The Civil Engineering plans, designs, and supervises construction of almost every facility essential to modern life. Roads, bridges, buildings, water supply and waste disposal systems, transit systems, airfields, dams and irrigation projects are examples of the creative efforts of Civil Engineers. The field of Civil Engineering offers limitless employment opportunities that range from high-tech computer-aided design to hands-on field engineering. Civil Engineers find rewarding careers in government, military, industry or private practice to meet the challenges of pollution control, energy, transportation, housing and other problems that face modern society.

The mission of the Civil Engineering Department at Mississippi State University is to provide the student with knowledge and skills needed to enter civil engineering practice, or to continue studies at the graduate level, and who have developed a sense of responsibility to the needs of the professor and the community.

The educational objectives of the Department of Civil Engineering carry out the department’s mission by providing an educational environment that will produce graduates who:

1. Possess a broad knowledge of the principles and fundamentals of civil engineering and their application, and thus be able to: successfully practice as professional civil engineers; pursue graduate or professional degrees; or engage in other professional careers that involve the application of engineering method;

2. Possess the skills required to achieve success in the multidisciplinary environment of the 21st century, such that they will readily be able to adapt to emerging and evolving technologies, social conditions, professional standards, and career opportunities;

3. Possess an understanding and appreciation of the ethical, societal, and professional responsibilities of a civil engineer; and

4. Possess the foundation required and an appreciation for the value of continuing professional development in maintaining their professional competence.

The Civil Engineering Program is accredited under the EC 2000 criteria by the Engineering Accreditation Commission of the Accreditation Board for the Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, Telephone: 410-347-7700.

**University Core**

English Composition (6 hours)
- EN 1103 English Comp I OR
- EN 1163 Accelerated Comp I

Mathematics (9 hours)
- MA 1713 Calculus I
- MA 1723 Calculus II
- MA 2733 Calculus III
- MA 2743 Calculus IV
- MA 3253 Differential Equations I

Science (6 hours)
- CH 1213 Chemistry I
- CH 1211 Investigations in Chemistry I
- CH 1223 Chemistry II
- CH 1221 Investigations in Chemistry II

Humanities (6 hours)
- EN 1113 English Comp II OR
- EN 1173 Accelerated Comp II

Fine Arts (3 hours)
- See University Core

**Major Core**

1. Possess a broad knowledge of the principles and fundamentals of civil engineering and their application, and thus be able to: successfully practice as professional civil engineers; pursue graduate or professional degrees; or engage in other professional careers that involve the application of engineering method;

2. Possess the skills required to achieve success in the multidisciplinary environment of the 21st century, such that they will readily be able to adapt to emerging and evolving technologies, social conditions, professional standards, and career opportunities;

3. Possess an understanding and appreciation of the ethical, societal, and professional responsibilities of a civil engineer; and

4. Possess the foundation required and an appreciation for the value of continuing professional development in maintaining their professional competence.

Choose one:
- CE 4133 Geometric Design of Highways
- CE 4433 Foundations
- CE 4143 Traffic Engineering
- CE 4103 Pavement Design

Choose one:
- CE 4513 Engineering Hydrology
- CE 4873 Water and Wastewater Engineering
- CE 4523 Open Channel Hydraulics

Choose one:
- CE 4623 Steel Structures
- CE 4633 Concrete Structures

Technical Elective (3 hours)
- May be approved courses in Eng. Topics and Math/Science

**Oral Communication Requirement**
- Fulfilled in GE 3513 and other CE courses

**Writing Requirement**
- GE 3513 Technical Writing

**Computer Literacy**
- Fulfilled in Engineering Topics courses

**Total hours needed for major:** 130