Articulation Agreement by Major

Effective during the 2018-2019 Academic Year

To: University of California, Merced General Catalog, Semester From: Santa Ana College General Catalog, Semester

APPLIED MATHEMATICAL SCIENCES, B.S.

SCHOOL OF NATURAL SCIENCES

Applied Mathematical Sciences, B.S. offers emphases in: Computational Biology, Computer Science, Computational & Data Sciences, Economics, Engineering, Environmental, and Physics. Transfer applicants must choose an emphasis in the major.

REQUIREMENTS FOR ADMISSION

For admission to the Applied Mathematical Sciences major, students must earn a minimum overall GPA of 2.8 or better, and <u>must</u> complete classes articulated with the following UC Merced courses prior to admission:

o MATH 21, MATH 22, PHYS 8 and PHYS 9

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

- 1. All minimum admissions requirements including appropriate courses in math and the equivalent of WRI 1 and WRI 10 (see articulation by department on ASSIST.org).
- 2. At least one social science, Humanities or Arts course listed in the general education information for the School of Natural Sciences. Two courses (one from each area) is <u>strongly</u> recommended.
- 3. All major preparation requirements as stated above.

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

Completion of IGETC is not recommended but is accepted for this major.

All course work must be completed with a letter grade of "C" or better.

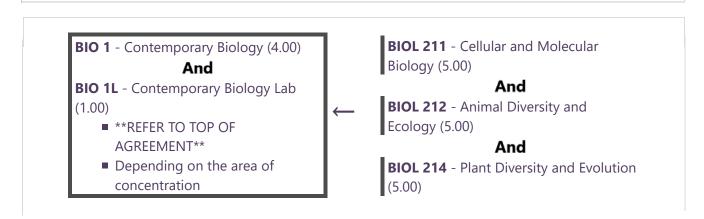
For the most up-to-date information about transferring to UC Merced, please visit <u>admissions.ucmerced.edu/transfer_requirements.</u>
Information about applying for a Transfer Admission Guarantee is available at <u>admissions.ucmerced.edu/tag.</u>

ADDITIONAL LOWER DIVISION REQUIREMENTS

For the Applied Mathematical Sciences and Computational Biology emphasis tracks, students must take BIO 1 and BIO 1L and earn a grade of B or better.

For the Applied Mathematical Sciences and Environmental emphasis tracks, students will take ESS 1 to fulfill emphasis track requirements, and must take a different course to fulfill the lower division course requirement

COMPLETE ONE OF THE FOLLOWING



ESS 1 - Introduction to Earth Systems Science (4.00) ■ **REFER TO TOP OF AGREEMENT** ■ Depending on the area of concentration	←	No Course Articulated
ESS 5 - Introduction to Biological Earth Systems (4.00)	←	No Course Articulated

MATHEMATICS REQUIREMENT (COMPLETE THE FOLLOWING FIVE COURSES):

MATH 21 - Calculus I for Physical Sciences & Engineering (4.00)	\leftarrow	MATH 180 - Single Variable Calculus I (4.00)
		Or
		MATH 180H - Honors Single Variable
		Calculus I (4.00)
MATH 22 - Calculus II for Physical	\leftarrow	MATH 185 - Single Variable Calculus II
Sciences & Engineering (4.00)	•	(4.00)
MATH 23 - Vector Calculus (4.00)	←	MATH 280 - Intermediate Calculus (4.00)
MATH 24 - Introduction to Linear	\leftarrow	MATH 287 - Introduction to Linear
Algebra and Differential Equations (4.00)		Algebra and Differential Equations (5.00)
MATH 32 - Probability and Statistics	_	No Course Articulated
(4.00)		
Course recommended to be taken		
at university		

COMPLETE ONE OF THE FOLLOWING

CSE 20 - Introduction to Computing I (2.00)	←	CMPR 112 - JAVA Programming (3.00) Or
		CMPR 121 - Programming Concepts (3.00)
ME 21 - Engineering Computing (4.00)	\leftarrow	No Course Articulated

CHEMISTRY REQUIREMENT

CHEM 2 - General Chemistry I (4.00) ← CHEM 219 - General Chemistry (5.00)

Or

CHEM 219H - Honors General Chemistry (5.00)

PHYSICS REQUIREMENT

PHYS 8 - Introductory Physics I for Physical Sciences (4.00)	←	PHYS 217 - Engineering Physics I (4.00)
PHYS 9 - Introductory Physics II for Physical Sciences (4.00)	\leftarrow	PHYS 227 - Engineering Physics II (4.00)

END OF AGREEMENT