

Syllabus: SWE 510 Object-Oriented Programming in Java

Spring 2020

Instructor Information

Instructor: Dr. Gerald kowalski **Email:** gkowalsk@gmu.edu; jerryk@sandyandjerry.com

Office Hours: 6:00pm – 7:00 pm on Thursdays in the computing lab on the 3rd floor of Innovation Hall upon appointment

You can also communicate with me by email. If its time critical send email to my personal email..

Course Information

Description

This course introduces students to programming in the Java language. Topics include problem-solving methods and algorithm development, program structures, abstract data types, simple data and file structures, and program development in a modular, object-oriented manner. Introductory use of OO language features, including data hiding, inheritance, polymorphism, and exception handling.

Objectives and Learning Outcomes

After completing this course students should be able to

1. solve problems using various Java language and library features
2. understand and use Object Oriented concepts to develop reusable, reliable, and maintainable software

Target Audience

This course is designed to prepare the student for the graduate degree programs, not for professional advancement.

Prerequisites Undergraduate courses or equivalent knowledge in programming in a high-level language.

Text Java: How to Program (Early Objects), 11th Edition, by Paul Deitel and Harvey Deitel, Pearson (Required)

Meeting Times and Location Monday 7:20 P.M. - 10:00 PM, Innovation 134

Grading Policies

Programming languages can be learned by practice. To reinforce your learning, there will be weekly programming assignments and quizzes.

I strongly recommend attending classes as an opportunity to understand better how Java works. Everyone MUST attend final exam and review for final.

Assignments and Quizzes: 30% quizzes , 30% assignments

There will be programming assignments each week.

There will be a home quiz in most weeks (more frequently in the first half of the course) as part of each assignment.

Depending on the class progress, there may be one or two in-class quizzes. An in-class quiz will be counted as one assignment.

The lowest two scores of assignments will be dropped from final calculation. **No late submission is allowed.**

Final Exam: 40%

There will be no makeup for the missed final exam.

Special Notes for Assignments:

You should start working on the assignments early so that you have enough time to get help from the instructor if you have any questions.

Students who rely on external sources such as the Internet to find direct answers for their assignments are less likely to succeed in their final exams. Such external sources often use old versions of Java, which may lead you incorrect implementations. More importantly, your learning comes from the process of seeking the solutions often involving errors and mistakes. Therefore, you should avoid finding direct solutions for assignments from external sources.

However, seeking general knowledge from the Internet to improve your understanding and programming skills is encouraged. The following websites are especially useful for that purpose:

- <https://docs.oracle.com/javase/9/docs/api/overview-summary.html>
- <https://stackoverflow.com/>

Before you seek any help, please read and try examples from the textbook and slides by yourself. However, do not hesitate to ask questions if you are stuck so that you do not spend unreasonable amount of time on assignments.

General Policies

Academic Integrity

All CS students must adhere to the [GMU Honor Code](http://oai.gmu.edu/mason-honor-code) (<http://oai.gmu.edu/mason-honor-code>), [CS Department Honor Code \(See below\)](#). *It is important and mandatory for you to read and understand these rules. The assignments, quizzes, and the final exam with any violations of the rules will be scored as zero and the violator may be reported to the university Honor Committee. The violations include copying other's code, giving your code to others, and sharing critical solutions other than helping solve compilation errors, and cheating in the quizzes and the exam.*

Disability Accommodations

If you are a student with a disability and you need academic accommodations, please contact [Disability Services](#) at 703-993-2474. All academic accommodations must be arranged through Disability Services. Please also let me know your accommodation needs before the first lecture.

Privacy

In response to Federal Privacy Regulations, all academic email communications between the instructor and students must be conducted via Mason email accounts. I will not respond to messages sent from a non-Mason email address.

Electronic devices

To help students focus on the lecture, the usage of mobile electronic devices such as laptops and mobile phones are not allowed in class if such usage is not directly related with the class. Habitual violators may be asked to leave the class. Please read a useful article on [Why You Shouldn't Use Laptops in Classrooms](#) by Dr. Jeff Offutt.

Social Media

If there are social media connection requests from students, I prefer to accept the requests only after the course is over.

CS Department Honor Code

The Honor code below was copied from <http://cs.gmu.edu/resources/honor-code/>.

The CS department has a [Statement on Academic Integrity](#).

You (or your group, if a group assignment) may:

- ✦ seek assistance in learning to use the computing facilities;
- ✦ seek assistance in learning to use special features of a programming language's implementation;
- ✦ seek assistance in determining the syntactic correctness of a particular programming language statement or construct;
- ✦ seek an explanation of a particular syntactic error;
- ✦ seek explanations of compilation or run-time error messages

You (or your group, if a group assignment) may not seek assistance from anyone else, other than your instructor or teaching assistant:

- ✦ in designing the data structures used in your solution to a problem;
- ✦ in designing the algorithm to solve a problem;
- ✦ in modifying the design of an algorithm determined to be faulty;
- ✦ in implementing your algorithm in a programming language;
- ✦ in correcting a faulty implementation of your algorithm
- ✦ in determining the semantic correctness of your algorithm.

Unless permission to do so is granted by the instructor, you (or your group, if a group assignment) may not

- ✦ give a copy of your work in any form to another student;
- ✦ receive a copy of someone else's work in any form;
- ✦ attempt to gain access to any files other than your own or those authorized by the instructor or computer center;
- ✦ inspect or retain in your possession another student's work, whether it was given to you by another student, it was found after other student has discarded his/her work, or it accidentally came into your possession;
- ✦ in any way collaborate with someone else in the design or implementation or logical revision of an algorithm;
- ✦ present as your own, any algorithmic procedure which is not of your own or of the instructor's design, or which is not part of the course's required reading (if you modify any procedure which is presented in the course's texts but which is not specifically mentioned in class or covered in reading assignments, then a citation with page number must be given);
- ✦ incorporate code written by others (such as can be found on the Internet); **You must:**
- ✦ report any violations of II and III that you become aware of;
- ✦ if part of a group assignment, be an equal "partner" in your group's activities and productions, and represent accurately the level of your participation in your group's activities and productions.