CSED 1310
Programming Environments for Elementary Education
Spring 2022

General Information
Time and Place:  MWF, 8:00-8:50, Lang 222
Class Websites:
  • http://www.cs.uni.edu/~schafer/1310/ (most lesson materials)
  • Blackboard (Grades and Competency Demos)
Credit Hours:  3. This course meets the Credit Hour Expectations outlined in the Course Catalog.
Instructor:  Dr. Ben Schafer
Email:  schafer@cs.uni.edu

Student Hours:
Due to an abundance of caution, I prefer to limit my face-to-face meetings. However, I am very willing to meet with you. To accomplish this, we will use online office hours via Zoom by default. My student hours this spring will be:
  • MWF 10-11 AM and 12-1 PM
  • T/Th 9:30-10:30 AM

In order to meet with me during one of these time slots you should first set up an appointment using my online calendar.
Then at the appropriate time, you can log on to the following Zoom room:
  • https://uni.zoom.us/j/3192732187 [The password for this room is the three letter acronym for our campus]
If those times don’t work for you, or you prefer to meet with me face-to-face, PLEASE, send me an email and propose a specific alternative. I want to meet with you at a time/place that is best for both of us and am very willing to work things out.

Course Information
Course Description
Introduction to computational thinking and computer programming. Taught as a survey of programming environments used by elementary education teachers. Topics include structure of programming and the study of several programming environments used by students at a variety of age/ability levels.

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

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:
• discuss resources for learning about several programming environments
• discuss which of several programming environments would be appropriate in a given classroom
• explain the concepts of sequence, loops, parallelism, events, conditionals, operators, variables, and lists within the context of a K-12 classroom.

Classroom Structure
Textbook
No single textbook 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
Students in this course will rely heavily on the use of the computer. All of the learning materials and programming environments for this course are available from any computer with a web browser and internet access. You will need access to a computer with Internet access while off campus and when in the classroom. If you do not have access to a device for daily use, please reach out to me and we will discuss how you might check one out from the university.

Classroom Interactions
We are faced with yet another challenging school year. However, Covid – in particular the current push of the Omicron variant – is still a real and legitimate problem. Our understanding of the science has changed and will continue to change. By extension, the CDC, federal, state, and campus guidelines continue to be an evolving work in progress. I ask that we all do our part to be patient, understanding, and cooperative.

Teaching and learning during this pandemic has been hard. I am a firm believer in the power of collaborative, peer-based learning. I really do believe that you learn much more if you are actively engaged with the material vs. simply listening to me tell you about the material. Because of this, I will likely ask you to collaborate in class frequently this semester.

I very truly do not want to make you uncomfortable. If you are placed in a classroom situation where you are uncomfortable due to health concerns, I will ask you to PLEASE bring it to my attention. I will do everything reasonable to accommodate your situation. Nonetheless, this whole situation will be better if we all are cooperative. Many of us are vaccinated and I believe that is a good and helpful thing. If you aren't vaccinated yet, I ask you to give it serious and scientific consideration. However, given the current evidence I will strongly encourage you, even if vaccinated, to wear a mask in social situations such as our classroom. The science really does suggest that proper usage of masks is safe and effective.
Course Grading

I use a grading system drawn from "standards-based grading" and "equitable grading" (https://gradingforequity.org/).

Each grade you earn in the class will represent a category of understanding that, for simplicity, is recorded as numerical value from 1-4 with roughly the following meaning:

<table>
<thead>
<tr>
<th>Score</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>You submitted the deliverables or attempted the activity but you show little understanding of the standards of the activity.</td>
</tr>
<tr>
<td>2</td>
<td>You have made significant progress towards demonstrating competency but there are limited items that remain unsatisfied.</td>
</tr>
<tr>
<td>3</td>
<td>You have &quot;met&quot; the standards of the activity.</td>
</tr>
<tr>
<td>4</td>
<td>You have &quot;exceeded&quot; the standards of the activity. [You have met the standards of competency and shown considerable understanding/knowledge of the material.</td>
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</tbody>
</table>

It is my intention that you will earn 14 grades this semester:

- 9 Competency Activities (CA) worth 1 grade each
  - These are similar to a homework assignment in other classes that you take
  - Most will be one activity for one grade.
    - However, some (specifically CA1) may consist of several pieces evaluated as a group.
  - Most CAs will be given an initial evaluation based on the rubric published with the activity.
  - If you are unsatisfied with your grade on any CA, you may talk to me, restudy the material, and revise/resubmit your CA for a (potentially) higher grade.

- 2 Competency Demos (CD) divided into 2 sections/grades each
  - These are similar to a quiz or test in other classes that you take.
  - You will complete each competency demo within Blackboard and during class time unless special arrangements were made in advance.
  - Competency Demos consists of several questions, individually graded. The individual scores are combined – based on the learning outcomes they address – into two scores. These scores are not necessarily a simple mathematical average but an assessment of your overall performance.
  - If you are unsatisfied with your grade on any either (or both) parts of the CD, you may talk to me, restudy the material, and attempt a second version of the CD for a (potentially) higher grade.

- Final Project/Competency Demo worth 1 grade
  - Instead of a traditional "Final Exam" we will use a final project which is assessed as a Competency Demo.
  - The instructions for this project will be handed out the last week of class and you will have time to work on it both in class and on your own.
You will need to submit this project to me prior to the end of the university "final exam period"

Due to the nature of this CD there is not an opportunity to retake to improve your score.

While this might feel very strange at first, please note that the main idea is that I WANT you to succeed in the course. One way we do this is by giving you multiple opportunities for you to show me that you have learned the necessary material. PLEASE use that feature in the grading system.

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

<table>
<thead>
<tr>
<th>Grade</th>
<th>Criteria</th>
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<tbody>
<tr>
<td>A</td>
<td>All scores are 3 or 4 AND an overall average of 3.5 or higher</td>
</tr>
<tr>
<td>B</td>
<td>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</td>
</tr>
<tr>
<td>C</td>
<td>No more than two scores of 2 on Competency Demos AND an overall average of 3.00 or higher</td>
</tr>
<tr>
<td>D</td>
<td>More (3s and 4s) than (1s and 2s).</td>
</tr>
<tr>
<td>F</td>
<td>Any situation not handled above.</td>
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</tbody>
</table>

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 project is a grade lower than your overall course grade I reserve the right to add a minus to your grade.
- If your final project 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 earn 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.

**Getting Help**

If you are having trouble with a topic in the class PLEASE make an effort to 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 want and need 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 good. 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, accessibilitieservices@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.

**Absences related to COVID-19 illness, self-isolation, or quarantine.**

Faculty must be prepared to have assignment alternatives for individual students who are unable to attend class due to COVID-related health issues. To utilize these alternative assignments, students must report the issue by completing the Panther Health Survey; students directed not to come to
campus or who are unable to participate in class due to COVID-19 related illness, self-isolation, or quarantine should utilize the information provided in the survey to have their faculty notified of their need to be absent. These same instruction/assignment alternatives should also extend to field experiences that students may not be able to attend for the same reasons. Questions related to COVID-19 testing should be directed to the Student Health Center COVID line (319) 273-2100, Monday-Friday, 8:00 am - 4:30 pm.

Students who have concerns about an underlying health condition(s) and the risks of attending classes, living in a residence hall, or any other aspect of the educational experience due to COVID-19 should consult with their health care provider. Please connect with Student Accessibility Services as soon as possible to discuss accommodations specific to your access needs.

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.