## Architectural Engineering: Structures, BEN

**Requirements for Students Matriculating in or before Academic Year 2024-2025.** Learn more about University Academic Regulation 3.1 ([http://catalog.okstate.edu/university-academic-regulations/#matriculation](http://catalog.okstate.edu/university-academic-regulations/#matriculation)).

Minimum Overall Grade Point Average: 2.00

Total Hours: 140

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1113</td>
<td>Composition I ^1</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 1313</td>
<td>Critical Analysis and Writing I</td>
<td></td>
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<tr>
<td>Select one of the following:</td>
<td>3</td>
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<tr>
<td>ENGL 1213</td>
<td>Composition II</td>
<td></td>
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<tr>
<td>ENGL 1413</td>
<td>Critical Analysis and Writing II</td>
<td></td>
</tr>
<tr>
<td>ENGL 3323</td>
<td>Technical Writing</td>
<td></td>
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### American History & Government

Select one of the following:

- HIST 1103 | Survey of American History                             | 3     |
- HIST 1483 | American History to 1865 (H)                           |       |
- HIST 1493 | American History Since 1865 (DH)                      |       |
- POLS 1113 | American Government                                    | 3     |

### Analytical & Quantitative Thought (A)

- MATH 2144 | Calculus I (A) ^1                                      | 4     |
- MATH 2153 | Calculus II (A)                                        | 3     |

### Humanities (H)

- ARCH 2003 | Architecture and Society (HI)                         | 3     |

Select 3 hours from the following:

- ARCH 3083 | History and Theory of Renaissance and Baroque Architecture (H) | 3     |
- ARCH 3473 | History and Theory of Structures in Architecture (H) |       |
- ARCH 4173 | History and Theory of Skyscraper Design (H)             |       |
- ARCH 4293 | The Ethics of the Built Environment (H)                 |       |
- ARCH 4374 | International Field Study (Hi)                         |       |

Any other ARCH (H)

Any other upper division HIST (H) Any upper ART (H)

### Natural Sciences (N)

- CHEM 1414 | General Chemistry for Engineers (LN)                   | 4     |
- PHYS 2014 | University Physics I (LN) ^1                          | 4     |
- PHYS 2114 | University Physics II (LN) ^1                         | 4     |

3 hours of (N) ^3

### Social & Behavioral Sciences (S)

Select 3 hours lower division (S) ^3

<table>
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<tr>
<th>Hours Subtotal</th>
<th>43</th>
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</table>

### Diversity (D) & International Dimension (I)

May be completed in any part of the degree plan

At least one Diversity (D) course

At least one International Dimension (I) course

Scientific Investigation (L) Any course designated (L). Normally met by Natural Sciences and/or Basic Science requirements.

### College/Departmental Requirements

#### Architecture

- ARCH 1111 | First Year Seminar (or other approved first year seminar course) | 1     |
- ARCH 1216 | Architectural Design Studio I ^1                                 | 6     |
- ARCH 2116 | Architectural Design Studio II                                   | 6     |
- ARCH 2252 | Design Communication I: Visual and Graphic Acuity ^1             | 2     |
- ARCH 2263 | Building Systems ^1                                             | 3     |

#### Engineering Science

- ENGR 1412 | Introductory Engineering Computer Programming ^1                | 2     |
- ENSC 2113 | Statics ^1                                                      | 3     |
- ENSC 2143 | Strength of Materials ^1                                         | 3     |
- ENSC 2141 | Strength of Materials Lab ^1                                     | 1     |

<table>
<thead>
<tr>
<th>Hours Subtotal</th>
<th>28</th>
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### Major Requirements

#### Architecture

- ARCH 3043 | Structural Loadings in Architecture                         | 3     |
- ARCH 3143 | Structures: Analysis I                                      | 3     |
- ARCH 3262 | Design Communication II: Advanced Digital Applications      | 2     |
- ARCH 3323 | Structures: Steel I                                         | 3     |
- ARCH 3343 | Structures: Steel II                                        | 3     |
- ARCH 4093 | Architectural Project Management                            | 3     |
- ARCH 4123 | Structures: Concrete I                                      | 3     |
- ARCH 4143 | Structures: Foundations for Buildings                       | 3     |
- ARCH 4163 | Architectural Science I: Thermal Systems and Life Safety for Architectural Engineers | 3     |
- ARCH 4263 | Architecture Seminar                                        | 3     |
- ARCH 4343 | Structures: Concrete II                                     | 3     |
- ARCH 4433 | Architectural Science II: Acoustics, Lighting, and Service Systems for Architectural Engineers | 3     |
- ARCH 5023 | Timber and Masonry Design and Analysis                      | 3     |
- ARCH 5226 | Architectural Engineering Comprehensive Design Studio       | 6     |

#### Civil Engineering

- CIVE 4711 | Basic Soils Testing Laboratory                               | 1     |

#### Industrial Engineering & Management

- IEM 3503 | Engineering Economic Analysis                                | 3     |

#### Engineering Science, Engineering

- ENSC 2123 | Elementary Dynamics                                          | 3     |
- ENSC 3313 | Materials Science                                            | 3     |
Mathematics

MATH 2163 Calculus III 3
MATH 2233 Differential Equations 3

Statistics

STAT 4033 Engineering Statistics 3

Hours Subtotal 63

Electives

Select 6 credit hours from:

ARCH 2890 Honors for Topics in Architecture
ARCH 3100 Special Topics in Architecture
ARCH 3473 History and Theory of Structures in Architecture (H)
ARCH 4100 Special Topics in Architecture
ARCH 4233 Sustainable Design in Architecture
ARCH 5143 Structures: Special Loadings
ARCH 6243 Structures: Analysis III
ARCH 6343 Structures: Steel III
ARCH 6543 Structures: Concrete III
CIVE 3623 Engineering Materials Laboratory
CIVE 3614 Engineering Surveying
CIVE 5403 Advanced Strength of Materials
CIVE 5433 Energy Methods in Applied Mechanics
CIVE 5533 Prestressed Concrete
CIVE 5573 Timber Design
Upper division ARCH, FPST, MAE, ENGR, CIVE, CET

Hours Subtotal 6

Total Hours 140

Courses that must be completed prior to admission to professional school with a "C" or better.

Admission to Professional School (required)

- Refer to the OSU Catalog corresponding to your matriculation date for detailed admissions requirements.

Graduation Requirements

1. A minimum GPA of 2.00 Technical GPA. The Technical GPA is calculated from all courses in the curriculum with a prefix belonging to the degree program, or substitutions for these courses.

2. A final grade of "C" or better in all ARCH prefix courses, substitutions for ARCH prefix courses, and all non-ARCH prefix courses that are a prerequisite to an ARCH prefix course. The final grade of "C" is however not needed in the terminal courses in a series.

3. The capstone course for Architectural Engineering majors is ARCH 5226 Architectural Engineering Comprehensive Design Studio.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.

- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.

- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.

- Degrees that follow this plan must be completed by the end of Summer 2030.