Arts-Engineering

Program director. Bruce Thomas, Ph.D., (University of California, Berkeley), associate professor of architecture, College of Arts and Sciences. The Arts-Engineering program provides the student with an opportunity to experience the breadth of an arts education and simultaneously follow the focused curriculum of an engineering major. This is a five-year, dual degree program administered by the College of Arts and Sciences. An Arts-Engineering graduate is awarded two bachelor degrees, one from the College of Arts and Sciences and another from the College of Engineering and Applied Science, the latter a professional degree.

A typical freshman year class schedule for an Arts-Engineer is shown below. Note that an Arts-Bioengineering program has a different freshman year class schedule.

First Year
First Semester
ENGL 001 3 ENGL 002 3
MATH 021 4 MATH 022 4
PHY 011 & PHY 012 5 ENGR 005 2
(Dept) 90 College Seminar or FYC 2 ENGR 006 1
ENGR 010 2 Humanities /Social Science Elective 3-4

Total Credits: 31-35

Selection of a major in the College of Engineering and Applied Science occurs prior to beginning the sophomore year. A major leading to a degree in the College of Arts and Sciences should be chosen prior to beginning the junior year.

Arts-Engineering candidates should recognize that pursuit of a bachelor of science degree (e.g., biology, chemistry, biochemistry, earth and environmental sciences, mathematics, and physics) or a bachelor of arts program with larger than average credit requirements (e.g., art, architecture, physical sciences, cognitive science, international careers, among others) will severely restrict choices of free electives.

Courses selected must fulfill major and distribution requirements of both the College of Arts and Sciences and the College of Engineering and Applied Science. For all students, very careful planning of the academic program done in consultation with advisers in both colleges is necessary to guarantee completion of all major, distribution and total credit requirements for the two degrees in five years.

When selected properly, courses meet distribution requirements in the College of Arts and Sciences while also satisfying distribution requirements of the College of Engineering and Applied Science. A course of study in Arts-Engineering may link any College of Engineering and Applied Science discipline degree program with any College of Arts and Sciences major. Please see individual departments for details concerning required courses and sequences for completing discipline – specific degrees and combinations of degree requirements for Arts Engineering. Below is a template listing all courses required for a civil engineering-architecture combination (the most common Arts-Engineering linkage). Please note that the large number of required credits for both degrees means that this combination results in a larger number of total credits than is required for some other combinations.

CIVIL ENGINEERING - ARCHITECTURE
A total of 164-169 credits is needed for the Bachelor of Science in Civil Engineering and the Bachelor of Art in Architecture degrees.

First Year
First Semester
ENGL 001 3 ENGL 002 3
MATH 021 4 MATH 022 4
PHY 011 4 CHM 030 4
PHY 012 1 ENGR 010 2
(Dept) 90 College Seminar or FYC 1-4 Humanities /Social Science Elective 3-4
ENGR 005 2

Second Year
First Semester
ENGR 010 3 ECO 001 3
MATH 023 4 MATH 205 3
CEE 003 3 CEE 059 3
CEE 010 3 PHY 021 & PHY 022 5
ART 001 4 ARCH 002 4
ART 003 4 ART 004 4

Total Credits: 15-18

Third Year
First Semester
ENGR 005 4 CEE 191 4
MATH 022 4 MATH 206 4
CEE 123 3 CEE 117 2
CEE 011 1 CEE 222 3
CEE 012 2 ARCH 143 4
CEE 121 3 ECO 001 4
ARCH 043 4 Architectural History Elective 4

Basic Science Elective 4

Total Credits: 16

Fourth Year
First Semester
ENGR 005 4 CEE 191 4
MATH 022 4 MATH 206 4
CEE 142 3 CEE 202 3
CEE 159 4 CEE 242 3
ARCH 243 4 CEE 262 or 264 3
ARCH 157 4 ARCH 343 4

ARCH 210 4

Total Credits: 15

Fifth Year
First Semester
ENGR 005 4 CEE 191 4
MATH 022 4 MATH 206 4
Civil Engineering Approved electives 2

Civil Engineering Approved electives 2

Total Credits: 14-15

1 One Architectural History elective should be filled by a course designated (SS) in order to fulfill the social science distribution requirement.
2 Of 17 CEE approved elective credits required for Civil Engineering three credits are satisfied by ARCH 343.
3 Multidisciplinary teaming versions of CEE 205 or CEE 381 can be substituted with departmental permission.
4 Basic Science Elective - List of approved courses is available from the CEE department.

Note: The College of Arts and Sciences requires a junior writing intensive course. This may be filled by an appropriate choice of elective.