

CIS 260: Computer Programming I

Course Syllabus - Fall 2010

Instructor Contact Information

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I will be available to students outside of class by appointment or during my posted Office Hours.

Course Description

CIS 260. COMPUTER PROGRAMMING I. This course provides an introduction to fundamental concepts of computer programming, problem solving techniques and algorithm development. Programming projects will emphasize the syntax and usage of a high level programming language, along with analysis, design and testing.

NOTE: Java will be used during Fall Semester 2010.

Prerequisites

[CIS 150](#) AND MTH 110 or appropriate placement.

Textbook(s)

1. Liang, Y. Daniel. Introduction to Java Programming Comprehensive Version. 8th ed New Jersey: Pearson Higher Education, 2011. ISBN: 978-0-13-213080-6.

Students may also benefit from a Java reference guide of their own choosing.

Course Materials

512MB+ USB Storage Device

Java SE Compiler (Can be downloaded for free)

BlueJ Development Environment (Can be downloaded from bluej.org)

Additional materials may be required by the instructor

Requirements

Final Grades for this course will be calculated as follows:

Examinations 50%
Projects & Exercises 50%

1. Written tests will be given during the semester. These closed book tests will consist of some combination of Matching, True/False, Multiple Choice, Fill-In, Short Answer and Essay type questions.
2. Participation in class discussions and group exercises is an important part of this course, therefore all students are expected to attend class having read the textbook section for that day's lecture, and prepared to contribute to the discussion of course material.
3. The *Projects and Exercises* portion of the grade encompasses: programming assignments, written homework, in-class exercises, and other work assigned throughout the semester.
4. Programming assignments must be submitted in "presentation" format, including:
 - o cover sheet
 - o problem description
 - o design documents (flowchart, pseudocode, etc.)
 - o source code listing
 - o Sample printed output or screen printout.

Program code must be neat and display coding style and structural coding methods taught in class. Programs will be graded based upon the following criteria:

Write Up 35%
Coding 35%
Correct Results 30%

5. Completed projects and exercises must be submitted by the due date for full credit. The responsibility to complete make-up work rests with the **student**. Late assignments will be marked down 25% for every week (or part of a week) they are late. For example: a program turned in two weeks late would be marked down 50%.
6. **Course Portfolio** - At the end of the semester each student will turn in a portfolio of programs written. This course portfolio must contain a cover sheet and table of contents, as well as a summary and in-depth description of each of the programs done in the course.
7. There are three scheduled written tests and a comprehensive written final exam. The lowest test score will be dropped. Make up tests will only be given with prior permission of the instructor, otherwise, missed tests will receive a grade of zero. Make up tests must be taken within one week of the original scheduled test date. (NOTE: The final exam is scheduled at a different time than the regular class time.)
8. All work must be submitted by the last regular class day to be considered for final grade evaluation.

Grading Scale

Grades will be determined according to a standard grading scale.

A	92 - 100 %	B-	80 - 81 %	D+	68 - 69 %
A-	90 - 91 %	C+	78 - 79 %	D	62 - 67 %
B+	88 - 89 %	C	72 - 77 %	D-	60 - 61 %
B	82 - 87 %	C-	70 - 71 %	E	59 %

Policies

1. This course contains a number of hands-on assignments and projects which require use of the computer. Though some class time will be given for these assignments, students should plan to use the computers available in the Library or in the Achievement Center during open hours, as **there will not be sufficient time to complete the assignments in class**. The classroom computers are generally **NOT** available outside of scheduled class time.
2. Many students enjoy using their own personal computers to complete assignments. Students are responsible for completing their homework assignments on the version of the software used in class. Students who do not have the correct version of the software should plan to use the computers on campus. *No additional consideration for late work will be made due to technical or software issues with your computer.*
3. Classroom Etiquette: Be courteous in class by participating in the classroom experience. All cell phones, pagers, etc. should be turned off or to silent during class. Cell phones may not be used in the classroom (talking/texting/browsing) at any time. Personal media players (iPod, etc.) and computers should be put away and not used during class. Students who participate in disruptive behavior will be asked to leave the classroom.
4. All students are expected to be familiar with **and to follow** all of the guidelines set forth in the SCCC Student Code of Conduct, [available online](#) or in the college catalog. Of particular importance to students in this course are the sections on Technology and Academic Honesty (see 5 & 6 below).
5. Use of classroom computers is governed by the Acceptable Use Policy available in the Student Code of Conduct. Use of the classroom computers is reserved for class work only; students may not use classroom computers to work on personal work or visit sites such as Facebook, MySpace, eBay, iTunes or other non-class related sites.
6. St. Clair County Community College considers academic honesty to be an integral necessity of all academic performance. Instances of academic dishonesty will be treated as serious offenses. Students involved in activities such as cheating and/or plagiarism will be subject to disciplinary action.
7. Americans with Disabilities Act (ADA): St. Clair County Community College is committed to providing equal educational opportunities regardless of a student's disability. If you have a need for a disability accommodation or service, please contact the Achievement Center (located in the College Center, B100) by calling 810-989-5555. Reasonable accommodations and services will be provided to students with appropriate documentation from the Achievement Center, in accordance with federal, state, and the St. Clair County Community College guidelines.
8. Students are expected to keep current with all course work. Students who, for whatever reason, fall behind and are unable to complete the course requirements before the end of the semester are encouraged to withdraw and re-take the course at a later date. Incomplete grades are extremely rare, and will only be given if 90% of the course material prior to the final exam has been completed satisfactorily.

Course Objectives

When students complete the course, they will be able to:

1. Demonstrate the ability to use the program development environment and tools such as the compiler, interpreter, IDE, etc.
2. Describe and use conventional structured coding style for programs.
3. Describe the use of various program design methods (functional, OOP, etc.).
4. Demonstrate the use of mathematical and logical expressions.
5. Describe the internal representation of standard data types and convert data from one type to another.
6. Demonstrate and explain the use of the selection operations **if**, **else** and **switch/case**.
7. Demonstrate and explain the use of the iteration (looping) operations **while** and **for** in count and event controlled loops.
8. Explain scope and lifetime of variables in a program.
9. Demonstrate and explain the declaration of functions (methods).
10. Explain the mechanisms for declaring and accessing advanced data types, such as arrays, strings, lists, etc.
11. Describe and use language mechanisms for file input and output.
12. Describe debugging techniques available for correcting program errors.