

Syllabus

CSED 4133/5133, Fundamentals of Programming

Fall 2022

Course Information

Time and Place: Wednesday, 8:00-9:00 PM, synchronous online meetings

- <https://uni.zoom.us/j/3192732187> [The password for this room is the three-letter acronym for our campus]

Instructor: Dr. Ben Schafer

Email: schafer@cs.uni.edu

Meeting with me: As an online class I can't have the same concept of regular "office hours." However, that does not mean that I'm not willing to meet with you to talk about the class. If you have questions please reach out to me via email and we can meet at a time conducive to both of our schedules.

Credit Hours: Three (3). This course meets the Credit Hour Expectations outlined in the Course Catalog. Students should expect to work approximately 2 hours per week outside of class for every course credit hour. [In other words, you should expect this course to require 9-10 hours of work in a typical week]

Class Websites:

- <https://www.cs.uni.edu/~schafer/cohort22/FOP/> (most lesson materials)
- Blackboard (Grades and Competency Demos)

Textbook

No textbook adequately fits our needs. Instead, all required readings and other materials will be selected from legally available resources on the internet or from instructor produced materials.

Computer Use

This is an online course. All of the learning materials and programming environments for this course are available from any computer with a web browser and internet access.

Course Learning Outcomes

By the end of this semester students taking this course should be able to meet the following:

Programming Oriented Outcomes. Students should be able to:

- trace a segment of code to determine the result produced or state achieved by given code
- modify a provided piece of code to accomplish a given task
- choose and sequence action statements to accomplish a given task
- develop and use selection statements (if-then, if-then-else, etc.) to control selection between actions
- develop and use iteration statements (for, while) to control repetition of actions
- explain the concepts of sequence, loops, parallelism, events, conditionals, operators, variables, and lists within the context of computer science.

Teaching Oriented Outcomes. Students should be able to:

- explain the concepts of sequence, loops, parallelism, events, conditionals, operators, variables, and lists within the context of a K-12 classroom.

Course Description

Introduction to computer programming through a survey of programming environments used by teachers. Topics include structure of programming, study of several programming environments used by students at a variety of age/ability levels, and end-user programming for teachers.

How Student Performance Will Be Evaluated

Course Grading

I use a grading system drawn from the philosophies of "standards-based grading" and "equitable grading" (<https://gradingforequity.org/>). The main idea is that I WANT you to succeed in the course by giving you multiple opportunities for you to show me that you have learned the necessary material. In most cases, if you can't do this the first time, you will be able to re-study and try again.

You will earn multiple "grades" in this course. Each of these is a category of understanding that, for simplicity, is recorded as a score from 1-4 with the following meaning:

Score	Meaning
1	UNASSESSABLE - You submitted the deliverables for the activity but what you submitted shows little understanding of the standards of the activity.
2	NEEDS WORK - You have made significant progress towards demonstrating competency but there are limited items that remain unsatisfied.
3	SATISFACTORY - You have "met" the standards of the activity.
4	EXCELLENT - You have "exceeded" the standards of the activity. [You have met the standards of competency and shown considerable understanding/knowledge of the material.

While it might be tempting to view these categories as similar to GPA categories (which is also a 4-point scale) that is not the way they are used or interpreted. See the discussion about final grade assignment for more on this idea.

You will complete three different types of activities this semester.

- Ungraded "Practice Problems"
 - We will do a lot of activities, both in class and as "homework," that are completed as a way to enhance your learning. In most cases, it is the **process** that I am after rather than the results.
 - In order to give you feedback on your understanding of the material and your ability to solve these problems, you will submit them to Autolab for process. Officially, these are not part of your overall grade.
- 3 Unit "Problem Set" Grades
 - The course is divided into 3 units. Each of these units will contain a series of "Problem Sets" which are graded programming assignments.
 - Each unit is graded independently based on activity specifications and an outcomes evaluation table published separately for each unit.

- All in-unit activities [programming assignments] may be submitted multiple times up to the unit deadline.
- 5 Competency Demos (CD)
 - You can think of these like exams.
 - Each will be administered via Blackboard and/or Autolab (using Python) and will require you to be present with me synchronously online.
 - Most will be offered from Wednesday, 7:00-8:00 PM prior to our regularly scheduled weekly meetup unless you have made alternate arrangements.
 - For CDs 1-4, if you do not like the grade you earned on the original CD, you will be provided an opportunity to ask questions, re-study the material, and attempt a second CD to improve your grade. Details on this will be provided when it becomes an option.
 - For the Final CD only there is not an opportunity to retake to improve your score.

Those students enrolled in CSED 5133 will also complete one additional written activity regarding teaching and learning.

Final course grades will be determined using the following evaluation criteria.

Grade	Criteria
A	ALL scores are 3 or 4 AND an overall average of 3.5 or higher
B	All scores are 3 or 4 OR No more than one score of 2 on Competency Demos AND an overall average of 3.25 or higher
C	No more than two scores of 2 on Competency Demos AND an overall average of 3.00 or higher
D	More (3s and 4s) than (1s and 2s).
F	Any situation not handled above.

In most situations, grades earned are straight letter grades – no plusses or minuses. Because you have multiple opportunities to retake and earn better grades this isn't as rough as it might sound. However, there are two situations where I may add a plus or a minus:

- If your final CD is a grade lower than your overall course grade I reserve the right to add a minus to your grade.
- If your final CD is a grade higher than your overall course grade I reserve the right to add a plus to your grade.
- If I feel there are specific and individual circumstances where "mathematically" you earned a grade slightly lower than I feel your overall competence has demonstrated than I reserve the right to add a plus to your grade.

Please note, in an effort to be responsive to your needs I reserve the right to modify the structure of this course as we are in progress. If there is significant deviation from the policies described above, this new policy will be clearly discussed with you and in a timeframe that gives you a time to plan accordingly.

Final Thoughts

If you are having trouble with a topic in the class please reach out to me early. Do not wait until the situation is out of control. I am very willing to help. However, I have to know you need and want that help.

Additional Policies and Statements

Scholastic Conduct

You are responsible for being familiar with the University's Academic Ethics Policies:

<https://www.uni.edu/policies/301>

Copying from other students is expressly forbidden. Doing so on CDs will be penalized every time it is discovered. The penalty can vary from zero credit for the copied items (first offense) up to a failing grade for the course. If an assignment makes you realize you do not understand the material, ask a fellow student a question designed to improve your understanding, *not* one designed to get the assignment done. Your final submission for assignments should be **individual, original** work unless otherwise specified. Any substantive contribution to your solution by another person or taken from a publication should be properly acknowledged in writing. Failure to do so is plagiarism and will necessitate disciplinary action. In addition to the activities we can all agree are cheating (plagiarism, bringing notes to a closed book exam, etc.), assisting or collaborating on cheating is cheating. Cheating can result in failing the course and/or more severe disciplinary actions. Remember: Discussing assignments is fine and even encouraged. Copying code or answers is not.

Accessibility

The University of Northern Iowa (UNI) complies with the Americans with Disabilities Act Amendments Act of 2008 (ADAAA), Section 504 of the Rehabilitation Act of 1973, the Fair Housing Act, and other applicable federal and state laws and regulations that prohibit discrimination on the basis of disability. Students with disabilities experiencing a barrier to access should connect with Student Accessibility Services (SAS) to request accommodations. For more information about the accommodation process, please contact SAS at (319) 273-2677 Relay 711, accessibilityservices@uni.edu, or GIL 118. Additional information is also available at sas.uni.edu.

The Learning Center

The Learning Center @ Rod Library provides free tutoring for a variety of different areas (i.e. writing, math, science, business, Spanish, college reading and learning strategies). The Learning Center @ Rod Library is open for walk-in assistance Monday-Thursday 10am-10pm and is free of charge for all UNI students. If you are unavailable during normal tutoring hours, online tutoring is also available through Smarthinking. You will need your CATID and passphrase to gain access. To access the Smarthinking platform go to <https://tlc.uni.edu/online>. For more information, go to <https://tlc.uni.edu>, email TheLearningCenter@uni.edu, call 319-273-6023, or visit the TLC desk located on the main floor of Rod Library.

Free Speech

The University of Northern Iowa supports and upholds the First Amendment protection of freedom of speech and the principles of academic and artistic freedom. We encourage the free and responsible

exchange of diverse ideas on our campus. The University is committed to open inquiry and the spirited and thoughtful debate of such ideas.

Office of Compliance and Equity Management
Non-discrimination in Employment or Education

Content in this class has the potential to be disturbing to some individuals based on life experiences. If you ever feel the need to step out of the classroom or decline participation in an activity, please request an alternative learning experience.

UNI Policy 13.02 Discrimination, Harassment, and Sexual Misconduct states: "The University is committed to providing a workplace and educational environment, as well as other benefits, programs, and activities, that are free from discrimination and harassment based on a protected class, as well as retaliation."

Policy 13.02 outlines prohibited conduct and reporting processes. All University employees who are aware of or witness discrimination, harassment, sexual misconduct, or retaliation are required to promptly report to the Title IX Officer or Title IX Deputy Coordinator.

- Title IX Officer Leah Gutknecht, Assistant to the President for Compliance and Equity Management, 117 Gilchrist, 319.273.2846, leah.gutknecht@uni.edu
- Title IX deputy coordinator: Christina Roybal, Sr. Associate Athletic Director Athletics Administration, North DOME 319.273.2556, christina.roybal@uni.edu

If you or someone you know has been harassed or assaulted, you can find the appropriate resources at safety.uni.edu and equity.uni.edu. Resources that provide free, confidential counseling are also detailed at safety.uni.edu.

For additional information, contact the Office of Compliance and Equity Management, 117 Gilchrist Hall, 273-2846, equity@uni.edu.