Articulation Agreement by Major

Effective during the 2022-2023 Academic Year

To: University of California, Berkeley	From: Contra Costa College
2022-2023 General Catalog, Semester	2022-2023 General Catalog, Semester

Electrical Engineering & Computer Sciences, 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 **Electrical Engineering and Computer Sciences** major must complete all required core UCB preparation courses in order to be eligible for admission. Only applicants who have completed 100% of these required 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), all the courses in the series must be completed, and must (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 MATH 1A; 1B; 53; 54
- UCB PHYSICS 7A; 7B
- UCB ENGLISH R1A; R1B
- One from UCB ASTRON 7A or 7B or BIOLOGY 1A/1AL or BIOLOGY 1B or CHEM 1A/1AL or CHEM 1B or CHEM 3A/3AL or CHEM 3B/3BL or MCELLBI 32/32L or PHYSICS 7C

Strongly recommended courses: (if your college offers the courses listed below and they are articulated, taking them will strengthen your application) If no articuation, students are encouraged to take an introductory course in electronics or circuits AND courses in Java, C++ and Data Structures.

- UCB COMPSCI 61A; 61B; 61C; 70
- UCB EECS 16A; 16B

Articulation subject to completion of a university course
If the above statement is indicated under any of the community college courses 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 cannot be satisfied by IGETC; applicants must 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 http://engineering.berkeley.edu/hss 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 assist.org may be used to satisfy **two of** the remaining four humanities/social science course requirements for the College of Engineering. ARTS AND LITERATURE; HISTORICAL STUDIES; INTERNATIONAL STUDIES; PHILOSOPHY AND VALUES; SOCIAL AND BEHAVIORIAL 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 COLLEGE OF ENGINEERING UNDERGRADUATE GUIDE.

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 Electrical Engineering & Computer Science:
http://www.eecs.berkeley.edu

For more information on admission to UC Berkeley:
http://admissions.berkeley.edu

For more information on majors at UC Berkeley:
http://guide.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 https://engineering.berkeley.edu/students/undergraduate-guide/exams/.

REQUIRED COURSES FOR ADMISSION

MATH 1A - Calculus (4.00)	←	**MATH 190** - Analytic Geometry and Calculus I (5.00)
MATH 1B - Calculus (4.00)	←	**MATH 191** - Analytic Geometry and Calculus II (4.00)
MATH 53 - Multivariable Calculus (4.00)	←	**MATH 290** - Analytic Geometry and Calculus III (5.00)
MATH 54 - Linear Algebra and Differential Equations (4.00)	←	**MATH 200** - Introduction to Linear Algebra (4.00) **--- And ---** **MATH 292** - Introduction to Differential Equations (4.00)
PHYSICS 7A - Physics for Scientists and Engineers (4.00)	←	**PHYS 130** - General Physics I (4.00)
PHYSICS 7B - Physics for Scientists and Engineers (4.00)	←	**PHYS 230** - General Physics II (4.00)
PHYSICS 7A - Physics for Scientists and Engineers (4.00) **--- And ---** **PHYSICS 7B** - Physics for Scientists and Engineers (4.00)	←	Articulates as Course-to-Course Only
PHYSICS 7A - Physics for Scientists and Engineers (4.00) **--- And ---** **PHYSICS 7B** - Physics for Scientists and Engineers (4.00) **--- And ---** **PHYSICS 7C** - Physics for Scientists and Engineers (4.00)	←	Articulates as Course-to-Course Only
ENGLISH R1A - Reading and Composition (4.00)	←	**ENGL 001A** - Composition and Reading (4.00) **--- Or ---** **ENGL 001AX** - Intensive Composition and Reading (5.00)
ENGLISH R1B - Reading and Composition (4.00)	←	**ENGL 001C** - Critical Thinking and Advanced Composition (3.00) **--- Or ---** **ENGL 002B** - Critical Thinking through Literature (4.00) **--- Or ---** **PHILO 130** - Critical Thinking, Logic, and Composition (3.00)

REQUIRED COURSES FOR ADMISSION

Select 1 Course(s) from the following

****REFER TO TOP OF AGREEMENT****

ASTRON 7A - Introduction to Astrophysics (4.00)	←	No Course Articulated
ASTRON 7B - Introduction to Astrophysics (4.00)	←	No Course Articulated

BIOLOGY 1A - General Biology Lecture (Cells, Genetics, Animal Form & Function) (3.00) **--- And ---** **BIOLOGY 1AL** - General Biology Laboratory (2.00)	←	**BIOSC 147** - Cell and Molecular Biology (4.00)
BIOLOGY 1B - General Biology (Plant Form & Function, Ecology, Evolution) (4.00)	←	**BIOSC 145** - Organismal Biology (4.00)
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)	←	Articulates as Course-to-Course Only
CHEM 1A - General Chemistry (3.00) **--- And ---** **CHEM 1AL** - General Chemistry Laboratory (2.00)	←	**CHEM 120** - General College Chemistry I (5.00)
CHEM 1B - General Chemistry (4.00)	←	**CHEM 121** - General College Chemistry II (5.00)
CHEM 1A - General Chemistry (3.00) **--- And ---** **CHEM 1AL** - General Chemistry Laboratory (2.00) **--- And ---** **CHEM 1B** - General Chemistry (4.00)	←	Articulates as Course-to-Course Only
CHEM 3A - Chemical Structure and Reactivity (3.00) **--- And ---** **CHEM 3AL** - Organic Chemistry Laboratory (2.00)	←	**CHEM 226** - Organic Chemistry I (5.00)
CHEM 3B - Chemical Structure and Reactivity (3.00) **--- And ---** **CHEM 3BL** - Organic Chemistry Laboratory (2.00)	←	**CHEM 227** - Organic Chemistry II (5.00)
CHEM 3A - Chemical Structure and Reactivity (3.00) **--- And ---** **CHEM 3AL** - Organic Chemistry Laboratory (2.00) **--- And ---** **CHEM 3B** - Chemical Structure and Reactivity (3.00) **--- And ---** **CHEM 3BL** - Organic Chemistry Laboratory (2.00)	←	Articulates as Course-to-Course Only
MCELLBI 32 - Introduction to Human Physiology (3.00) **--- And ---** **MCELLBI 32L** - Introduction to Human Physiology Laboratory (2.00)	←	**BIOSC 134** - Human Physiology (4.00)
PHYSICS 7C - Physics for Scientists and Engineers (4.00)	←	**PHYS 231** - General Physics III (4.00)
PHYSICS 7A - Physics for Scientists and Engineers (4.00) **--- And ---** **PHYSICS 7B** - Physics for Scientists and Engineers (4.00) **--- And ---** **PHYSICS 7C** - Physics for Scientists and Engineers (4.00)	←	Articulates as Course-to-Course Only

STRONGLY RECOMMENDED COURSES

****REFER TO TOP OF AGREEMENT****

COMPSCI 61A - The Structure and Interpretation of Computer Programs (4.00)	←	No Course Articulated

COMPSCI 61B - Data Structures (4.00)	←	**COMP 210** - Program Design and Data Structures (4.00) • *Articulation subject to completion of a university course*
COMPSCI 61C - Machine Structures (4.00)	←	**COMP 265** - Assembly Language Programming/Computer Organization (4.00)
EECS 16A - Designing Information Devices and Systems I (4.00)	←	**ENGIN 230** - Introduction to Circuit Analysis (4.00) **--- And ---** **MATH 200** - Introduction to Linear Algebra (4.00)
EECS 16B - Designing Information Devices and Systems II (4.00)	←	No Course Articulated
COMPSCI 70 - Discrete Mathematics and Probability Theory (4.00)	←	This course must be taken at the university after transfer

END OF AGREEMENT