science

## SCHOOL OF SOCIAL SCIENCES AND EDUCATION



### Associate Degree for Transfer

*A Degree with a Guarantee.<sup>SM</sup>*

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE

#### AA.T. - Political Science (22070.AAT)

##### Program Description

The Associate in Arts in Political Science for Transfer degree (AA-T) prepares students to continue their education at a four-year institution leading to a baccalaureate degree. Upon successful completion of the transfer degree, students with an AA-T in Political Science will be eligible to transfer with junior standing into an equivalent major within the California State University (CSU) and University of California (UC) system.

For an Associate in Arts in Political Science for Transfer (AA-T), students must complete the following:

- (1) 60 semester CSU-transferable units.
- (2) the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- (3) a minimum of 18 semester units in the major or area of emphasis as determined by the community college district.
- (4) obtainment of a minimum grade point average (GPA) of 2.0.
- (5) earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

Note: Students are not required to complete any additional local graduation requirements for the AS-T (e.g., PE and Computer and Information Literacy courses).

##### Program Student Learning Outcomes:

- A. Develop and demonstrate an understanding of the principles, institutions and problems of politics in the United States and globally.
- B. Demonstrate an understanding of the basic systems, theories, ideologies, and models of political analysis, and be able to evaluate their strengths and weaknesses.
- C. Explore specialized fields of study, including international relations, comparative politics, and political philosophy and theory.
- D. Understand and analyze the roles of individuals, groups and institutions in political processes.
- E. Demonstrate an understanding of historical foundations, political institutions, and processes involved in the distribution and use of power in politics.

##### Program Requirements:

##### Program Core: (18 Units)

##### Required Core: (12 units)

POSC-01 Essentials of American Political System .....3

##### List A:

Select a minimum of 9 units from the following:

POSC-02 Intro to Comparative Government and Politics .....3

POSC-03 Intro to International Relations .....3

POSC-04 Intro to Political Theory and Thought .....3

MATH-10 Elementary Statistics .....3

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##### List B:

Select 6 units from the following

Any course not already used in List A

ANTH-02	Sociocultural Anthropology .....	3
ECON-01	Introduction to Microeconomics .....	3
ECON-02	Introduction to Macroeconomics .....	3
GEOG-02	World Geography .....	3
HIST-03A	History of Western Civilization, Part 1 .....	3
HIST-03B	History of Western Civilization, Part 2 .....	3
HIST-04A	World History Part 1 .....	3
HIST-04B	History of Civilization: Part 2 .....	3
HIST-05	History of Europe from 1901 to the Present .....	3
HIST-17A	U.S. History and U.S. Constitution .....	3
HIST-17AH	Honors U.S. History and U.S. Constitution .....	3
HIST-17B	US History and CA State and Local Government .....	3
HIST-17BH	Honors US History & CA State & Local Government .....	3
HIST-19	Women in American History .....	3
HIST-22	History of Black Americans .....	3
HIST-29	History of California .....	3
SOC-01	Introduction to Sociology .....	3

##### Total Units toward the Major: (18 Units)

Total Units that may be double counted: (-9-15 Units)

General Education (CSU-GE or IGETC) Units: (37-39 Units)

Elective (CSU Transferable) Units: (12-20 Units)

##### Total Degree Units: (60 Units)

## POLITICAL SCIENCE (POSC)

### POSC-01 ESSENTIALS OF AMERICAN POLITICAL SYSTEM

(CSU breadth area D) (IGETC area 4) (C-ID POLS-110)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This course will introduce students to institutions of American national government, the American political system, and California state and local government. The course includes a study of the United States Constitution and its application to federal, state, and local government. Emphasis is placed upon various roles of national and state government, constitutional rights and obligations of citizens, and the evolution and development of California state political institutions. This course meets the United States Constitution requirement and the federal, California state, and local government requirement. (10/12)

### POSC-02 INTRODUCTION TO COMPARATIVE GOVERNMENT AND POLITICS

(CSU breadth area D) (IGETC area 4) (C-ID POLS-130)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This course is a comparative study of the theory, history, structure, and application of the governmental systems of major European nations, as well as non-European countries. Emphasis will be placed on the governments of England, France, Germany, Russia, and Japan. (2/06)

### POSC-03 INTRODUCTION TO INTERNATIONAL RELATIONS

(CSU breadth area D) (IGETC area 4) (C-ID POLS-140)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

An introduction to international relations theory with an examination of national, transnational, and subnational actors and their institutions, interactions, and processes as they relate to global issues. (03/19)

**POSC-04 INTRODUCTION TO POLITICAL THEORY AND  
THOUGHT**

(CSU breadth area D) (IGETC area 4) (C-ID POLS-120)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

Examination of various theoretical approaches to politics and of basic political problems and proposed solutions. Analysis of selective political theories and of the relevance of theory to contemporary problems. (04/19)

**POSC-07 AMERICAN DEMOCRACY: POLITICS OF RACE AND  
ETHNICITY (ALSO: ETHN-07)**

3 units: 3 hours lecture.

Advisory: ENGL-01A.

Democracy is an overused, contested, and flexible word. Its literal meaning is "rule by the people," yet contrasting theories of American democracy vary in how they understand constructs of race and ethnicity. The implication of these theoretical differences directly impacts public policy, civil liberties, and political representation, concerning who maintains the status of citizen versus illegal. This course critically explores historical examples of democratic action, distinct philosophical traditions of American political thought, and contemporary social and political movements, with particular emphasis on Native American, African American, Latino, and Asian American sources, and how they relate to issues of struggle, resistance, and liberation in the 21st century. (10/21)



# Psychology

## SCHOOL OF SOCIAL SCIENCES AND EDUCATION



### Associate Degree for Transfer

*A Degree with a Guarantee.™*

#### DEGREE

A.A.-T. - Psychology

A.A. - Psychology

#### Program Description

The Department of Psychology at Merced College offers students an exciting and challenging curriculum. The curriculum provides students with an opportunity to gain an understanding of how psychological research and theory can be applied to daily life experiences. Students also gain insight into the behavior and personality of themselves and others. The primary goals of the Department of Psychology are (1) to enable students to achieve their educational goals; (2) to teach students about the various theories and approaches to the scientific study of human and animal behavior; (3) to help students utilize critical thinking skills when examining questions and issues; and (4) to better serve the community as informed and concerned citizens who understand the importance of diversity and inclusion.

The focus of the Psychology Department is to serve students with a wide range of educational and career goals. To this end, the Psychology Department offers two degrees: The Associate in Arts in Psychology for Transfer (AA-T) and the Associate in Arts in Psychology (AA). For students who are planning on transferring, the AA-T enables them to transfer by successfully completing at least 60 transferable units that will include the psychology major courses, and CSU Breadth or IGETC certification. Students who earn the AA-T in Psychology will be granted junior status at a CSU and will be given priority admission to the psychology program. For students who are not planning on transferring, but who want to earn a degree, the Associate of Arts (AA) in Psychology degree is available. This degree provides students with great flexibility in designing their educational plan. Students who benefit from the AA option include students whose career choice requires only an AA degree, as well as students who are returning to school to earn a degree for advancement at a current job and are not planning to transfer.

#### Career Opportunities in Psychology

The AA degree in psychology prepares students for a variety of jobs that require an AA degree. The AA in psychology is valuable for jobs that require an understanding of human behavior, interpersonal skills, critical thinking, and cultural diversity. The AA-T degree is designed for students who plan to transfer to a 4 year college or university, but also prepares students for careers in a variety of fields that require an understanding of human behavior.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

#### DEGREE (4/11)

#### A.A.T. - Psychology (20500.AAT)

The Associate in Arts in Psychology for Transfer degree is designed for students planning on transferring to a California State University. Upon completion of the transfer associate degree, the student is eligible for

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[Psychology Website](#)

transfer with junior standing into the California State University (CSU) system. Students will be given priority consideration when applying to a particular program that is similar to the student's community college area of emphasis.

For an Associate in Arts in Psychology for Transfer (AA-T), students must complete the following:

- (1) 60 semester CSU-transferable units.
- (2) the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- (3) a minimum of 18 semester units in the major or area of emphasis as determined by the community college district.
- (4) obtainment of a minimum grade point average (GPA) of 2.0.
- (5) earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

*Note: Students are not required to complete any additional local graduation requirements for the AS-T (e.g., PE and Computer and Information Literacy courses).*

#### Program Student Learning Outcomes

- A. Analyze the major theoretical explanations of behavior in the field of psychology.
- B. Appraise the applications of psychology.
- C. Critically evaluate statistical analyses, and the claims supported by them.
- D. Display effective writing skills using APA format.

#### Program Requirements:

##### Program Core: (19 Units)

	Units
PSYC-01A Introduction to Psychology .....	3
or	
PSYC- 01AH Honors Introduction to Psychology .....	3
PSYC-01B Introduction to Psychological Research Methods ....	3
PSYC-05 Introduction to Statistics in Psychology .....	3
or	
MATH-10 Elementary Statistics .....	3

#### LIST A:

##### Select one of the following courses:

	Units
BIOL-01 General Biology for Non-Majors .....	4
BIOL-02 Human Biology .....	4

#### LIST B:

##### Select one of the following courses:

	Units
ANTH-02 Sociocultural Anthropology .....	3
PSYC-09 Human Development .....	3
SOC-01 Introduction to Sociology .....	3

#### LIST C:

##### Select one of the following courses:

	Units
PSYC-15 Biological Psychology .....	3
PSYC-22 Human Sexuality .....	3
PSYC-23 Personal & Social Adjustment .....	3
PSYC-25 Introduction to Abnormal Psychology .....	3
PSYC-36 Developmental Psychology: Adolescence .....	3

**Total units toward the major: (19 Units)**

Additional courses toward CSU Breadth or IGETC certification and transferable electives: (41 Units)

**Total Units: (60 Units)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**DEGREE** (09/19)**A.A. - Psychology (20500.AA)**

The Associate of Arts Degree in Psychology is designed for students who are interested in learning more about psychology, but not planning on transferring. Students who are planning on transferring to a California State University should consider the Associate in Arts in Psychology for Transfer degree (AA-T). Students should discuss these options with their counselors.

For this degree, students must complete the 18-unit curriculum listed below. These courses must be in addition to the basic graduation requirements (see catalog for information about the requirements including PE).

Important note: Students who complete this degree will not be granted priority admission to a CSU at junior status. Students who are planning on transferring should complete the AA-T (Associate in Arts in Psychology for Transfer).

**Program Student Learning Outcomes**

- Analyze the major theoretical explanations of behavior in the field of psychology.
- Appraise the applications of psychology.
- Evaluate the credibility of a claim based on empirical evidence.

**Program Requirements:**

<b>Program Core:</b>	<b>Units</b>
PSYC-01A Introduction to Psychology .....	3
or	
PSYC-01AH Honors Introduction to Psychology .....	3
Plus 15 units from the following electives:	
ANTH-02 Sociocultural Anthropology .....	3
BIOL-01 General Biology for Non-Majors .....	4
or	
BIOL-02 Human Biology .....	4
PSYC-01B Introduction to Psychological Research Methods .....	3
PSYC-15 Biological Psychology .....	3
PSYC-22 Human Sexuality .....	3
PSYC-23 Personal and Social Adjustment .....	3
PSYC-25 Introduction to Abnormal Psychology .....	3
PSYC-36 Developmental Psychology; Adolescence .....	3
PSYC-37 Sport Psychology .....	3
PSYC-40 Drugs and Behavior .....	3
SOC-01 Introduction to Sociology .....	3
MATH-10 Elementary Statistics .....	3
or	
PSYC-05 Introduction to Statistics for Psychology (3)	
PSYC-09 Human Development .....	3
or	
CLDV-09 Human Development (3)	
Total Units: (18 units)	

**PSYCHOLOGY (PSYC)****PSYC-01A INTRODUCTION TO PSYCHOLOGY**

(C-ID PSY 110) (CSU breadth area D) (IGETC area 4)

3 units: 3 hours lecture.

Advisory: ENGL-01A

PSYC-01A is a survey course designed to provide an introduction to the facts and theories underlying human behavior. Special emphasis is given to the following topics: schools of psychology, physiological factors, sensation, perception, motivation, learning, thinking, emotion, abnormal behavior, personality, heredity, environment, and social factors. (12/08)

**PSYC-01AH HONORS INTRODUCTION TO PSYCHOLOGY**

(C-ID PSY 110) (CSU breadth area D) (IGETC area 4)

3 units: 3 hours lecture.

Limitation on enrollment: Enrollment in the Honors Program. See the current college catalog for a description of enrollment requirements.

Advisories: ENGL-01A.

PSYC-01AH is an in-depth survey course designed to provide an introduction to facts and theories underlying human behavior. Special emphasis is given to the following topics: schools of psychology, physiological factors, sensation, perception, motivation, learning, thinking, emotion, abnormal behavior, personality, heredity, environment, and social factors. There will also be an emphasis on research, writing, and critical thinking. (2/06)

**PSYC-01B INTRODUCTION TO PSYCHOLOGICAL RESEARCH METHODS**

(C-ID PSY 200)

3 units: 3 hours lecture.

Prerequisite: PSYC-01A or PSYC-01AH; MATH-10 or PSYC-05.

Advisory: ENGL-01A.

This course reviews psychological methods of research. Attention will be focused on foundations of experimental design, procedures and methodology for collecting research data, and techniques used to analyze, report, and present findings in APA format. Research design will also be examined through a review of past psychological research and various branches of modern Psychology. (04/19)

**PSYC-05 INTRODUCTION TO STATISTICS IN PSYCHOLOGY**

(C-ID SOCI 125, MATH 110) (CSU breadth area B4) (IGETC area 2)

3 units: 3 hours lecture.

Prerequisite: MATH-C, MATH-61, or MATH-62.

Advisory: ENGL-01A.

The theory of parametric and nonparametric statistical methods and their application to psychological data. Topics include: descriptive statistics, probability and sampling distributions; statistical inference and power, linear correlation and regression, chi-square; t-tests; and one-way analysis of variance (ANOVA). Application of both hand-computation and statistical software printouts to data in a psychology context, including the interpretation of the relevance of the statistical findings. (02/21)

**PSYC-09 HUMAN DEVELOPMENT (ALSO: CLDV-09)**

(C-ID PSY 180) (CSU breadth area E)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This course is an introduction to the scientific study of human development from conception through death. It examines the interplay of biological, psychological, social, and cultural forces on the developing human being. (04/19)

**PSYC-15 BIOLOGICAL PSYCHOLOGY**

(C-ID PSY 150) (CSU breadth area B2/D) (IGETC area 4/5B)

3 Units: 3 hours lecture.

Prerequisite: PSYC-01A or PSYC-01AH. Advisory: ENGL-01A.

An introduction to the scientific study of the biological bases for human thought and behavior. Topics include basic neuroanatomy and neurophysiology, research methods in biological psychology, the autonomic and peripheral nervous system; and the physiological mechanisms underlying sensation, perception, consciousness, motivation, emotion, learning, memory, and psychological disorders. (04/19)

**PSYC-22 HUMAN SEXUALITY**

(C-ID PSY 130) (CSU breadth area D/E) (IGETC area 4)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This course explores the psychology of human sexuality. Psychological, biological, and sociocultural research is presented concerning all aspects of human sexuality in contemporary society. Specific topics include sexual anatomy and physiology, gender, sexual orientations, contraception, sexually transmitted infections, sexual dysfunction and sex for sale.

(04/19)

**PSYC-23 PERSONAL AND SOCIAL ADJUSTMENT**

(C-ID PSY 115) (CSU breadth area D/E) (IGETC area 4)

3 units: 3 hours lecture.

This course examines personality factors as they relate to the problems of growth and adjustment. Concepts covered in the course are personality development, the psychological bases of behavior, mental health, and interpersonal relations. Stress is placed on the importance of applying therapeutic principles and techniques in everyday life. (03/20)

**PSYC-25 INTRODUCTION TO ABNORMAL PSYCHOLOGY**

(C-ID PSY 120) (CSU breadth area D) (IGETC area 4)

3 units: 3 hours lecture.

Advisory: ENGL-01A.

This course is designed to provide the student with an understanding of abnormal behavior as delineated in the "Diagnostic and Statistical Manual of Mental Disorders." Topics include classifications, clinical pictures, casual factors, treatment, and outcomes of maladaptive behavior. Special emphasis will be placed on assessment, therapy, and prevention of maladaptive behavior. (04/19)

**PSYC-36 DEVELOPMENTAL PSYCHOLOGY: ADOLESCENCE**

(CSU breadth area D) (IGETC area 4)

3 Units: 3 hours lecture.

Advisory: ENGL-01A.

This course is a study of human development during adolescence. The focus is on major theories and psychological research relating to the physical, cognitive, and psychological research relating to the physical, cognitive, and psychosocial aspects of development during adolescence, with an emphasis on the influence of culture. (04/19)

**PSYC-37 SPORT PSYCHOLOGY**

(CSU breadth area D)

3 Units: 3 hours lecture.

Advisory: ENGL-01A.

This course will examine the Psychological Dimensions of Sport and Exercise Performance. Topics will include motivation, personality, emotions and mood as they relate to individual and group sports. Social psychology of sport and cognitive and behavioral interventions will also be discussed. Relevant and current literature in the field will be used to support concepts.

(12/16)

**PSYC-40 DRUGS AND BEHAVIOR**

(CSU breadth area E)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This course will examine psychoactive drugs and their mode of action on the central nervous system and on behavior. Motivational aspects of drug use and abuse and the psychological treatment of substance-use disorders will be evaluated. (11/14)

**PSYC-95S STATISTICS SUPPORT**

1 units: 3 hours lab.

Prerequisite: PSYC-05. Advisory: ENGL-01A.

A review of the core prerequisite skills, competencies, and concepts needed in statistics. Topics include concepts from prealgebra, elementary and intermediate algebra, and the developmental skills needed for statistical analysis. Intended for students who are concurrently enrolled in Introduction to Statistics in Psychology. (03/19)

# Radiologic Technology

## SCHOOL OF HEALTH AND PUBLIC SAFETY

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE

A.S. - Diagnostic Radiologic Technology

### CERTIFICATE

Diagnostic Radiologic Technology

#### Program Description:

The Diagnostic Radiologic Technology Program is a full-time Associate Degree and Certificate of Achievement program to which a minimum of 18-20 students are admitted each fall semester. The entire program is 29 consecutive months in length and is composed of five semesters and two eleven-week summer sessions.

#### Program Requirements and Information:

ALLH-67, BIOL-16, CHEM-02A, ENGL-01A, MATH-C equivalent or higher level Math course, and RADT-50 or Career Exploration in medical Imaging. All program prerequisites must be passed with a grade of "C" or better and combined GPA of 2.75 or higher.

For Program application and additional information, go to:

<http://www.mccd.edu/academics/alliedhealth/diag-rad/apply.html>

#### Disclaimer

The RADT Program reserves the right to revise degree requirements and selections procedures. It is your responsibility to know these requirements and procedures.

#### Accepted students must provide proof of the following requirements:

Tdap, MMR, HEP A, HEPB, Varicella, Current Flu Vaccine, Negative TB Test or Negative chest X-Ray, CPR Certification (American Heart Association - BLS), Physical, criminal background and drug screening clearances.

Note: Additional criminal background and drug screening clearances may be necessary throughout the program to meet requirement for clinical rotation(s).

Further information will be provided at the MANDATORY orientation. If a student is unable to provide proof of these requirements within the designated timeframe, the student will be deemed ineligible for admission.

While enrolled in the program, you will be assigned to various clinic facilities in addition to the on-campus portions of the program. By enrollment into the program, you agree to accept clinical assignments in whatever clinical site you are assigned. Clinical assignments will be scheduled during the normal working day hours. During internship (last year of the program), clinical assignments may include day, evening and weekend hours.

Students sanctioned (dismissed) for any of the following infractions will not be considered for enrollment.

- Under the influence of drugs or alcohol while on duty
- Physical abuse to the patient, visitor or other personnel
- Petty theft
- Sexual misconduct
- Unsafe clinical practice
- Academic dishonesty
- Breach of confidentiality (HIPPA)
- Being dropped or withdrawing from an RT Program due to academic weakness or any of the above infractions

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#### Advisement

The Diagnostic Radiologic Technology Program is a demanding full-time program. Students will find it difficult to work while attending. Students are also expected to complete intense homework assignments. In order to progress satisfactorily in the program, students must complete all program courses in the specified sequence with a minimum grade of "C" in each course, and maintain an overall GPA of 2.75 in supportive and program course work. If a student withdraws or is dismissed from the program, they will no longer be eligible for re-admittance into the program.

#### Highlights:

The Allied Health Center houses a large computer lab, conference rooms, study rooms, and multiple small and large classrooms. The Diagnostic Radiologic Technology program has two computerized radiography x-ray suites and a PACS system that provides students hands-on-experience with state-of-the-art equipment.

#### Accreditation:

The Merced College Diagnostic Radiologic Program has been fully accredited by the Joint Review Committee on Education in Radiologic Technology ([JRCERT](#)) and approved by the CA Department of Public Health Radiologic Branch ([CDPH](#)).

### DEGREE <sup>(11/13)</sup>

#### A.S. - Diagnostic Radiologic Technology (12700.AS)

The Associate of Arts Degree breadth requirements and the listed required core courses must be completed by the end of the fourth session (i.e., Third Semester - Fall), at which time an Associate in Science Degree in Diagnostic Radiologic Technology is awarded.

#### Program Student Learning Objectives

- A. Communicate effectively.
- B. Apply clinical reasoning skills in their daily practice.
- C. Perform successfully as entry level radiographers.
- D. Perform as competent radiographers assimilating all professional, ethical, and legal principles.

#### Program Requirements:

Required Core: (35.5 Units)		Units
RADT-10	Introduction to Radiologic Sciences & Health Care ..	4
RADT-11	Radiologic Procedures I .....	4
RADT-12A	Radiologic Procedures II .....	4
RADT-12B	Clinical Education I .....	5
RADT-13	Radiologic Sciences I .....	3
RADT-14A	Radiologic Sciences II .....	2
RADT-14B	Clinical Education II .....	3.5
RADT-15A	Radiologic Procedures III .....	1
RADT-15B	Clinical Education III .....	5.5
RADT-15C	Advanced Radiologic Procedures I .....	2
RADT-15D	Radiographic Pathology .....	1.5
<b>Total: (35.5 Units)</b>		

#### The internship portion of the RADT Program commences with:

The internship portion of the RADT Program commences with:		
Fourth Semester (Spring)		
RADT-16A	Advanced Radiologic Procedures II .....	2.5
RADT-16B	Advanced Clinical Education I.....	10
RADT-16C	Fluoroscopy.....	2.25
<b>Student will receive an A.S. Degree</b>		
RADT-17A	Radiologic Sciences III.....	2
RADT-17B	Advanced Clinical Education II.....	7
RADT-18A	Integrative Study In Radiography.....	2
RADT-18B	Advanced Clinical Education III.....	9



RADT-18C Sectional Anatomy ..... 1  
**Student will receive Certificate**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE <sup>(11/13)</sup>

#### Diagnostic Radiologic Technology (12700.CF)

Students successfully completing the courses listed below are awarded a Certificate of Achievement in Diagnostic Radiologic Technology and are eligible to sit for the ARRT examination.

#### Program Student Learning Outcomes

- Communicate effectively.
- Apply clinical reasoning skills in their daily practice.
- Perform successfully as entry level radiographers.
- Perform as competent radiographers assimilating all professional, ethical, and legal principles.

#### Program Requirements:

Program Core: (71.25 Units)		Units
RADT-10	Introduction to Radiologic Sciences & Health Care ..	4
RADT-11	Radiologic Procedures I .....	4
RADT-13	Radiologic Sciences I .....	3
RADT-12A	Radiologic Procedures II .....	4
RADT-12B	Clinical Education I .....	5
RADT-14A	Radiologic Sciences II .....	2
RADT-14B	Clinical Education II .....	3.5
RADT-15A	Radiologic Procedures III .....	1
RADT-15B	Clinical Education III .....	5.5
RADT-15C	Advanced Radiologic Procedures I .....	2
RADT-15D	Radiographic Pathology .....	1.5
RADT-16A	Advanced Radiologic Procedures II .....	2.5
RADT-16B	Advanced Clinical Education I .....	10
RADT-16C	Fluoroscopy .....	2.25
RADT-17A	Radiologic Sciences III .....	2
RADT-17B	Advanced Clinical Education II .....	7
RADT-18A	Integrative Study In Radiography .....	2
RADT-18B	Advanced Clinical Education III .....	9
RADT-18C	Sectional Anatomy .....	1
<b>Total: (71.25 Units)</b>		

### American Registry of Radiologic Technologist (ARRT) Examination for Radiography

Upon successful completion of the Associate in Science Degree **AND** Certificate of Achievement in Diagnostic Radiologic Technology, graduates are eligible to write the American Registry of Radiologic Technologist (ARRT) Examination for Radiography, and, if successful, to obtain the credentials necessary for employment in the field.

## RADIOLOGIC TECHNOLOGY, DIAGNOSTIC (RADT)

### RADT-10 INTRODUCTION TO RADIOLOGIC SCIENCES AND HEALTH CARE

4 units: 3 hours lecture, 3 hours lab.

Limitation on enrollment: Enrollment in the Diagnostic Radiologic Technology Program; Student supplied criminal background and drug screening clearances; physical evaluation within the last 6 months; negative TB screening or chest x-ray report with the last 6 months; current inoculations; annual flu vaccination; current CPR. Prerequisites: ALLH-67; RADT-50.

This course provides an overview of the foundations of radiography and the practitioner's role in the health care delivery system. Students will be oriented to the administrative structure of program, health science professions and career advancement, health care environment, cultural

awareness in the radiologic sciences, ethics and the law, and regulatory agencies. The basic principles of radiation protection, patient care and pharmacology will also be presented. An overview of computer fundamentals, digital imaging, computer literacy, software applications, library use, time management, study skills and a mathematics review will be presented. (11/19)

### RADT-11 RADIOLOGIC PROCEDURES I

4 units: 3 hours lecture, 3 hours lab.

Limitation on enrollment: Enrollment in the Diagnostic Radiologic Technology Program; Minimum of 2.75 GPA in prerequisite courses.

Prerequisite: BIOL-16; ENGL-01A. Advisory: BIOL-18.

This course is designed to provide the knowledge base necessary to perform standard imaging as it relates to radiographic anatomy and positioning of the thoracic viscera, abdomen, upper extremities, shoulder girdle, lower extremities, hip & pelvis and upper gastrointestinal tract. The laboratory portion of this course will include positioning exercises and image evaluation of these areas to achieve both accuracy and speed. (11/19)

### RADT-12A RADIOLOGIC PROCEDURES II

4 units: 3 hours lecture, 3 hours lab.

Limitation on enrollment: Enrollment in the Diagnostic Radiologic Technology Program.

This course covers basic radiographic anatomy and positioning of the lower gastrointestinal tract, biliary system, genitourinary system, vertebral column, bony thorax, mobile and trauma radiography. The laboratory portion of this course will include positioning exercises and image evaluation of these areas to achieve both accuracy and speed. (11/19)

### RADT-12B CLINICAL EDUCATION I

5 units: 15 hours lab TBA.

Limitation on enrollment: Enrollment in the Diagnostic Radiologic Technology Program. One-way corequisite: RADT-12A.

This course provides clinical experience for application of theoretical principles and concepts covered in previous and current didactic coursework. Clinical experience in patient care and handling, positioning skills, equipment utilization, radiation protection application, patient information management, work efficiency and image evaluation is provided. (11/19)

### RADT-13 RADIOLOGIC SCIENCES I

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: CHEM-02A; MATH-C, math-61, or MATH-62.

Limitation on enrollment: Enrollment in the Diagnostic Radiologic Technology Program.

This course covers the nature and characteristics of radiation, x-ray production, and photon interactions with matter. It also establishes a knowledge base in radiographic and mobile equipment requirements and design. The laboratory portion of this course will focus on solving radiographic technical problems and verification of the basic laws of the radiation sciences. (11/19)

### RADT-14A RADIOLOGIC SCIENCES II

2 units: 1.5 hours lecture, 1.5 hours lab.

Limitation on enrollment: Enrollment in the Diagnostic Radiologic Technology Program.

This course covers the theory and application of factors that govern and influence the production of quality radiographic images. A basic knowledge of quality control, optimal imaging standards, image evaluation and factors that can affect image quality such as anatomy and positioning will be reviewed to assure consistency in the production of quality radiographic images. (11/19)

### RADT-14B CLINICAL EDUCATION II

3.5 units: 10 hours lab TBA.

Limitation on enrollment: Enrollment in the Diagnostic Radiologic Technology Program.

This course provides continued clinical experience for application of theoretical principles and concepts covered in previous and current didactic coursework. Clinical experience in patient care and handling,



positioning skills, equipment utilization, radiation protection application, patient information management, work efficiency and image evaluation is provided. (11/19)

### **RADT-15A RADIOLOGIC PROCEDURES III**

1 units: .50 hours lecture, 1.5 hours lab.

Limitation on enrollment: Enrollment in the Diagnostic Radiologic Technology Program.

This course is designed to provide a knowledge base necessary to perform standard radiographic procedures of the cranium, facial bones and paranasal sinuses. The laboratory portion of this course will include positioning exercises and image evaluation of these areas to achieve both accuracy and speed. (11/19)

### **RADT-15B CLINICAL EDUCATION III**

5.5 units: 17 hours lab TBA

Limitation on enrollment: Enrollment in the Diagnostic Radiologic Technology Program.

This course provides continued clinical experience for application of theoretical principles and concepts covered in previous and current didactic coursework. Clinical experience in patient care and handling, positioning skills, equipment utilization, radiation protection application, patient information management, work efficiency and image evaluation is provided. (11/19)

### **RADT-15C ADVANCED RADIOLOGIC PROCEDURES I**

2 units: 2 hours lecture.

Limitation on enrollment: Enrollment in the Diagnostic Radiologic Technology Program.

This course covers advanced radiographic procedures of vascular and non-vascular procedures and interventional radiology. (11/19)

### **RADT-15D RADIOGRAPHIC PATHOLOGY**

1.5 units: 1.5 hours lecture.

Limitation on enrollment: Enrollment in the Diagnostic Radiologic Technology Program.

The course introduces concepts related to disease and etiological consideration with emphasis on radiographic appearance of disease and impact on exposure factor selection. (11/19)

### **RADT-16A ADVANCED RADIOLOGIC PROCEDURES II**

2.5 units: 2.5 hours lecture.

Limitation on enrollment: Enrollment in the Diagnostic Radiologic Technology Program.

This course is designed to provide entry-level radiography students with an introduction to and basic understanding of the operation of CT and MRI devices. In addition, the basic concepts of venipuncture and administration of diagnostic contrast agents will be introduced. The appropriate delivery of patient care during these procedures is emphasized. (11/19)

### **RADT-16B ADVANCED CLINICAL EDUCATION I**

10 units: 30 hours lab TBA.

Limitation on enrollment: Enrollment in the Diagnostic Radiologic Technology Program.

This course provides continued clinical experience for application of theoretical principles and concepts covered in previous and current didactic coursework. Clinical experience in patient care and handling, positioning skills, equipment utilization, radiation protection application, patient information management, work efficiency and image evaluation is provided. (11/19)

### **RADT-16C FLUOROSCOPY**

2.25 units: 2.25 hours lecture.

Limitation on enrollment: Enrollment in the Diagnostic Radiologic Technology Program.

This course is designed to prepare the senior radiography student to sit for the California Radiologic Technologist Fluoroscopy Permit examination. (11/19)

### **RADT-17A RADIOLOGIC SCIENCES III**

2 units: 2 hours lecture.

Limitation on enrollment: Enrollment in the Diagnostic Radiologic Technology Program.

This course presents an overview of the principles of the interaction of radiation with living systems, the principles behind radiation protection, including the responsibilities of the radiographer for patients, personnel and the public. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and health care organizations are incorporated. (11/19)

### **RADT-17B ADVANCED CLINICAL EDUCATION II**

7 units: 21 hours lab TBA.

Limitation on enrollment: Enrollment in the Diagnostic Radiologic Technology Program.

This course provides clinical experience for reapplication of theoretical principles and concepts covered in previous and current didactic coursework to ensure continued competency. Clinical experience in patient care and handling, positioning skills, equipment utilization, radiation protection application, work efficiency and image evaluation is provided. (11/19)

### **RADT-18A INTEGRATIVE STUDY IN RADIOGRAPHY**

2 units: 2 hours lecture.

Limitation on enrollment: Enrollment in the Diagnostic Radiologic Technology Program.

This course covers a comprehensive analysis and assessment of all previous radiography instructional coursework in preparation for writing the national registry examination (ARRT). Job market readiness skills will also be presented. (11/19)

### **RADT-18B ADVANCED CLINICAL EDUCATION III**

9 units: 27 hours lab TBA.

Limitation on enrollment: Enrollment in the Diagnostic Radiologic Technology Program.

This course provides clinical experience for reapplication of theoretical principles and concepts covered in previous and current didactic coursework. Clinical experience in patient care and handling, positioning skills, equipment utilization, radiation protection application, patient information management, work efficiency and image management and evaluation is provided. (11/19)

### **RADT-18C SECTIONAL ANATOMY**

1 unit: 1 hour lecture.

Limitation on enrollment: Enrollment in the Diagnostic Radiologic Technology Program.

This course covers an introduction to sectional anatomy. Emphasis will be placed on the major anatomic structures normally seen in axial sections with some coronal and sagittal sections included. (11/19)

### **RADT-24 WORK EXPERIENCE IN RADIOLOGY**

1-8 Units

Advisory: ENGL-01A

This course enables students to earn college credit for learning or improving skills or knowledge on-the-job. Occupational Work Experience is discipline-specific and must connect to the student's major or occupational goal(s). Seventy-five (75) hours of documented paid work experience equals 1 unit of credit. Sixty (60) hours of documented volunteer experience equals 1 unit of credit. A student may enroll in up to 16 total units of work experience at Merced College. Students must have an established work site prior to enrolling in the course. (11/19)

### **RADT-50 CAREER EXPLORATION IN MEDICAL IMAGING**

1 unit: 3 hours lab.

Limitation on enrollment: Negative TB screening test or chest x-ray (within last 6 months); some facilities may require criminal background and drug screening clearances; some facilities may require current immunizations. Advisories: ALLH-67; BIOL-16.

This course allows students to sample an experience in a medical imaging setting in order to enhance their understanding of the challenges and opportunities in considering a career in diagnostic medical imaging. The instructor of record will be responsible for arranging the student's clinical placement during the course's orientation meeting. (11/19)

# Real Estate

## SCHOOL OF BUSINESS

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CAROLINE DAWSON

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VOC-18

**COUNSELING**  
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[Real Estate Website](#)

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE

#### Real Estate Salesperson License

##### Program Description

The Certificate in Real Estate Salesperson License is in preparation for the California Real Estate Salesman's License and Broker's License.

Entry positions open to graduates who pass the California State examination for a salesperson's or broker's license include those of sales agent, junior appraiser, rental agent, or property manager for a bank or land-development company; or in the property department of a corporation, a savings-and-loan company, or an insurance company. Graduates may also search titles and close transactions in the escrow departments of any of these establishments or for escrow companies.

The course of study includes instruction in the following: principles of real estate, real estate practices, legal aspects of real estate, real estate finance, real estate appraisal, real property management, and escrow procedure.

##### Off-Site Resources

California Department of Real Estate

[www.dre.ca.gov](http://www.dre.ca.gov)

California Association of REALTORS®

[www.car.org](http://www.car.org)

California Real Estate Education Association

[www.creeda.org](http://www.creeda.org)

California Office of Real Estate Appraisers

[www.orea.ca.gov](http://www.orea.ca.gov)

### CERTIFICATE (03/22)

#### C.E. - Real Estate Salesperson License (05600.CE)(03/22)

Entry positions open to graduates who pass the California State examination for a salesperson's or broker's license include those of sales agent, junior appraiser, rental agent, or property manager for a bank or land-development company; or in the property department of a corporation, a savings-and-loan company, or an insurance company. Graduates may also search titles and close transactions in the escrow departments of any of these establishments or for escrow companies.

A Certificate of Proficiency will be awarded upon successful completion of the required courses listed below. For successful completion a student must complete the curriculum listed below, with a minimum grade of a "C" (or P) in each course in the certificate and maintains a 2.0 gpa.

##### Program Student Learning Outcomes

- Describe property escrow procedures.
- Compose accurate listing and sales contracts.
- Produce documents that follow California real estate statutes and regulations.

##### Program Requirements:

Program Core: (9 Units)		Units
REAL-42	Real Estate Principles .....	3
REAL-43	Real Estate Practices.....	3
REAL-44	Legal Aspects of Real Estate .....	3
<b>Total Units:(9 Units)</b>		

## REAL ESTATE (REAL)

### REAL-42 REAL ESTATE PRINCIPLES

3 units: 3 hours lecture.

Advisories: ENGL-01A.

This course is an analysis of principles of real estate in California, history of California real estate, property, contracts, agency, listings, real estate financing, deeds, liens and encumbrances, escrows and title insurance, land descriptions, real estate mathematics, and real estate licensing and state regulations. (10/19)

### REAL-43 REAL ESTATE PRACTICES

3 units: 3 hours lecture.

Advisories: ENGL-01A.

This course is an analysis of problems related to establishing and conducting a real estate business, which includes but is not limited to preparing and evaluating listings, prospecting, advertising, the selling process, closing the sale, financing real estate, exchanges and specializing brokerage, income properties, management and leasing, taxes, land utilization, and professional and public relations. (10/19)

### REAL-44 LEGAL ASPECTS OF REAL ESTATE

3 units: 3 hours lecture.

Advisories: ENGL-01A.

This course focuses on California real estate laws. Topics include: principal legal aspects of ownership, acquisition and transfer of real property, legal descriptions, contracts, escrow procedures, forms for trusts and foreclosures, liens, legal instruments, property ownership and management, real estate security devices, property rights, landlord-tenant law, land-use controls, and title insurance. This course satisfies the education requirements for the California Real Estate Salesperson and Broker exam and license. Field trips may be required. (12/20)

# Sociology and Social Sciences

SCHOOL OF SOCIAL SCIENCES AND EDUCATION



## Associate Degree for Transfer

*A Degree with a Guarantee.<sup>SM</sup>*

### DEGREE

A.A.-T - Sociology

A.A. - Social and Behavioral Sciences

### Program Description

The Sociology curriculum is designed to meet the lower division requirements of most universities offering a major in Sociology. Students that complete an AA-T in Sociology from Merced College will be prepared for upper division course work in Sociology at a California State University.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE (11/20)

### A.A.-T - Sociology (22650.AAT)

The Sociology Department at Merced College offers students a strong and challenging curriculum. It is designed to provide students with an understanding of how sociological research and theory can be applied to daily experiences and to the issues current to our social milieu. Students also gain insight into the structure, function, and interaction of groups and social institutions, and of the social forces that impinge on the behavior of individuals and of the cultures in which they live. The primary goals of the Sociology Department are: 1) To enable students to achieve their educational goals; 2) To teach students about the various approaches to the scientific study of society and its components; 3) To help students develop critical thinking skills when examining questions and issues; and 4) To help students better serve their communities through greater awareness of the roles played by such factors as social stratification, gender, ethnicity, and cultural values. Upon completion, students with an AA-T in Sociology will be eligible to transfer with junior standing into an equivalent major within the California State University (CSU) system.

### Program Student Learning Outcomes:

- Compare and contrast the functionalist, conflict, and symbolic interactionist models of sociological thought.
- Describe the essence of "culture" and the myriad forms this essence may take in terms of the institutions of family, education, medicine, religion, government, and economic systems.
- Analyze the dynamics of a social problem or issue in terms of such social factors as race, gender, sociopolitical status, and ethnicity.

For an Associate in Arts in Sociology for Transfer (AA-T), students must complete the following:

- 60 semester CSU-transferable units.
- the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- a minimum of 18 semester in the major or area of emphasis as determined by the community college district.
- obtainment of a minimum grade point average (GPA) of 2.0.
- earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

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[Sociology Website](#)  
[Social Sciences Website](#)

*Note: Students are not required to complete any additional local graduation requirements for the AA-T (e.g., PE and Computer and Information Literacy courses).*

### Program Requirements:

Program Core:		Units
SOC-01	Introduction to Sociology .....	3
SOC-02	Contemporary Social Problems .....	3

MATH-10	Elementary Statistics.....	3
or		
PSYC-05	Introduction to Statistics in Psychology.....	3
List A: Select a minimum of 6 units from the following		
SOC-04	Introduction to Gender .....	3
SOC-05	Introduction to Race and Ethnicity .....	3
SOC-06	Introduction to Crime .....	3
CRIM-01	Criminology .....	3
List B: Select a minimum of 3 units from the following		
ANTH-02	Sociocultural Anthropology .....	3
ANTH-10	Southeast Asian Culture: Hmong .....	3
HIST-07	History of Southeast Asia .....	3
HIST-09A	China: Introduction to East Asian Civilization .....	3
HIST-09B	Japan: Introduction to East Asian Civilization .....	3
HIST-10	History of the Middle East .....	3
HIST-19	Women in American History .....	3
HIST-22	History of Black Americans .....	3
HIST-23	Chicana/o American History and Culture .....	3

PSYCH-01A	Introduction to Psychology .....	3
or		
PSYC-01AH	Honors Introduction to Psychology .....	3
PSYC-22	Human Sexuality .....	3
PSYC-23	Personal and Social Adjustment .....	3
PSYC-36	Developmental Psychology: Adolescence .....	3
SOC-03	Marriage and the Family .....	3

### Total Units toward the Major: (18 Units)

Total Units that may be double counted: (-6-9 Units)

General Education (CSU-GE or IGETC) Units: (37 Units)

Elective (CSU Transferable) Units: (11-14 Units)

### Total Degree Units: (60 Units)

### Program Description

The degree in Social and Behavioral Sciences offers a focus on the interrelationships between individuals, families, groups, communities, societies, cultures, historical time periods and political institutions. This degree prepares students to understand people and their actions and is useful for a variety of careers that involve relating to people such as those in public service, education, law enforcement, government, and general business.

Students are strongly encouraged to consult with a counselor for specific information regarding their career planning.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**DEGREE** (5/15)**A.A. - Social and Behavioral Sciences (22600.AA)**

The Associate of Arts degree with an area of emphasis in Social and Behavioral Sciences is available for students who meet the graduation requirements and complete the following required courses, with a minimum grade of a "C" in each course in the degree and maintain a 2.0 GPA.

Select 12 units from Category 1 and 6 units from Category 2 below. Courses listed below may be counted as general education requirements as well as area of emphasis requirements.

**Program Student Learning Outcomes**

- Evaluate various aspects of human nature and behavior in order to understand the impact on social behavior and relationships.
- Develop a broader understanding of diverse cultures and historical perspectives to better understand human behavior in contemporary society.
- Appraise individual motivation and behaviors within various social constructs, including cultural, economic, political, psychological, and sociological.

**Program Requirements:****Program Core: (18 Units)****Category 1: Select 12 units**

ANTH-02	Sociocultural Anthropology .....	3
CRIM-02	Introduction to Criminal Justice .....	3
CRIM-04	Criminal Law .....	3
ECON-01	Introduction to Microeconomics .....	3
ECON-02	Introduction to Macroeconomics .....	3
GEOG-02	World Geography .....	3
HIST-04A	History of Civilization: Part I .....	3
HIST-04B	History of Civilization: Part II .....	3
HIST-22	History of Black Americans .....	3
HIST-23	Chicana/o American History and Culture .....	3
POSC-01	Essentials of American Political System .....	3
POSC-02	An Introduction to World Political Systems .....	3
PSYC-01A or	Introduction to Psychology .....	3
PSYC-01AH	Honors Introduction to Psychology .....	3
PSYC-01B	Psychological Research Methods .....	3
SOC-01	Introduction to Sociology (.....)	3

**Category 2: Select 6 units**

AGAB-05	Agricultural Economics .....	3
AGRI-10	Agriculture, Environment, and Society .....	3
ANTH-10	Southeast Asian Culture: Hmong .....	3
CLDV-01	Child Growth and Development .....	3
CLDV-02	Child, Family and Community .....	3
CLDV-09 or	Human Development .....	3
PSYC-09	Human Development .....	3
COMM-30	Introduction to Intercultural Communication .....	3
CRIM-01	Criminology .....	3
HIST-09A	China: Introduction to East Asian Civilization .....	3
HIST-09B	Japan: Introduction to East Asian Civilization .....	3
HIST-17A or	United States History & United States Constitution ..	3
HIST-17AH	Honors U.S. History & United States Constitution ...	3
HIST-17B or	U.S. History & California State & Local Government	3
HIST-17BH	Honors US History & CA State & Local Government	3
HIST-29	History of California .....	3
HUM-15	Comparative Cultures .....	3
PSYC-15	Biological Psychology .....	3
PSYC-22	Human Sexuality .....	3
PSYC-23	Personal and Social Adjustment .....	3
PSYC-25	Introduction to Abnormal Psychology .....	3
PSYC-36	Developmental Psychology: Adolescence .....	3
SOC-02	Contemporary Social Problems .....	3
SOC-03	Marriage and the Family .....	3

**Total: (18 Units)****SOCIOLOGY (SOC)****SOC-01 INTRODUCTION TO SOCIOLOGY**

(C-ID SOCI 110) (CSU breadth area D) (IGETC area 4)

3 units: 3 hours lecture.

Advisories: ENGL-01A.

This course provides an introduction into what it means to be "sociologically mindful" and to think "sociologically" while understanding the difference from other ways of seeing the social world. The course begins with the understanding of the differences between personal troubles and public issues, and how sociologists apply various theoretical perspectives to a wide range of issues, such as: culture; socialization; social structure of society; deviance; issues of feminization; family; gender; race; inequality; economics; politics and population; and the relationship between the individual and society. The course accents international comparisons to show how similar institutions are structures and function differently in different societies around the world. (10/17)

**SOC-02 CONTEMPORARY SOCIAL PROBLEMS**

(C-ID SOCI 115) (CSU breadth area D) (IGETC area 4)

3 units: 3 hours lecture.

Advisories: ENGL-01A.

SOC-02 introduces fundamental theories and methodologies employed in the study of contemporary social problems. An emphasis is placed on analysis of causes and possible solutions to such problems as poverty, discrimination, crime, delinquency, alcoholism, drug abuse, suicide, family, and politics. A global perspective focuses on the international influences and contributions to various contemporary social problems. (12/19)

**SOC-03 MARRIAGE AND THE FAMILY**

(IGETC area 4) (CSU breadth area D) (C-ID SOCI 130)

3 units: 3 hours lecture.

Advisories: ENGL-01A

This course provides an overview of sociological theories and concepts utilized to investigate marriage and family relationships. An empirical as well as experiential analysis of the changes in marriage and family functions, structures, and roles is emphasized. Special focus is paid to contemporary issues, concerns and debates regarding marriage and family dynamics. (12/18)

**SOC-04 INTRODUCTION TO GENDER**

(C-ID SOCI 140) (CSU breadth area D) (IGETC area 4)

3 units: 3 hours lecture.

Advisories: ENGL-01A.

Sociological analysis of the social construction of gender, masculinity, and femininity historically and cross-culturally. This course examines the debates on sex and gender. It analyzes the impact of economic and political change on gender expectations and practices. It focuses on macroanalyses of how institutions shape gender and microanalyses of how individuals are socialized and how they "do" and practice gender (11/19)

**SOC-05 RACE, ETHNICITY, AND INEQUALITY (ALSO: ETHN-05)**

(C-ID SOCI 150) (CSU area D/F)

3 units: 3 hours lecture.

Advisories: ENGL-01A.

This course examines the cultural, political, and economic practices and institutions leading to racial and ethnic oppression in the United States, highlighting the agency and resistance of historically marginalized groups. It presents an overview of historical and contemporary patterns of interaction between various racial and ethnic groups through an intersectional and anti-racist perspective. (10/21)

**SOC-06 INTRODUCTION TO CRIME**

(C-ID SOCI 160) (CSU breadth area D) (IGETC area 4)

3 units: 3 hours lecture.

Advisories: ENGL-01A.

Sociological analysis of crime, criminal behavior, and the criminal justice system. Explores the history and social construction of crime and criminality and examines the definition of crime and its violations as well as the laws and methods used to control criminal behavior. Discuss measurement of crime and basic theoretical explanations of criminal behavior. (11/19)



# Sonography

## SCHOOL OF HEALTH AND PUBLIC SAFETY

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[Sonography Website](#)

### CERTIFICATE

#### Diagnostic Medical Sonography

##### Program Description:

The Diagnostic Medical Sonography a full-time Certificate of Achievement program that offers didactic, directed hands-on laboratory, and professionally supervised clinical training in General Sonography (Abdomen and OB/GYN Track). Successful completion provides the student

##### Entrance Requirement:

Associate of Science Professional degree and license in either Radiologic Technology or Registered Nursing or Nuclear Medicine Technology or Respiratory Therapy or Baccalaureate degree (biology) with 500 hospital-based hours of direct patient care experience. See outline in the programmatic application.

##### Program Prerequisites and Information:

ALLH-67, BIOL-16, BIOL-18, ENGL-01A or COMM-01/H; MATH-10 or PSYC-05 OR MATH-15 or MATH-25 or MATH-26 or equivalent or higher level Math course; PHYS-10 or RADT-13.

All program prerequisites must be passed with a grade of "C" or better and combined GPA of 2.35.

For program application and additional information, go to:

<http://www.mccd.edu/academics/alliedhealth/diag-med/index.com>

Only one cohort is in session at a time. The entire program is composed of one summer session and four semesters.

Accepted students must provide proof of the following requirements: Tdap, MMR, HEP A, HEP B, Varicella, Current Flu Vaccine, Negative TB Test or Negative Chest X-Ray, CPR Certification (American Heart Association - BLS), Physical, criminal background and drug screening clearances.

Further information will be provided at the MANDATORY orientation. If a student is unable to provide proof of these requirements within the designated timeframe, the student will be deemed ineligible for admission.

While enrolled in the program, you will be assigned to various clinic facilities in addition to the on-campus portions of the program. By enrollment into the program, you agree to accept clinical assignments in whatever clinical site you are assigned. Clinical assignments will be scheduled during the normal working day hours.

##### Highlights

The Allied Health Center houses a complete Sonography Suite, large computer lab, conference rooms, study rooms and multiple large and small classrooms. The Sonography Programs have contemporary equipment and software that assist students with learning current procedures.

##### Accreditation:

The Merced College DMS General Program is accredited by the Commission on Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Joint Review Committee on Education in Diagnostic Medical Sonography.

Commission on Accreditation of Allied Health Education Programs  
9355 113th St. N, #7709  
Seminole, FL 33775  
(727) 210-2350 [www.caahep.org](http://www.caahep.org)

Students successfully completing the courses listed below are awarded a Certificate of Achievement in Diagnostic Medical Sonography and will be eligible to write the following qualifying examinations of the American Registry of Diagnostic Medical Sonographers (ARDMS):

1. Physical principles/instrumentation, AND
2. Special Examination Option in Abdomen, AND
3. Special Examination Option in OB/GYN.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE <sup>(02/21)</sup>

#### Diagnostic Medical Sonography (12800.CT)

##### Program Student Learning Outcomes

- A. Develop the writing skills to prepare medical manuscripts for clinical case study presentation.
- B. Analyze the theory of ultrasound physics, anatomy, pathophysiology to differentiate normal sonographic appearances.
- C. Develop an understanding of medical ethical standard and cultural diversity.
- D. Develop scanning competencies in the various modalities of sonography.
- E. Analyze the theory of ultrasound physics, anatomy, and pathophysiology in sonographic disease differential diagnoses.

##### Program Requirements:

##### Program Core: (49 Units)

SONO-40	Ultrasound Physics I .....	1.5
SONO-41	Introduction to Sonography .....	1.5
SONO-42A	Abdominal Sonography.....	4
SONO-42B	Clinical Experience I.....	9
SONO-44A	Ultrasound Physics II .....	1.5
SONO-44B	Clinical Experience II.....	4.5
SONO-44C	Superficial Structures.....	1
SONO-43A	OB/GYN Sonography.....	4
SONO-43B	Clinical Experience III.....	9
SONO-45A	Integrative Study in Sonography .....	2
SONO-45B	Clinical Experience IV .....	9
SONO-45C	Basics of Vascular Sonography .....	2

**Total: (49 Units)**



## SONOGRAPHY, DIAGNOSTIC MEDICAL (SONO)

### SONO-40 ULTRASOUND PHYSICS I

1.5 units: 1 hour lecture, 1.5 hours lab.

Limitation on enrollment: Enrollment in the Diagnostic Medical Sonography program.

This course covers the basic principles and terminology of diagnostic ultrasound physics and instrumentation to include: a review of mathematical skills, transducers, sound beam dynamics, and image displays. Hands-on instruction will introduce the student to elementary scanning skills as it pertains to the physical nature of ultrasound, and workplace sonographic ergonomics. (09/19)

### SONO-40C SONOGRAPHY PATIENT CARE SKILLS

1.5 units: 1 hour lecture, 1.5 hours lab.

Corequisite: SONO-40

Limitation on enrollment: Enrollment in the Diagnostic Medical Sonography program.

The course prepares the sonography student to enter the clinical environment by focusing on foundational concepts necessary for safe, patient-centered care to a diverse patient population. Patient care techniques, clinical assessment, professionalism, integration of legal, ethical, and regulatory concepts and standards. The laboratory portion will include demonstration and assessment of essential patient-care competencies, including sonographic ergonomics. (02/22)

### SONO-41 INTRODUCTION TO SONOGRAPHY

1.5 units: 1 hour lecture, 1.5 hours lab.

Limitation on enrollment: Enrollment in the Diagnostic Medical Sonography Program.

This course is an overview of diagnostic medical sonography and its role in health care delivery. Students will be oriented to the academic and administrative structure of the program, clinical affiliates, and to the profession as a whole. An introduction to sonographic patient care, the principles of ultrasound instrumentation, and routine sonographic procedures will be emphasized. The laboratory portion of this course will include a hands-on orientation to the equipment, instrumentation, and scanning techniques. (09/19)

### SONO-42A ABDOMINAL SONOGRAPHY

4 units: 3 hours lecture, 3 hours lab.

Limitation on enrollment: Enrollment in the Diagnostic Medical Sonography Program.

This course covers abdominal sonographic positioning and scanning protocol related anatomy and physiology to include the retroperitoneum; pathology and clinical symptomatology and how they relate to the sonographic appearance of these structures, including introduction to pediatric abdominal applications. Interpretation and critique of normal and abnormal anatomy with correlation of clinical, didactic and image information will be presented. The laboratory component of this course will include demonstration and scanning exercises to provide experience in conducting abdominal sonographic procedures. (09/19)

### SONO-42B CLINICAL EXPERIENCE I

9 units: 28 hours lab TBA.

Limitation on enrollment: Enrollment in the Diagnostic Medical Sonography Program--Abdominal & OB/GYN Track. Two-way corequisite: SONO-42A.

This course provides clinical experience for application of theoretical principles and concepts covered in previous and current didactic coursework. Clinical experience in patient care and handling, scanning techniques, instrumentation, work efficiency and sonographic image evaluation is provided. (09/19)

### SONO-43A OB/GYN SONOGRAPHY

4 units: 3 hours lecture, 3 hours lab.

Limitation on enrollment: Enrollment in the Diagnostic Medical Sonography Program

This course presents a review of anatomy and physiology of the gravid

and nongravid pelvis. Techniques of transabdominal and transvaginal preparation are introduced. Symptomatology of the female patient with correlation to the sonographic appearance of pathology are covered. First, second, and third trimester obstetrical assessment are covered in depth. (11/19)

### SONO-43B CLINICAL EXPERIENCE III

9 units: 28 hours lab TBA.

Limitation on enrollment: Enrollment in the Diagnostic Medical Sonography Program

This course provides clinical experience for application of theoretical principles and concepts covered in previous and current didactic coursework. Clinical experience in patient care and handling, diagnostic sonographic scanning techniques, instrumentation, work efficiency and image evaluation; emphasis on obstetric and gynecological imaging is provided. Clinical experience in all related sonographic applications is provided. (11/19)

### SONO-44A ULTRASOUND PHYSICS II

1.5 units: 1.5 hours lecture.

Limitation on enrollment: Enrollment in the Diagnostic Medical Sonography Program.

A continuation of basic physics and instrumentation including continuous and pulsed wave Doppler. Basic principles of color flow imaging. Advanced principles in medical ultrasound instrumentation, hemodynamics, bioeffects, artifacts, and sonographic quality control procedures are also covered. (11/19)

### SONO-44B CLINICAL EXPERIENCE II

4.5 units: 14 hours lab TBA.

Limitation on enrollment: Enrollment in the Diagnostic Medical Sonography program. Two-way corequisite: SONO-44C.

This course provides clinical experience for application of theoretical principles and concepts covered in previous and current didactic course work. Clinical experience in patient care and handling, scanning techniques, instrumentation, work efficiency, and image evaluation for superficial structure is provided. Clinical experience in abdominal, obstetric and gynecological imaging is also provided. (11/19)

### SONO-44C SUPERFICIAL STRUCTURES

1 unit: 0.5 hours lecture, 1.5 hours lab.

Limitation on enrollment: Enrollment in the Diagnostic Medical Sonography program. Two-way corequisite: SONO-44B.

This course covers basic positioning and scanning protocol of the superficial structures; related anatomy and physiology to include the neck, breast, and male reproductive system; pathology and clinical symptomatology and how they relate to the sonographic appearance of these structures. Interpretation and critique of normal and abnormal anatomy with correlation of clinical didactic and image information will be presented. The laboratory component will include demonstration and scanning exercises. (11/19)

### SONO-45A INTEGRATIVE STUDY IN SONOGRAPHY

2 units: 2 hours lecture.

Limitation on enrollment: Enrollment in the Diagnostic Medical Sonography program.

This course covers a comprehensive analysis and assessment of all previous diagnostic medical sonography instructional coursework in preparation for writing national registry examinations. Modifications related to national registry updates are included. Job market readiness skills will also be presented. (11/19)

### SONO-45B CLINICAL EXPERIENCE IV

9 units: 28 hours lab TBA.

Limitation on enrollment: Enrollment in the Diagnostic Medical Sonography program. Two-way corequisite: SONO-45C.

This course provides clinical experience for application of theoretical principles and concepts covered in previous and current didactic course work. Clinical experience in patient care and handling, scanning techniques, instrumentation, work efficiency, and image evaluation of basic vascular sonography is provided. Clinical experience in abdominal, obstetric, gynecological, and superficial structures imaging is also provided. (11/19)

**SONO-45C BASICS OF VASCULAR SONOGRAPHY**

2 units: 1.5 hours lecture, 1.5 hours lab.

Limitation on enrollment: Enrollment in the Diagnostic Medical Sonography program. Two-way corequisite: SONO-45B.

This course covers basic positioning and scanning protocol of the extracranial and lower extremity peripheral vascular system. Vascular terminology specific to the hemodynamics of these systems will be presented. Normal, abnormal, and pathologic states of the human vascular system with emphasis on the extracranial cerebrovascular system and the lower extremity peripheral arterial and venous systems. The laboratory component of this course will include demonstration and scanning exercises to provide a "live lab" experience in conducting basic vascular procedures. (11/19)

**SONO-47A ADVANCED VASCULAR SONOGRAPHY**

4 units: 3 hours lecture, 3 hours lab.

Prerequisite: SONO-45C

Corequisite: sono-45B

Limitation on enrollment: Enrollment in the Diagnostic Medical Sonography program.

This course is a continuation of the Basics of Vascular course to include advanced sonographic imaging, positioning, scanning protocols, and vascular testing of the Cerebrovascular, Peripheral, Mesenteric Systems, ultrasound guided procedures, and vascular surgical interventions. Sonographic anatomy, pathophysiology, clinical symptomology, and hemodynamic effects related to clinical interpretation. Laboratory component: sonographic safety and ergonomics, demonstration of scanning exercises, and competency assessment of sonographic vascular examinations to include all relevant Doppler and sonographic instrumentation. (02/22)

# Spanish

SCHOOL OF HUMANITIES, LANGUAGES AND FINE  
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## Associate Degree for Transfer

*A Degree with a Guarantee.™*

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE

A.A.T. - Spanish

#### Program Description

The Associate in Arts in Spanish for Transfer degree (AA-T in Spanish) is designed to prepare students for transfer into the CSU system to complete a baccalaureate degree in Spanish or similar major. Upon completion of the AA-T in Spanish, students will be able to demonstrate the ability to initiate, sustain and close basic communicative tasks (Speaking); develop an understanding of connected discourse over longer stretches on a number of topics pertaining to different times and places (Listening Comprehension); produce writing focusing on most practical writing needs and limited social demands with an emerging ability to describe and narrate in paragraphs (Writing); distinguish consistently pervasive values of the Spanish-speaking cultures (Cultural Awareness); and evaluate consistently and with full understanding simple connected texts with an emerging ability to comprehend advanced reading (Reading Comprehension).

For an Associate in Arts in Spanish for Transfer (AA-T), students must complete the following:

- (1) 60 semester CSU-transferable units.
- (2) the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- (3) a minimum of 18 semester units in the major or area of emphasis as determined by the community college district.
- (4) obtainment of a minimum grade point average (GPA) of 2.0.
- (5) earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

Note: Students are not required to complete any additional local graduation requirements for the AA-T (e.g., PE and Computer and Information Literacy courses).

DEGREE (4/13)

### A.A.T. - Spanish (11600.AAT)

The Associate in Arts in Spanish for Transfer is designed around a core education. Upon completion, students with an Associate in Arts in Spanish for Transfer will be eligible to transfer with junior standing into an equivalent major within the California State University (CSU) system. Students will be given priority consideration when applying to a particular program that is similar to the student's community college area of emphasis.

#### Program Student Learning Outcomes

- A. Demonstrate the ability to initiate, sustain and close basic communicative tasks. (Speaking)
- B. Develop an understanding of connected discourse over longer stretches on a number of topics pertaining to different times and

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[Spanish Website](#)

- places. (Listening Comprehension)
- C. Produce writing focusing on most practical writing needs and limited social demands with an emerging ability to describe and narrate in paragraphs. (Writing)
- D. Distinguish consistently pervasive values of the Spanish-speaking cultures. (Cultural Awareness)
- E. Evaluate consistently and with full understanding simple connected texts with an emerging ability to comprehend advanced reading. (Reading Comprehension)

#### Program Requirements:

##### Program Core: (23-25 Units)

20 units from the following.

	Units
SPAN-01 Elementary Spanish I.....	5
SPAN-02 Elementary Spanish II.....	5
SPAN-03 Intermediate Spanish I.....	5
or	
SPAN-10 Spanish for Spanish Speakers I.....	5
SPAN-04 Intermediate Spanish.....	5
or	
SPAN-11 Spanish for Spanish Speakers II.....	5

##### List A:

3-5 units from the following:

ENGL-04A Introduction to World Literature: Ancients to 1650 ..	3
ENGL-04B Introduction to World Literature: 1650 to Present ..	3
FREN-01 Elementary French I .....	5
FREN-02 Elementary French II .....	5
FREN-03 Intermediate French I .....	5
FREN-04 Intermediate French II .....	5

##### List B:

*Note: Students who are placed at a higher level than SPAN-01 will have to take courses to substitute for the units they have placed out of. Any course from List A not already used can be taken in List B.*

ANTH-02 Sociocultural Anthropology .....	3
COMM-30 Introduction to Intercultural Communication .....	3
ENGL-04A Introduction to World Literature: Ancients to 1650 ..	3
ENGL-04B Introduction to World Literature: 1650 to Present ..	3
FREN-01 Elementary French I .....	5
FREN-02 Elementary French II .....	5
FREN-03 Intermediate French I .....	5
FREN-04 Intermediate French II .....	5
HIST-04A History of Civilization: Part I .....	3
HIST-04B History of Civilization: Part II .....	3
HIST-23 Chicana/o American History and Culture .....	3
SOC-01 Introduction to Sociology .....	3

#### Total Units toward the Major: (23-25 Units)

Total Units that may be double counted: (10 Units)

General Education (CSU-GE or IGETC) Units: (37-39 Units)

Elective (CSU Transferable) Units: (1-5 Units)

**Total Degree Units: (60 Units)**

#### Important note:

SPAN-03 is only offered in the fall semester.

SPAN-04 is only offered in the spring semester.

The entry level course for heritage speakers of Spanish is SPAN-10.

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**SPANISH (SPAN)****SPAN-01 ELEMENTARY SPANISH I**

(C-ID SPAN 100) (CSU breadth area C2) (IGETC area 6)

5 units: 5 hours lecture.

This course will focus on the development of listening, speaking, reading, and writing in a cultural context, with primary emphasis on communicative competency. Students will learn how to express in Spanish the most basic functions of everyday life. This course is not recommended for native speakers – native speakers should enroll in SPAN-10. (10/15)

**SPAN-02 ELEMENTARY SPANISH II**

(SPAN 110) (CSU breadth area C2) (IGETC area 3B/6)

5 units: 5 hours lecture.

Prerequisite: SPAN-01 or two years of high school Spanish.

SPAN-02 is the continuation of SPAN-01. This course will focus on the further development of listening, speaking, reading, and writing in a cultural context, with primary emphasis on communicative competency. Students will learn how to express in Spanish the most basic functions of everyday life. This course is recommended for students who have completed two years of high school Spanish; it is not recommended for native speakers. Native speakers should enroll in SPAN-11. (9/13)

**SPAN-03 INTERMEDIATE SPANISH I**

(C-ID SPAN 200) (CSU breadth area C2) (IGETC area 3B/6)

5 units: 5 hours lecture.

Prerequisite: SPAN-02. Advisory: LRNR-30.

SPAN-03 is the continuation of SPAN-02 and SPAN-11. This course reviews and further develops grammatical concepts introduced in SPAN-02 and SPAN-11, as well as introduces the student to the remaining major linguistic concepts of the language. Through varied readings, composition, and discussion, the student will increase his or her vocabulary and cultural knowledge. (10/16)

**SPAN-04 INTERMEDIATE SPANISH**

(C-ID SPAN 210) (CSU breadth area C2) (IGETC area 3B/6)

5 units: 5 hours lecture. Prerequisite: SPAN-03. Advisory: LRNR-30.

This course is a thorough review of the fundamentals of reading, writing, speaking, and understanding Spanish designed to aid the student in preparing for advanced studies in Spanish composition, grammar, and conversation, as well as literature in Spanish, history, and culture. (10/16)

**SPAN-10 SPANISH FOR SPANISH SPEAKERS I**

(C-ID SPAN 220) (CSU breadth area C2) (IGETC area 3B/6)

5 units: 5 hours lecture.

Prerequisite: SPAN-02 or the equivalent. Advisory: LRNR-30.

This course is designed for native and heritage speakers, as well as other linguistically qualified students, whose formal training in the language is not complete. The course will focus on extensive reading of all types of texts and their reworking in written form with the intention of expanding the vocabulary, creating an incipient awareness of linguistic registers, discussing items beyond the familial routine, improving written expression, and developing an appreciation for Hispanic culture as manifested in Spanish speaking countries and the U.S. This course is entirely conducted in Spanish. (11/19)

**SPAN-11 SPANISH FOR SPANISH SPEAKERS II**

(CSU Breadth C2) (IGETC area 3B/6) (C-ID SPAN 230)

5 units: 5 hours lecture. Prerequisite: SPAN-10 or two years of "Spanish for Spanish Speakers." Advisory: LRNR-30.

This course represents the continuation of SPAN-10. It is designed for students who are fluent in Spanish and who are ready to develop literacy skills. This course continues to focus on extensive reading of all types of texts and their reworking in written form with the intention of expanding the vocabulary, increasing the awareness of linguistic registers, discussing items beyond the familial routine, improving written expression -- particularly accentuation and spelling -- and developing an appreciation for Latino culture as manifested in any of the Spanish-speaking countries, including the USA. (11/11)

# Student Government

## STUDENT SERVICES

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### STUDENT GOVERNMENT (STGV)

#### STGV-33A STUDENT GOVERNMENT I

2 units: 1 hour lecture, 3 hours lab.

Advisory: ENGL-01A

This course surveys the theory and practice of parliamentary law, committee techniques, and democratic organization. Students will study some of the factors of successful leadership and effective group membership. Participation in student organization events such as lectures, leadership workshops, and conferences, is required. Students may enroll without holding an office. (02/19)

#### STGV-33B STUDENT GOVERNMENT II

2 units: 1 hour lecture, 3 hours lab.

Prerequisite: STGV-33A. Advisory: ENGL-01A.

This course is a continuation of STGV-33A. The course is designed to introduce students to the ethical dimensions of an organization and to train them to identify social dilemmas, analyze them systematically and resolve them based on core values and codes of conduct found in a college setting. Students may enroll without holding an office. (02/19)

#### STGV-33C STUDENT GOVERNMENT III

2 units: 1 hour lecture, 3 hours lab.

Prerequisite: STGV-33B. Advisory: ENGL-01A.

This is the third of four sequential STGV courses. This course focuses on the development of leadership skills, provides an understanding of leadership and group dynamics theory and will assist the student in developing a personal philosophy of leadership and management skills. Topics include decision making, goal setting, building trust, empowering others, conflict resolution, managing change, and team building. Students may enroll without holding an office. (02/19)

#### STGV-33D STUDENT GOVERNMENT IV

2 units: 1 hour lecture, 3 hours lab.

Prerequisite: STGV-33C. Advisory: ENGL-01A.

This is the fourth of four sequential STGV courses. This course examines the role of power and influence in organizations. Topics of study include recognizing the role of the dominant and non-dominant groups in the decision making process and understanding individual factors that influence governance. The course examines American political culture, intergovernmental relations, public opinion, interest groups, and the media. Students may enroll without holding an office. (02/19)



# Theatre Arts

SCHOOL OF HUMANITIES, LANGUAGES AND FINE  
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Associate Degree  
for Transfer

*A Degree with a Guarantee.<sup>SM</sup>*

## DEGREE

A.A.-T. - Theatre Arts

A.A. - Theatre Arts

### Career Opportunities

- Artistic Director for Community/Non-Profit/Professional Theatre
- Casting Agent
- Drama Therapy
- Entertainment Law
- Film Director
- Film Industry Technicians
- High School Theatre Teacher
- Literary Manager/Dramaturg
- Makeup Designer or Artist
- Playwright
- Producer
- Production Assistant
- Professional Actor
- Professional Costume Designer, First Hand, Costume Shop Manager
- Professional Director
- Professional Entertainment Agent
- Professional Lighting Designer
- Professional Scenic Designer, Scenic Artist, Stage Technician
- Properties Designer or Technician
- Sales
- Sound or Lighting Technician
- Stage Manager
- Theatre Instructor or Professor
- Video Game Industry

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## DEGREE (12/20)

**A.A.-T. - Theatre Arts (10600.AAT)**

The Theatre curriculum is designed to meet the lower division requirements of most California State Universities offering a general major in Theatre or Drama. Students that complete an AA-T in Theatre from Merced College will be prepared for upper division course work in Theatre, Theatre Arts or Drama at a California State University.

The Associate in Arts Degree in Theatre Arts for Transfer will prepare the student for transfer as a junior-level student to selected general Theatre or Drama programs in the California State University system. In addition, it will also prepare the student for pre-professional theatre work, community theatre work, future Theatre conservatory training, and some specialized BFA programs in Performance and Technical Theatre. The student should note that the AA-T in Theatre will not always transfer to specialized BFA programs in Performance or Design in the CSU system.

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[Theatre Arts Website](#)

### Program Student Learning Outcomes

- Demonstrate an understanding of Theatre as a collaborative art form by performing or participating in a variety of theatrical genres from both contemporary and classical theatre at a level equal to junior-level peers within the CSU system.
- Demonstrate high artistic standards, professional responsibility, and safety with regard to acting or technical proficiency, rehearsal preparation and live performance.
- Employ foundational skills in stagecraft - including a basic understanding of technical terminology, tools, properties construction, costume construction and light and sound board operation.
- Analyze culturally diverse performance, genres, and histories.
- Demonstrate an understanding and working knowledge of how to produce a play on the stage, including an appreciation of all theatre occupations - playwriting, directing, acting, design and technical production.

For an Associate in Arts in Theatre for Transfer (AA-T), students must complete the following:

- 60 semester CSU-transferable units.
- the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- a minimum of 18 semester in the major or area of emphasis as determined by the community college district.
- obtainment of a minimum grade point average (GPA) of 2.0.
- earn a grade of C (or P) or better in all courses required for the major or area of emphasis.

*Note: Students are not required to complete any additional local graduation requirements for the AA-T (e.g., PE and Computer and Information Literacy courses).*

### Program Requirements:

#### Program Core: (18 Units)

Units

#### Required Core (9 units):

DRAM-01	Introduction to Theater .....	3
or		
DRAM-08	World History .....	3
DRAM-12	Acting I .....	3
DRAM-20A	Rehearsal and Performance, Beginning .....	3
Elective: Choose 9 units from the list below:		
DRAM-13	Acting II .....	3
DRAM-15	Stagecraft .....	3
DRAM-16	Introduction to Theatre Design .....	3
DRAM-20B	Rehearsal and Performance, Intermediate .....	3
DRAM-23	Script Analysis: Plays in Performance .....	3

#### Total Units for Major: (18 Units)

Total Units that may be double counted: .....-3  
General Education (CSU-GE or IGETC) Units: .....37  
Elective (CSU Transferable) Units: .....8

#### Total Degree Units: (60 Units)

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**DEGREE** (02/20)**A.A. - Theatre Arts (10600.AA)****Program Description**

Through theoretical study and practical application in skills classes and theatrical productions, the Associate of Arts Degree in Theatre will offer the student the skills necessary to:

1. Transfer to a Theatre Arts program, for a BA in Theatre or a BFA program in a Theatre specialty, in a competitive four-year institution or conservatory program.
2. Begin a career in Theatre Arts, including acting and technical theatre, at the pre-professional or community theatre level.
3. Students from other disciplines, such as business, humanities, psychology, communications and education, can also benefit from the creative and ensemble-building skills acquired in Theatre studies.

For an Associate of Arts Degree in Theatre Arts is available for students who meet the graduation requirements and complete the following 24-unit curriculum below, with a minimum grade of a "C" in each course in the degree and maintain a 2.0 GPA.

**Program Student Learning Outcomes**

- A. Demonstrate an understanding of theatre as a collaborative art form by performing or participating in productions from diverse theatrical genres at a level equal to junior-level peers at four-year institutions and pre-professional conservatory or certificate programs.
- B. Demonstrate high artistic standards and professional responsibility with regard to performance and theatre in production.
- C. Develop the skills to understand, critically assess, and interpret dramatic literature and performance practices from around the world.
- D. Develop an understanding of all theatre occupations and a working knowledge of how to produce a theatrical production.

**Program Requirements:****Program Core: (24 Units)**

	Units
DRAM-01 Introduction to Theater .....	3
DRAM-12 Acting I .....	3
DRAM-15 Stagecraft.....	3
DRAM-20A Rehearsal and Performance, Beginning .....	3
DRAM-20B Rehearsal and Performance, Intermediate .....	3
and	
DRAM-13 Acting II .....	3
or	
THTR-14 Script Analysis: Plays in Performance.....	3
DRAM-16 Introduction to Theatre Design.....	3

Plus six units from the following electives: (6)

DRAM-08 World Theatre .....	3
DRAM-23 Script Analysis: Plays in Performance.....	3
ENGL-08 Introduction to Shakespeare .....	3
ENGL-14 Introduction to Film.....	3
HUM-21 Humanities and Film .....	3
MUSA-21A Voice I .....	3

**Total Units for Major: (24 Units)**

Completion of GE Pattern MCCD GE Breadth.....	23
Possible Double Counting .....	-3
Electives (as needed to reach 60 units): .....	16

**Total Degree Units: (60 Units)****THEATRE (DRAM)****DRAM-01 INTRODUCTION TO THEATER**

(C-ID THTR 111) (CSU breadth area C1/C2) (IGETC area 3B)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This course is an introduction to the art of theater that delves into the nature of theatrical presentation, elements of dramatic structure, and the contributions of the playwright, actor, director, designer, technician, and audience. (05/22)

**DRAM-02 REHEARSAL AND PERFORMANCE**

(C-ID THTR 191)

2 units: 1 hours lecture, 3 hours lab.

Limitation on enrollment: Enrollment by audition or interview, instructor signature required. One-way corequisite: DRAM-02L.

Advisory: ENGL-01A

This course focuses on preparing students for the practical application of rehearsal techniques, play promotion, and production towards public performance using a different work or genre for each subsequent offering. Stage management, direction, rehearsal procedures, and marketing skills are stressed. Because a different work or genre is explored in each subsequent offering, the course may be repeated three times. (05/22)

**DRAM-02L REHEARSAL AND PERFORMANCE LAB**

(C-ID THTR 192)

1 units: 54 hours by arrangement

Limitation on Enrollment: Enrollment by audition or interview, instructor signature required.

Advisory: ENGL-01A

This course is the lab only portion of Rehearsal and Performance in which students put into practice learned technical skills in technical rehearsal and public performance of a college production. This course is intended for stage running crew and additional actor in minor roles only. This course may be repeated three times. This course is available for 54 hours of "To Be Arranged" a semester. (05/22)

**DRAM-08 WORLD THEATRE I**

(C-ID THTR 113) (CSU breadth area C1)

3 units: 3 hours lecture.

Advisory: ENGL-01A

This course examines theatre practices and theories from around the world. Emphasis will be placed on the study of theatre from Ancient Greece through the 17th century. (05/22)

**DRAM-12 ACTING I**

(C-ID THTR 151)

3 units: 2 hours lecture, 3 hours lab

This course is designed to serve the needs of the beginning student in acting. Emphasis will be on stage techniques and character development for stage performance. The development of scene repertoire is also studied by choosing scenes to be memorized from various periods of dramatic literature. Critical evaluation, demonstration, and written reviews are required. (05/22)

**DRAM-13 ACTING II**

(C-ID THTR 152)

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: THTR-10.

This course follows Acting I and continues the exploration of theories and techniques used in preparation for the interpretation of drama through acting. The emphasis will be placed on deepening the understanding of the acting process through character analysis, monologues, and scenes. (05/22)

**DRAM-15 STAGECRAFT**

(C-ID THTR 171)

3 units: 2 hours lecture, 3 hours lab.

This course is a study of the physical aspects of stagecraft, including makeup, set construction, scenic artistry, lighting, costuming, and sound production. Laboratory experience is gained in the application of principles of technical theatre in actual productions. (5/22)

**DRAM-16 INTRODUCTION TO THEATRE DESIGN**

(C-ID THTR 174)

3 units: 2 hours lecture, 3 hours lab

Advisory: THTR-01

This course introduces students to the fundamental principles of design for the theatre including scenic, lighting, costumes, sound, makeup and properties. Students will read scripts and develop their own design projects for productions. (05/22)

**DRAM-20A REHEARSAL AND PERFORMANCE IN PRODUCTION**

3 units: 1 hours lecture, 6 hours lab.

Limitation on Enrollment: Enrollment by audition or interview.

Instructor signature required.

This course covers the audition, rehearsal, and performance period of a theatre production. Students will participate in a show as a performer, choreographer, or assistant director. The course focuses on concepts, processes, and techniques in performance and directing. Emotional development of dramatic characters and justification of physical actions will be stressed. Read-throughs will help students develop proficiency with script analysis on technical and literary levels. (05/22)

**DRAM-20B TECHNICAL THEATRE IN PRODUCTION**

3 units: 1 hours lecture, 6 hours lab.

Limitation on Enrollment: Enrollment by audition or interview.

Instructor signature required.

This course covers the interview, rehearsal, and performance period of a production. Students will participate in a show as a stage manager, assistant stage manager, or part of the running crew. They will focus on learning and applying skills in one of the following areas: stage management, scenery, properties, costumes, lighting, sound, or makeup. Understanding the basic concepts, processes, and techniques of technical theatre will deepen students' appreciation of theatre as a collaborative endeavor. Production team members practice leadership and problem-solving skills by role-playing common scenarios encountered during shows. Additionally, students develop textual analysis, research, and notation skills through completing beginning documentation and collection practices. (05/22)

**DRAM-23 SCRIPT ANALYSIS: PLAYS IN PERFORMANCE**

(C-ID THTR 114)

3 units: 2 hours lecture. 3 hours lab.

Advisory: ENGL-01A

In this course, actors will develop textual interpretation skills that enable them to analyze the action, images, characterization, and other components of a play for performance. These components are crucial to understanding textual detail that goes beyond literal meaning, and indeed prepares students for an industry focused on page-to-stage success. (05/22)

**DRAM-50 STANDARDIZED PATIENT & ACTING FOR INDUSTRY**

2 units: 1 hour lecture; 3 hours lab.

Limitation on Enrollment: Registration requires audition/interview and signature of instructor.

This course offers the advanced Acting student experience as a medical standardized patient working within the college's Allied Health programs and prepares the actor for real world auditions and industrial Acting work. Actors gain experience as Standardized Patients working within established scenarios, while using improvisation and practiced techniques to aid in diagnosis and patient care for Allied Health students. Students also prepare audition reels for their commercial portfolios. (05/22)

# Tutorial

## HUMANITIES

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### TUTORIAL (TUTR)

#### TUTR-35 TUTORIAL SEMINAR

1 unit: 3 hours lab.

This course is designed to provide tutors in the Merced College Tutorial program with an opportunity to explore their experiences in the program more fully. Tutors will receive instruction in the areas of tutorial technique, group organizations, relationships with faculty and peers, evaluation techniques, and content tutoring. (05/19)

# Virtual Office

## SCHOOL OF BUSINESS

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[Virtual Office Website](#)

### CERTIFICATE

#### Social Media

#### Virtual Office Professional

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE (3/17)

#### Social Media (05725.CE)

This certificate focuses on social networks, social media tools and strategies. Whether for business, for non-profit, or for fun, courses within the certificate introduce how to effectively use social media and how to develop best practices.

A Certificate of Proficiency will be awarded upon successful completion of the required courses below. For successful completion a student must complete the requirements with a minimum grade of a 2.0 in each course required for the certificate.

#### Program Student Learning Outcomes

- Use advanced technological modes of communication and data delivery to assist clients.
- Develop a social media strategy plan.

#### Program Requirements:

Program Core: (6 Units)		Units
VIRT-51	Social Media.....	3
VIRT-55	Social Media Marketing and Strategy .....	3
<b>Total: (6 Units)</b>		

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE (3/17)

#### Virtual Office Professional (05800.CE)

A Virtual Office Professional is an independent entrepreneur providing administrative, creative and/or technical services. Using advanced technological modes of communication and data delivery, a professional Virtual Office Professional assists clients from their own office on a contractual basis.

Successful completion of the Virtual Office Certificate of Proficiency prepares students for starting/working for a virtual office business. The certificate addresses issues of creating and managing their own virtual offices.

Students are prepared to assume positions in business and industries that utilize virtual administrative support, including executive assistants and office support specialists.

A Certificate of Proficiency will be awarded upon successful completion of the required courses listed below. For successful completion a student must complete the requirements with a minimum grade point of 2.0 in each course required for the certificate.

#### Program Student Learning Outcomes

- Use advanced technological modes of communication and data delivery to assist clients in their virtual office on a contractual basis.
- Construct a virtual office business plan in order to create and manage a virtual office
- Utilize appropriate social media for clients and their own business.
- Use web page design knowledge to create web sites for clients and their own business.

#### Career Opportunities

Virtual business owner, virtual assistant, executive assistant, web designer, social media coordinator.

#### Program Requirements:

Program Core: (14 Units)		Units
AOM-58A	Web Site Development .....	1
AOM-30	Introduction to Computer Applications .....	3
VIRT-50	Virtual Office.....	3
VIRT-51	Social Media.....	3
VIRT-55	Social Media Marketing and Strategy .....	3
<b>Total: (14 Units)</b>		

## VIRTUAL OFFICE (VIRT)

### VIRT-50 VIRTUAL OFFICE

3 units: 3 hours lecture.

Advisories: BUS-10.

Learn how to become an independent contractor/freelancer in the virtual world. (12/18)

### VIRT-51 SOCIAL MEDIA

3 units: 3 hours lecture.

The student will learn how to use social media platforms effectively for a business setting. (03/22)

### VIRT-55 SOCIAL MEDIA MARKETING AND STRATEGY

3 units: 3 hours lecture.

Advisory: VIRT-51.

This course prepares the student for the role of a Social Media Marketer/Strategist. (03/22)



# Water/Wastewater Technology

SCIENCE, MATH AND ENGINEERING

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## WATER/WASTEWATER TECHNOLOGY (WWT)

### WWT-60 WATER TREATMENT PLANT OPERATIONS

3 units: 3 hours lecture.

This course is an introduction to water treatment plant operations and processes. It will include the study of sources of water supply, water quality, treatment systems, and introduction to water treatment operations arithmetic. This course prepares the student to test for state certification for water treatment plant operator grade I and II. (11/19)

### WWT-61 INTRODUCTION TO WASTEWATER TREATMENT

3 units: 3 hours lecture.

Advisories: ENGL-01A

This course is an introduction to wastewater treatment plant operations and processes. It will include the study of wastewater terminology; current methods of wastewater treatment – primary, secondary, and advanced; wastewater quality; and basic wastewater mathematics. This course prepares the student to test for state certification for wastewater treatment plant operation grade 1 and 2 (entry-level). (11/19)

### WWT-62 WATER/WASTEWATER CALCULATIONS

3 units: 3 hours lecture.

Advisories: ENGL-01A

This course provides for the mastery of mathematical calculations, specifically involving water and wastewater treatment plant operations and processes. It incorporates the use of handheld calculator, scientific notation, and the use of dimensional analysis as tools of problem solving. This course prepares the student to test for state certification for waste water treatment plant operator, grade I and II (entry level). (11/19)

### WWT-63 ADVANCED WATER TREATMENT PLANT OPERATIONS

3 units: 3 hours lecture.

Prerequisite: WWT-60. .

This course is a continuation of the study of water treatment plant operations and processes, with emphasis on the knowledge and skills needed by operators of conventional surface and ground treatment. Topics include control of metallic ions, trihalomethanes, disposal of wastes in the operation of water plants, instrumentation and advanced laboratory procedures, safety and drinking water regulations. Provides background to prepare students to take state certification exams. (11/19)

### WWT-64 ADVANCED WASTEWATER TREATMENT

3 units: 3 hours lecture.

Prerequisite: WWT-61.

This course is a continuation of the study of wastewater treatment plant operations and processes. It will emphasize the details of the process that occur in a wastewater treatment plant, including aeration, maintenance of microbe populations, sludge digestions, and chemical removal. (11/19)

# Welding Technology

## SCHOOL OF INDUSTRY AND MANUFACTURING

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[Welding Program Website](#)

### DEGREE

A.A. - Welding Technology

### CERTIFICATE

Welding Technology

Pipe Welding Technology

#### Program Description

The Merced College Welding Technology Program prepares participants for employment in structural welding, welding repair, job shop welding, and production welding. The program is also designed to retrain and update persons presently employed in welding and related trades.

The program includes welding and related skills in the areas of (OAW) oxyacetylene welding, (OFC-A) oxyacetylene cutting, (SMAW) shielded metal arc welding, (GMAW) gas metal arc welding, (FCAW) flux cored arc welding, (GTAW) gas tungsten arc welding, (PAC) Plasma Arc Cutting, (CAC-A) air carbon arc cutting, and equipment used in metal fabrication. Basic welding processes are introduced and related skills are developed in the WELD-06 and WELD-07 courses. The WELD-40 courses are designed to develop skills in design, layout, selection of materials, and production welding. WELD-46 is structured to prepare students for and pass the structural, (Limited Thickness, Steel) AWS qualification test. The curriculum used in the welding program is competency based.

Students are required to furnish their own safety glasses, welding gloves, pliers, measuring tape and text.

Students who wish to construct personal welding projects in WELD-40A & WELD-40B are required to pay for the cost of their materials.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### DEGREE (02/19)

**A.A. - Welding Technology (09800.AA)**

An Associate of Arts Degree in Welding Technology is available for students who complete the graduation requirements and successfully complete the courses required with a minimum grade point of 2.0 in each course.

#### Program Student Learning Outcomes

- Demonstrate competencies in job safety skills and awareness of workplace hazards.
- Follow written and oral instructions in the interpretation of simple drawings and sketches, including welding symbols and the execution of the fabrication process.
- Set up welding related equipment in order to maintain and adjust the equipment as necessary.
- Acquire skills and knowledge to make a successful transition to an entry-level position in the work force.
- Demonstrate the ability to pass the workmanship tests using common welding processes.

#### Program Requirements:

Program Core: (18 Units)		Units
CADM-01	Print Reading & Sketching .....	3
WELD-06	Fundamentals of Oxy-Fuel Welding and Shielded Metal Arc Welding .....	3
WELD-07	Fundamentals of T.I.G. and M.I.G. Welding .....	3

WELD-40A*	Introduction Welding Design and Construction .....	3
WELD-40B*	Advanced Welding Design and Construction .....	3
WELD-46**	Advanced Arc Welding Procedures .....	1
WELD-53**	Fabrication Equipment Operation and Safety .....	2
<b>Total: (18 Units)</b>		

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE (02/19)

**Welding Technology (09810.CN)**

A Certificate of Achievement will be awarded upon successful completion of the required courses listed below. For successful completion a student must complete the requirements with a minimum grade point of 2.0 in each course required for the certificate.

#### Program Student Learning Outcomes

- Demonstrate competencies in job safety skills and awareness of workplace hazards.
- Follow written and oral instructions in the interpretation of simple drawings and sketches, including welding symbols and the execution of the fabrication process.
- Set up welding related equipment in order to maintain and adjust the equipment as necessary.
- Acquire skills and knowledge to make a successful transition to an entry-level position in the work force.
- Demonstrate the ability to pass the workmanship tests using common welding processes.

#### Program Requirements:

Program Core: (18 Units)		Units
CADM-01	Print Reading & Sketching .....	3
WELD-06	Fundamentals of Oxy-Fuel Welding and Shielded Metal Arc Welding .....	3
WELD-07	Fundamentals of T.I.G. and M.I.G. Welding .....	3
WELD-40A*	Introduction Welding Design and Construction .....	3
WELD-40B*	Advanced Welding Design and Construction .....	3
WELD-46**	Advanced Arc Welding Procedures .....	1
WELD-53	Fabrication Equipment Operation and Safety .....	2
<b>Total: (18 Units)</b>		

\*Offered in the fall semester as a night class only. Offered in the spring semester as a day class only.

\*\*Offered in the spring semester as a night class only.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## CERTIFICATE <sup>(12/21)</sup>

### Pipe Welding Technology (09785.CM)

The Merced College Pipe Welding Technology program prepares participants for employment in the tubing and pipe welding industry. The program includes welding on tube and pipe in the 2G, 5G, and 6G positions using Shielded Metal Arc, Gas Metal Arc, Flux Cored Arc, Gas and Tungsten Arc. welding. In addition students will learn the different procedures for cutting and preparing tube and pipe in addition to learning procedures for layout and fit up of tube and pipe.

A Certificate of **achievement** will be awarded upon successful completion of the required courses listed below. For successful completion, a student must complete the requirements with a minimum grade of a "C" (or P) or better in each course with a grade point average of 2.0 or higher.

#### Program Student Learning Outcomes

- Demonstrate the ability to weld stainless steel pipe and tube.
- Demonstrate the ability to weld carbon pipe uphill and downhill.
- Layout and fit up stainless and carbon tube pipe.
- Understand and implement good manufacturing practices inside food processing facilities
- Understand pipe/tube fittings and valves and where and how they are used.

#### Program Requirements:

Program Core: (10 Units)		Units
WELD-60	Fundamentals of SMAW and GTAW in Pipe and Tube Welding .....	3
WELD-61	Gas Tungsten Arc Welding of Stainless Steel and Carbon Pipe and Tube .....	4
WELD-62	Welding Procedures in Shielded Metal Arc, Gas Metal Arc, & Flux Core Arc Welding of Carbon Pipe ..	5
WELD-63	Fitting and Layout for Pipe and Tube Industry .....	3
<b>Total: (15 Units)</b>		

## WELDING TECHNOLOGY (WELD)

### WELD-06 FUNDAMENTALS OF OXY-FUEL WELDING AND SHIELDED METAL ARC WELDING

3 units: 2 hour lecture, 3 hours lab.

This course emphasizes development of minimum skill standards in welding. The Shielded Metal Arc Welding (SMAW), Oxy-Fuel Welding (OFW) and Oxy-Fuel Cutting (OFC) processes are covered as prescribed in the (AWS) American Welding Training Qualification (QC 10) entry-level standards. (03/19)

### WELD-07 FUNDAMENTALS OF T.I.G. AND M.I.G. WELDING

3 units: 2 hours lecture, 3 hours lab.

This course emphasizes the development of minimum skill standards in welding. The Gas Metal Arc Welding (GMAW)/(MIG), Gas Tungsten Arc Welding (GTAW)/(TIG) and Plasma Arc Cutting (PAC) processes are studied as prescribed in the American Welding Society (AWS) Training Qualification (QC 10) entry-level standards. (03/19)

### WELD-40A INTRODUCTION WELDING DESIGN AND CONSTRUCTION

3 units: 2 hours lecture, 3 hours lab.

Prerequisites: WELD-07, WELD-06, and WELD-53.

This course covers the application of basic metal fabrication skills related to the structural steel industry. (12/21)

### WELD-40B ADVANCED WELDING DESIGN AND CONSTRUCTION

3 units: 2 hours lecture, 3 hours lab.

Prerequisite: WELD-40A

This course is a continuation of WELD 40A. It covers basic and advanced metal fabrication skills as well as the design and construction of special agricultural and industrial equipment. (11/19)

### WELD-46 ADVANCED ARC WELDING PROCEDURES

1 unit: 3 hours lab.

Advisories: WELD-06, WELD-07.

This course is designed to emphasize the skills and techniques of Shielded Metal Arc Welding, Gas Metal Arc Welding, Gas Tungsten Arc Welding, Air Carbon Arc Cutting and Oxyacetylene flame cutting as related to pipe and structural members. Included will be welding assembly print interpretation, weld symbol interpretation, and weld joint preparation. Students will be prepared to take an AWS Welder Certification Test during this course. (04/22)

### WELD-51 INTRODUCTORY PIPE WELDING

2 units: 1 hour lecture, 3 hours lab.

Prerequisite: WELD-07 and WELD-06.

This course is an introduction to pipe and tube fitting and welding. Industry standards established by the American Welding Society (AWS) and the American Petroleum Institute (API) are used as the basis for instruction. This course meets the needs of the food processing and liquid/gas material handling industries. (11/19)

### WELD-52 ADVANCED PIPE WELDING AND FITTING

2 units: 1 hour lecture, 3 hours lab.

Prerequisite: WELD-51

This course covers advanced welding processes and welding positions as well as covering advanced skills in pipe and tube fitting. This course covers advanced food processing and liquid/gas material handling industry topics. (11/19)

### WELD-53 FABRICATION EQUIPMENT OPERATION AND SAFETY

2 units: 1 hour lecture, 3 hours lab.

This course is an introduction to the welding program. It gives students the opportunity to familiarize themselves with commonly used equipment in industry. In addition to familiarizing themselves with industry standard equipment, they will be trained in lab procedure which will ensure students in more advanced classes can use the equipment without reserve. (11/19)

### WELD-60 FUNDAMENTALS OF SMAW AND GTAW IN PIPE WELDING AND TUBE WELDING

3 units: 2 hour lecture, 3 hours lab.

This course will provide introductory skills in Shielded Metal Arc Welding and Gas Tungsten Arc Welding as it relates to pipe and tube welding. (12/21)

### WELD-61 GAS TUNGSTEN ARC WELDING OF PIPE STAINLESS STEEL AND CARBON PIPE AND TUBE WELDING

4 units: 2 hour lecture, 6 hours lab.

Prerequisite: WELD-60

This course will provide introductory skills in Gas Tungsten Arc Welding. As it relates to stainless steel and carbon pipe and tube; including standard fitting applications. (12/21)

### WELD-62 WELDING PROCEDURES IN SHIELDED METAL ARC, GAS METAL ARC, AND FLUX CORE ARC WELDING OF CARBON PIPE

5 units: 2.5 hour lecture, 7.5 hours lab.

This course will prepare students with introductory skills in Shielded Metal Arc Welding, Gas Metal Arc Welding, and Flux Cored Arc Welding of carbon pipe in all positions and progressions. (12/21)

### WELD-63 FITTING AND LAYOUT FOR THE PIPE AND TUBE INDUSTRY

3 units: 2 hour lecture, 3 hours lab.

Prerequisite: weld-62

This course will provide students with the introductory skills in the fitting and layout of pipe and tube as well as fit up and tacking. (12/21)

# Work Experience

## HUMANITIES

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## WORK EXPERIENCE (WORK)

### WORK-24 WORK EXPERIENCE IN (SUBJECT)

1-8 units: 0 hours lecture, 0 hours lab.

Also: AGAS-24, AGEH-24ALLH-24, AUTO-24, CLDV-24, CRIM-24, EMER-24, FIRE-24, HMSV-24, KINE-24, LBST-24, NUTR-24, RADT-24, REGN-03.

Advisory: ENGL-01A

This course enables students to earn college credit for learning or improving skills or knowledge on-the-job. Occupational Work Experience is discipline-specific and must connect to the student's major or occupational goal(s). Seventy-five (75) hours of documented paid work experience equals 1 unit of credit. Sixty (60) hours of documented volunteer experience equals 1 unit of credit. A student may enroll in up to 16 total units of work experience at Merced College. Students must have an established work site prior to enrolling in the course. (11/19)

### WORK-40 GENERAL WORK EXPERIENCE

1-6 units: 0 hours lecture, 0 hours lab.

Advisory: ENGL-01A

This course will enables students to earn college credit for learning or improving skills or knowledge while working. Any type of work is suitable, either paid or volunteer. This course will allow students to sample an experience in a career field that is not related to the student's major. A student may not enroll in any more than 16 units of any cooperative work experience course at Merced College. Seventy-five hours of cooperative work experience (or 60 hours volunteer work) equals 1 unit of cooperative work experience credit. (11/19)

# Adult Education (Noncredit)

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[Adult Ed and Noncredit Website](#)

## CERTIFICATE

Adult Literacy  
Basic Skills  
Computer Technology Essentials  
Court Interpreter  
ESL Beginning Skills Program  
ESL Intermediate Skills Program  
ESL Advanced Skills  
ESL Workforce Training  
Essential Skills for Employment and Job Retention  
Mathematics College Preparatory Basic Skills  
Medical Assistant  
Reading and Writing College Preparatory Basic Skills  
Technical Office Occupations

### Web site

<http://www.mccd.edu/offices/noncredit/index.html>

### Program Description

The Merced College Adult Education and Noncredit Program is located in the Business Resource Center. This program offers a wide variety of classes to the community with no registration fees. Classes are offered to assist students seeking employment, help them relearn skills and meet current job requirements, and promote skills for physical and emotional well-being. Call our office, at (209) 381-6477 for further information.

### Career Opportunities

- Computer Technology Essentials
- Court Interpreter
- Medical Assistant
- Professional Truck Driver
- Technical Office Occupation

### Highlights

Adult Education and Noncredit is part of the community colleges system of instruction. As a key aspect of lifelong learning, noncredit instruction:

- Serves as a gateway to college and/or a career path
- Assists parents in developing the skills needed to help their children succeed in school and life;
- Provides programs for immigrants to actively engage in the economy and civic life;
- Supports persons with disabilities to develop ways to be self-sufficient;
- Increases community awareness of health, safety, family and consumer issues;
- Provides access to basic skills and English as a Second Language; and
- Keeps older adults active and healthy.

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## CERTIFICATE (09/19)

### Adult Literacy Certificate of Competency (49190.NC)

The Adult Literacy Program assists students in developing their literacy skills for the workplace or to transition to college-level classes. The courses in the Adult Literacy Program will introduce students to the conventions of writing, support them in vocabulary acquisition, and help them increase their reading skills to the level of high school proficiency.

Program Student Learning Outcomes:

- Read and analyze written communication leading to the comprehension of texts at a 1100 Lexile level.
- Compose coherent written communication using different modalities appropriate for introductory academic and workforce audiences.

### Program Requirements:

ENG-123	Adult Literacy Level 2
ENG-124	Adult Literacy Level 3
ENG-125	Adult Literacy Level 4

**Total: (144 to fewer than 192 hours)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

## CERTIFICATE (5/08)

### Basic Skills Certificate of Completion (49165.NC)

The basic skills program consists of a sequence of courses to provide instruction for individuals in elementary and secondary-level reading, writing, computation and problem-solving skills in order to assist them in achieving their academic, vocational, and personal goals.

Program Student Learning Outcomes:

Upon completion of the basic skills program the student will be able to address the content and proficiency at levels through the twelfth grade and may incorporate a high school diploma.

### Program Requirements:

SOCL-760	Career and Life Planning
SOCL-761	Vocational Life Planning

EDU-110	Reading and Computers
EDU-111	Reading and Computers II

GED-101	Basic Skills Development and GED Preparation
EDU-112A	Skills Acquisition for Student Success - General
EDU-112B	Skills Acquisition for Student Success - Math
GUI-101	Introduction to College
GUI-102	Probation Solutions - Level 1

**Total: (960 hours or more)**



Visit the [Program Mapper](#) for more information on when to take classes and career information.

**CERTIFICATE** (02/21)**Computer Technology Essentials Certificate of Completion (07020.NC)**

This noncredit program is designed to prepare students for the 21st Century Workforce with the essential skills needed to enter the computer technology workforce, advance within their current place of employment, and/or transfer to credit bearing certificates and degrees in the field.

**Program Student Learning Outcomes:**

Upon completion the student will be able to demonstrate entry level computer technology skills for employment.

**Program Requirements:**

ICT-720	Computer Software Essentials
ICT-721	Computer Hardware Essentials
ICT-722	Information and Communication Technology Essentials

**Total: (108-216 hours)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**CERTIFICATE** (5/08)**Court Interpreter Certificate Of Completion (21078.NC)**

This is a short-term vocational program with high employment potential within the state of California. The program consists of a sequence of courses leading to a vocational/career technical objective and certificate that is directly related to employment.

**Program Student Learning Outcomes:**

Upon completion of the Court Interpreter program students will be better prepared to pass state and federal examinations for certification as Spanish to English interpreters.

**Program Requirements:**

BUSN-752	Introduction to Microcomputers
LAW-765	Spanish Language Interpreter for Court and Administrative Hearings

**Total: (96 to fewer than 144 hours)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**CERTIFICATE** (11/19)**ESL Beginning Skills Program Certificate of Completion (49196.NC)**

The Beginning ESL program is for preliterate and non literate ESL students who have minimal English language skills. Emphasis in this program is on aural and oral skills with visual reinforcement. The student will be introduced to reading, writing and math skills.

**Program Student Learning Outcomes:**

Upon completion of ESL basic skills, the student will improve English language skills.

**Program Requirements:**

ENG-801	Beginning ESL Skills
ENG-802	Advanced-Beginning ESL Skills

**Total: (288 to fewer than 480 hours)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**CERTIFICATE** (11/19)**ESL Intermediate Skills Program Certificate of Completion (49198.NC)**

The Intermediate ESL program is designed for intermediate level students who have learned basic survival skills, but who need instruction that will lead to a relatively sophisticated level of discourse of issues, and ideas that reach beyond basic survival. The program will prepare students to take credit courses at Merced College. This program includes practice in listening, speaking, reading, and writing.

**Program Student Learning Outcomes:**

Upon completion of intermediate level ESL, the student will be prepared to take college credit courses.

**Program Requirements:**

ENG-813	Low-Intermediate ESL Skills
ENG-815	Intermediate ESL Skills

**Total: (288 to fewer than 480 hours)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**CERTIFICATE** (09/19)**ESL Advanced Skills Program Certificate of Competency (49195.NC)**

The Advanced ESL program is designed for students who have intermediate-level English skills, but who need instruction that will lead to a higher level of literacy in English. The courses in this program focus on academic reading and writing to prepare students to transition to college-level courses and to improve their English for their careers.

**Program Student Learning Outcomes:**

- Produce discourse that conforms to the linguistic conventions of the English language at the advanced ESL level.
- Use the reading process, at the advanced ESL level, to access a variety of texts.
- Compose, at the advanced ESL level, a range of academic writing assignments, including essays.

**Program Requirements:**

ENG-821	Foundations in Academic Literacy II for Non-Native Speakers
ENG-822	Foundations in Academic Literacy I for Non-Native Speakers

**Total: (144 to fewer than 192 hours)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**CERTIFICATE** (02/21)**ESL Workforce Training Certificate of Competency (49310.NC)**

Workforce Training Program is designed for the non-native English speakers at an intermediate or higher level who need additional communication skills that will lead to a workforce training program or entry-level employment.

**Program Student Learning Outcomes:**

Upon completion of this program, the student will be prepared for entry-level employment or prepared for a workforce training program.

**Program Requirements:**

ENG-820	ESL Workforce Training for Adults
ENG-820L	ESL Workforce Training Lab

**Total: (36 to 108 hours)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE (02/21)

#### Essential Skills for Job Employment and Job Retention Certificate of Completion (49301.NC)

This noncredit program is designed to prepare students for the 21st Century Workforce with the essential skills needed to enter the workforce or advance within their current place of employment.

##### Program Student Learning Outcomes:

Upon completion of this program, the student will demonstrate essential skills to enter the workforce or advance their current skillset.

##### Program Requirements:

WRK-710	Essential Skills for Employment
WRK-712	Essential Skills for Job Retention

**Total: (16 to 80 hours)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE (10/18)

#### Mathematics College Preparatory Basic Skills Certificate of Competency (49166.NC)

This noncredit program is designed to serve students who have not met the minimum Mathematics placement test scores to enter college level coursework. Students will benefit from elementary and secondary basic skills instruction in Mathematics and prepare them for credit Mathematics coursework.

##### Program Student Learning Outcomes:

- Evaluate arithmetic expressions involving whole numbers without the use of a calculator.
- Solve problems including geometry concepts without the use of a calculator.
- Solve application problems involving whole numbers and geometry concepts without the use of a calculator.

##### Program Requirements:

MAT-101	College Prep Math I: Operations of Whole Numbers
MAT-102	College Prep Math II: Applications of Whole Numbers

**Total: (480 to fewer than 960 hours)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE (01/19)

#### Mathematics College Preparatory Basic Skills II Certificate of Competency (49167.NC)

This noncredit program is designed to serve students who have not met the minimum Mathematics placement scores to enter college level coursework. Student will benefit from elementary and secondary basic skills instruction in Mathematics and prepare them for credit Mathematics coursework.

##### Program Student Learning Outcomes:

- Evaluate arithmetic expressions involving fractions and decimals without the use of a calculator.
- Solve problems including fractions and decimal concepts without the use of a calculator.
- Solve application problems involving fractions and decimals without the use of a calculator.
- Round decimal numbers to appropriate place value.
- Convert between fractions and decimals with or without the use of a calculator.

- Evaluate expressions involving whole numbers and decimals
- Solve application problems.

##### Program Requirements:

MAT-103	College Prep Math III: Operations on Fractions
MAT-104	College Prep Math IV: Operations on Decimals

**Total: (96 to fewer than 144 hours)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE (05/08)

#### Medical Assistant Certificate Of Competency (10100.NC)

This is a Short-term vocational program with high employment potential. The program consists of a sequence of courses leading to a vocational/ career technical objective and certificate that is directly related to employment.

##### Program Student Learning Outcomes:

Upon completion of the Medical Assistant program the student will be prepared to seek employment directly related to the Medical Assisting career pathway.

##### Program Requirements:

BUSN-756	Introduction to Office Occupations
MED-717	Medical Assisting
EDU-112C	Skills Acquisition for Student Success - Allied Health

**Total: (960 hours or more)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE (12/18)

#### Reading and Writing College Preparatory Basic Skills Certificate of Completion (49199.NC)

This noncredit program is designed to serve students who have not met the minimum reading and writing requirements to enter college level coursework. Students will benefit from basic skills instruction in reading and writing and prepare them for credit English coursework. In addition, supplemental instruction will support them in credit English work.

##### Program Student Learning Outcomes:

- Demonstrate comprehension of textbooks at a reading Lexile score of 690 or above.
- Compose several sentences in response to level-appropriate critical thinking questions.

##### Program Requirements:

EDU-112D	Skills Acquisition for Student Success--English
ENG-121	College Prep English 1: Reading
ENG-122	College Prep English 2: Writing

**Total: (192 to fewer than 288 hours)**

Visit the [Program Mapper](#) for more information on when to take classes and career information.

### CERTIFICATE (05/08)

#### Technical Office Occupations Certificate Of Competency (07744.NC)

This is a Short-term vocational program with high employment potential. The program consists of a sequence of courses leading to a vocational/ career technical objective and certificate that is directly related to employment.

**Program Student Learning Outcomes:**

Upon completion of the Technical Office Occupations program the student will prepared to seek employment directly related to the Technical Office Occupations career pathway.

**Require Courses:**

BUSN-756	Introduction to Office Occupations	<b>Total: (450 hours, open entry)</b>
BUSN-749	Microcomputers and Business	<b>Total: (720 hours, open entry)</b>

Visit the [Program Mapper](#) for more information on when to take classes and career information.

**CERTIFICATE (05/19)**

**Professional Truck Driving Class A CDL Training (09475.NC)**

To complete the program, students will successfully complete three courses. The courses are TRK 769 Class A CDL Permit Training, TRK 770 Class A CDL Behind-The-Wheel Training, and TRK 771 Class A CDL Internship. Through managed enrollment, students will be required to provide an approved medical examination report, hold a valid CA driver's license, and drug test certificate. In TRK 769, students will learn the material necessary to successfully pass the DMV CLP test, which will include the option for multiple Class A endorsements. In addition, students will gain knowledge and develop additional skills necessary to become a professional truck driver. In TRK 770, students will learn proper driving practices and gain operational and driving skills through behind-the-wheel training. In TRK 771, students will participate in an internship of at least 30 behind-the-wheel hours to enhance their driving skills, which provides the driving experience necessary to gain employment.

**Program Student Learning Outcomes:**

The goal of this program is to prepare students for employment as professional commercial truck drivers through the process of obtaining their Commercial Class A Drivers License. This occurs when students complete the Class A pre-permit training course, obtain their Commercial Learners Permit (CLP), complete the behind-the-wheel training course, pass the DMV behind-the-wheel test, followed by an internship period. Success is measured by students obtaining their Class A permit, obtaining their Class A License, then finally by completing an internship.

**Program Requirements:**

TRK-769	Class A CDL Permit Training.....	<b>Total: (80-90 hours)</b>
TRK-770	Class A CDL Behind-the-Wheel Training .....	
	.....	<b>Total: (60-80 hours)</b>
TRK-771	Class A CDL Internship .....	<b>Total: (30-40 hours)</b>

**ELEMENTARY AND SECONDARY BASIC SKILLS**

**EDU-110 READING AND COMPUTERS**

Course duration: 0.5-288 hours; open entry format.

This course is best suited for adult learners below the third grade reading ability that need individual attention, encouragement, and reinforcement while learning basic phonics, reading, spelling, and vocabulary skills. The student can learn at his/her own rate of speed with computer assisted instruction. (02/21)

**EDU-111 READING AND COMPUTERS II**

Course duration: 0.5-324 hours, open entry format.

Advisory: EDU-110.

This course is best suited for adult learners at third grade reading and vocabulary level up to approximately sixth grade level that require individual attention and reinforcement while reviewing basic phonics, improve reading, spelling, and vocabulary skills. (03/19)

**EDU-112A SKILLS ACQUISITION FOR STUDENT SUCCESS – GENERAL**

Course duration: 180-540 hours; open entry format.

This optional, open entry/open exit supplemental learning assistance course can be taken by enrolled credit students as part of their credit courses. Proficiency can be attained with a minimum of 180 and a maximum of 540 hours per term. The course provides a supervised learning experience for students who can benefit from individualized instruction in study skills and study habits in a laboratory setting. The study skills and study habits learned depend on the needs of the individual students and include communication/literacy skills, quantitative reasoning skills, critical thinking skills, educational computer applications, knowledge of college resources, and application of composition skills across the curriculum. (11/19)

**EDU-112B SKILLS ACQUISITION FOR STUDENT SUCCESS – MATH**

Course duration: 90-180 hours; open entry format.

Enrolled credit students may take this course for a maximum of 180 hours per term. This course provides a supervised learning experience for students who can benefit from individualized instruction in study skills and study habits in a laboratory setting. The study skills and study habits learned depend on the needs of the individual students and include educational computer applications, knowledge of college resources, and application of computation skills across the curriculum. The course is 90-180 hours; open entry format. (05/19)

**EDU-112C SKILLS ACQUISITION FOR STUDENT SUCCESS – ALLIED HEALTH**

Course duration: 27-36 hours; open entry format.

This course is designed to provide students the opportunity to improve and enhance their allied health skills through any number of training exercises that assist in the clinical development of and reinforcement of the practical allied health skills. The course is in a lab setting enriched with a resource library, manikins (for skills practice), and computer stations. Course duration is 27-36 hours. (12/18)

**EDU-112D SKILLS ACQUISITION FOR STUDENT SUCCESS-- ENGLISH**

Course duration: 36-180 hours; open entry format.

Enrolled credit students may take this course for a minimum of 36 and maximum of 180 hours per term. This course is designed to provide Merced College students the opportunity to improve their critical reading, writing, research, and/or technological skills in a supervised instructional setting. The critical skills learned depend upon the needs of individual students and correspond to the work assigned in co-enrolled courses. (04/19)

**ENG-121 COLLEGE PREP ENGLISH 1: READING**

Course duration: 45-63 hours; open entry format.

Advisory: Read commonly used words and sound out words of more than two syllables.

This course will introduce students to text-based reading at four levels below transfer. Upon entry, students should be able to identify sight words and sound out unfamiliar words. Students will learn skills in order to increase vocabulary through context clues, to understand basic levels appropriate texts, and to think critically about those texts at four levels below transfer. (12/18)

**ENG-122 COLLEGE PREP ENGLISH 2: WRITING**

Course duration: 45-63 hours; open entry format.

Advisory: Read commonly used words and sound out words of more than two syllables.

Course duration: 45-63 hours; open entry format. This course will introduce students to writing at four levels below transfer. Upon entry, students should be able to identify sight words and sound out unfamiliar words. Students will learn skills in order to increase vocabulary, write complete sentences with grammatical accuracy, and to write critically about texts at four levels below transfer. (12/18)

**ENG-123: ADULT LITERACY LEVEL 2**

Unit(s): 54-81 Total hours, Open Entry

In Adult Literacy Level 2, students will read level-appropriate text (400-499 Lexile) with accuracy, at an appropriate fluency rate; write opinion pieces or simple informative text; become familiar with the use of print and digital search tools; and be introduced to guided research. (5/19)

**ENG-124: ADULT LITERACY LEVEL 3**

Unit(s): 54-81 Total hours, Open Entry

In Adult Literacy Level 3, students will read level-appropriate text (500690 Lexile) with accuracy, at an appropriate fluency rate; write guided assignments based on a variety of prompts that attempt to organize, compose, revise, and edit; use print and digital search tools to locate information relevant to a topic; and participate in guided research at the appropriate level. (5/19)

**ENG-125: ADULT LITERACY LEVEL 4**

Unit(s): 54-81 Total hours, Open Entry

In Adult Literacy Level 4, students will read level-appropriate text (7001090 Lexile) with accuracy, at an appropriate fluency rate; write opinion pieces, supporting a logically ordered point of view with facts and reasons based upon source material; use print and digital search tools to locate information relevant to a topic to broaden an understanding of the topic; and participate in guided research at the appropriate level. (5/19)

**ENG-521: READING FOR OLDER ADULTS**

Unit(s): 36-54 Total hours, Open Entry

This course is designed to assist older adults in identifying and examining personal interests and aptitudes through reading to enhance mental acuity and creativity, as well as the appreciation of the arts and literature. (5/19)

**ENG-522: READING AND COMPOSING MEMOIRS**

Unit(s): 36-54 Total hours, Open Entry

This course is designed to assist older adults in identifying and examining personal interests and life experiences through the reading and composing of memoirs to enhance mental acuity and creativity, as well as the appreciation of the arts and literature. (5/19)

**ENG-820: ESL WORKFORCE TRAINING FOR ADULTS**

Unit(s): 36-72 hours, open entry format.

Advisories: ENG 802

This 72-hour course provides intensive language acquisition skills that prepare non-native English speakers to enter the workforce. The focus is on building communication skills and listening strategies that are necessary to succeed at entry-level position in a variety of job settings. Students will practice conversation skills while learning about the culture of work, follow oral instructions, and learn to meet employment expectations. (12/18)

**ENG-820L: ESL WORKFORCE TRAINING LAB**

Unit(s): 36 hours, open entry format.

Advisories: ENG 802; ENG-820.

This 36-hour course provides intensive language acquisition skills that prepare non-native English speakers to enter the workforce. This training course offers with direct experience in various work environments, including but not limited to the following: food service, shipping and receiving, child care, grounds and waste management. This on-the-job experience is combined with language instruction. This course is designed to meet state and county requirements for the CalWORKS program. (12/18)

**ENG-821: FOUNDATIONS IN ACADEMIC LITERACY II FOR NON-NATIVE SPEAKERS**

Unit(s): 90 - 255 Total

Advisories: ENG 815

This course is intended for students whose primary language is not English. At a low-advanced ESL level, this course focuses on effective critical reading and thinking skills, research strategies and academic composition with proper documentation. Students write a range of increasingly complex short essays informed by assigned reading, discussion, and/or research using a variety of source material including non-fiction. (3/19)

**ENG-822: FOUNDATIONS IN ACADEMIC LITERACY I FOR NON-NATIVE SPEAKERS**

Unit(s): 90 - 255 Total

Advisories: ENG 821

This course is intended for ESL students. This course focuses on effective critical reading and thinking skills, research strategies, scholarly composition with proper documentation, and advanced editing skills.

Students compose a range of academic writing informed by assigned readings, discussion, and/or research using primarily non-fiction source material. (3/19)

**GED-101 BASIC SKILLS DEVELOPMENT AND GED PREPARATION**

Course duration: 208-288 hours; open entry.

This 208-288 hours course is designed to build the basic academic skills of adult learners in the areas of reading comprehension, language and evidence-based writing, mathematical reasoning, life, physical, and earth sciences, and social science. Special emphasis is placed on analytical reading skills, problem solving, and test preparation. The content of this course is reflective all new modifications to the GED exam. Subject matter included are the areas covered by the GED exam such as science, social studies, literature, mathematics and writing. (10/20)

**GUI-101 INTRODUCTION TO COLLEGE**

Course duration: 1.5-6 hours; open entry format.

This course will acquaint students with the College, academic regulations, the availability of campus resources, and the importance of educational planning. (11/18)

**GUI-102 PROBATION SOLUTIONS – LEVEL 1**

Course duration: 1.5 hours; open entry format.

Successful completion of this course is required for Level I academic and progress probation students to continue enrollment. The student will learn strategies for successful course progression and removal from probation status. They will also learn viable approaches for successfully attaining their academic goals. (09/19)

**MAT-101 MATH I: OPERATIONS OF WHOLE NUMBERS**

Course duration: 45-63 hours Total; open entry.

Advisory: ENG-121.

This is an introductory course of the whole number system, including counting, notation, and the number line. Particular emphasis is placed on the basic computational skills, addition, subtraction, multiplication, and division. (04/20)

**MAT-102 MATH II: APPLICATIONS OF WHOLE NUMBERS**

Course duration: 45-63 hours Total; open entry.

Advisory: ENG-121; MAT-101.

This is an introductory course of the whole number system, with an emphasis on application problem solving. Particular emphasis is placed on the area, volume, and perimeter of geometric figures. (04/20)

**MAT-103 COLLEGE PREP MATH III: OPERATIONS ON FRACTIONS**

Course duration: 36-54 hours.

Advisory: ENG-121.

This course begins with a short review of the whole number system, exponents, and the order of operations. The course covers the meaning fractions, and the four basic operations using them: addition, subtraction, multiplication, and division. Special emphasis will be placed on thought problems, including life skills. The course will conclude with an introduction ratios, rates, and proportions. (03/18)

**MAT-104 COLLEGE PREP MATH IV: OPERATIONS ON DECIMALS**

Course duration: 36-54 hours.

Advisory: ENG-121.

This course begins with a short review of fractions. The course covers the meaning of decimals, and the four basic operations using them: addition, subtraction, multiplication, and division. Special emphasis will be placed on thought problems, including life skills. The course will conclude with an introduction to unit conversions, and basic geometry. (03/18)

**TUT-106 SUPERVISED TUTORING**

Course duration: 108-360 hours; open entry format.

This course is designed to assist credit enrolled students who are experiencing difficulty in their college courses and need special supplemental instruction in the subject or skill. Proficiency can be attained with a minimum of 180 hours and a maximum of 360 hours. The study skills and study habits learned depend on the needs of the individual



students. Supervised tutoring includes support in communication/literacy skills, quantitative reasoning skills, and critical thinking skills. The course provides tutoring from qualified tutors in either a one-to-one or small group setting. (02/21)

## **EDUCATION COURSES FOR PERSONS WITH SUBSTANTIAL DISABILITIES**

### **SKLS-210 DAILY LIVING SKILLS**

Course duration: 435-455 hours; open entry format.

This 435-455 hour course is designed primarily for mentally and or physically disabled students who are functioning at very low levels. The course teaches the basic living skills necessary for successful social interaction, self-care, and to help enhance self-esteem. (03/19)

## **FAMILY AND CONSUMER SCIENCE**

### **SEW-402 BEGINNING QUILTING**

Course duration: 54 hours; open entry format.

This 36-54 hour noncredit course will teach students the fundamentals of quilting. Students will learn ideas and techniques for creating quilted and patchwork bed covers, wall art, clothing and other quilted projects. Topics include piecing, appliqué, and other quilting skills. (05/19)

### **SEW-407 NEEDLECRAFTS AND SEWING**

Course duration: 54 hours; open entry format.

This 36-54 hour course provides instruction in knitting, crocheting, stitchery and sewing with an emphasis on: making needlecrafts easier, learning the basic techniques in each of the areas, and learning how to select the right equipment, and the correct pattern for each level of expertise. (05/19)

## **EDUCATION COURSES FOR OLDER ADULTS**

### **ARTS-507B MUSIC THERAPY FOR ADULTS - INTERMEDIATE**

Course duration: 54 hours; open entry format.

Limitation on enrollment: Students must demonstrate ability to sight-read music for their instrument.

This 54 hour course provides experience in performing concert and symphonic band literature. Public performance and exchange concerts are scheduled in addition to class instruction and rehearsals. (05/19)

### **ARTS-512 CHORAL DYNAMICS**

Course duration: 54-72 hours; open entry.

Limitation on enrollment: Ability to accurately match pitch and correctly follow verbal instructions.

This 54-72 hour course is a study of standard choral literature. It emphasizes part-singing, intonation, breath control, vocal development, style, eras, musical devices, etc. The ensemble makes several public concert appearances each year. (5/19)

### **ARTS-520 THEATRE PRODUCTION IN THE COMMUNITY**

Course duration: 54-108 hours; open entry format.

Limitation on Enrollment: Enrollment by audition or interview..

This class offers the beginning or intermediate adult community member the opportunity to perform theatrical roles and/or learn the basics of technical positions in theatrical rehearsal and public performance. (12/20)

### **EDU-508 MATURE DRIVER IMPROVEMENT**

Course duration: 8 hours; open entry format.

This course is designed primarily for drivers age 55 and older. Students receive classroom instruction on driving safety, road courtesy, improving driving performance, and safe driving techniques for emergencies. This course is 8 hours in duration. (03/19)

### **HLT-322 BEGINNING FALL AND INJURY PREVENTION FOR OLDER ADULTS**

Course duration: 36 hours.

This 36-hour course is designed to teach older adults how physical activity can help reduce incidences of slips, sprains and falls. The course is a combination of lecture, demonstration, and practice of muscle development and strengthening techniques. Diet and nutrition for supporting health and maintaining healthy weight is also discussed. (11/18)

## **SHORT TERM VOCATIONAL**

### **BUSN-749 MICROCOMPUTERS AND BUSINESS**

Course duration: 720 hours; open entry format.

Advisory: None.

This entry-level course is designed for the adult student who desires vocational training in the field of Technical Office Occupations. The course is project-based to develop student entry-level skill proficiency in using state of the art technology to solve problems. Various simulations reflective of real life experiences will be a major part of the instructional units. The course is 720 hours in duration and is open entry format. (03/19)

### **BUSN-752 INTRODUCTION TO MICROCOMPUTERS**

Course duration: 24-288 hours; open entry format.

This course will introduce students to microcomputers and the Windows software environment. Students will learn to identify the components of desktop screens, learn to execute basic computer commands. The class may also cover internet browsing, e-mail, website navigation, and downloading files. This course is 24 hours in duration. (11/20)

### **BUSN-756 INTRODUCTION TO OFFICE OCCUPATIONS**

Unit(s): 450, open entry.

This entry-level course is designed for the adult students who desires vocational training in the field of Technical Office Occupations. This course will introduce students to microcomputers and the Windows software environment. Students will learn to identify the components of desktop screens and learn to execute basic computer commands. The class will also cover internet browsing, email, website navigation, and downloading files. The course is project-based to develop student entry-level skill proficiency in using Microsoft Office Word, PowerPoint and Excel. Various simulations reflective of real life experiences will be a major part of the instructional units. The course is 450 hours in duration and is open entry format. (05/16)

### **ICT-720 COMPUTER SOFTWARE ESSENTIALS**

Course duration: 27-54 hours; open entry format.

In this course students focus on the essentials of common business software applications and how to use them to accomplish tasks. By the end of the course students will be able to describe existing and emerging technologies of computing systems, impact of computers on our society, and the future of computing. Students learn the essentials of computer applications web software technologies. Students will apply these concepts and methods through hands-on projects developing computer-based solutions to business problems. (02/21)

### **ICT-721 COMPUTER HARDWARE ESSENTIALS**

Course duration: 27-54 hours; open entry format.

An introduction to the basics of computing systems, impact of computers on our society, and the future of computing. Focus on learning computer hardware, database management systems, networking, internet technologies and programming basics. Project-based learning through hands-on projects developing computer-based solutions to problems. (2/21)

### **ICT-722 INFORMATION AND COMMUNICATION TECHNOLOGY ESSENTIALS**

Course duration: 54-108 hours; open entry format.

In this course students focus on computer technology hardware and related software skills needed to help meet the growing demand for entry-level ICT professionals. The fundamentals of computer hardware and software as well as advanced concepts such as security, networking, and



the responsibilities of an ICT professional will be introduced. Students will prepare for the CompTIA+ certification exams. (02/21)

#### LANG-716 SPANISH IN THE WORKPLACE

Course duration: 54 hours; open entry format.

This 54 hour introductory course is designed for non-Spanish speakers who wish to develop specific conversational skills that are related to their work or community environment. Special words and phrases are taught with an emphasis on basic vocabulary and word recognition skills that will result in improved communication with Spanish-speaking customers, patients, students, and clients. (12/19)

#### LAW-765 SPANISH LANGUAGE INTERPRETER FOR COURT AND ADMINISTRATIVE HEARINGS

Course duration: 108 hours; open entry format.

This 108 hour course is designed to help prepare students to take the state and or federal exams for Spanish language interpreters. It provides an introduction to the court system and an overview of the administrative hearing process. Topics also include public speaking, memory development, note taking, simultaneous interpretation, and legal and medical terminology. Fluency in Spanish and English reading, writing, and speaking will enhance student success. Students may repeat this course. (11/19)

#### MED-717 MEDICAL ASSISTING

Course duration: 960 hours; open entry format.

Advisory: none.

This entry level course designed for the adult students who desire vocational training in the field of medical assisting. Course instruction includes an overview of the career of medical assisting, knowledge of medical law and ethics, oral and written communication skills, medical terminology, anatomy and physiology, and administrative and clinical office procedures. (12/18)

#### SOCL-760 CAREER AND LIFE PLANNING

Course duration: 435-455 hours; open entry format.

This course is designed for students who function at limited levels of cognitive development. It is designed to help students acquire positive workplace attitudes, skills, and habits. This course is 435 - 455 hours in duration and may require a work experience component. (11/17)

#### SOCL-761 VOCATIONAL LIFE PLANNING

Course duration: 18-48 hours; open entry format.

This course is designed primarily for students who are part of the Merced College Independent Living Program (ILP). The course addresses issues and barriers that students will typically encounter while seeking and maintaining employment and success in becoming an independent adult. Course content includes instruction in the areas of education, employment, housing, money management, and daily living skills. (11/18)

#### TRK-769 CLASS A CDL PERMIT TRAINING

Course duration: 80-90 hours; Noncredit Managed Enrollment.

Limitation on Enrollment: Provide proof of a current and valid D.O.T. Medical Card; Pass a drug test; Must hold a California Drivers License.

In TRK 769, students will learn the material necessary to successfully pass the DMV Commercial Learners Permit test, which will include the option for multiple Class A endorsements. In addition, students will gain knowledge and develop additional skills necessary to become a professional truck driver. (05/19)

#### TRK-770 CLASS A CDL BEHIND-THE-WHEEL TRAINING

Course duration: 60-80 hours; Noncredit Managed Enrollment.

Prerequisite: TRK-769

Limitation on Enrollment: Provide proof of a current and valid D.O.T. Medical Card; Pass a drug test; Provide proof of obtaining Commercial Learners Permit.

In TRK 770, students will learn safe operational and driving skills, for a

Class A commercial driver's license (CDL), through behind the wheel operations. In addition, students will gain knowledge and develop skills necessary to become a professional truck driver. (05/19)

#### TRK-771 CLASS A CDL INTERNSHIP

Course duration: 30-40 hours; Noncredit Managed Enrollment.

Prerequisite: TRK-770

Limitation on Enrollment: Provide proof of a current and valid D.O.T. Medical Card; Pass a drug test; Provide proof of obtaining Class A CDL.

In TRK-771, students will participate in an internship of at least 30 behind-the-wheel hours to enhance their driving skills, which provides the driving experience necessary to gain employment. (05/19)

#### TRNG-768 BUS DRIVER TRAINING/RECERTIFICATION

Course duration: 36-63 hours; open entry format.

This 36-63 hour course is designed to improve the bus driver's public relations ability and to provide basic and refresher course information on vehicle checkout procedures, first aid, and emergency procedures. This classroom instruction course also includes good driving fundamentals, assessing, and adjusting to road conditions, and techniques for safe downhill driving. Defensive driving skills and passenger discipline are addressed. A discussion of new state laws and requirements and analysis of bus accidents is provided. (11/20)

#### WRK-710 ESSENTIAL SKILLS FOR EMPLOYMENT

Course duration: 8-48 hours; open entry format.

This course is designed to prepare students for the 21st Century Workforce. The course focuses on the importance of self-awareness and evaluating career opportunities. Course content includes: assessments, identifying skills and interests, career exploration, effective job searching, and personal finance. (12/20)

#### WRK-712 ESSENTIAL SKILLS FOR JOB RETENTION

Course duration: 8-48 hours; open entry format.

This course is designed to prepare students for 21st Century Workforce. The course focuses on the importance of essential skills and expectations that employers are seeking within job applicants. Course content includes: preparing a resume and cover letter, understanding the application process, interviewing competencies, and maintaining successful employment. (12/20)

## ENGLISH AS A SECOND LANGUAGE (ESL)

#### ENG-801 BEGINNING ESL SKILLS

Course duration: 204-288 hours; open entry format.

This course is for preliterate and nonliterate ESL students who have no, or very few, English language skills. Emphasis of the course is on aural/oral skills and visual reinforcement. (10/20)

#### ENG-802 ADVANCED-BEGINNING ESL SKILLS

Course duration: 204-288 hours; open entry format.

Advisory: ENG-801.

This course is for preliterate and nonliterate ESL students who have minimal English language skills. Emphasis in this course is on aural and oral skills with visual reinforcement. The student will be introduced to reading, writing and math skills. (10/20)

#### ENG-813 LOW-INTERMEDIATE ESL SKILLS

Course duration: 204 - 288 hours.

Advisory: ENG-802.

This course is designed for low-intermediate level students who need more practice with English skills. This course includes practice in listening, speaking, reading, and writing. (10/20)

#### ENG-815 INTERMEDIATE ESL SKILLS

Course duration: 204 - 288 hours.

Advisory: ENG-813.

This course is for intermediate level students who have learned basic survival skills, but who need instruction that will lead to a relatively sophisticated level of discourse of issues and ideas that reach beyond basic survival. This course will prepare students to take credit courses

at Merced College. This course includes practice in listening, speaking, reading, and writing. (10/20)

## **CITIZENSHIP/ESL CIVICS**

### **HST-900 U.S. CITIZENSHIP**

Course duration: 72 hours; open entry format.

Advisory: ENG-802.

This course is best suited for non-U.S. citizens. It will provide non-U.S. citizens with a study of the federal and state system of government and the U.S. Constitution, preparing them for the naturalization citizenship interview with United States Citizenship and Immigration Services (USCIS). The course will include civil rights, voting, historical development of the U.S., types of government, the electoral process, political parties, the executive, legislative, and judicial branches of government, and the relationship between the state and federal systems of government. The student can practice reading, writing, speaking, listening, and pronunciation in English. (03/22)

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Counseling  
A.S., Santa Rosa Junior College;  
B.S., The Evergreen State College;  
M.S., California State University, Sacramento

**CLIFFORD, JEANIE**

Psychology  
B.A., M.A., San Diego State University;  
Ph.D., University of California, San Diego

**COAHRAN, SCOTT**

Psychology/Sociology  
B.A., Johns Hopkins University;  
M.A., Arizona State University;  
M.A., Aquinas Institute of Theology

**COBURN, CARY**

Biology  
A.A., Merced College;  
B.S., M.S., California State University, Chico;  
Ph.D., University of California, Riverside

**CODD, ANDREW**

Landscape Horticulture  
A.A., A.S., Merced College  
B.S., University of California, Davis

**COLOMER-FLORES, MARA**

Spanish  
B.A., M.A., California State University, Fresno

**COVARRUBIAS, LIZETTE**

Athletics and General Counselor  
B.S., California State University, Monterey Bay  
M.S., California State University, Long Beach

**CROMBIE, KAREN**

Biological Sciences  
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**DAUGHDRILL, JOSH**

English / Head Women's Soccer Coach  
B.A., Humboldt State University;  
M.A., California State University, Stanislaus

**DAVIDSON, BRANDILYN**

Music  
B.A., University of North Texas  
M.A., University of Las Vegas Nevada

**DAVIES, ROBERT**

Physical Sciences  
B.S., Sonoma State University;  
M.S., San Francisco State University  
DAVIS, LINDSAY  
Reference Librarian  
MLIS, San Jose State University

**DAWSON, DENISHA**

Chemistry  
B.A., University of California, Santa Cruz;  
Ph.D., University of California, Berkeley

**DEVINE, NATHAN**

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B.S., M.B.A., University of La Verne

**DIAZ, LISA**

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M.S., California State University, East Bay

**DONAHER, KIMBERLY**

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**EIGHMEY, PATRICIA**

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**ENGELKE, VICKI**

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B.A., Humboldt State University;  
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**EPSTEIN-CORBIN, SEAN**

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M.A., San Diego State University  
Ph.D., University of Southern California

**FERRELL, DIANA**

English  
B.A., M.A., California State University, San Diego

**FLATT, SUSAN**

English  
B.A., Fresno Pacific College;  
M.A., California Polytechnic State University, San Luis Obispo

**FONG, ADAM**

History  
B.A., M.A., San Francisco State University;  
Ph.D., University of Hawaii

**FOSS, AMANDA**

Business  
B.A., University of Redlands;  
J.D., Humphrey's School of Law

FREGENE, PAUL  
Chemistry  
B.S., M.S., University of Ibadan, Nigeria;  
Ph.D., State University of New York, Binghamton

FRIAS, SABRINA  
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FUENTES, CHRISTINA  
Counseling  
B.A., California State University Stanislaus;  
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B.A., Ed.D., California State University, Stanislaus;  
M.A., San Jose State University;

GARCIA-MARTINEZ, JUAN  
Administrative Office Management  
A.S., Merced College  
B.S., M.B.A., University of California, Stanislaus,

GARDNER, JENNIFER  
History/Political Science, Los Banos  
A.A., Umpqua Community College;  
B.S., Eastern Oregon University;  
M.A., Virginia Polytechnic Institute and State University

GARGANO, GARY  
Psychology  
A.A., Cuesta College;  
B.A., M.A., California State University, Fresno;  
Ph.D., Washington State University

GARGOVA, SVELTA  
Engineering, Mathematics  
M.S., Technical University, Sofia, Bulgaria

GHARIBIAN, MEHRA  
B.A., California Polytechnic State University, San Luis Obispo;  
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B.S., M.S., California State University, Fresno

GOLZ, NANCY  
Electronic Resources Librarian  
B.A., Fresno Pacific University  
M.L.S., Clarion University, Clarion  
Ed.D., Saint Mary's College

GONZALEZ, ARACELI  
Counseling  
M.S., CSU Fresno

GONZALEZ, HEATHER  
English  
A.A., Riverside Community College;  
B.A., University of California, Santa Barbara;  
M.A., University of California, Riverside

GREGORY, AARON  
Automotive Technology  
A.A., Merced College

HALLMAN, MAX  
Honors Program Coordinator; Humanities, Philosophy  
B.A., M.A., University of South Carolina;  
Ph.D., Tulane University

HALPIN, WILLIAM  
Kinesiology/Health  
M.S., National University, San Diego

HAMILTON, AARON  
Electronics  
B.S., California State University East Bay

HARVEY, ELIZABETH  
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B.A., M.A., Ph.D., University of Nevada Reno

HELFGOTT, SUSAN  
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A.A., Merced College;  
B.A., California State University, Stanislaus;  
M.S., California State University, Fresno

HOBBS, JENNIFER  
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HOBBS, LEE ANNE  
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M.A., California State University, Fresno

HOGAN, GREGORY S.  
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B.A., California State University, Fresno  
M.S., University of Massachusetts, Lowell

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Head Coach, Men's Basketball; Kinesiology  
B.A., California State University, Fresno  
M.S., Grand Canyon University

HUDDLESTON, SR., ALLEN  
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A.A., Merced College;  
B.A., California State University, Stanislaus

HUFF, ALISON  
Physics / Astronomy  
B.S., College of Wooster,  
M.S., Miami University  
Ph.D., University of California, Merced

HUNDLEY, AMY  
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B.A., M.A., University of California, Irvine

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A.A., American River College;  
B.A., M.A., University of California, Davis

IGO, MEGAN M.  
Biology  
B.S., University of California, Riverside;  
M.S., University of California, Los Angeles



JOHNSON, MARK  
Administration of Justice/Criminal Justice  
A.A., Pasadena City College;  
B.S., California State University, Los Angeles;  
J.D., Southwestern Law School

JOHNSTON, JESSICA  
English  
B.A., M.A., Chapman University;

KAHLERT, SHIRLEY  
English  
B.A., California State University, Hayward;  
M.A., San Francisco State University;  
Ph.D., University of California, Los Angeles

KANEMOTO, KATHLEEN D.  
Computer Science/Computer Applications  
B.S., M.S.E., M.B.A., San Jose State University

KELLER, SUSAN  
Anatomy, Physiology  
B.S., University of California, Irvine;  
M.A., California State University, Fresno

KHOUBIAR, TATIANA  
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KHURANA, PAM  
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B.S., Tougaloo College  
Ph.D., Indian Institute of Technology

KHURANA, SAHEBA  
Chemistry  
Ph.D., University of British Columbia

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B.A., California State University, Fresno  
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German, Spanish  
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M.A., Pennsylvania State University;  
Ph.D., University of California, Berkeley

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M.S., Creighton University

LANKFORD, TAYLOR  
English as a Second Language  
A.A., Modesto Junior College;  
B.A., M.A., University of California, Davis

LONG, JOHN  
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LORENZ, MICHAEL  
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B.A., Pacific Union College;  
M.A., California State University, Stanislaus

LUTZ (HARDCASTLE), CINDY  
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B.A., San Jose State University;  
M.S., California State University, Fresno

MACIAS, MIREYA  
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A.S., Merced College;  
B.S., University of California, Davis;  
M.S., California State University, Fresno

MADDUX, MARY (NIKKI)  
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B.S., Cal Poly, San Luis Obispo  
B.M.S., North Dakota State, Fargo

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Counseling  
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A.S., Saint Mary's College of California;  
B.S., Samuel Merritt University;  
M.S., California State University, Stanislaus

McBRIDE, JENNIFER  
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B.A., M.A., California State University, Sacramento

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Head Coach, Men's Water Polo and Swimming  
A.S., Merced College;  
B.S., University of Massachusetts, Amherst;  
M.S., California State University, Long Beach;  
Ed.D., Brandman University

McCARRICK, STACEY  
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B.A., San Francisco State University;  
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McCUE-BRYX, LAUREN  
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McGHEE, SUZANNE  
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M.A., Fresno Pacific University

MELANDER, STEVEN  
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B.S., Excelsior College

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B.A., Westmont College;  
M.L.I.S., San Jose State University  
M.Ed., University of Massachusetts, Boston

MITCHELL, PATRICK T.  
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B.A., The College of New Jersey;  
M.S., University of Delaware

MODAFFERI, EDWARD  
Microbiology  
B.A., University of California, Santa Barbara;  
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MOLINA, MELODY  
Counseling, DSP&S  
B.S., Saint Mary's College of California  
M.O.B., M.A., Ph.D., Alliant International University, Fresno

MONTOYA, JOHN  
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B.S., California State University, Stanislaus;  
M.A., Fresno Pacific University

MUMFORD, JEREMY  
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B.A., M.A., M.F.A., California State University, Fresno

MURPHY, JOEL  
Psychology  
A.S., Community College of the Air Force;  
B.A., M.S., California State University Stanislaus

NAGANO, JEFFREY  
HVAC, Industrial Maintenance  
Industrial Technology Experience

NAVARRO, IVAN  
Mathematics  
B.S., University of California, Los Angeles;  
M.S., University of California, Merced

NELSON, KEVIN  
English, Los Banos  
B.A., California State University, Long Beach;  
M.A., Humboldt State University

NOBLETT, DAVID  
Administration of Justice  
B.S., University of Phoenix, Fresno

ORNELAS, RICHARD  
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A.A., Merced College

ORTIZ, KERI  
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A.S., Merced College;  
B.A., California State University, Fresno;  
M.A., California State University, Stanislaus

PATTON, MARVIN  
Child Development  
B.A., California State University, Stanislaus  
M.A., University of the Pacific

PECCHENINO, MICHELLE  
Nutrition  
A.A., Merced College;  
B.S., California Polytechnic State University, San Luis Obispo;  
M.A., Chapman University

PEREZ, JOSE  
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PERLIN, ALANA  
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B.A., University of California, Los Angeles;  
M.F.A., University of California, Santa Cruz

PIMENTEL, MYSHEL  
English  
A.S., Merced College;  
B.S., M.A., California State University, Fresno;  
Ed.D., California State University, Stanislaus

PINASCO, JUSTIN  
Head Football Coach  
A.A., Merced College

PIRTLE, TONI  
Business  
B.A., Bournemouth University, England  
M.S., Eastern Illinois University  
Ed.D., North Central University

PISTORESI, JONAE  
Business, Management  
B.S.C., University of Santa Clara;  
M.B.A., Golden Gate University

POURTARVIRDI, ZAYA  
Physics/Astronomy  
Bachelors and Masters equivalent, Islamic Azad University, Iran

RANDALL, RICHARD  
Political Science  
A.A., Modesto Junior College;  
B.A., California State University, Stanislaus;  
M.A., University of California, Davis

REALI, JO FAWNA  
Mathematics  
B.A., California State University, Stanislaus;  
M.S., University of California, Santa Cruz

REED, EMILY  
Biological Sciences  
B.S., Ph.D., University of California, Merced

REMPEL, DENISE  
English  
B.A., Fresno Pacific University;  
M.A., California State University, Fresno

RENNER, LILIANA  
Counseling  
B.A., M.S., California State University, Fresno

RENTERIA, ENRIQUE  
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A.A., Merced College;  
B.A., M.A., California State University, Fresno

RIEG, KRISTEN  
Mathematics  
B.S., California State University, Chico;  
M.A., California State University, Fresno

ROE, LINDSAY  
Nursing  
A.S., Merced College;  
B.S.N., M.S.N., Grand Canyon University

RUSSELL, CHAD

Welding

A.A., Merced College;

B.S., Fresno State University

M.ED., Concordia University

SAAD, BASSEM

Mathematics

B.S., M.A., University of California, Davis

SAICH, BRENT

Sociology, Human Services

B.A., California State University, Stanislaus;

M.S.W., California State University, Fresno;

Psy.D, Southern California University for Professional Studies

SALAZAR, RENE

Counseling, NextUp

B.A., Chapman University

M.S., University of La Verne

SCHINDLER, WANDA

Nursing

A.A., A.S., Merced College;

B.S.N., M.S.N., Ed, University of Phoenix

SCHLINGER, CHARLES

Mathematics

A.A., Ventura College;

B.S., Humboldt State University;

M.S., University of Nevada, Reno

SCHROEDER, KATHERINE

Biology

B.S., Arizona State University

Ph.D., University of Arizona, Tucson

SCROGGINS, BENJAMIN

Welding Technology

A.A., Merced College

SERPA, CAITLIN

Economics

B.A., M.A., University of California, Santa Barbara

SERRANO, T. JAZMIN

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B.A., M.S., California State University, Fresno

SEVERO, SALVADOR

Health, Physical Education

B.S., Humboldt State University;

M.A., Adams State College

SHUMAKER, NICHOLAS

Mathematics

B.S., University of California, Irvine;

M.S., California State University, San Marcos

SIMON, ALEXANDER

Music

B.M., University of Puget Sound

M.M., Westminster Choir College

SMITH, DANIEL

Nursing

A.S., Merced College;

B.S., California Polytechnic State University, San Luis Obispo;

M.S., California State University, Fresno

SMITH, DENNELL

Counseling

B.A., California State University, Stanislaus;

M.A., California State University, Sacramento;

M.S.W., University of California, Berkeley

Ed.D. Walden University

SOBALVARRO, NATALIE

Spanish

B.A., California State University, Chico;

M.A., University of California, Irvine

SORIA, LIBBY

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B.A., M.S., Ed.D., California State University, Stanislaus

STANFORD, MICHELLE

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B.A., M.A., San Jose State University

STAPLETON, IAN

Accounting / Head Men's Soccer Coach

B.S., University of Hull;

M.A., University of Sheffield;

M.B.A., Western Illinois University

SULIEMAN, SALY

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A.S., Merced College;

B.S.N., California State University, Fresno

M.S.N., Grand Canyon University

SUTTERFIELD, MARK

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B.A., M.A., California State University, Fresno

TABER, JORY

English

B.A., M.A., Humboldt State University

TENN, BRANDON

Chemistry

B.S., University of Hawaii;

Ph.D., University of California, Davis

THOMPSON, LaTRESHA

Licensed Vocational Nursing

A.S., Merced College

B.S.N. and M.S.N., Grand Canyon University

TOUMA, CHRISTINE

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B.S., M.S., Ph.D., University of California, Merced

VANG, NGIA GINA

Counseling

B.A., M.S., California State University, Fresno

VILHAUER, CRAIG

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M.B.A., California State University, Stanislaus

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B.A., University of California, Irvine

M.A., California State University, Northridge

WARD, WENDY

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B.S., University of California, Davis

M.D., Ross University School of Medicine

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Art

B.A., California State University, Long Beach

M.S., University of Irvine

WEATHERS, APRIL

Chemistry

B.S., M.S., California State University, Stanislaus

WEEPERS, MICHAEL

Automotive Technology

A.A., Merced College

WITHERS, MARGARET R.

English

A.A., American River College;

B.A., Notre Dame de Namur University;

M.A., M.F.A., San Francisco State University

WHITE, SUMMER

Biology

B.S., California State University, Chico

M.S., California State University, Davis

WOOD, BRET

Chemistry

B.A., M.S., University of California, Fresno

XIONG, FONG

Welding

A.A., Merced College

YOUNG, JANE

Communication Studies

B.A., M.A., California State University, Fresno

ZELINSKY, CHERYL

Sonography

B.A., Saint Mary's College of California;

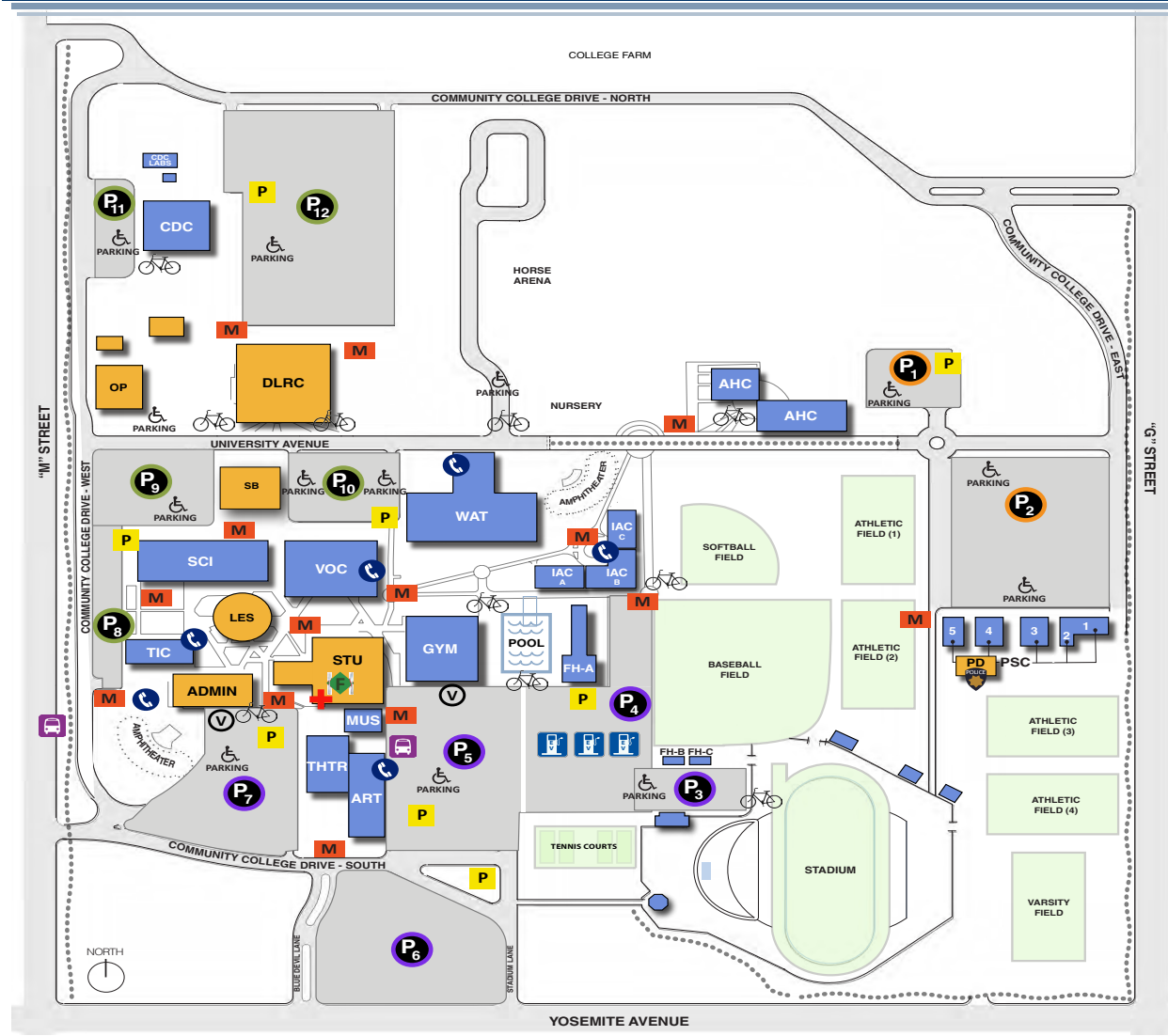
M.M., Southern Oregon University

# Merced Campus Map



“Students are our focus and we are known by their success”

3600 M Street, Merced, CA 95348    www.mccd.edu    (209) 384-6000



CAMPUS MAP SYMBOLS

- = Accessible Bus Stop
- = Accessible Parking
- = Bicycle Parking
- = Campus Police
- = Code Blue Emergency Phone
- = Electric Vehicle Charging Section
- = Food Services
- = Health Services
- = Map
- = Parking Dispensers
- = Parking Lot
- = Pedestrian Pathway
- = Visitor / Short-term Parking

MERCED COLLEGE CAMPUS BUILDINGS

- ADMIN Administration Building
- AG Agriculture Building
- AGP Agriculture Pavilion and Barns
- AHC Allied Health Center
- ART Art Building
- CDC Child Development Center
- CP Central Plant
- DLRC Downey Learning Resource Center
- FH Fieldhouses:
  - A - Pool, Training Room and Fitness Lab (FHA)
  - B - Baseball
  - C - Football
- GYM Gymnasium
- IAC Interdisciplinary Academic Center:
  - Building A - Social Science
  - Building B - Rising Scholars and IAC 139
  - Building C - Humanities
- LES Leshner Student Services Center
- MA Mechanized Agriculture
- MUS Music Building
- OP Purchasing, Capital Planning, Custodial, Maintenance, Grounds and Transportation
- PD Campus Police
- PS Plant Science
- PSC Public Safety Complex
- SB Service Building
- SCI Science Building
- STU Student Union
- TIC Trident Innovation Center
- THTR Theater Building
- VOC Vocational Building
- WAT Welding & Automotive Technology



# Los Banos Campus Map



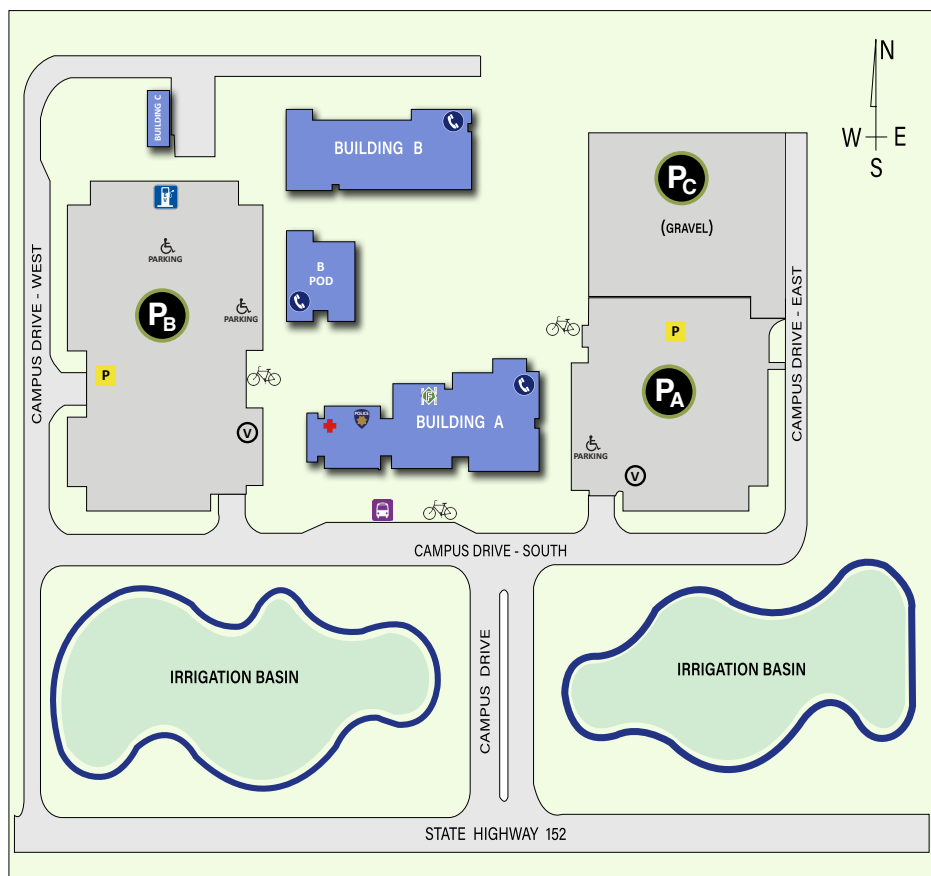
"Students are our focus and we are known by their success"

22240 Highway 152 Los Banos, CA 93635

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## LOS BANOS CAMPUS MAP



### CAMPUS MAP SYMBOLS

- = Accessible Bus Stop
- = Accessible Parking
- = Bicycle Parking
- = Campus Police
- = Code Blue Emergency Phone
- = Electric Vehicle Charging Section
- = Food Services
- = Health Services
- = Parking Dispensers
- = Parking Lot
- = Visitor / Short-term Parking

### MERCED COLLEGE LOS BANOS CAMPUS BUILDINGS

- BLDG A** Student Services, Counseling, Student Health, Food Services, Library, Classrooms.
- BLDG B** Administration, Faculty Offices, Classrooms.
- B POD** Laboratory Technologies.
- BLDG C** Custodial, Maintenance, Grounds and Transportation.