

## UHCL Degree Planner

### Purpose

This program will help UHCL Computer Science B.S. students select courses for the next term and all subsequent terms until graduation.

### Features

- Students will be presented with a list of only the courses eligible to be taken for each term. Courses that have unmet prerequisites will not be shown. Upper-Level CSCI and CENG courses will not be shown until the CS Lower-Level Core is complete.
- For each course that can be taken, the number of other courses for which that course is a prerequisite will be shown. This should encourage students to prioritize taking courses that are prerequisites for subsequent courses.
- At the beginning of the program, students can indicate courses already completed through keyboard input and/or from an input file.
- After choosing courses for each term until all requirements are completed, students will be presented with a degree plan summary that can also be saved to a file.

### Inputs and Outputs

Input     Data defined in constants include ...

|                   |  |
|-------------------|--|
| COURSECATALOG     | all courses, courses titles, and their prerequisites |
| LANG_PHIL_CULTURE | Language, Philosophy, and Culture courses            |
| CREATIVE_ARTS     | Creative Arts courses                                |
| SOCIAL_SCIENCE    | Social/Behavioral Science courses                    |
| UNI_CORE          | University Core courses                              |
| MAJOR_REQ         | CS BS Major courses                                  |
| LLC               | CS BS Lower-Level Core courses                       |
| ELECTIVES         | CS Major Electives                                   |

Input     The student will be prompted to enter courses already completed and/or a file name with a list of courses to load.

Output    The program will verify each course that is successfully added.

Input     The student will be prompted to enter their starting term (Fall, Spring, or Summer).

Input     The student will be prompted to enter their starting year (last 2-digits only).

Output    The program will print a heading for the term (e.g. "Spring 2018 choices:") followed by a numbered menu of eligible courses to take.

Input     The student will select courses by menu number, pressing <Enter> when finished.

Output    The program will restate the courses selected for that term.

The program will continue in a loop, presenting a course menu for subsequent terms until all required courses are complete.

Output    After all required courses have been chosen, a complete degree plan summary will be presented showing which courses are planned for each term until degree completion.

Input     The student will then be prompted to enter a file name to save the degree plan summary.

Output    If a file name is entered, the degree plan summary will be saved to the file, otherwise the program will just end.

### **Schedule**

Nov 7     The program already works. Continually make incremental improvements to the program code and in-line comments. Add introductory and explanatory text output and improve the presentation of prompts to the user. Write the pseudocode. Start writing test code if I can find out what the testing guidelines are.

Nov 14    Pseudocode complete. Continue developing the test code.

Nov 21    Testing complete. Write the flowchart.

Nov 28    Flowchart complete

Nov 30    Presentation