



上海财经大学

Shanghai University of Finance & Economics

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Shanghai University of Finance & Economics

2022 Summer Program

CSC 170 Introduction to Computer Science

Course Outline

Course Code: CSC 170

Instructor: Dr. Suman Saha

Home Institution: Pennsylvania State University

Office Hours: By appointment

Email: sumsaha@gmail.com

Credit: 4

Class Hours: This course will have 52 class hours, including 32 lecture hours, professor 8 office hours, 8-hour TA discussion sessions, 4-hour review sessions.

Course Description:

The course introduces high-level introduction to the field of computer science as well as Introduction to programming like fundamentals of structured and object-oriented programming using Java. The intended audience of this course are non-CS or undeclared majors who are interested in learning how computers work and what the field of computer science encompasses. No prior experiences with computers are assumed.

Required Textbooks:

1. *Understanding the Digital World: What You Need to Know about Computers, the Internet, Privacy and Security.* Brian W. Kernighan. Princeton University Press, 2017, ISBN: 9781400884803



2. Java Illuminated third edition by Anderson.

Grading & Evaluation:

A+:4.3——95-100

A :4.0——87-94

A -:3.7——82-86

B+:3.3——78-81

B :3.0——75-77

B -:2.7——71-74

C+:2.3——68-70

C :2.0——65-67

C -:1.7——61-64

D :1.0——55-60

E :0.0——49-54

X :0.0——0

Course Schedule:

Week1

- *Hardware:*

- o Session 1: What's in a computer?

- o Session 2: How computer work/inside the CPU

- *Software:*

- o Session 3: Algorithm

- o Session 4: Programming Languages and Concepts of programming

(Quiz 1 and HW1)

Week2

- *Writing Program*

- o Session 1: Expression, Statement, Variables and Data Types

- o Session 2: Branches



o Session 3: Loops

- *Exam*

- o Session 4: Midterm Exam

Week3

- *Object Oriented Programming*

- o Session 1: Introduction to Object Oriented Programming

- o Session 2: Implementing Classes and Methods

- o Session 3: Inheritance

- o Session 4: Polymorphism

(Quiz 2 and HW2)

Week4

- *Advanced Topics*

- o Session 1: Arrays

- o Session 2: File Input/Output

- o Session 3: Exception Handling

- *Exam*

- o Session 4: Final Exam