General Information
Instructor: Ben Schafer
Email: schafer@cs.uni.edu  [Note, please use this address over my official UNI address]
Office: 316 ITTC, phone 273-2187
Office Hours:

- MWF, 9:00-9:50 AM, 11:00-11:50 AM, 1:00-1:50 PM
  - To reserve a time use:
- Anytime my office door is open.
- Send me an email and ask for a specific time if you need something else.

Time and Place: MWF 12:00-12:50, ITTC 328

Class Website: http://www.cs.uni.edu/~schafer/1140/ It will be to your benefit to become familiar with the class website and pay close attention for changes and additions.

Course Information:

Student Learning Objectives
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.

Required Materials
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. Everything you will need to complete this course is either directly contained within the class website (see above) or is available on the internet from other sources.

Technology Requirements
Students in this course will rely heavily on the use of the computer. Fortunately, all of the preparation materials and some of the programming environments for this course are available from any computer with a web browser and internet access. Furthermore, all of the required assignments can be completed using software available in most CHAS computer labs or available for free download to a personally owned machine. If you do not own a computer than you can find appropriate machines (with all the correct software) in several different labs on campus. While many will work, I suggest either Wright 339 or ITTC 335.
Course Structure and Grading

First of all, this course is very much a “hands on” course. Rather than lecture in class and have you do programming outside of class I prefer to have you listen to many lectures outside of class and do programming in class. To be honest, I expect that the pre-recorded lectures will give you a good foundation, most of the learning will take place in the in-class activities. I point this out because your attendance will be essential to learning enough about the units to be comfortable using the environments in your own classroom.

This course is divided into three units of approximately five weeks each plus one final assessment.

   Unit 1 – Scratch
   Unit 2 – Python fundamentals
   Unit 3 – Python for data analysis

Because the content of these units is so different from unit-to-unit it is necessary to have the evaluation of each unit change from unit-to-unit. At the beginning of each unit, I will publish a grading guide. You can think of this as a contract. It will tell you what you have to do to earn an A, a B, etc. Each unit will be graded independently.

Your overall grade at the end of the semester will be an average of the grades you earn on these three units and the final exam, equally weighted. EXCEPTION – You must take the final exam to pass the class.

Course and University Policies:

I try to accommodate student needs whenever possible, but I can only do so if I know about them. If you ever have to make alternate arrangements for some activity please contact me in advance. The safest way to make such arrangements is by notifying me via e-mail or phone of your circumstances and of how you can be reached.

All assignments are due at their assigned date and time. In order to receive partial credit, always submit your best effort at that time. I may accept late work on a limited basis, but you should not expect this to be the case. I may also allow you to resubmit work to improve your grade on an activity. If this is allowed it will be explained in the grading contract for each individual unit.

Incompletes are awarded only in very rare instances when an unforeseeable event causes a student who has completed all the coursework to date to be unable to complete a small portion of the work in the last week or two of the semester. Incompletes will not be awarded for foreseeable events including a heavy course load or a poorer-than-expected performance. Verifiable documentation must be provided for the incomplete to be granted, and arrangements for the incomplete should be made as soon as such an unforeseeable event is apparent.

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 exams or assignments 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 don't 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.
Class Distractions

While you are welcome to own and use electronics such as cell phones, tablets, and laptops, the use of these, and other, electronic devices in the classroom is forbidden without my explicit permission (This is a University-wide policy). A few exceptions do exist, and I reserve the right to approve these situations on a case-by-case basis with prior notification. Unless we have discussed it in advance, all electronic devices should be left out of sight during class time.

Accessibility

The Americans with Disabilities Act of 1990 (ADA) provides protection from discrimination for qualified individuals with disabilities. Students with a disability, who require assistance, will need to contact the Office of Disability Services (ODS) for coordination of academic accommodations. The ODS is located at 213 Student Services Center. Their phone number is 319/273-2676.

Finally, all students are encouraged to use The Learning Center @ Rod Library (formerly The Academic Learning Center) for assistance with writing, math, science, reading and learning strategies. Meet with trained and certified tutors during walk-in hours or by appointment. For more information, visit us in person on the main floor of Rod Library, on the web at tlc.uni.edu or by calling 319-273-6023.
Unit One – Introduction to Programming with Scratch

During the first unit in this course we will be working with Scratch and learning the basic fundamentals of programming.

During this unit you will have the following assessments:

- Participation and completion of “in class” lessons (8 activities).
  - To earn participation credit for these activities you must be in class, on time, and participating in the lesson.
    - If you have to miss class for a university-sanctioned activity you should talk to me in advance to discuss if you can earn back this missed point.
  - To earn the completion credits for these activities you must submit your finished activity
- Completion of “on your own” programming assignments (6 assignments)
  - To earn credit for each of these activities you must submit the activities on time and you must meet the rubric provided for each individual assignment.
- Completion of peer assessment activities (6 assignments)
  - To earn credit for each of these peer assessments you must complete at least four peer reviews for each programming assignment.

This unit is scheduled to officially end on Monday, February 18. MOST activities (all except PA#6, PR#5, and PR#6) must be attempted for the first time by that date. Resubmissions to correct deficiencies will be accepted through Friday, February 22nd. Resubmissions for these last three items will continue until March 1.

Grades for this unit will be assigned as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Completed Programming Assignments</th>
<th>Total Completed Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>All six</td>
<td>19 or 20</td>
</tr>
<tr>
<td>B</td>
<td>All six</td>
<td>18</td>
</tr>
<tr>
<td>C</td>
<td>At least 5</td>
<td>At least 16</td>
</tr>
<tr>
<td>D</td>
<td>At least 4</td>
<td>At least 14</td>
</tr>
<tr>
<td>F</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Pluses and minuses will be added as appropriate.