

2006-2008 BS ARE Curriculum

ARCHITECTURAL ENGINEERING SUMMARY - BASIC/MAJOR/OTHER

*Basic Sequence Courses**

Architectural Engineering 102, 217; Chemistry 301; Civil Engineering 311K, 311S, 314K; Engineering Mechanics 306, 319; Mathematics 408C, 408D, 427K; Physics 303K, 303L, 103M, 103N; Rhetoric & Writing 30644

Major Sequence Courses

Architectural Engineering 320K, 320L, 323K, 335, 346N, 465, 366,
Civil Engineering 319F, 329, 331 or 335, 333T, 35737

Approved technical electives.....15

*Other Required Courses***

English 316K, Geological Sciences 312K, Mechanical Engineering 320.....9

Approved mathematics or science elective.....3

American government, including Texas government
(legislative requirement).....6

American history (legislative requirement).....6

Approved architectural history elective***.....3

Approved social science elective.....3

**Minimum
required.....126**

***Basic sequence courses** must be completed before entrance into the major sequence. Students must apply for Major or Conditional sequence on the College of Engineering web site by the published deadlines --October 1st for priority consideration for a Spring semester; March 1 for Summer and Fall semesters. **Conditional sequence** may be granted if no more than 2 basic sequence courses (or 7 hours) are lacking in the basic sequence. **Conditional sequence allows registration in major sequence courses, along with the last remaining basic sequence courses.** To be admitted to Major or Conditional sequence, a 2.0 overall, basic sequence, major, and engineering GPA is required for Architectural and Civil Engineering majors. A student cannot be on academic or scholastic probation. There is an appeal process for ineligible students. See the COE web site for information.

****Other Required Courses** may be taken at any point in the degree plan (while in basic or major sequence) as long as the prerequisites for the course have been satisfied.

*******For architectural engineering majors, the architectural history elective fulfills the fine arts or humanities elective requirement that is included in all engineering degree plans. Lists of approved electives are available in the Departmental Undergraduate Office.

**Architectural Engineering
Approved Mathematics or Science Elective**

CH 302	Principles of Chemistry II
M 427L	Advanced Calculus for Applications II
M 340L	Matrices and Matrix Calculations
M 361	Theory of Functions of a Complex Variable
M 364K	Vector and Tensor Analysis I
M 372	Fourier Series and Boundary Value Problems
M 374	Fourier and Laplace Transforms

NOTE: Other selected courses in Chemistry, Biological Sciences, Geology, Mathematics, or Physics may be counted only with approval from the designated CAEE department Undergraduate Advisor. However, in no case will courses be counted that designate in the Undergraduate Catalog that they are for non-science majors; however, not all courses for science majors are acceptable either.

Frequently requested courses that are **NOT** acceptable as math/science electives are: AST 301 and AST 307; BIO 301M and BIO 304; GEO 305, GEO 307, and GEO 320L; M 311, M325K, and M 341 (formerly 311), and M362K. This does not mean that any other courses in these departments are acceptable. The CAEE department Undergraduate Advisor MUST approve any course that is not on the approved list.

Architectural History Elective

These U.T. Austin courses satisfy the fine arts/humanities requirement for three hours of credit in one of the following areas: archaeology, architecture, art (excluding studio art), classics, drama, fine arts, humanities, music (excluding instruments and ensemble), or philosophy (excluding courses in logic). For architectural engineering majors, the Architectural History Elective fulfills the fine arts or humanities elective requirement that is included in all engineering degree plans.

Courses other than those appearing on this list may be approved by the designated CAEE department Undergraduate Advisor and with approval from the School of Architecture; approval must be obtained prior to taking the course.

ARC 308	Architecture and Society
ARC 318K	History of Architecture, Survey I
ARC 318L	History of Architecture, Survey II

Civil Engineering and Architectural Engineering

Social Science Elective

These U.T. Austin classes satisfy the social science requirement for three hours of credit in one of the following areas: anthropology, economics, geography, linguistics, psychology, or sociology. Courses other than those on the list may be approved by the designated CAEE department Undergraduate Advisor; approval must be obtained prior to taking the course. Some courses shown may require prerequisites normally not satisfied in Civil or Architectural Engineering; consult the Course Schedule or Undergraduate Catalog, or inquire at the department offering the course.

ANT 302	Cultural Anthropology
ANT 318L	Mexican American Culture
ANT 322M	Topics in Cultures of the World
ANT 324L	Topics in Anthropology
ANT 327C	Topics in American Cultures
ECO 304K	Introduction to Microeconomics
ECO 304L	Introduction to Macroeconomics (prereq. ECO 304K)
GRG 305	This Human World: An Introduction to Geography
GRG 315	The City: An Introduction to Urban Geography
GRG 324	Cultural Geography of North America
GRG 334	Conservation, Resources, and Technology
GRG 337	The Modern American City
LIN 306	Introduction to the Study of Language
LIN 325	Introduction to the Study of African American English
PSY 301	Introduction to Psychology
SOC 302	Introduction to the Study of Society
SOC 309	Chicanos in American Society
SOC 313K	Introduction to the Study of Religion
SOC 333K	Sociology of Gender
SOC 344	Racial & Ethnic Relations
SOC 346	The City and Urbanization

ARCHITECTURAL ENGINEERING

TECHNICAL AREA ELECTIVES

Technical electives in architectural engineering are listed in three areas of specialization below. Fifteen semester hours must be chosen from the following approved technical elective courses, or selected with the approval of the CAEE department Undergraduate Advisor. *The fifteen semester hours (five courses) may be chosen from one or more of the three areas of specialization. Lower-division courses may not be used as technical electives.*

AREA I, STRUCTURES

Architectural Engineering 345K, Masonry Engineering
Architectural Engineering 362L, Structural Design in Wood
Civil Engineering 331, Reinforced Concrete Design
or Civil Engineering 335, Elements of Steel Design
Civil Engineering 360K, Foundation Engineering
Civil Engineering 362M, Advanced Reinforced Concrete Design
Civil Engineering 362N, Advanced Steel Design
Civil Engineering 363, Advanced Structural Analysis
Civil Engineering 375, Earth Slopes and Retaining Structures
Engineering Mechanics 339, Advanced Strength of Materials

AREA II, BUILDING ENVIRONMENTAL SYSTEMS

Architectural Engineering 346P, HVAC Design
Architectural Engineering 370, Design of Energy Efficient and Healthy Buildings
Architectural Engineering 371, Energy Simulation in Building Design
Architectural Engineering 372, Modeling of Air and Pollutant Flows in Buildings
Architectural Engineering 377K.2: Indoor Air Quality: Transport and Control
Civil Engineering 341, Introduction to Environmental Engineering
Mechanical Engineering 339, Heat Transfer
Mechanical Engineering 374S, Solar Energy Systems Design
Mechanical Engineering 379M, Topic: Fire Science
Mechanical Engineering 379N, Engineering Acoustics

AREA III, BUILDING CONSTRUCTION/MATERIALS

Architectural Engineering 350, Advanced CAD Procedures
Architectural Engineering 358, Cost Estimating in Building Construction
Civil Engineering 351, Concrete Materials
Mechanical Engineering 349, Corrosion Engineering
Mechanical Engineering 378K, Mechanical Behavior of Materials
Mechanical Engineering 378P, Properties and Applications of Polymers