Articulation Agreement by Major

Effective during the 2018-2019 Academic Year

To: University of California, Merced
General Catalog, Semester

From: De Anza College
General Catalog, Quarter

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 must 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

**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 for approved course equivalencies in math and writing).
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=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 will not be competitive in the admission process if their academic records show unsuccessful attempts of UC-transferable courses as demonstrated by one or more of the following:

- Multiple withdrawals in preparation for major courses or
- More than one repeat of major preparation courses where grades of No Pass, D, or F were received or
- Unrepeated No Pass, D, or F grades in any UC-transferable course

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 c.ucm/transfer. Information about applying for a Transfer Admission Guarantee is available at c.ucm.edu/tag.

LOWER DIVISION MAJOR PREPARATION COURSES

CHEM 2 - General Chemistry I (4.00)	←	**CHEM 1A** - General Chemistry (5.00) **And**

		CHEM 1B - General Chemistry (5.00)
ENGR 45 - Introduction to Materials (4.00)	←	No Course Articulated
ENGR 57 - Statics and Dynamics (4.00)	←	No Course Articulated
MATH 21 - Calculus I for Physical Sciences & Engineering (4.00)	←	**MATH 1A** - Calculus (5.00) **And** **MATH 1B** - Calculus (5.00)
MATH 22 - Calculus II for Physical Sciences & Engineering (4.00)	←	**MATH 1C** - Calculus (5.00)
MATH 23 - Vector Calculus (4.00)	←	**MATH 1D** - Calculus (5.00)
MATH 24 - Introduction to Linear Algebra and Differential Equations (4.00)	←	**MATH 2A** - Differential Equations (5.00) **And** **MATH 2B** - Linear Algebra (5.00)
MATH 32 - Probability and Statistics (4.00) ▪ Course recommended to be taken at university	←	No Course Articulated
PHYS 8 - Introductory Physics I for Physical Sciences (4.00)	←	**PHYS 4A** - Physics for Scientists and Engineers: Mechanics (6.00)
PHYS 9 - Introductory Physics II for Physical Sciences (4.00)	←	**PHYS 4B** - Physics for Scientists and Engineers: Electricity and Magnetism (6.00) **And** **PHYS 4C** - Physics for Scientists and Engineers: Fluids, Waves, Optics and Thermodynamics (6.00)

COMPLETE ONE OF THE FOLLOWING

BIO 1 - Contemporary Biology (4.00)	←	**BIOL 6A** - Form and Function in the Biological World (6.00) **And** **BIOL 6B** - Cell and Molecular Biology (6.00) **And** **BIOL 6C** - Evolution and Ecology (6.00)
BIO 5 - Concepts & Issues in Biology Today (4.00)	←	No Course Articulated
ESS 1 - Introduction to Earth Systems Science (4.00)	←	No Course Articulated
ESS 5 - Introduction to Biological Earth Systems (4.00)	←	No Course Articulated

COMPLETE ONE OF THE FOLLOWING

ME 21 - Engineering Computing (4.00)	←	No Course Articulated
Or		
BIOE 21 - Computing for Bioengineers (3.00)	←	No Course Articulated
Or		
CSE 20 - Introduction to Computing I (2.00)	←	**CIS 22A** - Beginning Programming Methodologies in C++ (4.50) **Or** **CIS 36A** - Introduction to Computer Programming Using Java (4.50) **Or** **CIS 26A** - C as a Second Programming Language (4.50) **Or** **CIS 26B** - Advanced C Programming (4.50)
And		
CSE 21 - Introduction to Computing II (2.00)	←	**CIS 22B** - Intermediate Programming Methodologies in C++ (4.50) **Or** **CIS 36B** - Intermediate Problem Solving in Java (4.50) **Or** **CIS 26A** - C as a Second Programming Language (4.50) **Or** **CIS 26B** - Advanced C Programming (4.50)

END OF AGREEMENT