



上海财经大学

Shanghai University of Finance & Economics

中国上海市国定路777号 邮编200433 777 Guoding Road, Shanghai, 200433, China

**Shanghai University of Finance & Economics**

**2021 Summer Program**

**CSC 170 Introduction to Computer Science I**

**Course Outline**

**Term: June 14 – July 09, 2021**

**Class Hours: 18:00-19:50 (Monday through Friday)**

**Course Code: CSC 170**

**Instructor: Dr. Mahfuza Farooque**

**Home Institution: Pennsylvania State University**

**Office Hours: TBA and by appointment**

**Email: mff5187@psu.edu**

**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:**

CS 107 is an introductory class in computer science and no prior computer programming experience is assumed. This course is a skills course. Students are required to achieve proficiency at programming in the Java programming language. Emphasis will be on the fundamental components of the language and the use of good programming techniques to solve introductory level problems and learn some of the fundamental algorithms of computer science.

Topics include but are not limited to: fundamental computing concepts, general programming principles such as Variable and Expressions, Types, Branching, Loops, Function, Strings, List. The course will involve problem

solving, designing algorithms and developing programs in the Java language. Assignments will be designed to allow students to practice these concepts. Students will be expected to demonstrate knowledge of these concepts through assignments and exams. Students will be expected to follow good programming practices and specifications given in the course to ensure their knowledge.

**Course Objectives:**

After this course, students will be able to



- Have knowledge about fundamental computing process
- Develop algorithms and pseudo code,
- Implement simple problems based on developed pseudocodes and
- Test, debug and correct programs

### Required Textbooks:

Introduction to Java Programming, Brief Version, 7/E, Y. Daniel Liang, 2008

### Grading & Evaluation:

- Class participation and Quizzes: 20%
- Midterms: 30%
- Final: 50%

Letter grades will be assigned per the following scale which will be strictly followed.

A : 94 - 100      A- : 90 – 93

B : 83 - 89      B- : 80 – 82

C : 73 - 79      C- : 70 – 72

D : 63 - 69      D- : 60 – 62

F : Fail

### Course Schedule

#### Week1: Java Basic Input/Output, Variables

Session 1: Introduction to Computers and Programming and Java

Session 2: Elementary Programming concepts, Input Output, Variables

Session 3: Data type,

Session 4: Expression

#### Week2: Selection, Functions

Session 1: Selection: Branching

Session 2: Selection: Nested Branching

Session 3: Mathematical Functions

Session 4: Strings

#### Week3: Loop, Break, Continue

Session 1: Mid Exam 1

Session 2: while loop

Session 3: do-while-loop, for loop

Session 4: break, continue

#### Week4: Strings, Lists and Tuples

Session 1: Array Basics



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Session 2: Passing Arrays to Methods.

Session 3: Review of whole class

Session 4: Final Exam