# Articulation Agreement by Major

Effective during the 2018-2019 Academic Year

To: University of California, Merced General Catalog, Semester From: West Valley College General Catalog, Semester

## **ENVIRONMENTAL ENGINEERING, B.S.**

### **REQUIREMENTS FOR ADMISSION**

For admission to the Environmental 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:

° CHEM 2, MATH 21, MATH 22, MATH 23, MATH 24, PHYS 8, and PHYS 9

\*\*The completion of the equivalent of CHEM 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).
- 3. At least one course from the 'Arts and Humanities' or 'Social and Behavioral Sciences' section of 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 <u>admissions.ucmerced.edu/tag.</u>

CHEM 2 - General Chemistry I (4.00)       ←       CHEM 1A - General Chemistry (5.00)         CHEM 10 - General Chemistry II (4.00)       ←       CHEM 1B - General Chemistry (5.00)         ■ Recommended to be completed prior to transfer       No Course Articulated         ENGR 45 - Introduction to Materials (4.00)       ←       No Course Articulated         ENGR 57 - Statics and Dynamics (4.00)       ←       No Course Articulated         ENVE 20 - Introduction to Environmental Science and Technology (4.00)       ←       No Course Articulated         MATH 21 - Calculus I for Physical Sciences & Engineering (4.00)       ←       MATH 3A - Calculus and Analytic Geometry (5.00)         MATH 22 - Calculus II for Physical Sciences & Engineering (4.00)       ←       MATH 3B - Calculus and Analytic Geometry (5.00)         MATH 23 - Vector Calculus (4.00)       ←       MATH 4B - Intermediate Calculus (5.00)         MATH 32 - Probability and Statistics (4.00)       ←       MATH 4B - Differential Equations (4.00)         MATH 32 - Probability and Statistics (4.00)       ←       No Course Articulated         MATH 32 - Introductory Physics I for Physical Sciences (4.00)       ←       PHYS 4A - Engineering Physics - Mechanics (5.00)         PHYS 9 - Introductory Physics II for Physical Sciences (4.00)       ←       PHYS 4A - Engineering Physics - Electricity and Magnetism (5.00)	LOWER DIVISION MA	JOR PREP	PARATION COURSES
<ul> <li>Recommended to be completed prior to transfer</li> <li>ENGR 45 - Introduction to Materials ← No Course Articulated</li> <li>ENGR 57 - Statics and Dynamics (4.00) ← No Course Articulated</li> <li>ENGR 65 - Circuit Theory (4.00) ← No Course Articulated</li> <li>ENVE 20 - Introduction to Environmental ← No Course Articulated</li> <li>Science and Technology (4.00)</li> <li>MATH 21 - Calculus I for Physical Sciences &amp; Engineering (4.00)</li> <li>MATH 22 - Calculus II for Physical ← MATH 3B - Calculus and Analytic Geometry (5.00)</li> <li>MATH 23 - Vector Calculus (4.00) ← MATH 4B - Calculus and Analytic Geometry (5.00)</li> <li>MATH 24 - Introduction to Linear Algebra and Differential Equations (4.00)</li> <li>MATH 32 - Probability and Statistics ← No Course Articulated</li> <li>MATH 42 - Lintroductory Physics I for Physical Sciences (4.00)</li> <li>PHYS 8 - Introductory Physics I for Physical Sciences (4.00)</li> <li>PHYS 9 - Introductory Physics II for ← PHYS 4B - Engineering Physics - Mechanics (5.00)</li> </ul>	CHEM 2 - General Chemistry I (4.00)	$\leftarrow$	CHEM 1A - General Chemistry (5.00)
(4.00)       Image: Construct the construction of the constructio	Recommended to be completed	$\leftarrow$	CHEM 1B - General Chemistry (5.00)
ENGR 65 - Circuit Theory (4.00)       ✓       No Course Articulated         ENVE 20 - Introduction to Environmental       ✓       No Course Articulated         Science and Technology (4.00)       MATH 3A - Calculus and Analytic         Sciences & Engineering (4.00)       ✓       MATH 3B - Calculus and Analytic         Sciences & Engineering (4.00)       ✓       MATH 3B - Calculus and Analytic         Sciences & Engineering (4.00)       ✓       MATH 3B - Calculus and Analytic         Sciences & Engineering (4.00)       ✓       MATH 3B - Calculus and Analytic         Sciences & Engineering (4.00)       ✓       MATH 4A - Intermediate Calculus (5.00)         MATH 23 - Vector Calculus (4.00)       ✓       MATH 4B - Differential Equations (4.00)         MATH 24 - Introduction to Linear       ✓       MATH 4B - Differential Equations (4.00)         Algebra and Differential Equations (4.00)       ✓       MATH 4C - Linear Algebra (4.00)         MATH 32 - Probability and Statistics       ✓       No Course Articulated         (4.00)       ■       Course recommended to be taken at university       PHYS 8 - Introductory Physics I for Physical Sciences (4.00)       PHYS 4A - Engineering Physics - Mechanics (5.00)         PHYS 9 - Introductory Physics II for       ✓       PHYS 4B - Engineering Physics -		$\leftarrow$	No Course Articulated
ENVE 20 - Introduction to Environmental       ←       No Course Articulated         Science and Technology (4.00)       MATH 21 - Calculus I for Physical       ←       MATH 3A - Calculus and Analytic         Sciences & Engineering (4.00)       ←       MATH 3B - Calculus and Analytic       Geometry (5.00)         MATH 22 - Calculus II for Physical       ←       MATH 3B - Calculus and Analytic         Sciences & Engineering (4.00)       ←       MATH 3B - Calculus and Analytic         Geometry (5.00)       MATH 23 - Vector Calculus (4.00)       ←       MATH 4A - Intermediate Calculus (5.00)         MATH 24 - Introduction to Linear       ←       IMATH 4B - Differential Equations (4.00)         Algebra and Differential Equations (4.00)       ←       And         MATH 32 - Probability and Statistics       ←       No Course Articulated         (4.00)       ■       Course recommended to be taken at university       PHYS 8 - Introductory Physics I for         Physical Sciences (4.00)       FHYS 4A - Engineering Physics -       Mechanics (5.00)         PHYS 9 - Introductory Physics II for       ←       PHYS 4B - Engineering Physics -	ENGR 57 - Statics and Dynamics (4.00)	$\leftarrow$	No Course Articulated
Science and Technology (4.00)       MATH 21 - Calculus I for Physical Sciences & Engineering (4.00)       MATH 3A - Calculus and Analytic Geometry (5.00)         MATH 22 - Calculus II for Physical Sciences & Engineering (4.00)       MATH 3B - Calculus and Analytic Geometry (5.00)         MATH 23 - Vector Calculus (4.00)       MATH 4A - Intermediate Calculus (5.00)         MATH 24 - Introduction to Linear Algebra and Differential Equations (4.00)       MATH 4B - Differential Equations (4.00)         MATH 32 - Probability and Statistics (4.00)       MATH 4C - Linear Algebra (4.00)         MATH 32 - Probability and Statistics (4.00)       MATH 4C - Linear Algebra (4.00)         PHYS 8 - Introductory Physics I for Physical Sciences (4.00)       PHYS 4A - Engineering Physics - Mechanics (5.00)         PHYS 9 - Introductory Physics II for Physics I for Physical Sciences (4.00)       PHYS 4B - Engineering Physics -	ENGR 65 - Circuit Theory (4.00)	$\leftarrow$	No Course Articulated
Sciences & Engineering (4.00)       Geometry (5.00)         MATH 22 - Calculus II for Physical Sciences & Engineering (4.00)       MATH 3B - Calculus and Analytic Geometry (5.00)         MATH 23 - Vector Calculus (4.00)       MATH 4A - Intermediate Calculus (5.00)         MATH 24 - Introduction to Linear Algebra and Differential Equations (4.00)       MATH 4B - Differential Equations (4.00)         MATH 32 - Probability and Statistics (4.00)       MATH 4C - Linear Algebra (4.00)         MATH 32 - Probability and Statistics (4.00)       MATH 4C - Linear Algebra (4.00)         PHYS 8 - Introductory Physics I for Physical Sciences (4.00)       PHYS 4A - Engineering Physics - Mechanics (5.00)         PHYS 9 - Introductory Physics II for       PHYS 4B - Engineering Physics -		$\leftarrow$	No Course Articulated
Sciences & Engineering (4.00)       Geometry (5.00)         MATH 23 - Vector Calculus (4.00)       MATH 4A - Intermediate Calculus (5.00)         MATH 24 - Introduction to Linear       MATH 4B - Differential Equations (4.00)         Algebra and Differential Equations (4.00)       MATH 4C - Linear Algebra (4.00)         MATH 32 - Probability and Statistics       MATH 4C - Linear Algebra (4.00)         MATH 32 - Probability and Statistics       Mode Mathematical Algebra (4.00)         MATH 32 - Probability and Statistics       Mathematical Algebra (4.00)         PHYS 8 - Introductory Physics I for       PHYS 4A - Engineering Physics - Mechanics (5.00)         PHYS 9 - Introductory Physics II for       PHYS 4B - Engineering Physics -		$\leftarrow$	5
MATH 24 - Introduction to Linear       MATH 4B - Differential Equations (4.00)         Algebra and Differential Equations (4.00)       And         MATH 32 - Probability and Statistics       MATH 4C - Linear Algebra (4.00)         MATH 32 - Probability and Statistics       No Course Articulated         (4.00)       Course recommended to be taken at university       PHYS 8 - Introductory Physics I for Physical Sciences (4.00)         PHYS 9 - Introductory Physics II for       Mechanics (5.00)       PHYS 4B - Engineering Physics -		$\leftarrow$	5
Algebra and Differential Equations (4.00)       And         MATH 32 - Probability and Statistics (4.00)       MATH 4C - Linear Algebra (4.00)         • Course recommended to be taken at university       No Course Articulated         PHYS 8 - Introductory Physics I for Physical Sciences (4.00)       PHYS 4A - Engineering Physics - Mechanics (5.00)         PHYS 9 - Introductory Physics II for       PHYS 4B - Engineering Physics -	MATH 23 - Vector Calculus (4.00)	$\leftarrow$	MATH 4A - Intermediate Calculus (5.00)
<ul> <li>(4.00)         <ul> <li>Course recommended to be taken at university</li> </ul> </li> <li>PHYS 8 - Introductory Physics I for Physical Sciences (4.00)         <ul> <li>PHYS 9 - Introductory Physics II for</li> <li>PHYS 4B - Engineering Physics - Mechanics (5.00)</li> </ul> </li> </ul>		←	And
PHYS 8 - Introductory Physics I for Physical Sciences (4.00)PHYS 4A - Engineering Physics - Mechanics (5.00)PHYS 9 - Introductory Physics II forPHYS 4B - Engineering Physics -	(4.00) Course recommended to be taken	$\leftarrow$	No Course Articulated
	PHYS 8 - Introductory Physics I for	$\leftarrow$	J J J
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COMPLETE ONE OF THE FOLLOWING
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ME 21 - Engineering Computing (4.00)	$\leftarrow$	No Course Articulated
	Or	
<b>BIOE 21</b> - Computing for Bioengineers (3.00)	$\leftarrow$	No Course Articulated
	Or	
<b>CSE 20</b> - Introduction to Computing I (2.00)	$\leftarrow$	<b>CIST 4A</b> - Computer Programming I (C++) (4.00)
		Or
		<b>CIST 4A1</b> - Computer Programming I (JAVA) (4.00)
		Or
		<b>CIST 37</b> - C Programming (3.00)

	And	
		CIST 4A - Computer Programming I
CSE 21 - Introduction to Computing II	$\leftarrow$	(C++) (4.00)
(2.00)		Or
		CIST 4A1 - Computer Programming I
		(JAVA) (4.00)
		Or
		<b>CIST 37</b> - C Programming (3.00)

COMPLETE ONE OF THE FOLLOWING				
BIO 1 - Contemporary Biology (4.00)	$\leftarrow$	<b>BIOL 41</b> - Principles of Animal Biology (5.00)		
		And		
		<b>BIOL 42</b> - Principles of Plant Biology (5.00)		
		And		
		<b>BIOL 43</b> - Principles of Cell Biology (5.00)		
<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		

## **END OF AGREEMENT**