Guidelines by Major Effective during the 18-19 Academic Year

To: UC Berkeley | From: Mount San Antonio College
18-19 General Catalog Semester | 18-19 General Catalog Semester

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====Bioengineering, 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 Bioengineering 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 2019 course is not considered to be "work in progress" for the fall 2019 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.

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/L; Chem 3A/L
- UCB Math 1A, 1B
- UCB Math 53, 54
- UCB Physics 7A, 7B
- UCB English 1A and 1B

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

- UCB Engin 7 or Compisci 61A

Select two from:
- UCB El Eng 16A & 16B
- UCB Compisci 61B
- UCB Mat Sci Engin 45 & 45L
- UCB Math 55 or Compisci 70

Consult the Bioengineering website for which course above would best match the sample track you wish to pursue. http://bioeng.berkeley.edu/undergrad
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/hssreq 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 BEHAVIORAL SCIENCES.

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 Bioengineering:
http://bioeng.berkeley.edu

For more information on admission to UC Berkeley:
http://admissions.berkeley.edu
To: UC Berkeley, From: Mount San Antonio College, 18-19
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Bioengineering, Lower Division B.S. (continued)
For more information on majors at UC Berkeley:
Berkeley Academic Guide: http://guide.berkeley.edu

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AP TEST CREDIT

For students who have taken Advanced Placement Exams in high school, the College
will clear requirements as follows:

Biology AP: a score of 4 or 5 satisfies UCB Biology 1A/AL and 1B.
Chemistry AP: a score of 3 or better satisfies UCB Chemistry 1A/1AL.
English AP (Literature and Composition): a score of 4 or 5 satisfies UCB English
R1A.
English AP (Language and Composition): a score of 4 or 5 satisfies UCB English
R1A.
Mathematics AP (AB Exam): a score of 3 or better satisfies UCB Math 1A.
Mathematics AP (BC Exam): a score of 3 satisfies UCB Math 1A.
Mathematics AP (BC Exam): a score of 4 or 5 satisfies UCB Math 1A and 1B.
Physics AP (Mechanics C Exam): a score of 5 satisfies UCB Physics 7A.
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Required Courses for Admission:
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CHEM 1A & General Chemistry (3) CHEM 50 General Chemistry I (5)
CHEM 1AL General Chemistry (1) OR CHEM 50H General Chemistry I - (5)
Laboratory CHEM 51 General Chemistry II (5)
CHEM 1B General Chemistry (4)
CHEM 3A & Chemical Structure and Reactivity (3) CHEM 80 Organic Chemistry (5)
CHEM 3AL Organic Chemistry (2) Laboratory
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MATH 1A Calculus (4) MATH 180 Calculus and Analytic Geometry (4)
MATH 1B Calculus (4) MATH 181 Calculus and Analytic Geometry (4)
MATH 53 Multivariable Calculus (4) MATH 280 Calculus and Analytic Geometry (5)
MATH 54 Linear Algebra and Differential Equations (4) MATH 285 Linear Algebra and
Differential Equations (5)
PHYSICS 7A Physics for Scientists and Engineers (4) PHYS 4A Engineering Physics (5)
PHYSICS 7B Physics for Scientists and Engineers (4) PHYS 4B Engineering Physics (5)
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Bioengineering, Lower Division B.S. (continued)

ENGLISH R1B  Reading and Composition  (4)  |  ENGL 1B  English - Introduction (3)  to Literary Types
|  OR  |  ENGL 1BH  English - Introduction (3)  to Literary Types - Honors
|  OR  |  ENGL 1C  Critical Thinking and Writing (4)
|  OR  |  ENGL 1CH  Critical Thinking and Writing - Honors

ENGLISH R1A  &  Reading and Composition  (4)  |  ENGL 1A  Freshman Composition (4)
|  OR  |  ENGL 1AH  Freshman Composition - (4)  Honors
|  ENGL 1B  English - Introduction (3)  to Literary Types
|  OR  |  ENGL 1BH  English - Introduction (3)  to Literary Types - Honors
|  OR  |  ENGL 1C  Critical Thinking and Writing (4)
|  OR  |  ENGL 1CH  Critical Thinking and Writing - Honors

Note: Engl 1A (or 1AH) = neither UCB R1A nor R1B

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

If no articulation, students are strongly encouraged to take a course in electronic or circuits AND a course in programming.

ENGIN 7  Introduction to Computer Programming for Scientists and Engineers (MATLAB)  (4)  NO COURSE ARTICULATED
|  OR  |  OR
COMPSCI 61A  The Structure and Interpretation of Computer Programs  (4)  NO COURSE ARTICULATED

TAKE TWO OF THE FOLLOWING COURSES:

EL ENG 16A  Designing Information Devices and Systems I  (4)  NO COURSE ARTICULATED
AND
EL ENG 16B  Designing Information Devices and Systems II  (4)  NO COURSE ARTICULATED
Bioengineering, Lower Division B.S. (continued)

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<th>Equivalent Courses</th>
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<td>CSCI 220 &amp; Data Structures I</td>
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<tr>
<td></td>
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<td>CSCI 230 &amp; Data Structures II</td>
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<td><strong>NOTE:</strong> Students must also complete COMPSCI 47B at Berkeley to satisfy this requirement.</td>
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Bioengineering, Lower Division B.S. (continued)

COMPSCI 70  Discrete Mathematics (4) NO COURSE ARTICULATED
           and Probability Theory |

END OF MAJOR