

CIVIL ENGINEERING, PH.D.

While pursuing a Doctor of Philosophy (PhD) degree in civil engineering, the student will take graduate-level courses and conduct research with a faculty advisor and observe how these studies will lead to key engineering innovations and societal impacts in the field of civil engineering. Equipped with complementary and state-of-the-art computational and experimental facilities, the Civil, Construction and Environmental Engineering (CCEE) Department has active research programs in the following four disciplinary groups; Construction Engineering and Management, Structural Engineering and Materials, Environmental and Water Resources, and Transportation Systems Engineering. Faculty teach graduate-level courses and conduct research in these areas. Graduate courses in these same areas, in addition to the general core graduate courses, provide the foundation for earning a PhD degree in civil engineering. Additionally, the student demonstrates mastery of the selected study area through qualifying exams, the proposal of a research topic, and the defense of a research-based dissertation.

Qualified students in the Department's undergraduate programs at The University of Alabama are eligible for early admission into the PhD program through the Accelerated Masters Program (AMP). This program allows students to double-count up to 9 hours of graduate credit toward their undergraduate degree.

Admissions

In addition to the minimum Graduate School admission requirements, to be considered for regular admission an applicant should have earned a baccalaureate degree from an institution accredited by the Engineering Accreditation Council (EAC) of ABET Inc. Applications who are graduates of a non EAC/ABET-accredited program will be considered.

See the Admission Criteria section of this catalog for more information.

Curricular Requirements

A total of 72 hours is required for the degree, including a minimum of 48 hours of coursework beyond the baccalaureate and 24 hours of dissertation research. A maximum of 24 hours of approved transfer credit is allowed, with approval of the Graduate School on the form for Request for Transfer of Graduate Credit. The link to the Request for Transfer of Graduate Credit is <https://graduate.ua.edu/current-students/forms-students/>. Students initiate this form.

Students need to contact the department office for the submission of the Plan of Study and Candidacy forms. These Graduate School forms go through the UA DocuSign system.

Code and Title	Hours
Core Coursework	9
Construction Engineering and Management	
CE 573 Statistical Applications	
CE 567 Constr. Accounting & Finance	
CE 568 Construction Scheduling	
Structural Engineering and Materials	
CE 573 Statistical Applications	
CE 534 Advanced Structural Mechanics	
CE 531 Structural Dynamics	
Environmental and Water Resources Engineering	
CE 573 Statistical Applications	

CE 575 Hydrology	
Transportation Systems Engineering	
CE 573 Statistical Applications	
CE 655 Sustainable Transportation	
CE 558 Traffic Engineering	
Elective Coursework	39
These are commonly taken elective courses. More elective options are available upon consultation with faculty advisor.	
Construction Engineering and Management	
CE 517 Advanced Project Management	
CE 518 Engineering Mangement	
CE 561 Horizontal Construction Method	
CE 563 Construction Cost Estimating	
CE 564 Safety Engineering	
CE 581 Legal Asp. of Eng and Const.	
Structural Engineering and Materials	
CE 530 NDT of Structures	
CE 532 Matrix Analysis of Structures	
CE 535 Concrete Materials	
CE 537 Reinforced Concrete Struct II	
CE 538 Struct Steel Design II	
CE 543 Prestressed Concrete Design	
CE 544 Foundation Engineering	
CE 591 Special Problems	
CE 631 Exper. Mthds in Struc Dynamics	
CE 632 Structural Reliability	
CE 636 Adv. Infrastructure Materials	
CE 641 Wind Engineering	
Environmental and Water Resources	
CE 526 Groundwater Mechanics	
CE 529 EWR Proposal Writing	
CE 576 Process Hydrology	
CE 585 Constructn Site Erosion Contrl	
Transportation Systems Engineering	
CE 551 Roadway/Intersection Design	
CE 552 Traffic Safety and Security	
CE 553 Intelligent Transportation Sys	
CE 554 Urban Transportation Planning	
CE 555 Traffic Flow Theory	
CE 558 Traffic Engineering	
Dissertation Requirements	
CE 699 Dissertation Research	24
Total Hours	72

Transfer Credit

Graduate School information on Transfer Credit.

Doctoral Plan of Study Requirement

The student's adviser and supervisory committee will work with the student to define an appropriate plan of study that meets all degree requirements, including any prerequisite or preparatory work and a core

set of courses as required and specified by each specialty area. After approval by the department the PhD Plan of Study is submitted to the Graduate School for final approval. All doctoral students must have a completed Plan of Study approved by the Graduate School no later than the semester during which the student will complete 30 semester hours of UA and/or transfer credit for the doctoral degree. Otherwise, a "hold" may be placed on future registration.

Additional Graduate School information on the Doctoral Plan of Study.

Comprehensive/Qualifying Examination

Students are required to pass a preliminary examination that includes both written and oral components, a proposal defense, and a final dissertation defense administered by the student's supervisory committee.

Graduate School information on Comprehensive and Qualifying Examinations.

Admission to Candidacy Requirements

After passing the comprehensive (preliminary) examination, the student should complete and submit an Admission to Candidacy for the Doctoral Degree to the department for approval. A department-approved candidacy form will be forwarded to the Graduate School for final approval.

Continuous Enrollment Policy

Graduate School information on Continuous Enrollment Policy.

Dissertation Requirements

Graduate School information on Dissertations.

Time Limits for Degree Completion Requirements

Graduate School information on Time Limits.

Student Progress Requirement

Graduate School information on Student Progress.

Academic Misconduct Information

Graduate School information on Academic Misconduct.

Withdrawals and Leave of Absence Information

Graduate School information on Withdrawals and Leave of Absence.

Academic Grievances Information

Graduate School information on Academic Grievances.

Scholastic Requirements

Graduate School information on Scholastic Requirements.

Graduate School Deadline Information

Graduate School information on Graduate School Deadlines.

Application for Graduation Information

Graduate School information on the Application for Graduation.