CS1030 - Problem Solving with Computers

Fall 2020 Syllabus

For any student interested in how computers are used to solve problems. This course will introduce the use of computers in problem solving including problem decomposition and algorithm construction. Students will be required to complete simple programming projects.

Prerequisites: None

Course fee: $25, used to assist in maintaining CIT infrastructure.

Sections:
- CS1030-01 MWF 9:00am - 10:00am in Smith 109
- To be announced

Instructor: Carol Stander

Office Hours: TR To be announced

Office: North Burns 236

Objectives

At the end of the course, students will be able to:
- read and write small computer programs and apps
- write a simple web page in HTML
- take code and change it to make something new
- take data and display it in a meaningful way
- communicate through discussion and writing how computers and big data affect our daily lives
- work with peers in creating, writing, and evaluating computer programs

Resources

Texts

There is one required text for this course.


Computer Resources

You may use the computers in the Smith Building. There will be lab assistants available to help you. Check the lab schedule for times. You may also use any other computer you wish. These computers require a valid CIT username and password. If you have not activated your CIT login, visit [http://cit.dixie.edu/facilities/passwd/passwd.php](http://cit.dixie.edu/facilities/passwd/passwd.php) to activate it, or ask a lab assistant to help you sign up for one.

Course Materials

All materials for this course are in Canvas.

Assignments and Exams

Reading and Discussion

There are required readings from the text and other online material. There will be class discussions on the reading. ten percent of the grade is on the the discussions.

Activities

When in a F2F class the activities will be done in small groups, otherwise they can be done online. Activities focus on decomposing problems, looking for patterns, generalizing patterns, and designing algorithms. Twenty-five percent of the grade is on the in-class group work.
Programming Assignments

Most weeks will require a homework assignment to be completed. These will mostly be hands on coding problems. You will submit them in Canvas. Programs will be graded according to a rubric in Canvas. Twenty-five percent of your grade will be on programming Assignments.

Quizzes & Reflections

There are weekly reflections, a midterm quiz, and a final quiz. All combined these are worth ten percent of your grade.

Midterm Project

Students will choose the type and subject matter of the project. The project must meet the technical guidelines given in Canvas. It is worth ten percent of your grade.

Final Project

Students will build on the midterm project. The project must meet the technical guidelines given in Canvas. It is worth twenty percent of your grade.

Grading

Your course point total will be calculated as follows:

<table>
<thead>
<tr>
<th>Course Work</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Programming Assignments</td>
<td>25%</td>
</tr>
<tr>
<td>Activities</td>
<td>25%</td>
</tr>
<tr>
<td>Discussions</td>
<td>10%</td>
</tr>
<tr>
<td>Quizzes &amp; Reflections</td>
<td>10%</td>
</tr>
<tr>
<td>Midterm Project</td>
<td>10%</td>
</tr>
<tr>
<td>Final Project</td>
<td>20%</td>
</tr>
</tbody>
</table>

Here is the grading scale:

```
>= 94  =  A
>= 90  =  A-
>= 87  =  B+
>= 84  =  B
>= 80  =  B-
>= 77  =  C+
>= 74  =  C
>= 70  =  C-
>= 67  =  D+
>= 64  =  D
>= 60  =  D-
<  60  =  F
```

Course Policies

Absences

Students are responsible for material covered and announcements made in class. School-related absences may be made up only if prior arrangements are made. The class is approximate. The instructor reserves the right to modify the schedule according to class needs. Changes will be announced in class and posted in Canvas.

Late work

Assignments are due on the date specified in the schedule.

Late work for weekly assignments and discussions will be subject to penalties as determined by the instructor.

Projects will not be accepted late.

College Policies
Additional college policies, calendars, and statements are available online at http://new.dixie.edu/reg/syllabus/.

**Disability**

If you suspect or are aware that you have a disability that may affect your success in the course you are strongly encouraged to contact the Disability Resource Center (DRC) located at the North Plaza Building. The disability will be evaluated and eligible students will receive assistance in obtaining reasonable accommodations. Phone # 435-652-7516

**Title IX**

DSU seeks to provide an environment that is free of bias, discrimination, and harassment. If you have been the victim of sexual harassment/misconduct/assault we encourage you to report this to the college’s Title IX Director, Cindy Cole, (435) 652-7731, cindy.cole@dixie.edu. If you report to a faculty member, she or he must notify the Title IX Director about the basic facts of the incident.