

CSC108 - Introduction to Programming

Course Syllabus

Semester: Fall 2013

Instructor: Joseph Johnson

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Campus Office Hours: Tuesday 9:00 am – 11:00 am

Thursday 8:30 am – 9:30 am

Campus Office: C162

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Required Text:



Introduction to Java Programming, Comprehensive Version, 9th Edition, by Y. Daniel Liang, Prentice Hall Publishing, Copyright Year 2013. The Student Resource website, containing additional information including examples source code, solutions to even numbered problems, and links to software, is located at: <http://www.cs.armstrong.edu/liang/intro9e>.

This textbook is sold through the Three Rivers bookstore (ISBN-10: 0132936526 • ISBN-13: 9780132936521) bundled with the access code for the Prentice Hall Companion Website. It is not absolutely necessary to purchase the bundle – the text book by itself will suffice - but you may have to purchase elsewhere in order to achieve this savings.

In this course, we will be using a software program called Eclipse that will facilitate building Java programs. Eclipse is an integrated development environment, or IDE. We will review the installation of this software in the first class. Eclipse is already installed on the workstations in the open lab (E112).

Supplies and Materials: Removable storage device (memory stick, aka travel drive, USB drive, etc.) for students requiring use of on-campus computer labs for course completion

Course Description: Fundamentals of programming and program development techniques. Topics include problem solving, syntax, variables, data types, statements, functions, selection, repetition, references, arrays, and program structure.

Course Objectives

- To provide the student with guidelines for appropriate electronic communication techniques in a business/academic environment and the opportunity to use these techniques for class activities throughout the semester.
- To provide the student with a broad introduction to computer science including computer design, programming, information processing and algorithmic problem solving.
- Upon successful completion of this course, the student will be able to:
 - Plan, design, code, test, and debug solutions to programming problems using the Java programming language
 - Use variables of types built in to the language, operators, and library functions in their programs
 - Use input and output streams to write interactive programs
 - Use relational expressions to accomplish selection, and loops to enable repetition in their programs.
 - Write their own methods, thus finding the solution of more complex problems, using the principle of breaking a large problem into smaller sub-problems
 - Use more advanced data structures, such as arrays and Strings in their programs

Course Evaluation: Course evaluation will be based on computer assignments, quizzes, frequent and meaningful participation in discussions, and the final project. The final grade for this course will be determined by the following percentages:

| | |
|--------------------------|-----|
| Homework Assignments | 60% |
| Mid-term Exam | 15% |
| Final Exam | 15% |
| Discussion Participation | 10% |

Class Assignments: Class assignments should be submitted on or before the due date and time. No assignments will be accepted after the due date. Assignments will be graded on professionalism, accuracy, style and completeness. The details for each assignment, including work to be done and the due date and cutoff date, will be posted in that assignment's description in Blackboard.

Quizzes: Exams will include multiple-choice questions and programming projects and will cover material from the text, assignments, and presentations.

Course grades: Grades will be assigned as objectively as possible, according to the following scale (with plus or minus, as appropriate):

| | |
|---------------|---|
| 90 - 100% | A |
| 80 - 89% | B |
| 70 - 79% | C |
| 60 - 69% | D |
| 59% and Below | F |

Withdrawing from the course: A student who simply stops submitting work will receive the grade earned on that work, usually a failing grade. To receive a "W" grade instead, apply for a withdrawal through the registrar's office by December 10th. A "W" will be entered on the student transcript but will not be included in the calculation of the GPA.

Academic Integrity: Students are expected to do their own work in this class. Working together to better understand the material is acceptable. Submitting duplicate work is not and will adversely affect the assignment grade. Actively participating in the discussion boards both to ask and to answer questions is expected of all students. Posting of detailed instructions for "how to" responses to questions is encouraged but posting of a complete solution is not. Example violations include but are not limited to:

- Copying or sharing a file or any portion of a file from another student.
- Sharing or allowing another student to copy your files or any portion of a file.
- Duplicating or distributing copies licenses for software programs and/or services.

Students with Disabilities: If you are a student with a disability and believe you will need support services and/or accommodations for this class, please contact the Disabilities Support Services at TRCC. Please note that the instructor cannot provide accommodations based upon disability until the instructor has received an accommodation letter from the Disabilities Counselor.

Course Outline

| Week | Topics | Approximate Date | Text Assignments |
|-------------|---|-------------------------|--------------------------|
| 1 | Introduction to Computers, Programs, and Java | 8/29 | Chapter 1, pp. 1 - 32 |
| 2 | Elementary Programming | 9/5 | Chapter 2, pp. 33 - 80 |
| 3-4 | Selections | 9/12 | Chapter 3, pp. 81 - 131 |
| 5-6 | Loops | 9/26 | Chapter 4, pp. 133 - 175 |
| 7 | Mid-Term Exam | 10/10 | |
| 8-9 | Methods | 10/17 | Chapter 5, pp. 177 - 222 |
| 10-11 | Single-Dimensional Arrays | 10/31 | Chapter 6, pp. 223 - 262 |
| 12 | Objects and Classes | 11/14 | Chapter 8, pp. 295 - 334 |
| 13 | Strings | 11/21 | Chapter 9, pp. 335 - 368 |
| 14 | Selected Other Topics (like File I/O) | 12/5 | To be determined |
| 15 | Final Exam | 12/12 | |

Note: This course outline is subject to change as conditions warrant.