### **Civil Engineering**



#### **Profile**

The college of Civil Engineering and Architecture (CCEA) at WZU was founded in 1984 with two disciplines: Civil Engineering and Architecture. CCEA has 3 institutions: (a) Institution of Geotechnical Engineering, (b)Institution of Green Buildings and Structural Engineering, and (c) Institution of Architecture and Urban-Rural Region Planning.

As one of the leading colleges/schools at WZU, CCEA has: (a) State Innovation Center of Tideland Reclamation and Protection of Ecosystem, (b) State Key Laboratory of Soft Soil Foundation and Tideland Reclamation, (c) Municipal Key Research Center of Building Energy-Saving/Emission-Reduction and Disaster-Mitigation (d) Laboratory Education Center.

CCEA has advanced equipment and devices for research and education, undertaking, thus forming state/municipal innovation teams in terms of Soft Soil Foundation and Tideland Reclamation, Green Buildings and Structure Engineering, and Disaster-Mitigation.

#### **Education Objectives**

The programme, provided by College of Civil Engineering and Architecture, aims to foster international students that are proficient in Chinese and English, familiar with and love Chinese culture, keen with international communication and cooperation.

#### **Duration**

4 years.

#### **Job Prospects**

The programme is designed to provide students with a broad-based and high quality interdisciplinary education in the areas of structural, geotechnical engineering, construction management as well as practical trainings. Our students are anticipated to become all-round civil engineers who are ready to work on various fields of civil engineering, such as building design and construction, urban infrastructure construction, construction management, investment and development.

#### **Practical Teaching**

Many practices will be provided, including civil engineering practice, practice of measurement, practice of construction, practice of RC structure, practice of steel structures. Through the practices, the students will be familiar with the different aspects of civil engineering progressively.

#### **Core Courses**

Calculus, Theoretical Mechanics, Mechanics of Materials, Structural Mechanics, Engineering Hydromechanics, Surveying and Mapping, Civil Engineering Materials, Basic Principles of Reinforced-concrete Structures, Basic Principles of Steel Structures, Soil Mechanics, Foundation Engineering, Architecture for Buildings, Civil Engineering Construction, Construction Project Evaluation, etc.

To improve their Chinese language proficiency, a series of Chinese courses will also be provided, including: Basic Chinese, Intensive Chinese Reading, Chinese hand writing and China Overview. In addition, to help international studentssettle down in Wenzhou, Chinese undergraduate and graduate students majoring in civil engineering will act as mentors on a one-to-one basis.

## [Course Title] Principle of concrete structure [Course Code] CVE311 [Credits] 4 [Credit Hours] 64 [Semester] Fall [Course Description]

Principle of concrete structure is a compulsory course for civil engineering majors and belongs to the core course of specialty. The main contents of the course include the design of bearing capacity limit state of reinforced concrete structural members and the analysis of crack width and durability in normal use stage (concrete structure design concept, analysis and calculation of bearing capacity of reinforced concrete bending members, calculation and analysis of section bearing capacity of reinforced concrete compression members, Calculation and analysis of bearing capacity of reinforced concrete tensile members, calculation and analysis of section bearing capacity of reinforced concrete torsional members, deformation of concrete components, analysis of crack width and durability, calculation and analysis of stress performance of prestressed concrete members. This course focuses on computational methods for flows in chemical reactions. A review of governing equations and fundamental concepts of combustion and turbulent flows is first given. The characteristics of reaction source term and the integration methods for stiff ordinary differential equations (ODE's) governing chemical equations are discussed. The course is then focused on introducing the operator splitting schemes, finite volume and finite difference methods, probabilistic simulation techniques for reacting flows. Properties such as accuracy, stability and implementation will be discussed. Emphasis is made to identify key issues in the applications of the different methods in simulating practical propulsion and power generation systems.

## [Course Title] Civil Engineering Construction [Course Code] CVE224 [Credits] 4 [Credit Hours] 64 [Semester] Spring [Course Description]

Civil Engineering construction is a compulsory course for civil engineering majors and belongs to the core course of specialty. The main contents of the course include construction technology (earthwork, basic engineering, masonry engineering, reinforced concrete engineering, Prestressed concrete Engineering, structural installation engineering, waterproofing engineering, decoration Engineering and supporting engineering) and construction Organization (Introduction to construction organization, running water Construction organization, network planning Technology, Unit construction organization Design and construction organization general design).

# [Course Title] Foundation Engineering [Course Code] CVE321 [Credits] 4 [Credit Hours] 64 [Semester] Spring [Course Description]

Basic Engineering is a compulsory course for civil engineering students, which belongs to the core curriculum of specialty, which mainly teaches the design theory and calculation method of common foundation including foundation design principle, shallow foundation, pile Foundation, Composite foundation, retaining wall, foundation pit Engineering, caisson and underground continuous walls, foundation treatment, Special Soil Foundation.

## [Course Title] surveying [Course Code] CVE222 [Credits] 4 [Credit Hours] 64 [Semester] Spring [Course Description]

Surveying is the science of studying the shape and size of the earth and determining the location of points on the earth's surface (including in the air, underground and seabed). It is the science and technology of collecting, processing, managing, updating and utilizing information related to the geographical spatial distribution on the earth as a whole, its surface and various natural and man-made objects in outer space is used to determine the location of a space point and its attributed relationship.

#### Contact information:

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