南京航空航天大学
Nanjing University of Aeronautics and Astronautics

Syllabus

Course No.	1900830W	College	Science	Dept.	Computer Science
Teacher	Kai Liu				
Time	2023.06.12-2023.07.14				
Course Name	**English**	Introduction to Computer Science			

Course credits hours	Total	Theory	Office Hour or Practice	Credits
	70	60	10	4.0

Course description：

This first course in computer science develops foundational skills in computer programming using the Java programming language. The course is suitable for mathematics and physical science majors, and others interested in a rigorous introduction. It is also the first course in the computer science concentration. The course will introduce the process of developing algorithms to solve problems, and the corresponding process of developing computer programs to express those algorithms.

Requirements for courses: none

Course structure explanation:

Make clear the necessary parts, optional parts, distribution of hours. Courses with experiments or practice are expected to explain credit hours needed, content, scheme and functions.

Week 1

Course overview

Programming in Scratch

Programming in Java Procedural decomposition; simple methods

Week 2

Primitive data, types, and expressions

Simple conditional execution

Definite loops

Week 3

Methods with parameters and return values

Using objects from existing classes

More on conditional execution

Week 4

Indefinite loops

File processing

Object-oriented programming: simple collections of objects

Week 5

Algorithm efficiency; intractable problems

Final report due

Final exam

Forms of examination and requirements

Structure of the final grade(including presence, class performance,), focus of exam, forms of exam(test, interview, final report, etc)

The final score is composed by two parts: the final examination is 80%, homework and reports is 20%. Forms of evaluation is close-book exam.

	Name	Publisher	Author	Year	Price
Textbook	Building Java Programs: A Back to Basics Approach	Pearson	Stuart Reges, Martin Stepp	2008	