

Introduction to Programming

ICS 31 & CSE 41

Summer Session

August 19, 2014

1 Overview

Introduction to fundamental concepts and techniques for writing software in a high-level programming language. Covers the syntax and semantics of data types, expressions, exceptions, control structures, input/output, methods, classes, and pragmatics of programming.

- Course Catalog Description

2 Communication

Instructor: Ankita Raturi

Email: araturi@uci.edu

Please put [ICS31] in the subject line of emails.

Office Location: Room 2006 Calit2

Office Hours: Tuesdays and Thursdays, 12.20 to 1.30. Also available by appointment.

Teaching Assistant: Bryan Donyanavard

Email: bdonyana@uci.edu

Office Location: DBH 3059

Office Hours: By appointment

Website: <http://www.sudokita.com/teaching/31/index.html>

3 Meeting Information

Lectures: Tuesdays and Thursdays, 11:00 to 12.20

Room: RH 108

Labs: Tuesdays and Thursdays, 1:00 to 2.50 OR 3:00 to 4:50

Room: ICS 189

4 Course Details

4.1 Course Goals

1. Write, test, and debug code within a development environment.
2. Combine data types and organization schemes to model real-world information.
3. Implement algorithms within the constraints of a programming language's syntax and semantics.
4. Employ a programming language's abstraction mechanisms to reduce complexity and increase reliability of software.
5. Follow a systematic methodology to produce solutions expeditiously and reduce the introduction of bugs.
6. Predict the results that source code will produce when executed.
7. Describe the practical limitations of software systems.
8. Describe how programming languages fit in the broader context of modern computing systems.

4.2 Materials

Textbook: Introduction to Computing Using Python: An Application Development Focus, Ljubomir Perkovic.

Language: Python 3

Toolset: IDLE. Or, you can pick your own Integrated Development Environment (IDE) - pycharm, eclipse.

5 Deliverables

- Lab Assignments: 30%
All the assignments will be available here: <http://www.sudokita.com/teaching/31/assignments.html>
Submission link: <http://www.checkmate.ics.uci.edu>
Available on Tuesday after class. Due every Friday at 5pm.

- **Class Participation: 10%**
This will be based on interactions during lectures and labs, including submission and results of your partner evaluations for lab assignments.
- **Weekly Quizzes: 10%**
All the quizzes will be available here: <http://www.sudokita.com/teaching/31/quiz.html>
Available on Friday at 5pm. Due every Monday at 8am.
- **Two Midterms: 20%**
In-class midterms on 15 July and 12 August. There will be no make-up midterms unless there is an exceptional circumstance that you inform us about beforehand.
- **Final Exam: 30%**
This will be on 28 August.

6 Course Schedule

Week	Date	Day	Topic
1	24-Jun	Tu	Introduction to Programming: language and logic.
	26-Jun	Thu	Data Types
2	1-Jul	Tu	Functions
	3-Jul	Thu	Execution Control Structures: if/else
3	8-Jul	Tu	Execution Control Structures: for and while
	10-Jul	Thu	Extended Example
4	15-Jul	Tu	Midterm 1
	17-Jul	Thu	Imperative Programming: functions and mutability
5	22-Jul	Tu	Input and Output: text processing
	24-Jul	Thu	Input and Output: files
6	29-Jul	Tu	Extended Example
	31-Jul	Thu	Interesting Control Structures: decisions and iteration patterns
7	5-Aug	Tu	Interesting Data Structures: 2d lists and more loops
	7-Aug	Thu	Extended Example
8	12-Aug	Tu	Midterm 2
	14-Aug	Thu	Data Structures: dictionaries
9	19-Aug	Tu	Data Structures: tuples and sets
	21-Aug	Thu	Extended Example and Activities
10	26-Aug	Tu	Review
	28-Aug	Thu	Exam

7 Special Needs

Any student who feels he or she may need an accommodation due to a disability should contact the UCI Disability Services Center at (949) 824-7494 as soon as possible to explore the possible range of accommodations. Please also contact the instructor. We encourage all students having difficulty, whether or not due to a disability, to consult privately with the TA or instructor at any time.

8 Academic Honesty

Please familiarize yourself with the latest UCI academic honesty policy: http://www.ics.uci.edu/ugrad/policies/index.php#academic_honesty.