Articulation Agreement by Major

Effective during the 2018-2019 Academic Year

To: University of California, Merced
General Catalog, Semester

From: Santa Monica 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 must complete classes articulated with the following UC Merced courses prior to admission:

- 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 (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 strongly 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=764#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 admissions.ucmerced.edu/transfer_requirements

Information about applying for a Transfer Admission Guarantee is available at admissions.ucmerced.edu/tag

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

BIO 1 - Contemporary Biology (4.00) **And** **BIO 1L** - Contemporary Biology Lab (1.00) ■ **REFER TO TOP OF AGREEMENT** ■ Depending on the area of concentration		**BIOL 21** - Cell Biology and Evolution (4.00) **And** **BIOL 23** - Organismal and Environmental Biology (5.00)
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)	←	**MATH 7** - Calculus 1 (5.00)
MATH 22 - Calculus II for Physical Sciences & Engineering (4.00)	←	**MATH 8** - Calculus 2 (5.00)
MATH 23 - Vector Calculus (4.00)	←	**MATH 11** - Multivariable Calculus (5.00)
MATH 24 - Introduction to Linear Algebra and Differential Equations (4.00)	←	**MATH 13** - Linear Algebra (3.00) **And** **MATH 15** - Differential Equations (3.00)
MATH 32 - Probability and Statistics (4.00) ■ Course recommended to be taken at university	←	No Course Articulated

COMPLETE ONE OF THE FOLLOWING

CSE 20 - Introduction to Computing I (2.00)	←	**CS 50** - C Programming (3.00)
ME 21 - Engineering Computing (4.00)	←	No Course Articulated

CHEMISTRY REQUIREMENT

CHEM 2 - General Chemistry I (4.00)	←	**CHEM 11** - General Chemistry I (5.00)

PHYSICS REQUIREMENT

PHYS 8 - Introductory Physics I for Physical Sciences (4.00)	←	**PHYSCS 8** - Calculus-Based Physics 1 with Lab (4.00) **Or** **PHYSCS 21** - Mechanics with Lab (5.00) **And** **PHYSCS 23** - Fluids, Waves, Thermodynamics, Optics with Lab (5.00)
PHYS 9 - Introductory Physics II for Physical Sciences (4.00)	←	**PHYSCS 9** - Calculus-Based Physics 2 with Lab (4.00) **Or** **PHYSCS 22** - Electricity and Magnetism with Lab (5.00) **And** **PHYSCS 23** - Fluids, Waves, Thermodynamics, Optics with Lab (5.00)

END OF AGREEMENT