### CS 111: Programming Fundamentals II  
**Summer 2016**

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**Meeting Times:**
- **111-001:** Lectures: 10:50 am - 12:15 pm Mon, Tue, Wed HB 112  
- Labs: 10:50 am - 12:15 pm Thu, HB 206, 207 Mac Lab  
- June 20 - July 29, 2016

**Instructor:** Tatiana Harrison  
**Office:** HB 214 - A  
**Phone:** 963 - 2069

**E-mail:** harrisont@cwu.edu  
**Web Page:** [http://www.cwu.edu/~harrisont](http://www.cwu.edu/~harrisont)  
**Office hours:** By appointment.

**Text:**  
*Starting Out with Java, From Control Structures through Objects*  
ISBN: 0132989999

Note: available in the bookstore or online. It is OK to buy this book used.

We will cover chapters 8 - 14 of the textbook.

We will **not** be using MyProgrammingLab.
Grading

- Midterm Exam: 20%
- Final Exam: 25%
- Labs: 10%
- Class Participation: 5%
- Homework Assignments: 20%
- Project: 20%

Course Grading Scale: Score GUI

The below scale gives the minimum letter grade that you will receive for the attained course percentage. The midterm and final exams are curved, which is taken into account for the final course grade.

- 95-100: A
- 90-94: A-
- 87-89: B+
- 83-86: B
- 80-82: B-
- 77-79: C+
- 73-76: C
- 70-72: C-
- 60-69: D
- 0-59: F

Homework, Labs, Computer Accounts, & IDEs

- Homework assignments will consist of problems from the textbook, coding assignments, as well as a final (coding) project. Some assignments will be just problems from the textbook, some will be just coding assignments, while others will be a mix.
- Each lab is designed to be self-contained, and should be completed in the allotted lab time. If you do not complete your lab by the time that the lab is over, submit the lab as soon as possible.
- The labs in Hebeler Hall are open late during weekdays and on Sunday afternoon and evening. General information about lab accounts and lab hours is available at [http://www.cwu.edu/~geesaman/hebeler-labs/homepage.htm](http://www.cwu.edu/~geesaman/hebeler-labs/homepage.htm). Open lab hours are posted at [http://www.cwu.edu/~geesaman/hebeler-labs/hours.htm](http://www.cwu.edu/~geesaman/hebeler-labs/hours.htm)
- Submission instructions, as well as rubrics, for labs and homeworks will be clearly stated on each homework or lab. Assignments will require you to submit answers via Canvas. Instructions on how to submit each assignment will be explained clearly in class, and whenever an assignment is distributed.
- Follow this link for information on how to access your computer science CS110 account remotely.
- Most of the IDEs that are installed on the lab computers are available to download for free, and can be installed on your personal computer. A good (and recommended) light-weight IDE is jGrasp ([http://www.jgrasp.org](http://www.jgrasp.org)). Others, which have many features that JGrasp does not, are Eclipse ([http://www.eclipse.org/](http://www.eclipse.org/)) and Netbeans ([http://netbeans.org/](http://netbeans.org/)).
- If you install a JDE on your own computer, you'll also need to install the Java compiler. The Java Development Kit (JDK) is available for download, free-of-charge, from the Oracle website. Java
and the Java compiler are NOT the same thing. Java refers to the Java Virtual Machine, and simply runs java byte code, while the Java compiler converts .java code into byte code.

**Late Policy, Calculation of Grades**

- At the end of the quarter, the lab on which you scored the fewest points will be dropped from the final grade calculation. If you fail to submit more than one lab or homework, you’ll receive zeros for those assignments.
- After the homework solution set has been distributed, late homework will NOT be accepted. If there is a special circumstance that you think warrants you receiving an extension for homework, or for some reason you cannot attend lab, please let me know. You must have PRIOR approval of homework due date extension, or missing of a lab.

**Honor Code**

The midterm and final exams, the final project, and all homeworks are to be the individual work of each student whose name appears on the exam or work being turned in for credit. You can get help from the TAs, or from the instructor. You can ask other students and **ONLY** discuss errors or problems that you may be experiencing, but you **CANNOT** discuss, share, disseminate, etc. solutions. The **ONLY** exceptions to this are lab assignments that are done on the specified lab days, where you are encouraged to discuss and you can even work together. Deviation from this policy will be treated as a violation of the honor code and will be subject to disciplinary action. Please refer to the university's student conduct code (Section 106-120-027 of Student Rights and Responsibilities, found at [http://www.cwu.edu/student-success](http://www.cwu.edu/student-success)), for complete details. The following honor code statement will appear on the midterm and final exams, which you’ll have to sign:

_I pledge that this submission is solely my work, and that I have neither given to nor received help from anyone other than the instructor or TAs._

Students determined to have committed an academic offense will be handled in the following manner:

- The offense will be reported to the Office of Student Success.
- The first time, the student will receive a 0 for the assignment.
- The second time, a letter will be written to the department chair for inclusion in the student’s record.
- For any subsequent occurrences, the student must meet with the department chair before being allowed to continue in the course.

**ADA Statement**

Students with disabilities who require academic adjustments in this class should first register with Disability Services here at CWU, and then submit an online request for special classroom accommodations.
and/or alternate testing. Students with disabilities who have not registered with the Center for Disability Services (CDS) are not eligible to receive accommodations/academic adjustments. Please contact CDS for additional information, or speak with Filip if you have any questions.

Last updated: June 20, 2016

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Department of Computer Science
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# CS 111: Programming Fundamentals II
## Summer 2016

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<tr>
<td><strong>Week</strong></td>
<td><strong>Date</strong></td>
<td><strong>Lecture/Required Reading</strong></td>
<td><strong>Homework Assignments/Labs</strong></td>
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</table>
| 1        | June 20  | 1. Intro: What is this class all about?, Problem solving  
           |          | 2, 3. Review of CS110 1 and 2 | HW 1 assigned  
           |          | 4. Chpt 8: Static Fields and Methods | HW 1 rubric |
|          | June 21  | 5. Chpt 8: returning Objects from Methods, toString Method  
           |          | 6. Chpt 9: comparing Objects, Aggregation | |
|          | June 23  |                                | Lab 1: CS110 review, Arrays  
           |          |                                | Lab 2: Robot Garage |
|          | June 27  | 7. Chpt 9 copy constructor, security issues with aggregation, null reference  
           |          | 8. Chpt 9: this reference, enums | |
|          | June 28  | 9. Chpt 9: StringBuilder, tokenizing | |
|          | June 29  | 10. Chpt 10: Inheritance | |
|          | June 30  |                                | Lab 3: Debugging, Tokenizing, StringBuilder  
           |          |                                | OutrageousCalculations.java  
           |          |                                | NaiveEncryption.java  
           |          |                                | LessNaiveEncryption.java |
| 2        | July 4   | **No Classes** | HW 1 due, July 5 |
|          | July 5   | 11. Chpt 10: Superclasses, Overriding, Protected Members | Project 1 Assigned  
           |          | 12. Chpt 10: Preventing Overriding, Chains of Inheritance | Project 1 Rubric |
|          | July 6   | 13. Chpt 10: Polymorphism, Abstract classes | Project 1 Files  
           |          |                                | HW 2 assigned  
<pre><code>       |          |                                | HW 2 rubric |
</code></pre>
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<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Additional Information</th>
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<tbody>
<tr>
<td>July 7</td>
<td>Lab 4: Inheritance, Insect.java, Grasshopper.java, Beetle.java</td>
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<td>July 12</td>
<td>Midterm prep; in-class solutions to practice exam, Midterm Exam, Returning Midterm exams, HW 2 due</td>
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<td>July 13</td>
<td>Lab 5: Inheritance, polymorphism, abstract, UML diagrams, Inheritance, Catching Errors, AbuggyProgram.java, aDataFile, Ship.java, CargoShip.java, CruiseShip.java, ShipDemo.java</td>
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<td>15. Chpt 11: more error handling</td>
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<td>16. Chpt 11: Interfaces, more on exceptions, HW 3 assigned, accountsFile, BankAccountException.java, HW 3 rubric</td>
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<td>17. Chpt 15: Recursion, Chpt 15: Recursion &amp; GUIs, HW 3 due</td>
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<td>July 18</td>
<td>Lab 7: Your first GUI, FortuneTeller.java, Lab 8: Recursion, Your second GUI, TextArea, FibonacciRecursionGUI.java, Lab 9: Sliders, Images, and JTextFields, ThreeTemps.java, cold, frozen, hot, warm, Project 2 due</td>
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<td>July 19</td>
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<td>July 20</td>
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<td>July 21</td>
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<tr>
<td></td>
<td>22. Chpt 14: Displaying Images</td>
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<tr>
<td></td>
<td><strong>HW 4 assigned</strong></td>
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<tr>
<td>July 26</td>
<td>23. Chpt 14: Displaying Images continued</td>
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<td>ThreeButtons.java</td>
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<td><strong>HW 4 due</strong></td>
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<td>July 27</td>
<td>24. Chpt 14: Drawing shapes</td>
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<td>SimpleShapes.java</td>
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<td>25. Wrapping up - CS111 review</td>
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<td>July 28</td>
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<td><strong>Final exam</strong></td>
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<td><strong>On to</strong></td>
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</table>
To prepare for the midterm:

- Review the lecture slides
- Read the "Common errors to avoid" sections of the chapters that we've covered
- Look over the book problems for the first three homework assignments
- Attempt the sample midterm, view the sample midterm solutions
- Attend the midterm review lecture
- Attend the optional extra review session (message will be posted to Canvas)

To prepare for the final exam:

- Review the lecture slides
- Read the "Common errors to avoid" sections of the chapters that we've covered
- Look over the book problems and solution sets for the six homework assignments
- Attempt the final preview exam, view the sample final exam solutions
- Come to class to hear solutions to final preview exam
- Attend extra review session if you have time (message will be sent via email, and posted to Canvas)
Project 1

To motivate this project, assume that you are a developer at a gaming software company. You have been assigned the task of writing a simple text adventure game in Java. Luckily, the company that you work for has in the past written such a game (think of it as version 1.0), and you are being given the code of the first version, and are being asked to write several new versions. You are given two Java superclasses, a Java file that is a sample program that uses the two superclasses, an Utilities.java file, and a CustomPlayer.java file (that you'll modify in the last step of this programming project). Your task is to write three new versions of a game, by extending the superclasses, as was shown in class.

The complete instructions for this project are available as a PDF on the course schedule page. The files that you'll need to complete this project are the following:

- CustomPlayer.java
- GameDemoSimple.java
- Player.java
- Room.java
- Utilities.java