

Grand Valley State University
School of Computing and Information Systems
CIS 162 – Computer Science I
Summer 2015

Instructors Information

Instructor: Guenter Tusch, Ph.D.
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Course Description

Introduction to programming and computer science through lab and lecture. Simple and structured data types and program control structures. Problem analysis, algorithm design, and computer implementation using a high-level language.

Prerequisite

MTH 110

Course Material

- *Programming in Java: Early Objects*, R. Lysecky & A. Lizaraga, Zyante Inc, 2015, available at zyante.com.
- Supplemental material available on Blackboard

Course Objectives

After completing this course, students should be able to:

- read and understand Java source code
- solve problems using conditional statements
- solve problems using repetition statements
- use arrays and ArrayLists to store, retrieve and manipulate data
- explain the concepts of object state and behavior
- implement a class definition given the specifications

Special Needs

Let us know if you have special needs because of a disability and contact [Disability Support Resources](#) (DSR) at 616-331-2490.

Expectations

We expect the following from you:

- to be on time and prepared to participate fully in class activities.
- to refer to Blackboard on a regular basis for announcements and assignments.
- to let us know how the class and our teaching can be improved.
- to be responsible for all materials, announcements and information during days you are absent.
- to understand and adhere to the CSIS & GVSU policy of Academic Honesty.

Academic Honesty

All students are expected to adhere to the academic honesty standards set forth by Grand Valley State University. In addition, students in this course are expected to adhere to the academic honesty guidelines as set forth by the School of Computing and Information Systems, details can be found at <http://www.cis.gvsu.edu/academic-honesty/>

We believe that you can learn a lot from your peers, both in the class and in the broader community. Therefore, we strongly encourage collaboration with both. However, do not mistake this as a license to cheat. It is one thing to *learn* from and with your peers, it is another to pass their work off as your own. With respect to writing code for this class:

- You are expected to document any collaboration that takes place.
- Absolutely no electronic transfer of code between students is permitted.
- Any code that you find on the Internet must be cited, with an active link to that code.
- While you are encouraged to engage in conversations in online forums, under no circumstances are you permitted to solicit other individuals to complete your work for you.
- **You are encouraged to talk about problems in English but not in Java.**
- Ultimately, YOU are responsible for all aspects of your submissions. Failure to **be able to explain and defend** your submission will be treated as a violation of academic integrity.

Grading

You must earn an average of at least 60% between the midterm, lab exam and final exam to pass the course.

Item	Percentage
Programming Projects (5)	3%, 5%, 7%, 7%, 9%
Midterm Exam	12%
Final Exam	18%
Labs	12%
Lab Exam	12%
Quizzes	5%
Textbook Activities	10%

Grading Scale

A	93%	C	73%
A-	90%	C-	70%
B+	87%	D+	67%
B	83%	D	60%
B-	80%	F	below 60%
C+	77%		

Lab Assignments (12%)

Our lab meets each week for two hours. You will be given an activity that must be completed before the end of the lab. No lab can be 'made up' if missed but the lowest score will be dropped at the end of the term. You will work with a lab partner each week to complete the exercise. You will work at one computer, submit one solution and earn the same grade.

Programming Projects (31%)

Projects are completed on your own time outside of class. You will need to start early and budget sufficient time to complete the projects. Projects are due at the BEGINNING of class on the due date. While a certain amount of consultation between students working on a project is encouraged, the work you submit must be your own. Do not create a difficult situation by representing someone else's work as your own. For more information, consult the University Catalog, the Student Code, and the CS&IS Guidelines for Academic Honesty.

Textbook Activities (10%)

The web-based textbook has many integrated activities such as questions, animations and tools. Complete all activities within a chapter by the posted date to earn points towards your textbook activity grade.

GVSU Blackboard

Course documents, assignments, grades, videos and announcements will be posted to Blackboard. It is your responsibility to stay informed.

- Course Documents – course syllabus and other general documents
- Labs – lab assignments are posted each week shortly before the lab meeting
- Projects – five project descriptions assigned throughout the term
- Videos – brief YouTube videos that describe lab assignments and projects

Course Policies

- All homework and programming projects, unless otherwise specified by the instructor, are to be completed individually. Students are encouraged to consult each other for instructional assistance only.
- An assignment (project or homework) is considered **late** if you turn it in past the beginning of class on the due date
- Late penalty is 20% for the first day and 10% for each subsequent weekday. Weekends and university holidays are not counted.
- Students must earn an average of at least 60% between the midterm, lab exam and final exam to pass the course.
- The instructor reserves the right to modify the course calendar, and due dates.

Tentative Schedule

Week	Lecture	Projects Due Date	Text
1 May 4	Introduction, Hardware, Software, Binary Object-oriented terms Basic Objects		Ch 1 Ch 2.1 – 2.8 Ch 2.9 – 2.11
2 May 11	Basic Objects – cont. Using Math and String classes Constructing Objects		Ch 2.9 – 2.11 2.12 – 2.15
3 May 18	Basic Methods and Classes	Project 1	Ch 3
4 May 25	Branching If statements		Ch 4 4.1 – 4.3
5 June 1	Data Types Switch Statement	Project 2	Ch 5
6 June 8	While Loops Basic GUI		Ch 6.1 – 6.4 Ch 9.1 – 9.3
7 June 15	Midterm Exam (Tuesday) do and for loops Deadline for a “W”: Fri, June 19th	Project 3	Ch 6.5 – 6.11
8 June 22	ArrayList		Ch 7.4 – 7.5
9 June 29	Abstract Data Types Object References and Parameters	Project 4	7.1 - 7.3 7.2, 7.9
10 July 6	Method Overloading, unit testing and Javadoc		Ch 8
11 July 13	Arrays	Project 5	Ch 10
12 July 20	Lab Exam Streams More GUI Review / Catch Up		11.1 - 11.5 9.4 – 9.5
August 3	Final Exam: Tuesday, August 4 from 6:00 to 7:50 p.m.		