Articulation Agreement by Major

Effective during the 2022-2023 Academic Year

To: University of California, Irvine 2022-2023 General Catalog, Quarter	From: De Anza College 2022-2023 General Catalog, Quarter

Environmental Engineering, B.S.

GENERAL INFORMATION

Admission to the Henry Samueli School of Engineering is highly competitive. The most important selection criteria is the completion of the required major preparation courses and academic performance.

Required for admission:
Students must have a cumulative UC transferable GPA of 3.0 (3.4 for TAG). Students must earn a grade of C or better in all listed major preparation courses while maintaining a cumulative GPA of 3.0 in the following required courses.

- Single Variable Calculus I (C-ID MATH 210 or MATH 211)
- Single Variable Calculus II (C-ID MATH 220 or MATH 221) or 2 semester/quarters of Single Variable Calculus Sequence (C-ID MATH 900S or 910S)
- Multivariable Calculus (C-ID MATH 230)
- Ordinary Differential Equations (C-ID MATH 240) or Differential Equations and Linear Algebra (C-ID MATH 910S)
- Introduction to Linear Algebra (C-ID MATH 250) or Differential Equations and Linear Algebra (C-ID MATH 910S)
- Calculus-Based Physics for Scientists and Engineers: A (C-ID PHYS 205)
- Calculus-Based Physics for Scientists and Engineers: B (C-ID PHYS 210) or Calculus-Based Physics for Scientists and Engineers: ABC (C-ID PHYS 200S)
- General Chemistry for Science Majors Sequence A (C-ID CHEM 120S)
- Programming and Problem Solving in MATLAB (C-ID ENGR 220) *preferred* or Introduction to Programming Concepts and Methodologies for Engineers (C-ID ENGR 120)

Recommended for admission/Time to degree:
The following courses are not required for admission, however the degree cannot be completed in two years without them:

- Introduction to Statistics (C-ID MATH 110)
- Statics (C-ID ENGR 130)
- Engineering Graphics (C-ID ENGR 150)

For information regarding the AP and IB examination credit policies refer to the UCI General Catalogue

For information regarding the UC Irvine Transfer Admission Guarantee program please visit TAG

MAJOR PREPARATION COURSES REQUIRED FOR TRANSFER

MATH 2A - Single-Variable Calculus (4.00)	←	**MATH 1A** - Calculus (5.00) **--- Or ---** **MATH 1AH** - Calculus - HONORS (5.00)
MATH 2B - Single-Variable Calculus (4.00)	←	**MATH 1B** - Calculus (5.00) **--- Or ---** **MATH 1BH** - Calculus - HONORS (5.00)
MATH 2D - Multivariable Calculus (4.00)	←	**MATH 1D** - Calculus (5.00) **--- Or ---** **MATH 1DH** - Calculus - HONORS (5.00)
MATH 2E - Multivariable Calculus (4.00)	←	**MATH 1D** - Calculus (5.00) **--- Or ---** **MATH 1DH** - Calculus - HONORS (5.00)
MATH 3A - Introduction to Linear Algebra (4.00)	←	**MATH 2B** - Linear Algebra (5.00) **--- Or ---** **MATH 2BH** - Linear Algebra - HONORS (5.00)
MATH 3D - Elementary Differential Equations (4.00)	←	**MATH 2A** - Differential Equations (5.00) **--- Or ---** **MATH 2AH** - Differential Equations - HONORS (5.00)
PHYSICS 7C - Classical Physics (4.00) **--- And ---** **PHYSICS 7LC** - Classical Physics Laboratory (1.00)	←	**PHYS 4A** - Physics for Scientists and Engineers: Mechanics (6.00)

--- And ---		
PHYSICS 7D - Classical Physics (4.00) --- And --- **PHYSICS 7LD** - Classical Physics Laboratory (1.00)	←	**PHYS 4B** - Physics for Scientists and Engineers: Electricity and Magnetism (6.00)
ENGR 1A - General Chemistry for Engineers (4.00) --- And --- **CHEM 1B** - General Chemistry (4.00) --- And --- **CHEM 1C** - General Chemistry (4.00) --- And --- **CHEM 1LC** - General Chemistry Laboratory (3.00) --- And --- **CHEM 1LD** - General Chemistry Laboratory (3.00)	←	**CHEM 1A** - General Chemistry (5.00) --- And --- **CHEM 1B** - General Chemistry (5.00) --- And --- **CHEM 1C** - General Chemistry and Qualitative Analysis (5.00) --- Or --- **CHEM 1AH** - General Chemistry - HONORS (5.00) --- And --- **CHEM 1BH** - General Chemistry - HONORS (5.00) --- And --- **CHEM 1AH** - General Chemistry - HONORS (5.00) --- And --- **CHEM 1BH** - General Chemistry - HONORS (5.00) --- And --- **CHEM 1CH** - General Chemistry and Qualitative Analysis - HONORS (5.00)
--- Or ---		
CHEM 1A - General Chemistry (4.00) --- And --- **CHEM 1B** - General Chemistry (4.00) --- And --- **CHEM 1C** - General Chemistry (4.00) --- And --- **CHEM 1LC** - General Chemistry Laboratory (3.00) --- And --- **CHEM 1LD** - General Chemistry Laboratory (3.00)	←	**CHEM 1A** - General Chemistry (5.00) --- And --- **CHEM 1B** - General Chemistry (5.00) --- And --- **CHEM 1C** - General Chemistry and Qualitative Analysis (5.00) --- Or --- **CHEM 1AH** - General Chemistry - HONORS (5.00) --- And --- **CHEM 1BH** - General Chemistry - HONORS (5.00) --- And --- **CHEM 1CH** - General Chemistry and Qualitative Analysis - HONORS (5.00)
ENGRCEE 20 - Introduction to Computational Problem Solving (4.00)	←	No Course Articulated

MAJOR PREPARATION COURSES NECESSARY TO GRADUATE IN TWO YEARS

ENGRCEE 11 - Methods II: Probability and Statistics (4.00)	←	**MATH 10** - Introductory Statistics (5.00) --- Or --- **MATH 10H** - Introductory Statistics - HONORS (5.00)
ENGR 30 - Statics (4.00) Same-As: ENGRMAE 30, ENGRCEE 30	←	**ENGR 35** - Statics (4.00)
ENGRCEE 81A - Civil Engineering Practicum I (3.00)	←	No Course Articulated

ADDITIONAL MAJOR REQUIREMENTS

CHEM 51A - Organic Chemistry (4.00)	←	**CHEM 12A** - Organic Chemistry (5.00)
ENGRCEE 21 - Computational Problem Solving (4.00)	←	No Course Articulated

ENGRCEE 81B - Civil Engineering Practicum II (3.00)	←	No Course Articulated
ENGRMAE 91 - Introduction to Thermodynamics (4.00)	←	No Course Articulated
ECON 20A - Basic Economics I (4.00) **--- And ---** **ECON 20B** - Basic Economics II (4.00)	←	**ECON 2** - Principles of Microeconomics (4.00) **--- And ---** **ECON 1** - Principles of Macroeconomics (4.00) **--- Or ---** **ECON 2H** - Principles of Microeconomics - HONORS (4.00) **--- And ---** **ECON 1H** - Principles of Macroeconomics - HONORS (4.00)

ENGRCEE 60 - Contemporary and Emerging Environmental Challenges (4.00)	←	No Course Articulated
--- Or ---		
UPPP 8 - Introduction to Environmental Analysis and Design (4.00)	←	**E S 1** - Introduction to Environmental Studies (4.00)

ADDITIONAL MAJOR ELECTIVES

TWO BASIC SCIENCE ELECTIVES IN BIOLOGICAL SCIENCES AND EARTH SYSTEM SCIENCE

BIO SCI 93 - DNA to Organisms (4.00)	←	**BIOL 6B** - Cell and Molecular Biology (6.00)
EARTHSS 1 - Introduction to Earth System Science (4.00)	←	**MET 12** - Introduction to Climate Change (5.00)
EARTHSS 3 - Oceanography (4.00)	←	**GEOL 20** - General Oceanography (4.00)
EARTHSS 5 - The Atmosphere (4.00)	←	**MET 10** - Weather and Climate Processes (5.00)
EARTHSS 7 - Physical Geology (5.00)	←	**GEOL 10** - Introductory Geology (5.00)
EARTHSS 15 - Introduction to Global Climate Change (4.00)	←	**MET 12** - Introduction to Climate Change (5.00)
EARTHSS 17 - Hurricanes, Tsunamis, and other Catastrophes (4.00)	←	No Course Articulated
EARTHSS 19 - Introduction to Modeling the Earth System (4.00)	←	No Course Articulated

ONE COURSE FROM THE FOLLOWING:

CBE 40A - Chemical Processes and Material Balances (4.00)	←	No Course Articulated
EECS 70A - NETWORK ANALYSIS I (4.00)	←	**ENGR 37** - Introduction to Circuit Analysis (5.00)

ENGR 7A - Introduction to Engineering I (2.00)	←	No Course Articulated
--- And ---		
ENGR 7B - Introduction to Engineering II (2.00)	←	No Course Articulated

ENGR 54 - Principles of Materials Science and Engineering (4.00)	←	No Course Articulated
ENGRCEE 80 - Dynamics (4.00) Same-As: ENGR 80, ENGRMAE 80	←	No Course Articulated

END OF AGREEMENT