

# ETCC - Engr Tech, Civil & Constr

## **ETCC 204 Appld Analysis for Const Tech: 1 Credits (1 Lab)**

PREREQUISITE: M 165Q or M 171Q or M 181Q. Computer applications in construction technology using contemporary software and solution techniques appropriate to the construction industry

## **ETCC 243 Building Materials and Systems: 3 Credits (3 Lec)**

An introduction to construction building systems including building materials, what products and materials are used to construct buildings and how buildings are put together in the construction phase.

## **ETCC 290R Undergraduate Research: 1-6 Credits (1-6 Other)**

Directed undergraduate research/creative activity which may culminate in a written work or other creative project. Course will address responsible conduct of research. May be repeated.

Repeatable up to 99 credits.

## **ETCC 291 Special Topics: 1-4 Credits (1-4 Lec)**

PREREQUISITE: None required but some may be determined necessary by each offering department. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number

Repeatable up to 12 credits.

## **ETCC 292 Independent Study: 1-3 Credits (1-3 Other)**

PREREQUISITE: Consent of instructor and approval of department head. Directed study and research on an individual basis

Repeatable up to 6 credits.

## **ETCC 302 Soils and Foundations: 3 Credits (2 Lec, 1 Lab)**

PREREQUISITE: EGEN 201 or EGEN 203. Physical properties of construction materials with emphasis on soils, aggregates and asphalt. Earth pressures, flow nets, bearing capacity, retaining walls and slope stability. -

## **ETCC 310 Concrete Technology: 3 Credits (2 Lec, 1 Lab)**

PREREQUISITE: EGEN 201 or EGEN 203. Properties of concrete constituents, mechanical and service properties of concrete, mix design, field practices. Concrete reinforcing requirements and analysis of concrete members

## **ETCC 412 Structural Elements: 3 Credits (3 Lec)**

PREREQUISITE: EGEN 205 or EGEN 208

COREQUISITE: ETCC 310. Design of temporary bracing, shoring, and concrete formwork. Specification requirements for design loads, wood, and steel elements. Nailed, bolted, and welded connections

## **ETCC 490R Undergraduate Research: 1-4 Credits (1-4 Other)**

PREREQUISITE: Consent of instructor. Directed undergraduate research/creative activity which may culminate in a research paper, journal article, or undergraduate thesis. Course will address responsible conduct of research.

May be repeated

Repeatable up to 12 credits.

## **ETCC 491 Special Topics: 1-4 Credits (1-4 Lec)**

PREREQUISITE: Course prerequisites as determined for each offering. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number

Repeatable up to 12 credits.

## **ETCC 492 Independent Study: 1-3 Credits (1-3 Other)**

PREREQUISITE: Junior standing, consent of instructor, and approval of Department Head. Directed research and study on an individual basis

Repeatable up to 6 credits.

## **ETCC 498 Internship: 1-2 Credits (1-2 Other)**

PREREQUISITE: Sophomore standing, consent of instructor, and approval of Department Head. An individualized assignment arranged with an agency, business, or other organization to provide guided experience in the field. Students may not take this course the semester they graduate

Repeatable up to 12 credits.

## **ETCC 499R Capstone: Const Engin Tech: 2 Credits (1 Lec, 1 Lab)**

PREREQUISITE: ECIV 311 and EGEN 310R. A senior capstone course encompassing total project control through introduction of a professional construction management organization to ensure cost effectiveness and early completion of a project. Construction safety. A requirement of the course is to take the Constructor Qualification Examination Level I (CQE) administered by the American Institute of Constructors (AIC)