

## Computer Science and Technology



### Program Objective

The aims of the Undergraduate (Bachelor's Degree) Program of Computer Science and Technology are cultivating advanced specialists in Computer Science and Technology who would have the basic research abilities in computational theory, and can engage in design and development of software/hardware system, or can solve the practical problems by using computer technologies. Through the four-year study, the graduates are expected to master the basic theories, knowledge of mathematics and computer science, be able to use techniques, skills, and modern software development tools necessary for computing practice, master at least one programming language and acquaintance with at least three more, be able to communicate effectively orally and in writing and work both individually and collaboratively, have the knowledge, skills, and attitudes for lifelong self-development. The graduates are also expected to have the ability to apply computer knowledge to solve both theoretical and practical problems, to analyze and design computer systems, to analyze, design, and implement computer programs, to apply problem-solving strategies to new, unknown, or open-ended situations in computer science.

### Major Courses

This course module focuses on training qualified personnel with skills in the field of computer science and technology by enhancing their abilities of solving practical problems by using computer theory and methods. (The list below is a part of the all courses):

MODULE I.

High-Level Language Programming

Data Structure

Foundations of Linux System

The Principle of Database

Advanced Mathematics

Discrete Mathematics

## MODULE II.

Fundamentals of Compiling

Operating System

Assembly Language Programming

Computer Network and Communication

Structured Computer Organization

Object Oriented Programming

Introduction to Computer System

## MODULE III.

Computer System Architecture

Digital Logic

Algorithm Analysis and Design

Interface and Communication Experiment

Python Program Design and Practice

Computer Graphics

Artificial Intelligence

Digital Image Processing

GIS and Its Applications

Java Program Design

Single Chip Computer Technology

## **Faculty**

SCIE has more than 100 faculties, including 14 full professors and 45 associate professors. 80 percent of faculties hold PhD degree or are pursuing their PhD degree currently. We have 4 faculties with National Experts title, 1 Zhejiang New Century Expert, 13 members of Zhejiang “151” Experts group, 8 Leading Young Researchers of Zhejiang Province and 1 Zhejiang Prestige Teacher. In recent years, SCIE is taking on 4 provincial high-quality course construction tasks. Several provincial or state education projects have been completed. Additionally, SCIE has continually won the first and second prize of teaching achievements of Zhejiang Province.

## **Length, Credits and Degree**

The length of curriculum is normally four years. Minimum credits for graduation: 130 credits. Qualified students will be granted Bachelor Degree of Engineering in Computer Science and Technology.

## **Instruction Language**

- All the courses are delivered in English except some of Chinese language courses.
- Dissertation is required to be written in English