

CSE 291
Computational Thinking Lab
Fall 2017

Course Description

Introduction to programming and computational thinking. Learners collaboratively read, design, implement and test programs using Python. Covers programming fundamentals, functions, collections, libraries, exception handling, and classes. Complements CSE 231, Introduction to Programming I. (1 credit. Can substitute for CSE 100.)

Course Objectives

Proficiency in six computational thinking practices: connecting computing; creating computational artifacts; abstracting; analyzing problems and artifacts; communicating; and collaborating. Enhance understanding of programming concepts introduced in CSE 231.

Co Requisite

Concurrent enrollment in CSE 231. Withdrawal from CSE 231 requires withdrawal from CSE 291.

Instructors

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Peer Leaders

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Websites

CTL Home Page: <https://www.cse.msu.edu/~ldillon/cse-ctl/Fall2017>
D2L: <https://d2l.msu.edu> Course Name: FS-17-CSE-291- Computational Thinking Lab

Course Textbook

[*The Practice of Computing using Python*](#), 3rd Ed. by Punch and Enbody. ISBN-13: ISBN-9780134379760

Class Meetings

Section 2: Wednesdays, 5:30–7:20 pm, 1220 Engineering Building
Section 3: Thursdays, 5:30–7:20 pm, 1220 Engineering Building

Weekly Expectations of Students

- Attend and actively participate in class
- View videos, read text, and complete pre-lab assignment **before** class starts (see schedule below)
- Arrive on time and stay until dismissed
- Refrain from email, texting, answering phone calls, social networking, surfing internet, etc.

You earn up to 10 participation points each week for fulfilling expectations for that week.

Extenuating Circumstances

Any extenuating circumstances which impact on your participation in the course (e.g., absences due to illness or religious observances) should be discussed with your instructor as soon as those circumstances are known.

Grades

Total possible points: 10 pts per week x 14 weeks = 140 points

Grade scale:	90 – 100%	(126 – 140 pts)	4.0
	80 – 89%	(112 – 125 pts)	3.0
	70 – 79%	(98 – 111 pts)	2.0
	60 – 69%	(84 – 97 pts)	1.0
	≤ 59%	(≤ 83 pts)	0.0

CSE 231 Programming Projects

Programming projects are to be done individually. You should never work on your programming project in class, show your code to another student, or solicit help from a non-authorized person.

Spartan Code of Honor

“As a Spartan, I will strive to uphold values of the highest ethical standard. I will practice honesty in my work, foster honesty in my peers, and take pride in knowing that honor is worth more than grades. I will carry these values beyond my time as a student at Michigan State University, continuing the endeavor to build personal integrity in all that I do.”

Calendar

Videos, readings and pre-lab assignments for the week should be completed by 5:00 pm on the day of your CSE 291 class meeting. ***You stand to lose up to 4 participation points each week that you do not complete the pre-lab assignment on time and with a score of at least 75%.*** (Retake the pre-lab as many times as needed to raise your score.)

Week	Videos (Textbook readings)	Pre-lab Assignment	Due Date Wed Sec, Thu Sec
08/30	Welcome, Getting Python (Ch. 0)	Lab 0 – lab00.pdf	
09/03	Beginnings (Ch. 1)	Lab 1 – Pre-Lab Exercises	09/06, 09/07
09/10	Control (Ch. 2)	Lab 2 – Pre-Lab Exercises	09/13, 09/14
09/17	Strings (Ch. 4)	Lab 3 – Pre-Lab Exercises	09/20, 09/21
09/24	Functions (Ch. 5)	Lab 4 – Pre-Lab Exercises	09/27, 09/28
10/01	Files & Exceptions I (Ch. 6)	Lab 5 – Pre-Lab Exercises	10/04, 10/05
10/08	Algorithms (Ch. 3)	Lab 6 – Pre-Lab Exercises	10/11, 10/12
10/15	Lists & Tuples (Ch. 7)	Lab 7 – Pre-Lab Exercises	10/18, 10/19
10/22	More Functions (Ch. 8)	Lab 8 – Pre-Lab Exercises	10/25, 10/26
10/29	Dictionaries & Sets (Ch. 9)	Lab 9 – Pre-Lab Exercises	11/01, 11/02
11/05	Program Development (Ch. 10)	Lab 10 – Pre-Lab Exercises	11/08, 11/09
11/12	Classes I (Ch. 11)	Lab 11 – Pre-Lab Exercises	11/15, 11/16
11/19	Scope (Sec. 9.6)	THANKSGIVING BREAK – no CTL class	
11/26	More on Classes (Ch. 12)	Lab 12 – Pre-Lab Exercises	11/29, 11/30
12/03	More Files & Exceptions (Ch. 14)	Lab 13 – Pre-Lab Exercises	12/06, 12/07
12/10	Review		12/13, 12/14

This schedule is subject to change based on changes in the [CSE 231 due dates](#).