

Course Syllabus

COMP 250: Computer Programming II

Course Information

Course: COMP 250: Computer Programming II

Number of Credits: 4

Delivery Mode: Face to face

Course Schedule: Spring 2023, MW 2:00PM-3:15PM, 144 Science Bldg

Faculty

Instructor: Brandon Dave

Contact Information: <u>daveb@wittenberg.edu</u> OR <u>dave.15@wright.edu</u>

Office Hours: MW 12:00PM - 1:55PM

OR BY APPOINTMENT

329R Science Bldg.

Office Hours:

As posted above OR BY APPOINTMENT. If the above time slot does not work with your schedule, feel free to send an email that may best fit your availability.

Course Description

Continuation of Computer Science 150. Disciplined programming using one or two high-level languages with specific emphasis on program design, style, efficiency and documentation. Includes the theory and application of abstract data types using arrays, lists, stacks, queues, trees and networks. Also provides an overview of computer science.

Course Outcomes

The purpose of COMP-250 can be described as:

- 1) a continuation of topics discussed from COMP-150
- 2) an introduction to a new programming language

This course satisfies departmental learning outcomes:

- Develop an ability to understand and analyze end user needs, and master the techniques required to create programs that satisfy those needs.
- Be able to communicate technical ideas clearly and effectively, both in writing and in oral presentations.



Program Outcomes Integration

As listed in the course description, completion of COMP-250 should consist of the student's ability to:

- 1) Read and Program in Java
- 2) Use sound object-oriented programming techniques
- 3) Understand standard Java library and documentation
- 4) Understand basic data structures as described in the Course Description

Course Topics:

The course topics are subject to change, allowing for more time on individual topics. As instructor, I reserve the right to make adjustments for the best of the class's needs and course requirements.

- 1) Program Structure
- 2) Standard I/O
- 3) Primitive and Numeric Data Types
- 4) Program Scope
- 5) Control Structures
- 6) Documentation
- 7) Data Structures
- 8) Classes and Objects
- 9) Class and Instances Of
- 10) Inheritance and Composition

Required Textbooks and Materials

<u>An Introduction to Object-Oriented Programming with Java</u>, 5th Edition, C. Thomas Wu, McGraw-Hill. 2010. ISBN: 978-0-07-352330-9.

Available at the Wittenberg Bookstore.

Additional Resources: I reserve the right as instructor to introduce additional resources. Most of these resources can be found online by a query search.



Grading Scale

Letter Grade	Percent	
А	90 – 100	
В	80 – 89	
С	70 – 79	
D	60 – 69	
F	Below 59%	

Grading:

Attendance	5%
Exam 1	20%
Exam 2	20%
In-Class Labs	15%
Final	40%
Projects	

Exams: Exam dates will be set in lecture at least a week in advance.

A double-sided standard letter page size (8.5in x 11in) sheet with handwritten notes is allowed for use on exams, unless explicitly stated otherwise.

Midterm and Final exams will be accumulative. What you are tested for Exam 1 may show up for Exam 2!

Statement on the Expectation of Work

In this course, students will be required to engage in an average of one hour per week of additional direct instruction which will take the form of:

- attendance at department colloquia, film screenings, and service learning
- discussion board posts on Moodle

Guidelines for Success

Accessibility and ADA Accommodation

Wittenberg University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, learning, chronic health, physical, hearing, vision and neurological, or temporary medical conditions, etc.), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, you must register with the Accessibility Services office by emailing accessibilityservices@wittenberg.edu. You can also find information on the Accessibility Services webpage found at www.wittenberg.edu/success. Please note that services are confidential, may take time to put into place, and are not retroactive. The Accessibility



Services Office is located in the COMPASS: Sweet Success Center, Thomas Library, on the first floor.

Time Commitment

For each credit hour of classroom or direct faculty instruction, students are expected to engage in two hours of out of class course related work each week for approximately fifteen weeks. A four credit hour course requires eight hours per week of out of class work.

Programming assignments which do not execute cannot be accepted for grading.

Class Attendance Grading: You are expected to attend class. If a class is missed you are still responsible for any missed material (i.e. all lecture notes will be provided on-line). If you miss a class, credit can be earned for attendance by summarizing the topics discussed in class on the day missed. This is for your benefit to not get left behind on lecture material!

Note: University approved absences will not be counted provided I receive notification ahead of time, or if I am provided with proper documentation.

Additional Note: I am not promoting that you come to class if you are experiencing ill / COVID/flu-like symptoms. In this case, follow University guidelines and at minimum email me about your illness. If this is COVID related, please send a photo of your COVID Positive Test, in which case I will gather up the necessary information for you to read and summarize for the lecture attendance grade to practice the necessary isolation period suggested by the CDC.

Classroom Behavior: You are all adults, you can choose to do as you like; however, as soon as your actions inhibit others in the classroom you will be asked to leave.

<u>Academic Integrity:</u> Academic dishonesty of any kind on programming or written assignments or on an exam is not acceptable. This includes, but is not limited to, copying code in whole or part (even if the code is subsequently altered), plagiarism, and/or unauthorized collaboration with another individual on assignments or tests. The University Honor Code will be followed.

All programming and written assignments must carry the following pledge which must be signed by the student.

I affirm that my work upholds the highest standards of honesty and academic integrity at Wittenberg and that I have neither given nor received unauthorized assistance.

Work on graded programming assignments must be your own.

Although you may freely ask questions about the syntax of the Java language or about what an assignment calls for, you should not ask for help on the specifics of how it's done. You may always receive help from the Math Workshop or your instructor but be sure to make note in your header comment block.



NEVER look at code written by your fellow students.

Cases of academic dishonesty will result in a grade of 0 for all parties involved and will be reported to the Honor Council. A second allegation of a violation of academic integrity will automatically result in an Honor Board hearing. See your Student Handbook for additional details regarding academic dishonesty.

Header Comment Block:

All programming assignments must begin with the following header comment block which lists your name, semester/year this was developed, a short description of what the program does, a list of people (if any) legitimate help was obtained from and the signed pledge.

/*

Name:

Semester/Year:

Desc:

I Received Help From:

I affirm that my work upholds the highest standards of honesty and academic integrity at Wittenberg and that I have neither given nor received unauthorized assistance.

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Syllabus Change Statement

Course instructors reserve the right to adjust this syllabus and content to meet the needs of students and to address course outcomes. In the event of substantive changes, students will be notified via an announcement in class or in Moodle.



Week#	Topics	Chapter Coverage
1	Introduction, DataTypes	2, 3, 9
2	Input and Output	2
3	Booleans, Conditionals, Loops	3, 5, 6
4	Program Structure, Documentation	
5	Arrays, ArrayList	10
6	Try-Catch, Error Handling	8
7	Review, Midterm	
8	Classes & Objects	4, 7
9	Encapsulation, Inheritance	13
10	Collections, Sorting	10, 11
11	Queues, Stacks	
12	Graphs	
13	Presentation	
14	Presentation	
15	Finals	
16	Finals	