

## Winter 2024 IT 211 Intro to Applied Programming

Section 540: Tuesday and Thursday 11:50a – 1:20 pm in CDM206

Section 510: Online - Async

### Contact Info

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Office: CDM M-112 (M = "Mezzanine Floor")

Email is the preferred method of contact, as I check my email daily. Most emails will be answered within 24 hours (unless it's during the weekend, the latest I would reply is Monday morning). If you do not receive a reply within the timeframe, check to make sure the email address is correct and email me again. When emailing me, you must include the course number in the subject. Example: IT-211: question about Strings.

### Office Hours

Scheduled office hours are Tuesdays and Thursdays, 9:00 - 9:45 am & 5:00 – 6:00 pm by appointment only via Zoom.

### Course Overview

Students learn elementary programming concepts through the Python programming language.

### Course Goals

The primary goal of this course is to provide a general understanding of programming and computing by developing elementary scripts. Specific objectives include but are limited to writing scripts with the following:

- Expressions and assignment statements with diverse data types
- Control statements, including conditionals (if statements) and loops
- Arrays and iterators

- Defining simple methods
- Defining and using classes

### Changes to Syllabus

This syllabus is subject to change as necessary during the quarter. It will be thoroughly addressed during class and sent via email if a change occurs.

### Textbook

**Python Fundamentals: A practical guide for learning Python**, Packt Publishing. ISBN: 978-1781789807325

The book is available online for free via DePaul eBook Collections.

Go to either one of these links:

<https://libguides.depaul.edu/az.php?t=6193> Click on O'Reilly for Higher Education.

OR

<https://go.oreilly.com/depaul/>

You should be able to log in using your campus connect username and password.

Type Python Fundamentals packt in the search field on the top of the page.

### GRADING POLICY

Grades will report course grades on the following scale:

Grade	%
A	94-100
A-	90-93
B+	87-89
B	84-86
B-	80-83
C+	77-79
C	74-76

C-	70-73
D+	68-69
D	60-67
F	Less than 60

All course content, assignments, and grades will be posted here on D2L. It is your responsibility to keep up with all class materials through this website. You will also be required to submit your work through D2L.

### Assignments

	Points
Projects (3)	100 each
Quizzes (3)	25 each
Midterm Exam	75
Final Exam	150
<b>TOTAL</b>	<b>600</b>

The goal of assignments is to practice the concepts taught in class. You will have a week to complete each assignment. You are expected to do your own work. However, some collaboration with other students is allowed and even encouraged. The following types of collaboration are permitted:

- Discussing strategies for solving a problem
- Reviewing and testing someone's code
- Using Python code provided by in class.

The following types of collaboration are not allowed:

- Copying someone else's work
- Telling someone what code to write
- Two or more students turn in the same or closely similar code.

- Any use of AI content

Engaging in these types of collaboration listed above will be considered a violation of the university's policy on academic integrity. Violators will receive a zero for the corresponding assignment and will be reported as required by the policy.

I will accept assignments (except the Final) up to two days after the due date. 15% penalty if you submit your work less than a day past the due date given. Additional 15% penalty (30% total) if you submit your assignment more than a day past the due date given. Assignments submitted two days after the due date will not be accepted, as it is unfair to other students. For quizzes and the Final, all work must be done by the due date. Missing the due date will result in a grade of zero. You cannot make up quizzes or the Final.

Make sure you submit the correct version of your assignment. It's your responsibility to turn in the proper work for each assignment.

Some examples such as: - You ensure that your attachment and homework assignment is correct. - You include the correct files as described in the instructions for the project.

Saying you turned in the wrong assignment is not a reason for changing your grade.

Some examples such as:

- Submitted a previous homework assignment from earlier in the class.
- Submit a draft or earlier copy of your homework.
- Submitted a homework assignment from another class.

Regardless of the case, whether you did it by accident or not, what you turn in is what I grade. It doesn't matter if it's the beginning of the quarter, during the quarter, or the final project. You will not get a 2nd chance to turn in the work after the dates allowed (as well when grades are posted) or will redo the work for a better grade.

If you need to change something in the assignment you submitted, as long it's before the deadline, you upload the revised version of your work to D2L (**D2L is the only place I accept homework from students**). I always grade the latest timestamped assignment.

Students who do not turn in the Final project will NOT pass the course.

**Academic Integrity and Plagiarism**

This course will be subject to the university's academic integrity policy. All students are expected to abide by the University's Academic Integrity Policy which prohibits cheating and other misconduct in student coursework. Publicly sharing or posting online any prior or current materials from this course (including exam questions or answers) is considered to be providing unauthorized assistance prohibited by the policy. Both students who share/post and students who access or use such materials are considered to be cheating under the policy and will be subject to sanctions for violations of Academic Integrity. More information can be found at <https://resources.depaul.edu/teaching-commons/teaching/academic-integrity/Pages/default.aspx>.

### Posting work on online sites

All students are expected to abide by the University's Academic Integrity Policy which prohibits cheating and other misconduct in student coursework. Publicly sharing, posting, or receiving answers to any prior or current materials from this course is considered to be providing unauthorized assistance prohibited by the policy. Therefore, students who share/post and those who access or use such materials are deemed to be cheating under the policy and will be subject to sanctions for violations of Academic Integrity.

### Communication

If you have questions or are struggling with anything with the class – no matter how minor – let me know immediately. **DO NOT WAIT!!** These classes move quickly. Like on an assignment, timely communication is vital to ensure things go smoothly.

### Important Dates

Last day to add or swap classes: **Friday January 12, 2023**

Last day to drop the course without penalty: **Friday January 19, 2023**

Last day to withdraw from the course: **Friday February 23, 2023**

### COURSE SCHEDULE AND TOPICS:

Here is a summary of the course. Note that this is subject to tweaking – I will give you plenty of notice when something changes

Session	Topics
Week 1	Course Overview, Python variables, Strings data types

Session	Topics
Week 2	Assignment statements, Other Data Types
Week 3	Functions and control statements
Week 4	Loops
Week 5	Dictionaries, Tuples, Lists, and Midterm Exam
Week 6	Reading and Writing Files
Week 7	Intro to classes & OOP
Week 8	Fetch Data & API
Week 9	GUI
Week 10	Final Exam

### Learning Domain Outcomes

1. Students will understand the major principles guiding modern scientific thought. Students will demonstrate a mastery of the science content knowledge of their SID courses.
2. Students will know that science, technology, and math serve as mechanisms for inquiry into the nature of the universe. Students will:
  - a. identify questions that can be answered through scientific investigations;
  - b. design and conduct a scientific investigation to test a scientific hypothesis;
  - c. use appropriate tools and techniques together, analyze, and interpret data to support or refute a scientific hypothesis;
  - d. develop descriptions, explanations, predictions, and models using evidence;

- e. describe relationships between evidence and explanations using critical and logical thinking;
  - f. recognize and analyze alternative explanations and predictions;
  - g. communicate scientific procedures and explanations;
  - h. use mathematics in all aspects of scientific inquiry.
3. Students will understand and appreciate the interrelationships among science, technology, and math. Students will:
- a. use technology and mathematics to identify a problem or design a solution to a problem;
  - b. give examples of how science and technology inform and influence each other.
4. Students will understand and appreciate the role of science in society and in their lives. Students will:
- a. provide examples of how science and technology impact our lives, and how social needs and concerns impact our development of technology and scientific investigation;
  - b. develop positive attitudes towards science, technology, and mathematics;
  - c. establish an ongoing experiential/service-learning interest in science, technology, and mathematics.
5. Students will understand the nature of science, technology, and mathematics. Students will:
- a. provide examples of the abuse of science, including the representation of unfalsifiable claims as science and other forms of pseudoscience;
  - b. explain the strengths and limits of scientific inquiry;
  - c. explain the difference between evidence and inference, and the provisional nature of scientific explanations by providing examples of how our understanding of the workings of the world has changed in the past;

- d. explain the difference between probability and certainty and describe what is meant by uncertainty in the context of science, technology, and mathematics.

### **How Learning Outcomes Will Be Met**

Programming is a rigorous intellectual challenge that you must approach systematically with extreme attention to detail. The structure, grammar, syntax, and underlying theory must all be studied and reviewed to be able to not only apply the principles towards achieving a functioning program. Another vital skill is the ability to use programming to solve tasks that occur in the real world. For a web page, this might include tasks such as error checking, creating a working 'shopping basket', and so on. Even mathematical skills come into play, whether it involves random number generation in a video game requiring simulated die rolls or careful attention to the order of operations when putting together a detailed estimate from a reservations page for a travel agency's website. All of these situations (or ones closely resembling them) will be required of students at some point in the course.

### **Writing Expectations**

Writing is integral for communicating ideas and progress in science, mathematics, and technology. Writing in these disciplines is different from most other fields and includes, for example, mathematical equations, computer code, figures and graphs, lab reports, and journals. Therefore, courses in the SI domain must consist of a writing component where that component takes on the form appropriate for that course (e.g., lab reports, technical reports, etc.)

### **How Writing Expectations Will Be Met**

In the course of the quarter, students will be required at times to provide clearly written summaries explaining some of the programming and web-design theories expounded upon during the course. The student will also be required to demonstrate their own reasoning accompanied by specific examples from their own code and their interpretation of code found while exploring well-designed web pages created by others.

### **Academic Policies**

All students must manage their class schedules each term per the deadlines for enrolling and withdrawing as indicated in the University Academic Calendar.

<https://www.cdm.depaul.edu/Student-Resources/Pages/PoliciesandProcedures.aspx>



**Respect for Diversity and Inclusion at DePaul University is aligned with our Vincentian Values**

At DePaul, our mission calls us to explore "what must be done" to respect each human person's inherent dignity and identity. We value diversity because it is part of our history, traditions, and future. We see diversity as an asset and a strength that adds to the richness of classroom learning. I strive to include diverse authors, perspectives, and teaching pedagogies in my course. I also encourage open dialogue and spaces for students to express their unique identities and views.

I am open to difficult conversations and will strive to create an inclusive classroom that values all perspectives. If, at any time, the classroom experience does not live up to this expectation, please feel free to contact me via email or during office hours.

**Online Course Evaluations**

Evaluations are a way for students to provide valuable feedback regarding their instructor and the course. Detailed feedback will enable the instructor to continuously tailor teaching methods and course content to meet the course's learning goals and the student's academic needs. They are a requirement of the course and are key to continuing to provide you with the highest quality of teaching. The evaluations are anonymous; the instructor and administration do not track who entered what responses. A program is used to check if the student completed the evaluations, but the evaluation is separate from the student's identity. Since 100% participation is our goal, students are sent periodic reminders over three weeks. Students do not receive reminders once they complete the evaluation. Please see <https://resources.depaul.edu/teaching-commons/teaching/Pages/online-teaching-evaluations.aspx> for additional information.

**Incomplete Grades**

An incomplete grade is a special, temporary grade that may be assigned by an instructor when unforeseeable circumstances prevent a student from completing course requirements by the end of the term. Otherwise, the student had a record of satisfactory progress in the course. The course instructor and a CDM Associate Dean must approve all incomplete requests. Only exception cases will receive such approval. Information about the Incomplete Grades policy can be found at <http://www.cdm.depaul.edu/Current%20Students/Pages/Grading-Policies.aspx>

**Preferred Name & Gender Pronouns**

Professional courtesy and sensitivity are essential concerning individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender, gender variance, and nationalities. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the

quarter so that I may make appropriate changes to my records. Please also note that students may choose to identify within the University community with a preferred first name that differs from their legal name and may also update their gender. The preferred first name will appear in University-related systems and documents except where the use of the legal name is necessitated or required by University business or legal needs. For more information and instructions on how to do so, please see the Student Preferred Name and Gender Policy at <http://policies.depaul.edu/policy/policy.aspx?pid=332>

### **Students with Disabilities**

Students seeking disability-related accommodations must register with DePaul's Center for Students with Disabilities (CSD), enabling them to access accommodations and support services to assist with their success. In addition, students need to meet with a staff member via telephone or teleconference (i.e., Zoom). Please notify the office when making the appointment request.

- Loop Campus (312) 362-8002
- Lincoln Park Campus (773) 325-1677
- Email: [csd@depaul.edu](mailto:csd@depaul.edu)

Students who register with the Center for Students with Disabilities are invited to contact Dr. Gregory Moorhead, Director of the Center, privately to discuss how he may assist in facilitating the accommodations used in a course. This is best done early in the term. The conversation will remain confidential to the extent possible. Please see <https://offices.depaul.edu/student-affairs/about/departments/Pages/csd.aspx> for Services and Contact Information. Also, please see the [CDM Intranet](#) for general information about school policies.

### **Attitude**

A professional and academic attitude is expected throughout this course. Measurable examples of non-academic or unprofessional attitudes include but are not limited to talking to others when the instructor is speaking, mocking another's opinion, sleeping, working on assignments for other classes, or ringing cell phones.

### **Civil Discourse**

DePaul University is a community that thrives on open discourse that challenges students intellectually and personally to be Socially Responsible Leaders. Therefore, it is the expectation that all dialogue in this course is civil and respectful of the dignity of each

student. Any disrespect or hostility can jeopardize a student's ability to succeed in the course.

### **Cell Phones / On-Call**

If you bring a cell phone to class, it must be off or set to silent mode. Should you need to answer a call during class, students must leave the room in an undisruptive manner. Out of respect to fellow students and the professor, texting is never allowable in class. If you are required to be on call as part of your job, please advise me at the start of the course.

### **Student Responsibilities**

Each student is responsible for their own time management and meeting the syllabus expectations. The instructor is not responsible for reminding students of assignment deadlines in class. In the event of an absence, the student must contact the instructor regarding the absence and the topics covered in the course. Students must keep up with any assigned materials for the class. Students must keep backup copies of all submitted assignments.