CSC 241 – 602: Introduction to Computer Science I

Instructor

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Class Hours – Section 602

Tu, Th 10:10AM - 11:40AM in Room 512 in 14 E Jackson

Lab Hours – Section 602L

Wed 8:30AM-9:45AM in Room 512 in 14 E Jackson
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Course Web Page

This syllabus, as well as the class lecture notes, homework assignments, and other links can be found on D2L. Please check the discussion forum regularly.

Course Description

This course is the first of a two-course sequence introducing Computer Science and aimed at students with little or no programming experience. The focus of the course sequence is on problem solving, algorithm development, and structured and object-oriented programming using Python and the Python API (Application Programming Interface) in the context of building computer applications (computational thinking). In this first course, we will focus on structured programming and learn how and when to use loops, conditionals, and functional and modular abstractions to efficiently solve variety of practical problems.

Course Objectives

- Develop fundamental problem solving and abstract reasoning
- Understand fundamental programming structures such as expressions, assignments, decision and iteration structures, functions, and modules
- have basic Python programming skills
- be prepared for the second course in the sequence, CSC242
- Develop a cooperative, comfortable learning environment by minimizing any feelings of inadequacy, particularly for students with less experience and confidence.

Prerequisites

You must have taken MAT130 or an equivalent high-school/college course covering algebra topics and precalculus. An alternate precondition is a Mathematics Diagnostic Test placement into MAT 140. Students without MAT 130 or equivalent will be encouraged to seek out tutoring (available for free at DePaul University) to make up any missing background.

Course Format

The course provides the material you will need to understand the fundamental concepts covered during course, including:

- Lectures (twice a week)
- Weekly lab for hands-on programming and problem solving
- Resources such as recorded lecture videos, notes, and code files via D2L
- Homework assignments/Peer grading assignments
- Self-Assessment resources, including lecture questions/answers, and unit quizzes/solutions, to assess your progress and understanding.

Required Textbook

Introduction to Computing Using Python: An Application Development Focus (2nd Edition) by Ljubomir Perkovic, Wiley & Sons, 2015.

Grades and exams

The course grade will be apportioned as follows:

- Homework (including labs, quizzes)   30%
- Midterm exam   30%
- Final exam   35%
- Participation   5%

Homework: There will be a total of 8 homework assignments, but only your best 6 count toward the final grade, so you may miss two homework assignments with no penalty. All homework must be submitted by the deadline and no later. Any homework not handed in by the deadline will receive 0 points, without any exceptions.

Exams: Midterm is tentatively scheduled on Thursday, 04/26, 10:15AM-11:30 AM; the final exam will take place on Thursday, 06/07, 8:30AM-10:45AM in room 512, 14 E. Jackson. No make-up exams.

The grading rubric for normalized marks:

A	A-	B+	B	B-	C+
95-100	91-94	88-90	85-87	81-84	77-80
C	**C-**	**D+**	**D**	**F**	**I**
73-76	69-72	65-68	61-64	0-60	*

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<u>* Incomplete:</u> An incomplete grade is given only for an exceptional reason such as a death in the family, a serious illness, etc. Any such reason must be documented. Any incomplete request must be made at least two weeks before the final, and approved by the Dean of CDM. Any consequences resulting from a poor grade for the course will not be considered as valid reasons for such a request.

<u>To do well in this course:</u> Attend the class and the labs, participate in discussions, read the chapters in the books each week as indicated in the homework assignment, start working on the homework early, and talk to me promptly if you have any problems. Write the answers to the homework and exam questions in a rigorous, clear, and concise way.

Policies

Lateness and Absence
No late homework or lab will be accepted. If you don't hand in a homework/lab in time, you will receive 0 points for the homework/lab. Midterm and final exams makeups must be arranged at least one week in advance, barring extreme situations.

Deadlines for adds, drops, and withdraws
See the deadlines in
https://offices.depaul.edu/oaa/academic-calendar/Pages/full-year-2017-2018.aspx.

Changes to Syllabus
This syllabus is subject to change as necessary during the quarter. If a change occurs, it will be thoroughly addressed during class, posted under Announcements in D2L and sent via email.

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 learning goals of the course and the academic needs of the students. They are a requirement of the course and are key to continue 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. Students complete the evaluation online in CampusConnect.

Academic Integrity and Plagiarism
This course will be subject to the university's academic integrity policy, the following is an excerpt from the policy. More information can be found at http://academicintegrity.depaul.edu/. If you have any questions be sure to consult with me.

Academic Policies
All students are required to manage their class schedules each term in accordance with the deadlines for enrolling and withdrawing as indicated in the University Academic Calendar. Information on enrollment, withdrawal, grading and incompletes can be found at http://www.cdm.depaul.edu/Current%20Students/Pages/PoliciesandProcedures.aspx

Students with Disabilities
Students who feel they may need an accommodation based on the impact of a disability should contact me in private as early as possible in the quarter (preferably within the first week of class), to discuss their specific needs, and make sure that you have contacted the Center for Students with Disabilities (CSD). All discussions will remain confidential.

Course Schedule & Objectives
The rough weekly schedule is as follows:

- Week 1 (03/24-03/30):
  - *Introduction to computer science*
  - *Fundamental Python data types (Ch 2)*
- Week 2 (03/31-04/06):
  - *Basic execution control structures, functions (Ch 3)*
- Week 3 (04/07-04/13):
  - *Input/output*
  - *Files*
  - *Exceptions (Ch 4)*
- Week 4 (04/14-04/20):
  - *Execution control structures I (Ch 5)*
- Week 5 (04/21-04/27):
  - *Execution control structures II (Ch 5)*
  - ***Mid-term (04/26: 10:15AM-11:30AM)***
- Week 6 (04/28-05/04):
  - *Execution control structures III (Ch 5)*
- Week 7 (05/05-05/11):
  - *Algorithm development (Ch 5)*
- Week 8 (05/12-05/18):
  - *More collection data types (Ch 6)*
- Week 9 (05/19-05/25):
  - *Namespaces (Ch 7)*
- Week 10 (05/26-06/01):
  - *Problem solving*
- Week 11 (06/02-06/08):
  - ***Final exam (06/07: 8:30AM-10:45AM)***