



TEXAS TECH UNIVERSITY

Department of Construction Engineering & Engineering Technology™

CONSTRUCTION ENGINEERS are responsible for a wide range of duties associated with the development, design, and management of construction-related processes that are required to take a project from its initial conception to a fully developed project. They transform written plans and specifications into a finished usable, physical facility, structure, or civil improvement. These duties commonly require the construction engineer to function in the application-based environment of the engineering spectrum and give him/her the opportunity to spend significant time at the job site in the field.



DEGREES

- **Bachelor of Science in Construction Engineering**
General Contractor Emphasis
Mechanical / Electrical Subcontractor Emphasis
- **Bachelor of Science in Engineering Technology**
(Not currently accepting new students)

CONSTRUCTION ENGINEERS are concerned with planning and managing construction sequences and operations, estimating and managing construction costs and cash flow, managing quality control of the materials and construction processes, designing temporary structures, controlling building geometry, maintaining site safety and site layout, and controlling material procurement and storage.

Projects that construction engineers manage include; highways, bridges, hospitals, commercial buildings, schools, power generation plants, dams, water treatment plants, and offshore drilling platforms. The construction engineering program at Texas Tech prepares students for job duties that emphasize the application of engineering knowledge to the solution of practical construction problems.

Bachelor of Science in Construction Engineering

The Bachelor of Science in Construction Engineering curriculum provides two emphases from which students can choose:

- General Contractor Emphasis
- Mechanical / Electrical Subcontractor Emphasis

The curriculum for the general contractor emphasis stresses basic structural design and construction operations to prepare students to enter various phases of work in the construction industry. Coursework includes basic structural design and analysis, contracts and specifications, construction management, safety, surveying, cost estimating, scheduling, and steel and concrete structures. The curriculum for the electrical/mechanical subcontractor emphasis is similar to the general contractor emphasis with roughly 17 semester student credit hours replaced with specialty courses designed to prepare the student to enter the construction industry with a focus on the design and installation of mechanical or electrical systems.

ENGINEERING TECHNOLOGISTS are involved with activities that emphasize applying engineering knowledge to solving practical industrial problems. The activities of the engineering technologist usually include product development, technical sales, component design, field service engineering, and work force coordination and supervision.

Bachelor of Science in Engineering Technology

The Bachelor of Science in Engineering Technology is currently being phased out and is no longer accepting new students.

CONTACTS

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