

**2015-16 Approved Degree Requirements for the UALR
B.S. Degree in Civil and Construction Engineering (128 credit hours)**

1. UALR General Education Requirements (35 credit hours)

a. UALR Standard Core (21 hours)

- Communication-Written (6 hours)
- History of Civilization (3 hours)
- U.S. Traditions (3 hours)
- Fine Arts (3 hours)
- Humanities (3 hours)
- Social Sciences (3 hours)

b. EIT College Core (14 hours)

- Mathematics (3 hours)
- Science (8 hours)
- Additional Math and Science (3 hours)

2. Major Requirements (93 credit hours)

a. Humanities and Social Science (0 hours beyond the UALR General Education Requirements)

- ECON 2301 Survey of Economics or ECON 2322 Principles of Microeconomics
- PHIL 2320 Ethics and Society
- POLS 1310 American National Government

b. Mathematics and Science (32 credit hours—18 hours beyond the EIT College Core)**

- CHEM 1406 General Chemistry for Engineers or CHEM 1402 General Chemistry I
- **ERSC 4371 Engineering Geology
- **ERSC 4372 Surface Water Hydrology
- MATH 1451 Calculus I (**1 hour exceeds EIT College Core)
- MATH 1452 Calculus II (**1 hour exceeds EIT College Core)
- **MATH 2453 Calculus III
- **MATH 3322 Introduction to Differential Equations
- PHYS 2321 Physics for Scientists and Engineers I
- PHYS 2121 Physics for Scientists and Engineers I Lab
- **STAT 3352 Applied Statistics I

c. Engineering and Construction (75 credit hours)

- CNMG 1085 Architecture, Engineering, and Construction Seminar (each semester)
- CNMG 1305 Drawings and Specifications
- CNMG 1313 Civil Engineering Materials with Lab
- CNMG 1385 Infrastructure, Environment, and Society
- CNMG 2313 Construction Materials and Methods
- CNMG 2314 Mechanical, Electrical, and Plumbing (MEP) Systems
- CNMG 2316 Construction Surveying with Lab

- CNMG 2370 Engineering Statics
- CNMG 3302 Engineering Economy
- CNMG 3312 Engineering Structural Analysis
- CNMG 3324 Heavy Civil Construction
- CNMG 3327 Field Engineering and Construction Equipment
- CNMG 3339 Estimating I
- CNMG 3347 Engineering Soil Mechanics with Lab
- CNMG 3357 Introduction to Environmental Engineering with Lab
- CNMG 3374 Hydraulic Engineering with Lab
- CNMG 3376 Engineering Structural Mechanics
- CNMG 4323 Construction Administration
- CNMG 4329 Construction Planning and Scheduling
- CNMG 4334 Construction Contracts and Law
- CNMG 4342 Construction Safety
- CNMG 4351 Foundation Design
- CNMG 4357 Water and Wastewater Engineering
- CNMG 4371 Structural Steel Design
- Civil Engineering Requirement (3 hours)
 1. CNMG 4321 Reinforced Concrete Design or
 2. CNMG 4354 Highway Engineering or
 3. CNMG 4362 Water Resources Engineering
- CNMG 4185 Professional Engineering Seminar
- CNMG 4285 Engineering Design Project

3. Professional Requirements

- a. Pass the National Council of Examiners for Engineering and Surveying (NCEES) Fundamentals of Engineering (FE) Examination.
- b. Pass the American Institute of Construction (AIC) Associate Constructor (AC) Examination.
- c. Document at least 800 hours of practical work experience in approved engineering- or construction-related activities, such as student competitions, part-time or full-time employment, internships, cooperative education, community service learning projects, or prior experience.