

## 4 English-taught Programs

### 4.1 Bachelor-degree Programs

- ✧ **International Trade (Business)**
- ✧ **Software Engineering**
- ✧ **Electrical Engineering**
- ✧ **Civil Engineering**
- ✧ **Pharmaceutical Engineering**

#### 1 International Trade (Business)

**Program Introduction:** This program aims at the cultivation of advanced, specialized and interdisciplinary talents for business ventures. Graduates will be acquainted with knowledge of prevailing rules, practices and related policies and regulations of international trade.

**Key Courses:** Economics, World Economy, Consumer Behavior, Principles of International Trade, International Marketing, China's foreign trade, E-commerce, WTO rules etc..

#### 2 Software Engineering

**Program Introduction:** The Software Engineering program is designed to develop senior software engineers with solid knowledge foundation of computer science and software engineering to serve enterprises and public sectors.

**Key Courses:** C++ Programming Design, Compiler Principle, Computer Networks, Object-oriented Modeling, Database System, Java Programming Language, Software Architecture etc.

#### 3 Electrical Engineering

**Program Introduction:** Electrical Engineering (EE) educates students in electrical

engineering, control, information, electronics, computer technology and giving students great opportunity to grasp the basic theories and related knowledge in engineering, economics, and management science.

**Key Courses:** Electric Circuits, Analog Electronics, Digital Electronics, Signals and Systems, Linear control systems, Electricity and Magnetism, Electric Machines, Power System Analysis, Power Electronics etc..

#### **4 Civil Engineering**

**Program Introduction:** The program is designed to cultivate students who can be equipped with the knowledge system required by the practicing qualifications such as structure, geotechnical and equipment engineer, construction engineer, supervising engineer, cost engineer and engineering test evaluator and can engage in the work related to the relevant majors of Architecture and Civil Engineering such as design, construction, test, operation and management.

**Key Courses:** Structural Mechanics, Civil Engineering Material, Engineering Surveying, Building Construction, Structural Design of Multiple-story and High-rise Buildings, Civil Construction and Organization Management, Engineering Cost, Earthquake Resistance of Engineering Structures.

#### **5 Pharmaceutical Engineering**

**Program Introduction:** Pharmaceutical Engineering program is designed to educate high-level engineers with professional knowledge of designing and manufacturing of products, processes and components in the pharmaceuticals industry as well as with knowledge of management science.

**Key Courses:** medicinal chemistry, analytical chemistry, pharmacology, pharmacy, chemical engineering, biomedical engineering, Medicinal analysis, Pharmaceutical technology etc.



## 4.2 Master-degree Programs

- ✧ **International Trade (Business)**
- ✧ **Architectural and Civil Engineering**
- ✧ **Computer Science and Technology**
- ✧ **Mechanical Engineering**
- ✧ **Metallurgical Engineering**
- ✧ **Chemical Engineering and Technology**

### 1 International Trade (Business)

**Program Introduction:** This program aims at the cultivation of high-level professional talents for business ventures and business research with good mastering of knowledge and practical skills about economics and international trade.

**Key Courses:** Principles of Management, Economics, International Marketing, International Economics, China's foreign trade, World Economy, International Finance, Practice of International Trade etc.

### 2 Architectural and Civil Engineering

**Program Introduction:** The program is designed to cultivate the high-level application-oriented professionals mastering professional knowledge about structure, geotechnical and equipment engineering, construction engineering, supervising engineering, cost engineering and engineering test evaluator to engage in the work related to the relevant majors of Architecture and Civil Engineering such as design, construction, test, operation and management.

**Key Courses:** Structural Engineering, Disaster Prevention and Reduction Engineering and Protective Engineering, Bridge and Tunnel Engineering, Geotechnical Engineering, Civil Engineering Construction and Management, Municipal Engineering, Green

Building, Heating, Gas Supply, Ventilating and Air Conditioning Engineering, Architecture and Planning etc.

### **3 Computer Science and Technology**

**Program Introduction:** The aims of the Master Program of Computer Science and Technology are cultivating advanced specialists with professional knowledge in computer theoretical research enabling design and development of software/hardware system, and to solve the practical problems by using computer technologies.

**Key Courses:** Fundamentals of Image Analysis, Machine Learning, Design and Analysis of Computer Algorithms, Pattern Recognition Technology, Computer vision and Deep Learning, The Formal semantics of programming languages, Internet of things etc.

### **4 Mechanical Engineering**

**Program Introduction:** The program aims to cultivate senior engineers mastering the knowledge of modern mechanical design, bionic machine design, robotics and its application, the integrative technique of mechanics-electronics-hydraulics and other aspects for independent work, research and innovation, being competent for scientific research, engineering work in mechanical engineering field and related fields.

**Key Courses:** Mechanical Dynamics, Advanced Mechanisms, Robotics, Theory & Application of Finite Element Method, Signal Processing and Testing Technology, Automatic Dynamic Analysis of Mechanical Systems, Mechatronics Control System, Modern Control Theory etc.

### **5 Metallurgical Engineering**

**Program Introduction:** The master of metallurgical engineering should have basic theories of metallurgical engineering, and knowledge system of metallurgical process analysis and detection, development of technical process, efficient and clean utilization of resources, energy-saving and emission-reduction, and protection of ecological environment. The graduate is expected to become high-level technical talents of doing ironmaking, steelmaking, optimization of nonferrous metal smelting technique, energy-saving and emission-reduction of metallurgical process, efficient and recycling

utilization of resources, smelting theories and technics of clean steels, metallurgical process simulation and electromagnetic metallurgy et al., and possessing the innovation spirit, creative ability and business startup quality.

**Key Courses:** New Metallurgical Technology, Metallurgical Thermodynamics, Principles of Metallurgical Transport, Ironmaking Theory and Process, Theory and Process of Clean Steels, Comprehensive Utilization of Metallurgical Resources, Analytical and Testing Methods for Metallurgical Material, Theory and Application of Metallurgical Reactors.

## 6 Chemical Engineering and Technology

**Program Introduction:** Chemical Engineering and Applied Chemistry, subordinated Chemical Engineering and Technology, are key disciplines in Anhui province. The three disciplines of chemistry, engineering and materials science related with the two key disciplines are in the ESI top 1% of global. The research field includes optimization of coke process and energy saving and emission reduction, coal clean transformation and high value utilization, preparation and application of carbon-based functional materials, catalytic conversion and functionalization of biomass, etc.

**Key Courses:** Introduction to China, Engineering Applied Mathematics, Numerical Analysis, Modern coal conversion technology, Coking Technology, Novel Energy Materials, Spectroscopy, Fundamental of Catalysis Engineering, Novel carbon material, Modern biological engineering upstream and downstream technology, Green Chemistry.

### 4.3 Doctor-degree Programs

#### ✧ Metallurgical Engineering

- Physical Chemistry of Metallurgy
- Ferrous Metallurgy
- Non-ferrous Metallurgy

#### ✧ Materials Science and Engineering

- Materials Physics and Chemistry
- Materials Science
- Materials Processing Engineering