Articulation Agreement by Major

Effective during the 2022-2023 Academic Year

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

Bioengineering B.S.

GENERAL INFORMATION

DATED MATERIAL, SUBJECT TO CHANGE. PLEASE CONSULT CURRENT UCSD GENERAL CATALOG FOR ANY ADDITIONAL INFORMATION.

Effective Fall 2017, major preparation will be required for this major. For details, visit: http://admissions.ucsd.edu/MajorPrep

General Advice: Transfer students must have completed the following courses in order to be considered for admission to the Bioengineering major at UC San Diego:

- Calculus I-for Science and Engineering (Math. 20A)
- Calculus II-for Science and Engineering (Math. 20B)
- Calculus and Analytic Geometry (Math. 20C)
- Differential Equations (Math. 20D)
- Calculus-based physics series with lab experience
  (Physics 2A-B with Physics 2BL and 2CL)
- Chemistry 6A and 6B
  Note: An equivalent to UCSD's Chem 7L laboratory courses is strongly recommended for students applying to all majors offered by the Department of Bioengineering although it is not considered for screening purposes.

Application for Admission to the Bioengineering Major:

Since Fall 2004, applicants seeking admission as transfer students are considered for direct admission into the Bioengineering major. The only way to become a Bioengineering major is to be directly admitted from community college as an entering transfer student. Although the actual GPA cutoff depends on the number of openings, at least a 3.2 GPA in the community college transfer courses and a 3.4 GPA in the above screening courses, are needed to gain admission.

Prospective transfer students who have taken equivalent courses elsewhere (at institutions not appearing on ASSIST), may request to have transfer credit applied toward the department's major requirements by submitting an "Undergraduate Student Petition" together with a transcript and catalog course description from the institution where the course(s) were taken. These documents are reviewed for approval by the relevant UCSD department and the Bioengineering Undergraduate Studies Committee. "Undergraduate Student Petitions" are available online at http://students.ucsd.edu/my-tritonlink/forms/index.html and in the Student Affairs Office. This degree is accredited by the Accreditation Board for Engineering and Technology (ABET).

For additional information, please see the Bioengineering Department's Undergraduate Program website at http://be.ucsd.edu/undergraduate

UC San Diego Advanced Placement (AP) and International Baccalaureate (IB) credit policies are detailed in the links below:

Advanced Placement (AP) https://www.ucsd.edu/catalog/pdf/APC-chart.pdf

International Baccalaureate (IB) https://catalog.ucsd.edu/_files/international-baccalaureate-credits-chart.pdf

LOWER DIVISION MAJOR REQUIREMENTS

MATH 18 - Linear Algebra (4.00)	←	**MATH 2B** - Linear Algebra (5.00) **--- Or ---** **MATH 2BH** - Linear Algebra - HONORS (5.00)
MATH 20A - Calculus for Science and Engineering (4.00)	←	**MATH 1A** - Calculus (5.00) **--- Or ---** **MATH 1AH** - Calculus - HONORS (5.00)

MATH 20B - Calculus for Science and Engineering (4.00)	←	**MATH 1B** - Calculus (5.00) **--- Or ---** **MATH 1BH** - Calculus - HONORS (5.00)
MATH 20C - Calculus and Analytic Geometry for Science and Engineering (4.00)	←	**MATH 1C** - Calculus (5.00) **--- And ---** **MATH 1D** - Calculus (5.00) **--- Or ---** **MATH 1CH** - Calculus - HONORS (5.00) **--- And ---** **MATH 1DH** - Calculus - HONORS (5.00)
MATH 20D - Introduction to Differential Equations (4.00)	←	**MATH 2A** - Differential Equations (5.00) **--- Or ---** **MATH 2AH** - Differential Equations - HONORS (5.00)
MATH 20E - Vector Calculus (4.00) • *Articulation is subject to placement by proficiency exam* • *Petition department after transfer*	←	No Course Articulated

PHYS 2A - Physics - Mechanics (4.00)	←	**PHYS 4A** - Physics for Scientists and Engineers: Mechanics (6.00)
PHYS 2B - Physics - Electricity and Magnetism (4.00)	←	**PHYS 4B** - Physics for Scientists and Engineers: Electricity and Magnetism (6.00)
PHYS 2BL - Physics Laboratory - Mechanics (2.00)	←	**PHYS 4A** - Physics for Scientists and Engineers: Mechanics (6.00)
PHYS 2C - Physics - Fluids, Waves, Thermodynamics, and Optics (4.00)	←	**PHYS 4C** - Physics for Scientists and Engineers: Fluids, Waves, Optics and Thermodynamics (6.00)
PHYS 2CL - Physics Laboratory - Electricity and Magnetism (2.00)	←	**PHYS 4B** - Physics for Scientists and Engineers: Electricity and Magnetism (6.00)

MAE 3 - Introduction to Engineering Graphics and Design (4.00)	←	No Course Articulated
MAE 8 - MATLAB Programming for Engineering Analysis (4.00)	←	**CIS 35A** - Java Programming (4.50) **--- Or ---** **CIS 22A** - Beginning Programming Methodologies in C++ (4.50) **--- Or ---** **CIS 40** - Introduction to Programming in Python (4.50) **--- Or ---** **CIS 41A** - Python Programming (4.50) **--- Or ---** **CIS 41B** - Advanced Python Programming (4.50)

BILD 1 - The Cell (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** - Ecology and Evolution (6.00) **--- Or ---** **BIOL 6AH** - Form and Function in the Biological World - HONORS (6.00) **--- And ---** **BIOL 6B** - Cell and Molecular Biology (6.00) **--- And ---** **BIOL 6CH** - Ecology and Evolution - HONORS (6.00)

CHEM 6A - General Chemistry I (4.00)	←	**CHEM 1A** - General Chemistry (5.00) **--- Or ---** **CHEM 1AH** - General Chemistry - HONORS (5.00)

CHEM 6B - General Chemistry II (4.00)	←	**CHEM 1B** - General Chemistry (5.00) **--- Or ---** **CHEM 1BH** - General Chemistry - HONORS (5.00)
CHEM 7L - Introductory Inorganic Chemistry Laboratory (4.00)	←	**CHEM 1B** - General Chemistry (5.00) **--- And ---** **CHEM 1C** - General Chemistry and Qualitative Analysis (5.00) **--- Or ---** **CHEM 1BH** - General Chemistry - HONORS (5.00) **--- And ---** **CHEM 1CH** - General Chemistry and Qualitative Analysis - HONORS (5.00)

BENG 1 - Introduction to Bioengineering (2.00)	←	This course must be taken at the university after transfer

END OF AGREEMENT