**GATEWAY COMMUNITY COLLEGE**

**2017 Spring Semester**

**CSC 223 – (1475) – JAVA Programming I**

**Tuesdays 7:00pm – 9:50pm**

**Hybrid / Room IDT S313**

**Dr. Carrie M. Horvath**

**Course Outline**

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| **Course Objectives:**              The object of this course is to introduce you to the fundamental components common to Java programming as an object-oriented language.  The subject will be taught on two levels: **(1)** general lectures will discuss how to design, test, debug, and document several programs during the semester to solve problems utilizing the college computers for resources focusing on topics such as classes, objects, data structures, event handling, graphical user interfaces, control structures, and methods, and **(2)** hands-on programming exercises using the Java programming language in a visual environment to accompany the lecture material.  Upon successful completion of this course, students will be able to:   1. Describe, plan, and build simple applications using the concepts of object-oriented programming in the Java programming context, 2. Participate in the development of Java applications as a member of a team, 3. Apply the object paradigm to common situations, 4. Debug and evaluate Java OOP applications, and 5. Create technical documentation. |
| Even though this is a beginning programming course, there are recommended prerequisite course and skill requirements.  Please read the recommended prerequisites and skill requirements carefully:   * Basic computing skills required. This includes knowledge of how to use an operating system (e.g., Windows), word processor (such as Word).  This also includes how to use a web browser (e.g., Internet Explorer), and a Windows Visual Environment. * This course should be taken after CSC101 or CSC110 and CSC104, or you should have prior programming and/or scripting experience. (VB, C, JavaScript, etc.) * An understanding of web and system related files necessary for this course.                 This course provides the student with the fundamentals of programming with a focus on object-oriented techniques using the Java programming language. These skills are needed to work effectively in the area of information technology. The ability to understand the relationship between data and the algorithmic manipulation of data is crucial in IT related fields.                 A schedule of classes is attached. As can be seen, there will be a mixture of lectures and practical work. The practical work is very important; the best way to learn about a computer is to use one - a lot.  Attending class is also important, especially since this class is taught in a Hybrid format. This course covers material not in the text. The only way to obtain an understanding of it is to attend the class lectures. |
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| Grading will consist of Programming Assignments, Discussion Forum Writing, Midterm Examination, and a Final Examination. The final grade will be comprised of the following: |
| |  |  | | --- | --- | | Programming Assignments | 40% | | Discussion Forum Writing | 10% | | Midterm Examination | 20% | | Final Examination | 20% | | Class Participation | 10% | |
| **Required Text:**  Gaddis, T. (2012). Starting Out with Java:  From Control Structures through Objects (5th ed.). Boston, MA: Pearson Education, Inc. ISBN 13:  978-0-13-285583-9               You can communicate with me by sending e-mail to [chorvath@nv.edu](mailto:chorvath@nv.edu). My office hours are by appointment only, but are very flexible.  If that is not convenient, please let me know so we can schedule another time. |

**Course Schedule**

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| Week | Day | Date | Topic | Textbook |
| 1 | Tuesday | 1/24 | Course Introduction & Blackboard Learn  Introduction to Computers and Java | Chapter 1 |
| 2 | Tuesday | 1/31 | Java Fundamentals | Chapter 2 |
| 3 | Tuesday | 2/7 | Decision Structures | Chapter 3 |
| 4 | Tuesday | 2/14 | Decision Structures Cont. | Chapter 3 |
| 5 | Tuesday | 2/21 | Loops and Files | Chapter 4 |
| 6 | Tuesday | 2/28 | Loops and Files Cont.  ***Review for Midterm Examination*** | Chapter 4 |
| 7 | Tuesday | 3/7 | **Midterm Examination**  **Finish** up on projects from Chapters **1-4** |  |
| 8 | Tuesday | 3/14 | **Spring Break – *No Class*** |  |
| 9 | Tuesday | 3/21 | Methods | Chapter 5 |
| 10 | Tuesday | 3/28 | Methods Cont. | Chapter 5 |
| 11 | Tuesday | 4/4 | A First Look at Classes | Chapter 6 |
| 12 | Tuesday | 4/11 | A First Look at Classes Cont. | Chapter 6 |
| 13 | Tuesday | 4/18 | Arrays and the ArrayList Class | Chapter 7 |
| 14 | Tuesday | 4/25 | Arrays and the ArrayList Class Cont. | Chapter 7 |
| 15 | Tuesday | 5/2 | A Second Look at Classes and Objects  **Last** Day of Class  ***Review for Final Examination*** | Chapter 8 |
| 16 | Tuesday | 5/9 | **Final Examination**  **Finish** up on projects from Chapters **5-8** |  |

***Accessibility Statement:***

***Any student who feels s/he may need an adjustment based on the impact of a documented disability, please contact the office of Student Disability Services at 203-285-2231 in room S-202 to coordinate reasonable adjustments. Students then should contact the professor privately to ensure adjustments are received.***