

0806C220

Introduction to Programming

Instructor: TBA

Time: October 20, 2025 - November 21, 2025; M, T, Thr, 1:00 pm - 4:20 pm

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

Contact Hours: 60 (50 minutes each)

Credits: 4

Location: Online, Zoom

Email: TBA

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, 4th edition, Tony Gaddis, Pearson.

Prerequisites

No prerequisites required. No previous knowledge of Python or coding experience in any programming language is required.

Course Goals

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

1. Understand the essential operations of using a computer.
2. Break down a problem into smaller components and write a function for each.
3. Develop an algorithm and implement it in a language.
4. Properly declare names in programs.
5. Properly use expressions in programs.
6. Properly use statements in programs.
6. Create and use functions in programs.

Course Schedule

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

Week1

Monday:

- Introduction to the course; Hello World
- Computer hardware and software, history.

Tuesday:

- Algorithm design; input, processing, and output.
- Data storage, data types, variables, strings.

Thursday:

- Expressions, operators, flow of programs, and selection statements.
- Lab: Program 1.

Week 2

Monday:

- Loop statements. Nested loops.

- Introduction to functions. Recursions.

Tuesday:

- Examples of functions.
- GUI programming.

Thursday:

- Lab: Program 2

Week 3

Monday:

- The composite data types: lists, and tuples.
- Dictionaries and sets.

Tuesday:

- File IO and Exceptions

Thursday:

- Midterm
- Lab: Program 3.

Week 4

Monday:

- Classes and Object-Oriented Programming
- Inheritance.

Tuesday:

- Database Programming.
- Techniques of program design and debugging.

Thursday:

- Lab: Program 4.

Week 5

Monday:

- Modules of programs. interfaces, abstract data types, stack, and queue.

Tuesday:

- Sorting algorithms.

- Review

Thursday:

- Final Exam

Course Requirements

Hardware/Software: You will need to download and install a Python programming environment, on which your professor will guide you. You must use your computers to work on the course assignments, including homework, laboratory assignments, and exam problems.

Course Assignments: The course assignments will consist of homework, lab programming assignments, a midterm exam, and a final exam. Active participation in the class (timely responses to the instructor's and TA's inquiries, on-time assignment submissions, active participation in the lab sessions) is required and will be awarded points toward the final grade. Attendance in the online synchronous lab sessions is mandatory, and students must participate actively.

Assignment Due Dates: Weekly homework assignments are due on Saturdays (11:59 a.m. Beijing time) of the week they were posted, except in Week 5, when they are due on that Friday (11:59 a.m. Beijing time). There could be exercises for each lecture. Their requirements will be announced by the professor in the lectures.

Late Assignments/ Make-up Exams: Completing the lab projects, homework assignments, and exams on time is essential. Exams are due on (11:59 am Beijing time) on the date indicated. You will not be able to make up a missed homework, exam, or lab project for any reason except documented military duty or jury duty.

Grading Policy

| Type | Percentage |
|--------------------------------------|------------|
| Homework/Lab Programming Assignments | 40% |
| Midterm Exam | 25% |
| Final Exam | 25% |
| Participation/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

You are expected to log in to Zoom Meeting to attend class and participate in class discussions. Attendance will be recorded for each class and form part of the students' participation record. Students should inform the instructor as soon as possible if they need to ask for leave. All absences may negatively affect students' final grades.

Academic Integrity

As members of the Jinan University academic community, students must be honest in 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 somebody else or a work

generated by AI; 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 their courses. 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.