

CS 591 - Syllabus

"Computer Science in the Classroom: Computational Thinking for Teachers"

Topics

- Programming with Python
 - Introduction to environment and process
 - Turtle Graphics
 - Control Structures
 - Functions and passing parameters
 - Iteration and Recursion
- Computational thinking
 - Incorporating computation into the curriculum
 - Current events and new technologies
- Final Project
 - Creating a computational project to use in the classroom

Course Outcomes

At the end of the course, students should be able to

- Understand the basics of computational thinking.
- Construct and present a computational solution that can be incorporated into the CSCI 592, *Teaching the Joy and Beauty of Computing*, classroom.
- Appreciate the variety of ways in which computing can improve the human condition.
- Appreciate how computational skills can benefit one's career and life.
- Design and implement short programs in an interpreted language such as Python.
- Understand some of the significant ideas and people that underlie computing's past, present and future.

Graded Events

- Final Project and Presentation - 40%
- Assignments - 40%
- Practicums – 20%

Grading Policy

At the end of the semester, grades will be determined (after any curving takes place) based on your class average as follows:

- 93+: A
- 90+: A-
- 87+: B+
- 83+: B
- 80+: B-
- 77+: C+
- 73+: C
- 70+: C-
- 67+: D+
- 63: D
- 60: D-

Collaboration Policy

All students should read the [MSU Student Conduct Code](#).

When it comes to Python assignments, you *may*

- Work with the other people on your team if teams are allowed. Each assignment will specify the maximum number of people per team.
- Share ideas with people in other teams.
- Help other teams troubleshoot problems.

You may *NOT*

- Share code you write with other teams.
- Submit code that someone on your team did not write.
- Modify another team's solution and claim it as your own.

Failure to abide by these rules (or engaging in academic misconduct) will result in everyone involved being reported to the Dean of Students and receiving an F for the course. Dropping the course to avoid the F is not an option.