## **Articulation Agreement by Major**

Effective during the 2022-2023 Academic Year

To: University of California, Berkeley 2022-2023 General Catalog, Semester

From: De Anza College 2022-2023 General Catalog, Quarter

### **Nuclear Engineering, Lower Division B.S.**

### **COLLEGE OF ENGINEERING JUNIOR TRANSFER ADMISSION REQUIREMENTS**

Admission to the UC Berkeley College of Engineering is highly competitive.

Applicants to the **Nuclear Engineering** major must complete all <u>required</u> core UCB preparation courses in order to be eligible for admission. Only applicants who have completed 100% of these <u>required</u> courses will be considered for admission. Required courses for admission to the major must be completed by the end of the spring semester prior to fall enrollment. **A summer 2023 course is not considered to be "work in progress" for the fall 2023 selection process.** 

If a series of courses at a community college is required (e.g., English 1A + 1B + 103 = English R1A and R1B), <u>all</u> the courses in the series <u>must</u> be completed, and <u>must</u> (unless otherwise indicated) be completed at the same community college. Partial completion (e.g., 2 of the 3 required courses) will result in zero credit toward the requirement(s), and the applicant will NOT be considered for admission. The only exception to the series rule is Math 54. If Math 54 is split into two different courses, one covering linear algebra and one covering differential equations, we strongly encourage applicants to take both courses at the same community college; however, the College of Engineering will accept linear algebra from one school and differential equations from a different school.

Lower division UC Berkeley courses required for graduation (but not admission) are also listed in the major agreements and are strongly recommended to be taken to strengthen one's application. The more of these courses completed, the stronger the application will be.

### Required core courses for admission: (all these courses must be completed to be considered for admission)

- UCB CHEM 1A/1AL
- UCB MATH 1A; 1B; 53; 54
- UCB PHYSICS 7A; 7B; 7C
- UCB ENGLISH R1A; R1B

### Select one from the following:

- UCB ASTRON 7A
- UCB BIOLOGY 1A/1AL; 1B
- UCB CHEM 1B; 3A/3AL
- UCB MCELLBI 32/32L
- UCB STAT 20

# Strongly recommended courses: (if your college offers the courses listed below and they are articulated, taking them will strengthen your application)

- UCB ENGIN 40
- UCB EECS 16A
- UCB ENGIN 7
- UCB MAT SCI 45/45L

### Articulation subject to completion of a university course

If the above statement is indicated under any of the community college course listed below, you will be required to take an additional course at UC Berkeley in order to complete the requirement.

Admission is primarily based on the completeness of the applicant's lower division preparation and the level of academic achievement reflected in the student's grade point average. The UC applicant essay also plays an important role in the selection process at UC Berkeley. The College reviews the essay for evidence of interest in the student's chosen field and a thoughtful match between the academic program and the student's academic and career objectives.

The College of Engineering requires six humanities/social science courses, two of which must be reading and composition. The only non-technical admission requirement for the College of Engineering is the coursework equivalent to UC Berkeley's English R1A and R1B (reading and composition), which must be taken for a letter grade. The College of Engineering **does not recognize the Intersegmental General Education Transfer Curriculum (IGETC) and strongly discourages** students from following this option due to the number of major-specific technical courses required for engineering transfer admission.

**NOTE:** The English R1A and R1B requirements <u>cannot</u> be satisfied by IGETC; applicants <u>must</u> complete the specific courses indicated as English R1A and R1B equivalents to be considered for admission. Failure to complete the exact courses listed will mean the applicant will NOT be considered for admission.

The remaining four humanities/social science requirement courses are not considered for admission purposes but are required for graduation. See <a href="http://engineering.berkeley.edu/hss">http://engineering.berkeley.edu/hss</a> for the College of Engineering humanities/social science breadth requirements and courses. Courses which are three semester units or more that appear in the following categories on the "General Education/Breadth" section of <a href="https://engineering.berkeley.edu/hss">assist.org</a> may be used to satisfy <a href="https://engineering.berkeley.edu/hss">two of the remaining four humanities/social science</a>

course requirements for the College of Engineering. ARTS AND LITERATURE; HISTORICAL STUDIES; INTERNATIONAL STUDIES; PHILOSOPHY AND VALUES; SOCIAL AND BEHAVIORAL SCIENCES. Additionally, courses that teach a foreign language may be used to satisfy this requirement.

SAT/ACT/A-level test scores and letters of recommendation are NOT considered for admission.

NOTE: ALL REQUIRED COURSES AND ALL STRONGLY RECOMMENDED COURSES FOR THE MAJOR MUST BE TAKEN FOR A LETTER GRADE. FOR MORE INFORMATION, PLEASE CHECK THE COLLEGE'S WEB SITE FOR THE <u>COLLEGE OF ENGINEERING UNDERGRADUATE GUIDE</u>.

### For more information:

http://engineering.berkeley.edu/admissions/undergraduate-admissions

### **College of Engineering Undergraduate Guide:**

http://engineering.berkeley.edu/academics/undergraduate-guide

### For more information on Nuclear Engineering:

http://www.nuc.berkeley.edu

### For more information on admission to UC Berkeley:

http://admissions.berkeley.edu

### For more information on majors at UC Berkeley:

http://quide.berkeley.edu

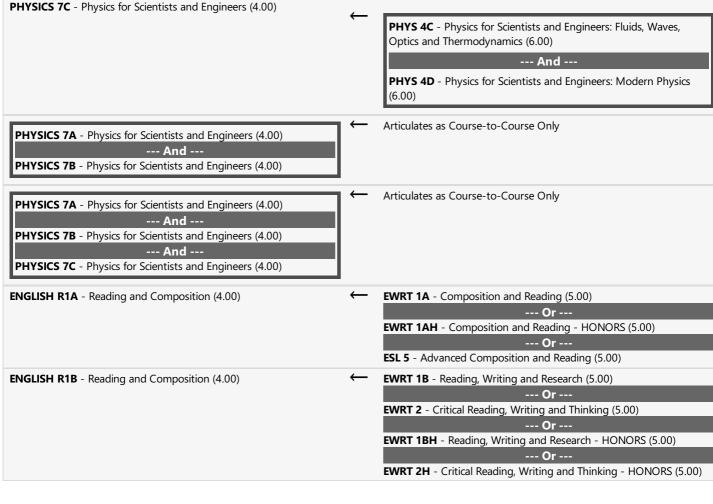
### **TEST CREDIT**

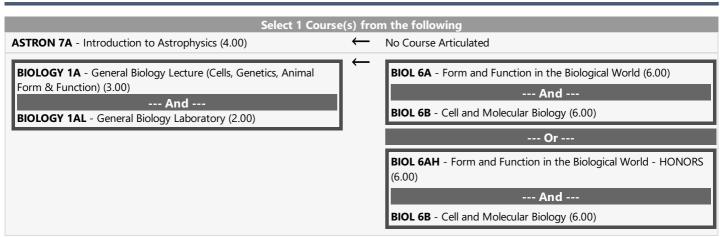
Some Advanced Placement, International Baccalaureate, and A-Level exams can fulfill requirements in the College of Engineering. For details, please see <a href="https://engineering.berkeley.edu/students/undergraduate-guide/exams/">https://engineering.berkeley.edu/students/undergraduate-guide/exams/</a>.

### **REQUIRED COURSES FOR ADMISSION**

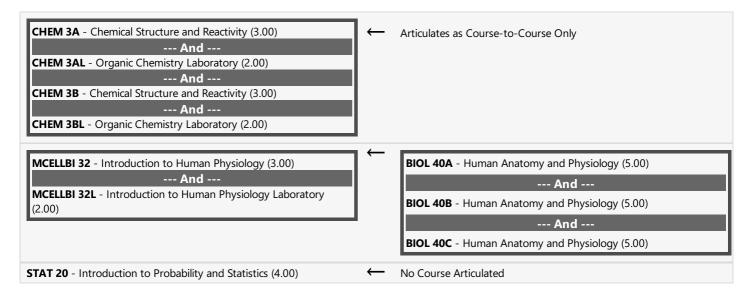
Articulates as a Series Only CHEM 1A - General Chemistry (3.00) --- And ---**CHEM 1AL** - General Chemistry Laboratory (2.00) CHEM 1A - General Chemistry (3.00) CHEM 1A - General Chemistry (5.00) --- And ------ And ---CHEM 1AL - General Chemistry Laboratory (2.00) CHEM 1B - General Chemistry (5.00) --- And ---CHEM 1B - General Chemistry (4.00) --- And ---**CHEM 1C** - General Chemistry and Qualitative Analysis (5.00) Regular and honors courses may be combined to complete --- 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) Regular and honors courses may be combined to complete this series

MATH 1A - Calculus (4.00)	
	MATH 1A - Calculus (5.00)
	And
	<b>MATH 1B</b> - Calculus (5.00)
	<ul> <li>Regular and honors courses may be combined to complete this series</li> </ul>
	Or
	MATH 1AH - Calculus - HONORS (5.00) And
	MATH 1BH - Calculus - HONORS (5.00)
	Regular and honors courses may be combined to complete this series
MATH 1B - Calculus (4.00)	MATH 1B - Calculus (5.00)
	And
	MATH 1C - Calculus (5.00)
	<ul> <li>Regular and honors courses may be combined to complete this series</li> </ul>
	Or
	MATH 1BH - Calculus - HONORS (5.00)
	And MATH 1CH - Calculus - HONORS (5.00)
	Regular and honors courses may be combined to complete this series
MATH 53 - Multivariable Calculus (4.00)	MATH 1C - Calculus (5.00)
	And
	MATH 1D - Calculus (5.00)  Regular and honors courses may be combined to complete this series
	Or
	MATH 1CH - Calculus - HONORS (5.00)
	And
	<ul> <li>MATH 1DH - Calculus - HONORS (5.00)</li> <li>Regular and honors courses may be combined to complete this series</li> </ul>
MATH 54 - Linear Algebra and Differential Equations (4.00)	MATH 2A - Differential Equations (5.00)
	And
	MATH 2B - Linear Algebra (5.00)
	<ul> <li>Regular and honors courses may be combined to complete this series</li> </ul>
	Or
	MATH 2AH - Differential Equations - HONORS (5.00) And
	MATH 2BH - Linear Algebra - HONORS (5.00)  Regular and honors courses may be combined to complete this series
PHYSICS 7A - Physics for Scientists and Engineers (4.00)	← PHYS 4A - Physics for Scientists and Engineers: Mechanics (6.00)
PHYSICS 7B - Physics for Scientists and Engineers (4.00)	PHYS 4B - Physics for Scientists and Engineers: Electricity and Magnetism (6.00)
	And
	<b>PHYS 4C</b> - Physics for Scientists and Engineers: Fluids, Waves, Optics and Thermodynamics (6.00)





BIOLOGY 1B - General Biology (Plant Form & Function, Ecology, Evolution) (4.00) **BIOL 6A** - Form and Function in the Biological World (6.00) --- And ---**BIOL 6C** - Ecology and Evolution (6.00) --- Or ---**BIOL 6AH** - Form and Function in the Biological World - HONORS --- And ---**BIOL 6C** - Ecology and Evolution (6.00) --- Or ---**BIOL 6A** - Form and Function in the Biological World (6.00) --- And ---BIOL 6CH - Ecology and Evolution - HONORS (6.00) --- Or --BIOL 6AH - Form and Function in the Biological World - HONORS (6.00)--- And ---BIOL 6CH - Ecology and Evolution - HONORS (6.00) Articulates as Course-to-Course Only **BIOLOGY 1A** - General Biology Lecture (Cells, Genetics, Animal Form & Function) (3.00) --- And ---**BIOLOGY 1AL** - General Biology Laboratory (2.00) --- And ---BIOLOGY 1B - General Biology (Plant Form & Function, Ecology, Evolution) (4.00) CHEM 1B - General Chemistry (4.00) Articulates as a Series Only CHEM 1A - General Chemistry (3.00) CHEM 1A - General Chemistry (5.00) --- And ----- And ---CHEM 1AL - General Chemistry Laboratory (2.00) CHEM 1B - General Chemistry (5.00) --- And ------ And ---CHEM 1B - General Chemistry (4.00) CHEM 1C - General Chemistry and Qualitative Analysis (5.00) Regular and honors courses may be combined to complete --- 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) Regular and honors courses may be combined to complete this series CHEM 3A - Chemical Structure and Reactivity (3.00) CHEM 12A - Organic Chemistry (5.00) --- And ------ And --CHEM 3AL - Organic Chemistry Laboratory (2.00) CHEM 12B - Organic Chemistry (5.00)



# STRONGLY RECOMMENDED COURSES ENGIN 40 - Engineering Thermodynamics (4.00) ← No Course Articulated ← No Course Articulated

### **END OF AGREEMENT**