# Articulation Agreement by Major

Effective during the 2018-2019 Academic Year

To: University of California, Merced General Catalog, Semester From: Modesto Junior College General Catalog, Semester

# **MATERIALS SCIENCE AND ENGINEERING, B.S.**

## **REQUIREMENTS FOR ADMISSION**

For admission to the Materials Science and Engineering, B.S. major, students must earn an overall GPA of 2.4 or better, demonstrate readiness for a rigorous course of study in Engineering, and <u>must</u> complete classes articulated with the following UC Merced courses prior to admission:

 $\circ\,$  CHEM 2, MATH 21, MATH 22, MATH 23, MATH 24, PHYS 8, and PHYS 9

\*\*Completion of the equivalent of PHYS 10 prior to admission is strongly recommended for this major.

Transfer students seeking fall admission should have the following completed by the end of the spring term preceding fall enrollment at UC Merced:

- 1. All major preparation requirements as stated above.
- 2. All minimum admission requirements including appropriate courses in math and the equivalent of WRI 1 and WRI 10 (see articulation by department on ASSIST.org).

At least one course from the 'Arts and Humanities' or 'Social and Behavioral Sciences' section of 3. the General Education requirements for School of Engineering, shown here:

Three courses with at least one from the arts and one from the humanities from the Arts and Humanities IGETC areas:

• Area 3A (Arts)

• Area 3B (Humanities)

#### AND

Three courses from at least two disciplines, or an interdisciplinary sequence from the Social and Behavioral Sciences IGETC area:

Area 4

NOTE: Completion of IGETC (certified by your community college) satisfies all of the above requirements.

## ADVANCED PLACEMENT INFORMATION

Advanced Placement (AP) and International Baccalaureate (IB) Examination note:

AP and IB examination credit policies are detailed in the 2017-18 UC Merced general catalog viewable online at:

http://catalog.ucmerced.edu/content.php?catoid=7&navoid=647#AP\_IB

\*ALERT\* It is strongly recommended that you obtain a full transcript of your academic records from each of the colleges and universities you have attended before you start your UC application. Applicants must report ALL grades in ALL courses--transferable and not transferable--from all institutions attended. Applicants are solely responsible for the integrity of their self-reported academic record in the UC application.

Applicants are encouraged to clear any No Pass, D, or F letter grade received in UC Transfer course. Applicants are most competitive in the Admissions Process with fewer withdrawls and/or repeated course work in major preparation.

All course work must be completed with a 'C' or better.

Following these guidelines will assist you to be more competitive for admission to your UC Merced major.

If you have any questions abour UC Merced admissions policy, please email: admissions@ucmerced.edu

The School of Engineering strongly discourages completion of IGETC as students are encouraged to focus primarily on lower division major preparation.

**\*\*Please Note:** Courses used to satisfy lower-division major preparation may simultaneously satisfy lower-division gerneral education for the School of Engineering.

For the most up-to-date information about transferring to UC Merced, please visit admissions.ucmerced.edu/transfer\_requirements

Information about applying for a Transfer Admission Guarantee is available at

admissions.ucmerced.edu/tag.

### LOWER DIVISION MAJOR PREPARATION COURSES

CHEM 2 - General Chemistry I (4.00)	←	<b>CHEM 101</b> - General Chemistry 1 (5.00)
ENGR 45 - Introduction to Materials		
(4.00)	$\leftarrow$	No Course Articulated
ENGR 57 - Statics and Dynamics (4.00)	$\leftarrow$	No Course Articulated
<b>MATH 21</b> - Calculus I for Physical Sciences & Engineering (4.00)		MATH 171 - Calculus: First Course (4.00)

<b>MATH 22</b> - Calculus II for Physical Sciences & Engineering (4.00)	$\leftarrow$	MATH 172 - Calculus: Second Course (4.00)
MATH 23 - Vector Calculus (4.00)	$\leftarrow$	MATH 173 - Calculus: Third Course (4.00)
<b>MATH 24</b> - Introduction to Linear Algebra and Differential Equations (4.00)	$\leftarrow$	<b>MATH 174</b> - Introduction to Differential Equations and Linear Algebra (5.00)
<ul> <li>MATH 32 - Probability and Statistics (4.00)</li> <li>Course recommended to be taken at university</li> </ul>	$\leftarrow$	No Course Articulated
<b>PHYS 8</b> - Introductory Physics I for Physical Sciences (4.00)	$\leftarrow$	<b>PHYS 101</b> - General Physics: Mechanics (4.00)
<b>PHYS 9</b> - Introductory Physics II for Physical Sciences (4.00)	$\leftarrow$	<b>PHYS 102</b> - General Physics: Waves, Thermodynamics & Optics (4.00)

COMPLETE	<b>ONE OF</b>	THE FOLI	OWING
----------	---------------	----------	-------

BIO 1 - Contemporary Biology (4.00)	<del>~</del>	BIO 101 - Biological Principles (4.00) And BOT 101 - General Botany (4.00) And ZOOL 101 - General Zoology (4.00)
<b>BIO 5</b> - Concepts & Issues in Biology Today (4.00)	$\leftarrow$	No Course Articulated
<b>ESS 1</b> - Introduction to Earth Systems Science (4.00)	$\leftarrow$	No Course Articulated
<b>ESS 5</b> - Introduction to Biological Earth Systems (4.00)	$\leftarrow$	No Course Articulated

ME 21 - Engineering Computing (4.00)	$\leftarrow$	No Course Articulated
	Or	
<b>BIOE 21</b> - Computing for Bioengineers (3.00)	<del>~~</del>	No Course Articulated
	Or	
<b>CSE 20</b> - Introduction to Computing I (2.00)	$\leftarrow$	<b>CSCI 270</b> - Introduction to Programming (3.00)
		Or
		CSCI 271 - Problem Solving and
		Programming 1 (3.00)
	And	
CSE 21 - Introduction to Computing II	←	CSCI 271 - Problem Solving and
(2.00)	•	Programming 1 (3.00)

# **END OF AGREEMENT**