

# 0806C220

## Introduction to Programming

**Instructor:** Dr. Yan Shi

**Time:** Monday through Friday (June 15, 2020 - July 17, 2020)

**Office Hours:** 2 hours (according to the teaching schedule)

**Contact Hours:** 60 (50 minutes each)

**Credits:** 4

**Location:** Huiquan Building

**Office:** Huiquan Building 518

### Course Description

This course is an introduction to programming in Python for students with no previous computer programming experience. Covers the basic concepts in computing such as CPU, memory, functions, algorithms, data structures, programming environments, problem solving etc.

### Required Textbook(s)

Starting out with Python, 4<sup>th</sup> edition, Tony Gaddis, Pearson.

### Prerequisites

No prerequisites

### Course Goals

Upon completion of this course, students should be able to:

1. Define key terminology used in programming.
2. Break down a problem into smaller components and write a function for each of the components.
3. Develop an algorithm, and express an algorithm in a language.
4. Declare and use variables in programs.
5. Use arithmetic operators, comparison, and logical operators.
6. Create and use functions in programs.

## Course Hours

The course has 25 sessions in total. Each class session is 120 minutes in length. The course meets from Monday to Friday.

## Course Schedule

Please note that the schedule is meant to give an overview of the major concepts of this course. Changes may occur in this calendar as needed to aid in the student's development.

### Week 1

- Monday: Introduction to the course; Hello World
- Tuesday: Computer hardware and software, data storage
- Wednesday: algorithm design; input, processing and output
- Thursday: variables, string
- Friday Lab: Program 1

### Week 2

- Monday: Performing calculations
- Tuesday: Boolean logic
- Wednesday: Branching
- Thursday: More on branching
- Friday Lab: Program 2

### Week 3

- Monday: Looping; while loop
- Tuesday: For loop; nested loop
- Wednesday: Functions
- Thursday: Midterm
- Friday: Program 3

### Week 4

- Monday: More on functions
- Tuesday: lists
- Wednesday: 2D lists
- Thursday: Tuples
- Friday Lab: Program 4

### Week 5

- Monday: Dictionaries
- Wednesday: File IO and Exceptions
- Thursday: Review
- Friday: Final Exam

## Course Requirements

**Hardware/Software:** You will need to download some software and student files for the class, your professor will provide you the Link in the first class. You will need to bring your own computer to the class.

**Late Assignments/ Make-up Exams:** It is important to complete the coding projects, quizzes, and exams in a timely manner. Projects, quizzes, and exams are due by midnight (local time) on the date indicated. You will not be able to make up a missed quiz, exam or missed project for any reason except documented military duty or jury duty.

## Grading Policy

Type	Percentage
Programming Assignments	40%
Midterm Exam	25%
Final Exam	25%
Attendance	10%

## Grading Scale

The instructor will use the grading system as applied by JNU:

Definition	Letter Grade	Score
Excellent	A	90~100
Good	B	80~89
Satisfactory	C	70~79
Poor	D	60~69
Failed	E	Below 60

## Attendance

Attendance is mandatory in the class. It would be recorded each class and forms part of students' participation record. Students should inform the instructor at the earliest opportunity if they need to ask for a leave. All absences may have negative effect on students' final grades. Any students with more than three unexcused absences will automatically fail the course.

## **Academic Integrity**

As members of the Jinan University academic community, students are expected to be honest in all of their academic coursework and activities. Academic dishonesty, includes (but is not limited to) cheating on assignments or examinations; plagiarizing, i.e., misrepresenting as one's own work any work done by another; submitting the same paper, or a substantially similar paper, to meet the requirements of more than one course without the approval and consent of the instructors concerned; or sabotaging other students' work within these general definitions. Instructors, however, determine what constitutes academic misconduct in the courses they teach. Students found guilty of academic misconduct in any portion of the academic work face penalties that range from the lowering of their course grade to awarding a grade of E for the entire course.