CSC 204 / S10
Programming I
Section 003

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Office Hours: MW 2:00 - 3:00 p.m. (WSC 332), T 2:00 - 3:00 p.m. (CSB 201C) (or by appointment)

CSC 204 is the first course in a two-part sequence to expose students to the foundational principles of computer science by introducing them to programming in a modern object-oriented language. Topics to be covered include structured and object-oriented programming, syntax and semantics, data types and simple data structures, classes, control structures, and simple 2D graphics. Students will accomplish this initiation by programming in the Java programming language using an Interactive Development Environment under the Windows operating systems. For that reason, students taking CSC 204 will also be introduced to the fundamentals of commands, directory structure, tools, and editors useful for developing programs under this operating system. While no prior programming experience is required, students in CSC 204 are expected to read at the college level and also demonstrate math competency.

Upon completion of this course, a student will demonstrate competence in each of the following areas:

- Describe the steps in software analysis and design that are used to solve a problem,
- Produce a specification and an algorithm to solve a problem, and use a module structure chart to describe a program’s structure, show parameters being passed, and create subprogram specifications,
- Code, trace, test, and debug a Java program,
- Construct and evaluate arithmetic and boolean expressions,
- Identify and use simple primitive data types, and the array and class reference types,
- Know what objects are, how they are created from classes, and know how methods are used to perform operations on objects,
- Write, call, and pass parameters through both value-returning and void methods,
- Construct control structures for selection and repetition,
- Perform simple searching and sorting techniques on and array,
- Use graphics methods to draw geometric shapes and display text,
- Describe some of the basic ethical issues confronting computing professionals.

Class Meeting Times and Locations
Lecture: (003) MWF 9:00–9:50 a.m., CSB 204
Lab: (003) R 9:25 a.m – 10:40 p.m., CSB 204

Course Materials
>2GB Flash Drive (recommended)

Course Structure
Seven chapters of the text will be covered during the semester. The lecture time will be used to expound on and augment the text and also discuss problem solving and programming strategies. Additional topics will also be introduced during the class period and students directed to appropriate sections of the text. Students are responsible for all material covered in class as well as the material from the textual sections noted by the instructor. Five unannounced in-class quizzes will be given during the semester. as well as four 50 minute exams. Six programming assignments will be submitted for grading as well as fifteen laboratory assignments. A three hour final exam will be administered at the end of the term.
Grading

<table>
<thead>
<tr>
<th>Tests (4 @ 100 pts)</th>
<th>400 pts</th>
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<tbody>
<tr>
<td>Quizzes (5 @ 20 pts)</td>
<td>100 pts</td>
</tr>
<tr>
<td>Laboratory (15 @ 4 pts)</td>
<td>60 pts</td>
</tr>
<tr>
<td>Programs (6 @ 40 pts)</td>
<td>240 pts</td>
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<tr>
<td>Final Exam</td>
<td>200 pts</td>
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<tr>
<td><strong>Total Possible</strong></td>
<td><strong>1000 pts</strong></td>
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The following grading scale is assured but may be slightly lowered based on test results.

- **A** \(\geq 900\) pts
- **B** \(\geq 800\) pts
- **C** \(\geq 700\) pts
- **D** \(\geq 600\) pts
- **F** < 600 pts

General Information

**Honor Code:** All students in CSC 204 are expected to adhere to the Mercer University Honor Code. Any suspected violations will be reported to the Honor Council for further investigation.

Many students have difficulty in determining how to apply the Mercer honor code to computer courses. A few general guidelines should help you in deciding whether you are violating the honor code or not.

1. You are allowed to receive help on your programs from other students, provided the purpose of the help is to help you understand your own program better, not to write your program for you.
2. You are NOT allowed to use copies of programs written by other students, or copies of programs from published sources, even if you plan to modify them extensively.
3. You are NOT allowed to give copies of your programs, or parts of your programs, to other students in any form.
4. **YOU MUST WRITE YOUR OWN CODE. DO NOT COPY PROGRAMS OR PARTS OF PROGRAMS FROM ANY SOURCE UNLESS I TELL YOU TO DO SO.**

Any violation of the above policies will be treated as academic dishonesty and a violation of the Mercer Honor Code.

**Attendance:** Except for the first day of the semester, attendance will not be taken. However, students are still accountable for all material covered in class as well as any announcements made during the lecture period. Lab attendance is required and roll will be taken during lab. If you miss a lab, you may make up the work outside of lab. However, only two labs may be made up in this manner. Starting with the third missed lab, a grade of zero will be awarded for the lab exercise.

**Missed Exams:** Anyone missing an exam or quiz for any reason (personal illness, death in the immediate family, or other emergency) must notify Dr. Pounds in advance. The absence will be considered unexcused otherwise. Make-up exams will be individually scheduled.

**Partial Credit:** Partial credit will not be awarded on any quiz, exam, or lab deliverable unless individuals clearly delineate how they arrived at their answers.

**Re-grading Policy:** If a student suspects that an error was made in the grading of a submitted work, they may return the paper for re-grading with the understanding that the entire work will be re-graded and not only the portion in question.
Programming Assignments: There will be six programming assignments. Many times these are where you learn the most about the language. Detailed directions, the required deliverables, grading criteria, and turn-in procedures for each programming assignment will be described to you in written format when the assignment is given.

Program output should be reproducible; that is, the instructor should be able to copy your submitted program, compile the program, run your program and obtain exactly the same output you handed in.

Programs will be graded on the following criteria:

1. Correctness: Programs should produce correct results for any set of data. If your program does not compile, or crashes on the initial input, you will receive no correctness points. (40%)
2. Efficiency & Modularity: Programs should exhibit good design principles and careful planning in algorithm development. (20%)
3. Identifiers: All variables, classes, and methods should be meaningfully named and adhere to principles described in Appendix A of the text. (20%)
4. Comments & Indentation: All meaningful code must be commented. Every method should include comments on the name, behavior, and parameters. See Appendix A of the text for guidelines. (20%)

Program Revision: You may revise any graded program assignment that you do not earn full credit toward in correctness (see the correctness category above). Late programs, programs which do not compile, or programs which crash on the initial input data set cannot be revised. You may turn in revised work up to one week after the assignment is returned.

Posting of Grades: Grades will not be posted. Students who want to know about their cumulative course totals should contact Dr. Pounds.

E-mail Listserve: I maintain an e-mail listserv which I use copiously to send information to the class and which you can use to communicate with each other. To sign up for the listserv and to learn how to send information to it, please go to: http://theochem.mercer.edu/mailman/listinfo/csc204.

American Disability Act: “Students with a documented disability should inform the instructor at the close of the first class meeting or as soon as possible. If you are not registered with Disability Services, the instructor will refer you to the Student Support Services office for consultation regarding documentation of your disability and eligibility for accommodations under the ADA/504. In order to receive accommodations, eligible students must provide each instructor with a Faculty Accommodation Form from Disability Services. Students must return the completed and signed form to the Disability Services office on the 3rd floor of the Connell Student Center. Students with a documented disability who do not wish to use accommodations are strongly encouraged to register with Disability Services and complete a Faculty Accommodation Form each semester. For further information please contact Disability Services at 301-2778 or visit the website at http://www.mercer.edu/stu_support/swd.htm.”

Electronic Submission of Materials: “Students bear sole responsibility for ensuring that papers or assignments submitted electronically to a professor are received in a timely manner and in the electronic format(s) specified by the professor. Students are therefore obliged to have their e-mail client issue a receipt verifying that the document has been received. Students are also strongly advised to retain a copy of the dated submission on a separate disk. Faculty members are encouraged, but not required, to acknowledge receipt of the assignment.”

Cell Phones and Pagers: “Out of courtesy for all those participating in the learning experience, all cell phones and pagers must be turned off, or placed on vibrate, before entering any classroom, lab, or formal academic or performance event.”

Tips for Succeeding in CSC 204

There is unquestionably a lot of material to be covered in CSC 204. For that reason it is imperative to keep up with the class. The last thing you want to worry about is covering two chapters of new material the night before the test. You are expected to keep up with the class reading and assignments. The unannounced quizzes are an added incentive for you to do this.

I cannot emphasize the importance of just “experimenting” with the computer system. It is there for you to help you learn the Java language and to also help you learn how to develop code, communicate, and converse in a corporate computing environment. To assist you further, I will provide pertinent information to you from my web server (http://theochem.mercer.edu/csc204).