**Montgomery College  
Department of Engineering, Physical, and Computer Sciences  
Rockville, MD**  
***CMSC 203 Computer Science I***

***Spring 2022***  
Course Syllabus

|  |  |
| --- | --- |
| **Professor:** | Grigoriy Grinberg |
| **Course Hours:** | DL |
| **Course Location:** | Blackboard |
| **Office:** | SC335, Rockville Campus |
| **Office Hour(s):** | Online via Zoom:  https://montgomerycollege.zoom.us/j/8714951078  Monday 12:00pm-2:00pm  Wednesday 12:00pm-2:00pm  Friday 8:30pm -9:30pm |
| **Email:** | grigoriy.grinberg@montgomerycollege.edu |
| **Course Site:** | MyMC: Blackboard |
| **Midterm Exam I** | 03/03-03/07 (Exemity/Assessment Center) |
| **Midterm Exam II** | 04/21-04/25 (Exemity/Assessment Center) |
| **Final Exam:** | 05/12-05/14 (Exemity/Assessment Center) |

**Course Description**

**Course Title**: Computer Science I **Credit Hours**: 4

Fundamental computer concepts. Studies methods of object-oriented program development and design. The course also covers language systems and semantics, structured program verification, different language paradigms, and documentation techniques. Students use a structured, high-level object-oriented programming language and learn to use both text-oriented and Windows-based user interfaces. Designing and implementing solutions to intermediate-level programming assignments are an integral part of the course.

**PREREQUISITE(S):** A grade of C or better in [CMSC 140](https://catalog.montgomerycollege.edu/search_advanced.php?cur_cat_oid=13&search_database=Search&search_db=Search&cpage=1&ecpage=1&ppage=1&spage=1&tpage=1&location=3&filter%5Bkeyword%5D=cmsc#tt1938) or consent of department.

**PRE- or COREQUISITE(S):** [MATH 181](https://catalog.montgomerycollege.edu/search_advanced.php?cur_cat_oid=13&search_database=Search&search_db=Search&cpage=1&ecpage=1&ppage=1&spage=1&tpage=1&location=3&filter%5Bkeyword%5D=cmsc#tt2027). Four hours each week. 

**Delivery**: Thisis a fully online course. There will be no on-campus meetings.

All assignments, labs, discussions, and exams will be administered through Blackboard and Pearson Revel. All exams will be taken with a Virtual Proctor-Examity.

**Students are required to meet with instructor via online communication tools (such as zoom) at least once time during the semester.**

**Outcomes**Upon course completion, a student will be able to:

* Describe the object-oriented programming environment and features.
* Describe the concepts of object-oriented programming, including encapsulation, inheritance, and polymorphism, and recursion.
* Design, develop, modify, test, debug, and run applications utilizing the object-oriented programming features of a programming language such as Java.
* Design and implement both text-oriented and graphical user interface with event-driven input and output.
* Design and implement intermediate-level programming assignments that include file input and file output processing.

**Content Outline**

* Overview of JAVA programming environment
* Object Oriented Design
* Data types, Variables/Objects, Constants, Operators, Control Structures, Loops
* Functions/Methods, Recursive Functions/Methods
* Data Abstraction
* Encapsulation
* Objects and Classes
* Arrays
* Dynamic Memory
* Class Inheritance
* Polymorphism
* Files I/O, File Processing
* Event-Driven Input and Output
* Javadoc and JUnit Tests

**Course Format**

This course will be conducted entirely online. There will be no on-campus meetings. Course content will be provided on the course site within 15 weeks. Active participation in the online activities and completion of all homework and online assignments is required to pass this course.

Online Office Hours via Zoom:

**Textbook**

# Pearson Revel online platform/textbook: Revel: Java Control Structures through Objects plus (1st Edition)

# ISBN for the access card:  9780135216071

# How to access: Access via Blackboard side Menu “Pearson Revel”

**Software & Supplies**

**Java IDE and SDK**

**You will need a Java IDE (Integrated Development Environment) with a Java SDK (Software Development Kit). Eclipse is suggested, because that is what is available in Montgomery College labs, and it can be downloaded for free at www.eclipse.org. The Javadoc and JUnit test tools are included with Eclipse. If you choose to use an IDE other than Eclipse, you will still be required to turn in Javadoc and JUnit tests. I will be using Eclipse to grade your programming assignments. If the program doesn’t run correctly using Eclipse, the assignment grade will suffer due to inability to run and test. We will be using JavaFX and will give instructions in class about including it in Eclipse.**

**Preferred Operating System**

**Microsoft Windows is the preferred operating system (any version will do). If you use Mac OS X or Linux, you are responsible for turning in programs that work, and you may not be able to receive assistance in debugging.**

**Pearson Revel:**

**You will use Pearson Online Interactive Revel Platform/Book with access from Blackboard.**

**Safari books online - ProQuest**

**We may be using parts of various textbooks available through Safari books online - ProQuest. Access to this database is free through MyMC->Libraries.**

**A Web browser**

**Internet Explorer, Firefox, Chrome, etc.**

**Adobe Acrobat Reader DC**

**This can be downloaded for free at** <https://get.adobe.com/reader/>

**PowerPoint This can be downloaded for free at MyMC Office 365**

**Zoom**

**This can be downloaded for free at** <https://www.zoom.us/>

**CS Tutoring**

Virtual Tutoring

[Online support](https://www.montgomerycollege.edu/academics/support/learning-centers/virtual-tutoring.html) is available for FREE to Montgomery College students. All you need is a computer with access to Zoom and an internet connection.

<https://www.montgomerycollege.edu/academics/support/learning-centers/virtual-tutoring.html>

**CS Advising**

Emails requesting Computer Science advising should be sent to cs@montgomerycollege.edu. **Grading**

Course grades will be based upon the following:

* There are two Proctored exams (Exam I, Exam II) and a Proctored Final Exam.
* Durations:
  + Proctored Exam I – 90 minutes (Blackboard)
  + Proctored Exam I I– 90 minutes (Blackboard)
  + Proctored Final Exam – 120 minutes (Blackboard)
* There six programming assignments/projects.
* There are six graded labs.
* There are 12 Interactive Chapters (1-11, 15) in Pearson Revel Book with the following graded Assignments for each chapter: Checkpoints, Quizzes, Interactive Programming small Projects. They should be submitted in Pearson Revel online.
* All Blackboard programming assignments, Discussions, and labs will be submitted at Blackboard online.
* All Assignments are due at 11:59 pm of the due date

The relative weights of these assessments are:

|  |  |  |
| --- | --- | --- |
|  | ***% of Course Grade*** |  |
| Assignments (Six Programming Projects- Blackboard) | 26 |  |
| Assignment 0 (Setup Eclipse, cmd line, Junit, JavaFX), Six Labs, Discussions | 8 |  |
| Revel Assignments: Reading, Programming Exercises, Quizzes, Checkpoints. | 14 |  |
| Exam I | 11 |  |
| Exam II | 11 |  |
| Final Exam | 30 |  |

A=100-90%   B= 89-80%   C=79-70%   D=69-60% F=60%-below

**Good Faith Attempt:**

“You must satisfy a minimum set of requirements for each project (Good Faith Attempt) otherwise you will not pass the course (automatic grade of F). The Good Faith Attempt for each project is a submission that passes the public JUnit tests, submitted by the end of the semester.  If you start a project on time and look for assistance (if required) you should have no problems satisfying the Good Faith Attempt. The Good Faith Attempt guarantees you have the skills necessary for upper-level courses. Notice that you will not receive extra points for completing the good faith attempt. The grade you obtain for a project will be based on your on-time submission.”

**You must submit your Programming Assignments (Projects) on Time, and they should satisfy a minimum set of requirements for each project, otherwise you will get 0 for those Assignment and automatic grade of F for the course.**

 This means that every project should be submitted. If you miss a project due date, you still need to submit working project that satisfies provided minimum public JUnit tests (will be provided for each project) by first day of the final exam week.

**Late & Make-up Policies**

**Late Assignments/Labs**

Assignments and labs are due at midnight the week after they are assigned unless otherwise stated on Blackboard. There will be **no** **credit** for late submissions.

**Midterm and Final Exams**

The midterms and final exam will be taken according to the exam schedule. There will be no makeups, except for unavoidable circumstances coordinated ahead of time with the professor.

**Academic Honesty**   
Academic dishonesty in college is a very serious offense. Each student is expected to do his/her own workon all quizzes and tests and class and homework exercises. Students who engage in any act that the classroom instructor judges to be academic dishonesty or misconduct are subject to sanctions. For more information, please refer to Number 42001 in [**http://cms.montgomerycollege.edu/pnp/#Chapter\_4**](http://cms.montgomerycollege.edu/pnp/#Chapter_4)

**Academic Honesty in CMSC 203**

All students are expected to do their own work. You may receive insights, editing and debugging help from tutors, fellow students, and acquaintances, but ***you cannot share code.***  **You are expected to do all programming, lab, and homework assignments by yourself – DO NOT GIVE YOUR CODE TO YOUR FRIENDS!** You are responsible for completing the assignments yourself. (Your fingers are the only ones that should touch the keyboard). If your assignment uses features of the language that have not yet been covered in this course, you will be asked to defend your work. Academic dishonesty will **not** be tolerated. Programming assignments are submitted to a plagiarism-checking utility which compares each submission with others, and rates them by similarity. If you turn in the same assignment or uncommonly similar assignment to another student (past or present), or if your assignment is uncommonly similar to code found on the internet, you will receive 0 points for the assignment, and potentially a grade of “F” for the course. You will be reported to the Dean of Student Development.

**Achieving the Promise Academy (ATPA) Course Support:**

This class comes with an Achieving the Promise Academy (ATPA) Embedded Coach (EC) to provide you with supplemental support. The EC is a faculty member who knows the course material well and is available to assist you outside of class with mastering course content and other academic skills, much like a learning center tutor. You'll see the coach during occasional online class visits, on our Blackboard site, and in optional weekly study sessions. **Your ATPA Embedded Coach is Ara Kechiantz (Ara\_Kechiantz@montgomerycollege.edu). Please look for an email from your coach within the first two weeks of class about his/her virtual study sessions**.

All ATPA students (that’s you!) also have access to other unique resources. Visit [www.montgomerycollege.edu/atpa](http://www.montgomerycollege.edu/atpa) to learn more. Communicate regularly with your instructor and your ATPA coach to maximize your success in this class.

**UMD CMSC 203 and CMSC 204 course transferability:**

**CMSC 203 is only transferrable to UMD if:**

completed Fall 2018 or Later.

**UMBC CMSC 203 and CMSC 204 courses’ transferability:**

CMSC 203 and CMSC 204 are transferrable to UMBC if completed with grade B or above

**Communication**

**College Email**

The Montgomery College e-mail account is the official means of communication. Check your email account routinely for course announcements, invoices, important admission/registration information, waitlist status etc. I do not regularly check Blackboard messages. The best way to contact me is via remind.com and email at xxxx.xxxx@montgomerycollege.edu.

**General Course Information and Policies**

This is an online course. All assignments, discussions will be administered through Blackboard and MyProgrammingLab.com. Completion of all assignments and labs is required in order to pass this course. There are two exams (Exam I, Exam II) and a Final Exam. You will be required to take all Exams in the Assessment Center or with a virtual proctor via Free Examity

**A. Technical Requirements & Technical Support Policy**

You will be uploading all assignments/labs and practice activities to the Blackboard website.

You will need the following to participate in this class:

* + Regular use of a computer with Internet access. Expect to spend several hours online each week. MC has computer labs for your use if needed.
  + A web browser such as Internet Explorer or Firefox.
  + Java IDE and SDK (available at [www.eclipse.org](http://www.eclipse.org))
  + A file viewer for [Adobe Acrobat](http://www.adobe.com/products/acrobat/readstep2.html) and PowerPoint files.

**B. Email Policy**

Excessive or unnecessary emails make considerable time demands on both the sender and the recipient. Before sending an email, be self-sufficient: check the course website (including syllabus, assignment descriptions, announcements, etc.) to find the answer to your question.

I check my MC email at least once a day Monday through Thursday and at least once during the weekend (Friday through Sunday). Please plan accordingly.

Do not email me asking to debug code. I will not debug your code for you. The debugging process is so vital to be a successful programmer that you must learn this process. If you need debugging help, please visit Free CS Virtual Tutoring, visit me during office hours, or we can arrange a time to meet. At that time, I can ask questions about your code, review your design, and help point you in the right direction.

Email Policy Guidelines:

* Use Course Mail in Blackboard for all private communication.
* Use my Montgomery College e-mail (*[grigoriy.grinberg@montgomerycollege.edu](mailto:grigoriy.grinberg@montgomerycollege.edu))*

for all email if you have emergency questions. I do not check messages on Blackboard regularly.

* Include “**CMSC 203 CRN#**” as part of the **SUBJECT** line, to alert me that the email refers to this course.
* Generally, I will respond to e-mails within 24 hours during the week and 48 hours over the weekend or holidays.
* I do not review telephone messages left at my MC telephone number.
* Use remind.com to get announcements and direct communicate to me via cell phone.
* Use zoom.us for online office hours: <https://montgomerycollege.zoom.us/j/8714951078>
* I encourage you to use the discussion board to pose questions about assignments and course content to your fellow students. Answer questions without giving out code.

**C. Assignment Policy**

* All assignments/labs are submitted electronically on the Blackboard website and Pearson Reveal, before or on the day and time that it is due. All files needed for an assignment/lab/worksheet must be submitted together in a .zip file. If one file is submitted late, the entire assignment will be considered late. You will be submitting source code and JUnit tests (.java), javadoc (.html), design files, UML diagram files (image formats) and screenshots (.jpg, .gif, .png, .docx or .pdf).
* If there are technical problems with the course site, assignments can be sent to my Montgomery College e-mail (grigoriy.grinberg@montgomerycollege.edu). The subject line of the e-mail must include the course name (CMSC 203 CRN#) so I will be alerted that it is in reference to the course.
* Format for assignments: Submit two compressed files, named with your last name/first name and the assignment number, following the below example. One compressed file will contain all the files required for submission, and the other will only contain the .java files, for submission to the plagiarism-checking utility.
* If you need to discuss your grade or feedback you received from your instructor on an assignment, visit me during office hours or send me an e-mail.
* Students must ensure that assignment/lab files are free of viruses before submitting them. Keep your virus detection software up to date. Should an assignment file fail scrutiny by our institution’s standard virus detection software, the student submitting it will be so advised by e-mail. A virus-free version of the file must be resubmitted within 24 hours of the posting date of this e-mail. Any subsequent failure to adhere to this requirement will cause an assignment to be unacceptable.
* You can submit the Blackboard assignment/lab multiple times, until it is due. I will only grade the most current submittal and it must contain all the files needed for the assignment/lab/worksheet. In other words, if you submit your assignment and then discover that you forgot to include your screenshots or need to make a change in one of your source code files, you must submit all needed files in your final submittal, not just the forgotten file or the changed file.
* You can submit the Pearson Revel assignments unlumited times, until it is due, but Grade will be automatically decreased.

***Backing up your work***

In this course you will complete most of your assignments on a computer. You are responsible for ensuring the safety of your work by making regular backups (extra copies). “The computer ate my homework, I lost my flash drive, my hard drive crashed, or my printer isn’t working,” are not acceptable excuses. Make frequent backups of your work and save the work in multiple places. When you work in the classroom or in the lab, be sure to save your work on a device OTHER THAN the computer you are working on, since they are automatically wiped at midnight daily. You can retrieve files that were successfully uploaded to the Blackboard server, but it is always a good idea to keep backup copies of all your work. I would recommend using Dropbox ([www.dropbox.com](http://www.dropbox.com)) or something similar to keep a copy of your files externally. Students are responsible for keeping a copy of all graded assignments. If there is no copy of graded work in question, no grade change or credit for a missing assignment is possible.

**D. Self-motivation and Self-direction policy**

Expectations of students with respect to self-motivation and self-direction in an e-learning environment.

* Be self-motivated and self-disciplined.
* Be a good time manager.
* Approach the course with a desire to learn.
* Assume a leadership role and be a teacher when necessary. Voluntarily help other students, bearing in mind, however, that doing another people’s work for them is tantamount to cheating.
* Develop needed technology skills.
* Contribute to course discussions. Listen to others and respond respectfully to their comments.
* Contribute to team activities and respect the ideas of others.
* Comply with all course policies.
* Submit constructive suggestions for improving the course.
* ***This course is hard*** – you will need to allocate adequate time for study and programming.

**E. Course Schedule**

The schedule of the course is posted on Blackboard under “Syllabus”, although the schedule may change. If there is ever a discrepancy between the original schedule and a due date on Blackboard – always go with the due date on Blackboard. The schedule is a static document.

**Policies Collegewide**

**Important Student Information Link**

In addition to course requirements and objectives that are in this syllabus, Montgomery College has information on its web site (see link below) to assist you in having a successful experience both inside and outside of the classroom. It is important that you read and understand this information. The link below provides information and other resources to areas that pertain to the following: student behavior (student code of conduct), student e-mail, the tobacco free policy, withdraw and refund dates, disability support services, veteran services, how to access information on delayed openings and closings, how to register for the Montgomery College alert System, and finally, how closings and delays can impact your classes. If you have any questions, please bring them to your professor. As rules and regulations change, they will be updated, and you will be able to access them through the link. If any student would like a written copy of these policies and procedures, the professor would be happy to provide them. By registering for this class and staying in this class, you are indicating that you acknowledge and accept these policies. <http://cms.montgomerycollege.edu/mcsyllabus/>

# **Syllabus Addendum for Remote Instruction:**

## I. Requiring Microphones or Cameras for Testing and Skills Assessment

This course does require microphones and/or cameras for testing or skills assessment purposes. You will need the following equipment and technology specifications for this class:

Suggested Minimum system requirements for student’s computers.

Hardware

* Memory: At least 12 GB or more RAM (16 GB or more recommended)
* Processor: At least 3.0 GHz or faster processor
* Storage: Always keep at least 20 GB free storage space or more for installing software for lab exercises if needed
* Speaker
* Microphone
* Webcam

Software

* 64-bits operating system:
* Windows - Windows 10 or later – **preferred.**
* Mac – Mac OS 10.13.x or later – some software may not always work with Mac.
* Browser: Chrome, Firefox, Safari 13 or above (Mac), Edge (Windows)
* (Flash Player may need to play some videos)
* Microsoft Office

With reliable high speed (broadband) - at least 1.5 Mbps - Internet connection

Exceptions to this requirement might be made based on documented and legitimate personal situations (medical, family emergencies, and so on), legal exceptions (based on Title IX or American Disabilities Act), or evidence of technological disruption.

## II. Using Microphones or Cameras for Class Participation

The policies around using microphones or cameras for student participation are as follows:

1. Use microphones when possible, to offer questions or comments. Please turn off or mute your microphones when you are not speaking to the class.

2. Turn on your video when possible. Just as in an in-person setting, it is helpful to be able to see each other.

3. Because instructors understand there are a range of technological and personal difficulties around cameras and microphones, there will be no contracts, grade penalties, or grade incentives involved with assessing participation through microphone or camera use.

4. Please note, the skills assessment and attendance sections offer separate policies around microphones and cameras. Additionally, at the instructor’s discretion, students may be required to use alternative methods to establish presence or participation through graded class activities that do not require cameras or microphones, such as a chat response, a survey, a discussion post, an online game, an online application, or other activities, as documented in the course syllabus.

5. To protect your private spaces, please use a neutral background (such as a wall) or use an appropriate virtual background (see Online Etiquette Guidelines: this refers to Section VII below, which instructors are free to develop based on their course needs).

6. When using chat in online meetings, make sure those communications are focused on the class.

7. It is okay to keep microphones and cameras off in the following situations:

a. When you lack the bandwidth or technology requirements to support the microphone or camera.

b. If you require accommodations based on disability documentation or Title IX.

c. If you are unable to maintain privacy in your situation.

d. If you have a documented personal situation that prevents microphone/camera use.

8. If you have any particular technological issues involving microphones or cameras on a given class day, please communicate your situation, and we can discuss your options.

## III. Recording Class Sessions

When the class is being recorded, the instructor will inform the class that they are being recorded when the recording begins. If students continue participating in the class meeting, their consent to be recorded is implied.

## IV. Privacy during Virtual Meetings

Based on Family Educational Rights and Privacy Act guidelines, nonstudents are discouraged from listening in during virtual class sessions because those sessions may contain personally identifiable information that is private and should not be disclosed publicly. Students are encouraged to use headphones to help protect privacy in the virtual classroom.

## V. Attendance

The following conditions could result in an absence during a given virtual class session:

• Failing to validate presence by responding through video, microphone, or chat while the instructor is taking roll.

• Failing to respond by video, microphone, or chat when prompted by an instructor during the class session. Prompting can include being asked to comment, respond, answer a question, participate in a survey, enter a breakout room, or engage in any other classroom activity.

• When there is evidence that the student is engaging in other non-classroom related activities that demand high levels of energy and attention simultaneously with the class session. Such activities might include driving, working a job, shopping, and so forth.

If you need to step away from the online meeting, please inform the instructor through chat. If a technological issue prevents you from being able to respond during class, please inform your teacher through another communication platform, such as email, as soon as possible.

## VI. Participation

Instructors are encouraged to develop appropriate participation policies around online instruction and virtual meetings, as long as they do not contradict the camera and microphone use policies explained above. Please remember that there are many ways for students to participate and establish presence in the remote classroom without cameras and microphones, including a chat response, a survey, a discussion post, an online game, an online application, or other activities, at the instructor’s discretion as documented in the course syllabus.

## VII. Online Etiquette Policies

Just as in any social situations, most etiquette situations simply require a reminder to the student. If the student is engaging in disruptive behavior that violates the Student Code of Conduct, the instructor should follow the policies and procedures that already exist to pursue disciplinary action.

Please see Blackboard for Class Netiquette guidelines.

By registering for this class and staying in this class, you are indicating that you acknowledge and accept these policies.

**Schedule**

|  |  |  |  |
| --- | --- | --- | --- |
| **Weeks and dates** | **Topics** | **Assignments and Quizzes** | **Due date** |
| Week 1  01/24-01/31 | Chapter 1 Introduction to Computers Chapter 2 Java Foundation  Lecture1 -Intro to Java.pptx  Lecture 2\_2- Command\_Line\_ Java.pptx | **Blackboard:**   * Week 1 Discussion Introduce yourself * Programming Diagnostic Quiz * **Assignment 0:**   + Parts 1-5–Setup GitHub, Install and Test Eclipse, Test java from Command Line, Install, Setup, and Test Junit, Install, Setup, and Test JavaFX Application.   **Revel Chapters 1 and 2:**   * Checkpoints * Quizzes * Revel Programming Projects | 01/31 by 11:59pm |
| Week 2  02/01-02/07 | Chapter 3 Decision Structures  [Chapter 4](http://www.cs.armstrong.edu/liang/intro5e/review/07review.pdf)  [Loops and Files](https://revel.pearson.com/?)  Lecture 3- Selection Control.pptx  Lecture 4- Repetition Control.pptx  Lecture 2- Trace Tables.pptx | **Blackboard:**   * Week 2 Discussion * Assignment 1 Design   **Revel Chapters 3 and 4:**   * Checkpoints * Quizzes * Revel Programming Projects | 02/07 |
| Week 3  02/08-02/14 | Chapter 5 Methods  Lecture 5- Methods.pptx  Lecture 5\_2 - Using Library Classes.pptx | **Blackboard:**   * Week 3 Discussion * Assignment 1 Implementation   **Revel Chapters 5:**   * Checkpoints * Quizzes   Revel Programming Projects | 02/14 |
| Week 4  02/15-02/21 | [Chapter 6 [A First Look at Classes](https://revel.pearson.com/?)](http://www.cs.armstrong.edu/liang/intro5e/review/06review.pdf)  Lecture 6 -Classes\_Objects\_UML.pptx | **Blackboard:**   * Week 4 Discussion * **Lab 1** Create Driver for Data Element * Assignment 2 (Random Guesser)- Design   **Revel Chapter 6:**   * Checkpoints * Quizzes | 02/21 |
| Week 5  02/22-02/28 | [Chapter 6 [A First Look at Classes](https://revel.pearson.com/?)](http://www.cs.armstrong.edu/liang/intro5e/review/06review.pdf)  Lecture 6 -Classes\_Objects\_UML.pptx  JavaFX: GUI Programming and Basic Control | **Blackboard:**   * Week 5 Discussion * **Lab 2**: GUI Lab * Assignment 2 (Random Guesser)- Implementation   **Revel Chapter 6:**   * Revel Programming Projects   **Revel Chapter 12:**   * Reading Assignment | 02/28 |
| Week 6  03/01-03/07 | Chapter 7 Arrays and ArrayList Class  Lecture 7\_1- Arrays and ArrayList.pptx  Lecture 7\_2 - Junit Testing.pptx  Lecture 7\_3 - Search and Sort.pptx | **Blackboard**:   * Week 6 Discussion * **Lab 3** – JUnit Test * **Lab 4** - 2D Arrays * Assignment 3 Design   **Revel Chapter 7:**   * Checkpoints * Quizzes * Revel Programming Projects   Proctored Midterm Exam I  (Chapters 1-6) 03/03-03/07  Duration: 90 minutes | 03/07 |
| Week 7  03/08-03/14 | [Chapter 8 [A Second Look at Classes](https://revel.pearson.com/?)](http://www.cs.armstrong.edu/liang/intro5e/review/06review.pdf) and Objects  Lecture 8\_1- Advanced Class Features.pptx  Lecture 8\_2 - JavaDoc.pptx | **Blackboard**:   * Week 7 Discussion * Assignment 3 Implementation   **Revel Chapter 8:**   * Checkpoints * Quizzes * Revel Programming Projects | 03/14 |
| 03/15-03/20 | **Spring Break** | **Spring Break** |  |
| Week 8  03/21-03/28 | [Chapter 8 [A Second Look at Classes](https://revel.pearson.com/?)](http://www.cs.armstrong.edu/liang/intro5e/review/06review.pdf) and Objects  Lecture 8\_1- Advanced Class Features.pptx  Lecture 8\_2 - JavaDoc.pptx Lecture 8\_3- Copying Objects, Memory Map, Privacy Leaks.pptx | **Blackboard**:   * Week 8 Discussion * **Lab 5** -Memory Mapping * Assignment 4 Design   **Revel Chapter 8:**   * Checkpoints * Quizzes * Revel Programming Projects | 03/28 |
| Week 9  03/29-04/04 | Chapter 9 T[ext Processing and More about Wrapper Classes](https://revel.pearson.com/?)  Lecture 9 - Text Processing and Wrapper Classes.pptx | **Blackboard**:   * Week 9 Discussion * Assignment 4 Implementation   **Revel Chapter 9:**   * Checkpoints * Quizzes * Revel Programming Projects | 04/04 |
| Week 10  04/05-04/11 | [Chapter 10 Inheritance and Polymorphism](http://www.cs.armstrong.edu/liang/intro5e/review/08review.pdf)  Lecture 10 - Inheritance and Polymorphism.pptx  Lecture 10\_2 - Interfaces.pptx  Lecture 10\_3 instanceOf and getClass().ppt | **Blackboard**:   * Week 10 Discussion * Assignment 5 Design * **Lab 6** - Inheritance   **Revel Chapter 10:**   * Checkpoints * Quizzes * Revel Programming Projects | 04/11 |
| Week 11  04/12-04/18 | [Chapter 10 Inheritance and Polymorphism](http://www.cs.armstrong.edu/liang/intro5e/review/08review.pdf)  Lecture 10 - Inheritance and Polymorphism.pptx  Lecture 10\_2 - Interfaces.pptx | **Blackboard**:   * Week 11 Discussion * Assignment 5 Implementation | 04/18 |
| Week 12  04/19-04/25 | Review Chapters 7-10 | **Blackboard**:   * Week 12 Discussion * Assignment 6 Design   Midterm Exam II (Covers Chapters 7-10, Javadoc, UML)  04/21-04/25  Duration: 90 minutes | 04/25 |
| Week 13  04/26-05/02 | Chapter 11 [Exceptions and Advanced File I/O](https://revel.pearson.com/?)  Lecture 11- File I/O&Exceptions.pptx | **Blackboard**:   * Week 13 Discussion * Assignment 6 Implementation   **Revel Chapter 11:**   * Checkpoints * Quizzes * Revel Programming Projects | 05/02 |
| Week 14  05/03-05/09 | Chapter 15 Recursion  Lecture 15 – Recursion.pptx  Lecture 15\_2-Big-O.ppt | **Blackboard**:   * Week 14 Discussion   **Revel Chapter 15:**   * Checkpoints * Quizzes * Revel Programming Projects | 05/09 |
| Final Week 15  **05/12-05/14** | Final Exam Review  Final Exam using Virtual Proctor Examity | Proctored Final Exam  (Covers chapters 1-11, 15)  05/12-05/14  Duration: 120 minutes |  |