CSC 110 (sec: A): Problem Solving through Programming (4 credits)
Spring 2017 - Syllabus

Instructor: Ms. Marie Schwerm Email: mschwerm@carrollu.edu
Subject: csc110x: your topic

Office: Charles House 203 Phone: (262) 524 - 7363
Office Hours: Tues. 4:00pm – 6:00pm, Wed. 10am-11:30am, and by appt.

Class Meets:
Section A: Tues/Thur. 2:00pm-3:50pm, NH TC11
Section B: Thur. 6:00pm-9:35pm, NH TC11

Tutors: Student tutors are available for computer science classes. They are located at a desk just before you walk into the Tech Center, across from TC08. Their schedule can be found at: http://cscdept.carrollu.edu

Texts: Starting Out with Java by Tony Gaddis
Recommended
NOTE: the Access Code is NOT needed for this course

Prerequisites: None

Course Description:
This course is designed as a first semester foundation course for those students planning to major or minor in computer science and for others with an interest in the area. The course is about developing problem solving and structured programming skills, using the computer as a tool for solving problems. It covers the development of computer programs while focusing on Dijkstra’s structural programming principles with sequence, iteration, and a top-down structured program decomposition.
Prerequisite: None

Student Learning Objectives:
Students who successfully complete this course will have demonstrated the ability to:

1. explain how a bit stream of 1’s and 0’s can be used to represent the alphabet or numbers
2. describe the significance of machine language as it relates to programming languages
3. design a logical solution to a problem statement using pseudo-code and flowcharts
4. translate a logical solution into a Java program
5. apply a series of statements (sequence) to problems requiring a progressive algorithm
6. apply logic constructs (selective) to problems requiring decision based logic
7. apply iterative constructs (loops) to problems requiring repetitive computation
8. write Java programs to solve complex problems involving multiple constructs and methods.
9. develop interpersonal skills and contribute to the learning process in a respectful manner by following the etiquette policy along with actively participating in class discussions, &/or asking questions, &/or leading team discussions
Assessment and Grading:
Student’s achievement of learning the objectives will be assessed primarily through evaluation of their performance on assignments and examinations as outlined on the following table:

<table>
<thead>
<tr>
<th>Grading Criteria</th>
<th>Dates / Coverage</th>
<th>Weights</th>
<th>Objectives Assessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation</td>
<td>Weekly</td>
<td>5%</td>
<td>9</td>
</tr>
<tr>
<td>Assignments/Quizzes</td>
<td>Weekly</td>
<td>20%</td>
<td>1-9</td>
</tr>
<tr>
<td>Exam – 1</td>
<td>See Schedule below</td>
<td>20%</td>
<td>1,2</td>
</tr>
<tr>
<td>Exam – 2</td>
<td>See Schedule below</td>
<td>25%</td>
<td>3,4,5,6</td>
</tr>
<tr>
<td>Exam – 3 (Final)</td>
<td>See Schedule below</td>
<td>30%</td>
<td>1-9</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Grade</th>
<th>%</th>
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<tbody>
<tr>
<td>A</td>
<td>&gt;= 95%</td>
</tr>
<tr>
<td>AB</td>
<td>&gt;= 90%</td>
</tr>
<tr>
<td>B</td>
<td>&gt;= 85%</td>
</tr>
<tr>
<td>B/C</td>
<td>&gt;= 80%</td>
</tr>
<tr>
<td>C</td>
<td>&gt;= 70%</td>
</tr>
<tr>
<td>D</td>
<td>&gt;= 60</td>
</tr>
<tr>
<td>F</td>
<td>&lt; 60</td>
</tr>
</tbody>
</table>

Tentative Schedule:

<table>
<thead>
<tr>
<th>Wk</th>
<th>Wk of:</th>
<th>Topic</th>
</tr>
</thead>
</table>
| 1  | 1/30   | Intro  
Data Representation                                                |
| 2  | 2/6    | Digital Concepts & Tech Intro (Dvlpmt Environ)                       |
| 3  | 2/13   | CPU & Machine Lang. & Compilation                                    |
| 4  | 2/20   | TEST-1 Coding Intro                                                  |
| 5  | 2/27   | Chap-2: Java Fundamentals  
Boiler plate /Identifiers / Var’s/ Comments / Output / Input         |
| 6  | 3/6    | Chap-2: Java Fundamentals (cont.)  
Casting / constants / API Intro / Decimal Format /                     |
| 7  | 3/13   | No class, Midterm break                                              |
| 8  | 3/20   | Problem-Solving Concepts / Design strategies                          |
| 9  | 3/27   | Chap-3: Decision Structures (Intro: single/dual/multi-alternative )  |
| 10 | 4/3    | Chap-3: Decision Structures (practice)  
TEST-2                                                                 |
| 11 | 4/10   | Chap-3: Decision Structures (nesting)                                |
| 12 | 4/17   | Chap-4: Repetition Structures (intro: user/count/sentinel/ validate) |
| 13 | 4/24   | Chap-4: Repetition Structures : Nested loops  
Design strategies: with number patterns / applied                      |
| 14 | 5/1    | Applications: All constructs & design strategies utilized            |

TEST-3 – Final (see times below)

Final Exam:

Section A (Mon pm): May. 8 (Mon) 6pm
Class Participation Policies

Attendance:
Attendance is required. If you will be absent, send an email to the instructor explaining your situation, as soon as you are able. Use the subject format: csc110x: absent / LastName (where x = your section; change to your last name)
I understand being ill. Assignments however, ARE due as scheduled. If you are absent, it is your responsibility to cover the material you missed by reading, talking with classmates, or searching on the web. The instructor will not repeat a lecture, but will answer specific questions. Attendance may be taken at any time during the class period. If you are not in the classroom at that time, you will not be credited with attendance. Note: missing 2 consecutive weeks of class or 3 weeks total, will result in an automatic F for this course.

Classroom Etiquette:
In class it is expected you will demonstrate respect for your fellow classmates, instructor and the Carroll University environment. During class time this is accomplished by, but not limited to: (1) turning off audio devices; (2) not partaking in social media exchange; (3) not speaking with classmates during lecture; (4) not leaving garbage behind when you leave; (5) entering/departing quietly when class in session; (6) no utilizing computers for non-related course work during lecture.
. . .  Simply put, common courtesy, manners and respect are expected.

Assignments:
- All assignments must include student’s name, course name, title of assignment, due date, as well as follow the submission requirement for the particular assignment. Typically, worksheets will be submitted during class. Programs may be submitted as hard copies in class and/or to ELearning.
- No late assignments will be accepted and will result in forfeiture of credit for that assignment. They are due at the START of class; this means completed, printed and stapled prior to the class start time. If you are printing at the class start time, your work is considered late.
- All assignments should be the work of each individual. Cheating occurs when a student either submits work that is not entirely from their own effort or allows others to use their work. Cheating occurs when a student submits work that is copied from another student or other source. Cheating on an assignment or exam will result in a failing grade for the course. No student shall look towards the work of any other student during quizzes or exams, as it shall be construed as cheating. Please refer to the Carroll University Academic Integrity Policy located in your student handbook and familiarize yourself with it.
- All submitted code must include an execution report. Failure to submit execution report will result in a “0” for that assignment. To ensure partial credit, use incremental coding techniques.

Calculators: Not allowed on tests / quizzes. You may use them to check homework if you choose.

Communications:
I use email to keep you informed. Homework assignment updates, hints, and items of interest may be emailed. You should check email daily. When emailing me, you must use proper English and grammatical format (i.e. no texting lingo). Your subject line must have the format:
csc110x: your topic (where x = your section example: csc110A: Assign-03 question)

NOTE:
If you do not use proper English and subject, do not expect a timely reply. Class emails get my priority. This format helps me ID you and give you priority.
General Policy Statements

Statement on Academic Integrity – The Carroll University Academic Integrity Policy is located in your student handbook. You should familiarize yourself with it. If a student violates this policy in any way, you may receive a sanction of failure on the assignment/exam or failure in the course. If you have any questions about appropriate citations, please ask.

Accommodation for Disabilities – Any requests for accommodation must be made through Martha Bledsoe (262.524.7335), Director of Services for Students with Disabilities at Carroll University. Appropriate accommodation will be made once notification from Ms. Bledsoe has been received.

Modifications to the syllabus - The instructor and the university reserve the right to modify, amend or change the syllabus (schedule, course requirements, grading policies, etc) as the curriculum and/or program require(s).