Syllabus

CSE 450-001, Fall 2022

Department of Computer Science and Engineering
Michigan State University

Instructor: Nick Ivanov, e-mail: ivanovn1@msu.edu
Class Time: Tuesday and Thursday, 3 p.m. — 4:20 p.m.
Class Location: Communication Arts Building 147.
Website: https://www.cse.msu.edu/~cse450/

Course Objectives and Outcomes

This course teaches students how to create programming and domain-specific languages *properly*. The students will develop an analytical mindset on *how* human logic and commands are translated into computer instructions. Specifically, the students will master the following major topics:

- History of programming languages and standard approaches to creating programming languages;
- Regular expressions, tokens, and lexical analysis;
- Language grammars, syntax analysis, parsing, and abstract syntax trees;
- Semantic analysis, flow control, scopes, arrays, and functions;
- Compilation, interpretation, intermediate code, assembly code, and target code generation;
- Memory management and error handling;
- Object-oriented language design;
- Code optimization.

Grading

There will be 1000 points distributed throughout the course assignments, plus 100 bonus points.

Points	GPA
> 1000	4.0
900 – 1000	4.0
850 – 899	3.5
800 – 849	3.0
750 – 799	2.5
700 – 749	2.0
650 – 699	1.5
600 – 649	1.0
0 – 599	0.0

Important: Contact your instructor, if you have any concerns about your performance in the class.

Inclusive Classroom

By taking this class, you acknowledge to adhere to the MSU values of Diversity and Inclusion as outlined in its Statement on Diversity and Inclusion. If you feel marginalized, tokenized, or targeted by a microaggression — talk to the instructor or fill out this *anonymous* form: https://tinyurl.com/2zwa2dkt. Also, use this link for *any* feedback you might have. If you want the instructor to respond personally to you, please provide your name. If you

experience discrimination, you can report it to MSU Office of Institutional Equity (OIE) using this link: https://civilrights.msu.edu/file-a-report/index.html.

Assignments

The class assignments include homeworks, coding projects, in-class quizzes, and bonus point assignments. Homeworks, coding projects, and in-class quizzes are together worth 1000 points. Bonus points allow you to gain additional 100 points beyond the standard 1000-point quota. The details of bonus-point assignments will be announced throughout the semester. The following table shows the distribution of class points. **No Final Exam.**

Type of Assignment	Number of Assignments	Points per Assignment	Total Points
Homeworks	10 Coding Homeworks	25	250
	10 D2L Homework Quizzes	10	100
Coding Projects	7	80	560
In-Class Quizzes	5	18	90
Bonus Point Assignments	Announced during the class	vary	100

Late Assignment Policy

You have a total of **seven** late days without penalty for all graded assignments. For example, you can submit two homework assignments two days late each, and use the remaining three days for a late project; or you can use all the seven days for one assignment. However, there are two limitations: First, we avoid using fractions by **rounding up** late days, e.g., one minute over the due is counted as one day; by the same token, if an assignment is 7 days 1 minute late, it will get 0 points. Second, **no late assignments will be accepted after 12/16/2022 11:59 p.m.**

Attendance

Attendance in this class is not mandatory, but highly recommended for a number of reasons. First, the class has five in-class quizzes, which are together responsible for 9% of your final grade. Second, during the class, the instructor will be demonstrating coding patterns that you are expected to apply in your homework assignments and projects. Third, you will learn much faster by attending our interactive classes than by trying to navigate the material by yourself. Fourth, in-class participants may occasionally vote to determine some procedures. Last, but not least, by attending classes, you can get quick answers to your questions. With that said, attending classes is a smart strategy that will save you a lot of time.

The Spartan Code of Honor Academic Pledge

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.

Collaboration On Coding Assignments

Plagiarism (unsourced use of someone's intellectual property) is not allowed. However, citing and using other works is generally fine (please ask if uncertain) as long as the material was not made specifically for solving assignments in this class. Additionally, the use of material from previous semesters and code from other students in the class are instances of academic dishonesty. Intellectual (non-code) collaboration with other students in the class is allowed, but each student should write (and not share) their own code. If a student submits code that they do not understand, such is also an act of academic dishonesty.

Academic Dishonesty

Because the goal of this course is to teach professionalism, any academic dishonesty will be viewed as evidence that this goal has not been achieved, and will be grounds for receiving a final grade of 0.0. Examples of academic dishonesty include (but are not limited to):

- Copying another student's code or exam answers.
- Using code implemented by someone else intended to solve this class's assignments (i.e., don't get someone else to do your assignment for you!).
- Using code independently implemented by someone else without attributing credit (i.e., you can use tools, libraries, or code snippets from the web, but only with proper citation.)
- Writing code that deceptively passes the test cases, but doesn't solve the problem given. In other words, abusing automatic grader mechanisms to gain unearned points.
- Using websites and sources, whose purpose is to provide assignment solutions (e.g. using sites such as Chegg.com for any purpose regarding this class).
- Distributing course content without instructor's permission.
- Submitting a solution that you do not understand or cannot explain to an instructor.
- Using assignment solutions provided to a previous iteration of this course.
- Providing false information to the instructor about matters related to the course.
- Facilitating another student in any of these activities.

Regrades

Requests for regrading can go in either direction; we are often generous when we first grade something, so please be sure that we did make a mistake before you submit your request. On the other hand, our goal is for you to understand the course material, so we will always be willing to explain to you any portion that you are stuck on. All requests for regrades must come within one week of the return of the graded item. Thereafter, no requests will be considered, so be sure to pick up your returned assignments on time. Bonus point assignments are not subject to regrading. **No regrade requests will be accepted after 12/16/2022**.

Grief Absence Policy

If unfortunate circumstances occur that would lead you to have unexpected absences, MSU has a [Grief Absence Policy](). You need to contact the Associate Dean, and we will make every effort to aid you in continuing the class after we receive confirmation from the administration.

Resource Center for Persons with Disabilities

Michigan State University maximizes opportunities for students with disabilities through the [Resource Center for Persons with Disabilities (RCPD)](), phone # (517) 884-RCPD. If you are a MSU student and you have a disability, you can register with the RCPD and you may be eligible to receive accommodations. RCPD recognizes that accommodations may be required in order to assist individuals in maximizing their educational experience. Accommodation determinations are based on documentation and individualized needs assessments. Students who are granted accommodations will receive a letter that includes verification of registration status with the RCPD and an outline of reasonable accommodations. This letter is called a VISA (verified individual services accommodation). Please present this letter to the instructor at the start of the term and/or two weeks prior to the accommodation date (quiz, project, etc.).

General Note

The goal of this class is for you to learn. If you find that anything is coming in your way of that goal, please talk with us about it. We plan to keep the class flexible to the learning styles that seem to work best for the students, so feedback is always appreciated.