CAL POLY
College of Architecture & Environmental Design

Architectural Engineering (BS)

Suggested 4-Year Academic Flowchart

2026 - 2028 Semester Catalog

Total Semester Units Required: 128-131

1st Year

FALL

- Introduction to Architectural Engineering **ARCE 1110 (2)**
- Architectural Design I **ARCH 1101 (4)** — ARCH 1131
- Architectural Representation I **ARCE 1131 (2)** — ARCH 1101
- Calculus I (GE 2) **MATH 1261 (4)** — Appropriate Placement, MATH 1005 (C- min), or MATH 1007 (C- min)
- General Physics I (GE 5A, 5C) **PHYS 1141 (4)** — MATH 1261

16 UNITS

SPRING

- Structural Principles I **ARCE 1121 (3)** — PHYS 121, PHYS 1121, PHYS 141, or PHYS 1141; and MATH 119, MATH 1007, or Appropriate Placement
- Calculus II (GE 2) **MATH 1262 (4)** — MATH 141B (C- min), MATH 142 (C- min) or MATH 1261 (C- min), or Instructor Consent
- General Physics II (GE 5A, 5C) **PHYS 1143 (4)** — PHYS 141 or PHYS 1141; MATH 1262
- **GE 1A (3)***
- **GE 1C (3)***

17 UNITS

2nd Year

FALL

- Structural Principles II **ARCE 2211 (3)** — ARCE 211 or ARCE 1121 (C- min); and MATH 141 or MATH 1261; ARCE 2212
- Structural Principles II Lab **ARCE 2212 (1)** — ARCE 211 or ARCE 1211. ARCE 2211
- Fundamentals of Contruction Management **CM 1115 (4)**
- Programming for Engineers **CSC 1031 (2)** — MATH 121, MATH 141, MATH 1261, or DATA/MATH 1264; and PHYS 141 or PHYS 1141.
- Linear Analysis **MATH 2341 (4)** — MATH 143, MATH 1262, MATH 1263, or DATA/MATH 1265.
- **GE 1B (3)***

17 UNITS

SPRING

- Structural Systems Laboratory **ARCE 2222 (2)** — Sophomore standing; ARCE 223 or ARCE 2211 (C- min)
- Structural Drawings **ARCE 2223 (2)** — ARCE 106 or ARCE 1110
- Arch History Course **ARCH 2221, 2222, or ARCE 2280 (3)**
- **FE Tech Elective (2-3)**
- **GE (3)***
- **GE (3)***

15-16 UNITS

3rd Year

FALL

- Structural Analysis **ARCE 3311 (3)** — ARCE 223 or ARCE 2211 (C- min) ARCE 3312
- Structural Analysis Lab **ARCE 3312 (1)** — CSC 231 or CSC 1031 ARCE 3311
- Timber Design **ARCE 3331 (2)** — ARCE 371, ARCE 2222, ARCE 315, or ARCE 3301
- Soil Mechanics & Foundation Design **ARCE 3353 (4)** — ARCE 211 or ARCE 1121 GEOL 2240 recommended
- Fundamentals of Chemical Structure and Properties (GE 5A, 5C) **CHEM 1120 (4)**
- **Upper-division GE (3)**

17 UNITS

SPRING

- Timber Design and Constructability Lab **ARCE 3332 (2)** — ARCE 257 or ARCE 2223; and ARCE 304 or ARCE 3331
- Steel Design **ARCE 3341 (2)** — ARCE 371, ARCE 2222, ARCE 315, or ARCE 3301.
- Structural Dynamics **ARCE 4411 (3)** — MATH 244 or MATH 2341; and ARCE 302 or ARCE 3311. ARCE 4412.
- Structural Dynamics Computing Laboratory **ARCE 4412 (1)** — ARCE 352 or ARCE 3312 ARCE 4411
- **GE (3)***
- **GE (3)***
- **Upper-divison GE (3)**

17 UNITS

4th Year

FALL

- Seismic Analysis and Design **ARCE 4413 (3)** — ARCE 303 or ARCE 3341; ARCE 412 or ARCE 4411; and ARCE 354 or ARCE 4412 ARCE 4461
- Steel Structures Design Laboratory **ARCE 4442 (2)** — ARCE 371 or ARCE 2222; ARCE 257 or ARCE 2223; ARCE 304 or ARCE 3311; ARCE 352 or ARCE 3312; and ARCE 303 or ARCE 3341.
- Reinforced Concrete and Masonry Design **ARCE 4461 (4)** — ARCE 371 or ARCE 2222; and ARCE 302 or ARCE 3311
- **FE/PE Surveying Elective (2-3)**
- **FE Tech Elective (3)**

14-15 UNITS

SPRING

- Architectural Engineering Building Systems **ARCE 4421 (2)** — Junior standing
- Senior Project - Reinforced Concrete and Masonry Lab **ARCE 4462 (2)** — ARCE 257 or ARCE 2223; ARCE 372 or ARCE 4442; and ARCE 451, ARCE 3332, ARCE 372, or ARCE 4442.
- **ARCE Elective (3)**
- **CAED Interdisciplinary Elective (2-3)**
- Eningeering Statistics (UD GE 2/5) **STAT 3210** — Junior standing; GE Areas 1 and 2 (C- min); and MATH 142, 1261, or 1264
- **Upper-division GE (3)**

15-16 UNITS

Please Note:

This flowchart is an example and not a template of your individualized plan. You will need to consult the Catalog and Degree Progress Report for detailed information about what you need to graduate. The CAED Advising Center is available for assistance in this process.

Refer to current catalog for course requirements and typical term offerings.

*To be eligible for BS/MS ARCE Program, all lower-division GE courses must be done by the end of 3rd year.

Key

Course Title (GE Area)
Course # (units)
Prerequisite
Corequisite

- Major (47)
- Support (51-54)
- General Ed. (30)

Additional Requirements

- United States Cultural Pluralism (USCP)
- Graduation Writing Requirement (GWR)