

Course Syllabus

[Jump to Today](#)

Description and Outline

Course Description

An introduction to modern programming language features, computer programming and algorithmic problem solving with an emphasis on the Java language. Computers and code compilation; conditional statements, subprograms, loops, methods; object-oriented design, inheritance and polymorphism, abstract classes and interfaces; types, type systems, generic types, abstract data types, strings, arrays, linked lists; software development, modular code design, unit testing; strings, text and file I/O; GUI components, GUI event handling; threads; comparison of Java to C, C++, and C#.

Course Outline

The course will cover the following topics. The order is subject to change:

- A brief history of programming
- Data, primitive data types, class data types
- Methods
- Computer organization and the Java memory model
- Conditional statements, recursion
- Loops
- Strings and Arrays
- Polymorphism, subclasses, abstract classes, interfaces
- Industrial programming techniques: paired programming, API generation
- Graphical User Interfaces and event-driven programming
- Introduction to computer science: program correctness and runtime analysis
- Industrial programming techniques: testing, debuggers, and JUnit
- File input and output
- Building applications; the main method
- Exception handling
- Abstract data types; generic types; linked lists
- Collections; iterators; comparable types
- Inner and anonymous classes
- Java reflection
- Multi-threaded programming

Course Materials

Required Course Material:

You should have one of the following two:

- Evans and Flanagan, *Java in a Nutshell*, 7th edition, 2019. ISBN 9781492037255
- Evans and Flanagan, *Java in a Nutshell*, 6th edition, 2014. ISBN 9781449370824

The sixth edition text is available as an e-book through the CWRU library, but you are *strongly recommended* to purchase a hard copy. This is not a textbook but is instead a Java reference manual. The text will serve you well through your life as a Java programmer.

Recommended Course Material: This material is strongly recommended for any student who does not have prior experience with computer programming.

- Lewis and Lofton, *Java Software Solutions*, 9th edition, 2018.
- [MyProgrammingLab](#) ^e You may purchase these resources separately or together. The university bookstore sells a hard copy of the Lewis and Lofton book that includes access to MyProgrammingLab: ISBN 9780134700038. You can also purchase MyProgrammingLab plus the text as an e-book by visiting the MyProgrammingLab link above. The course ID for our section is listed below.

Resources

Lectures: Monday, Wednesday, Friday at 2:15pm in Schmitt Lecture Hall

Labs/Recitations: At your registered day / time in Olin 803
Please attend your registered recitation. If you need to change recitations, please speak to the class instructor.

Instructor Office Hours: Monday 4:30-5:30pm, Tuesday 3:00-4:00pm, Wednesday 10:30-11:30am, Thursday 9:00-10:00am (EDT) at <https://cwruczoom.us/j/296854791> ^e. You are welcome to come to any and all office hours and for any reason.

TA Office Hours and Mini-Lessons: Will begin the third week of the term. The office hour schedule is posted here: [TA Office Hours](#).

Peer Tutors: ESS has peer tutors available for EECS 132 as well as other classes, and every student can get five free peer tutoring sessions per week. Please go to [Peer Tutoring](#) ^e to sign up.

Assessments

To help you learn the material, there will be regular assignments and assessments covering different aspects of programming in Java.

Late Work Policy:

The late policy for each assessment is listed in the assessment description. Exceptions can be granted for medical, family, or personal crises reasons. **To be granted an exception, you must contact your navigator. Your navigator will collect the necessary documentation and coordinate with your instructor and Undergraduate Studies. If you have to miss class due to a scheduled event such as a sporting event or club performance, you must make arrangements to submit your required work early.**

Prelabs:

The prelab is a short exercise that is posted each Friday, starting January 17. The prelab is due the following Wednesday before lecture. **No late submissions will be accepted.** The purpose of the prelab is to reinforce certain Java techniques that will be used in the next lab session so that your lab session will be more productive. The prelab is expected to be entirely your own work, and you will receive full credit as long as it is mostly correct.

Quizzes:

There will be a short quiz to be completed each week. The quizzes are posted each Friday, starting January 17 and due the following Tuesday (the exception is the final quiz which is due before Reading Day). **No late submissions will be accepted.** The quiz will cover material from the previous week lecture. The quiz is expected to be your own work. You will be permitted to take the quiz twice. After the first attempt, you will be told which answers were incorrect and you may look up the correct answers in your notes or the textbook.

Optional MyProgrammingLab:

MyProgrammingLab is an on-line Java quiz and program practice that goes with the Lewis textbook. MyProgrammingLab is optional and recommended for students with no prior programming experience. The MyProgrammingLab exercises are grouped (roughly) according to the weekly lectures and have recommended due dates set to help you keep up with the material. The exercises are divided into two parts corresponding to the first and second half of the course. Your grade on each part will be the percentage of exercises you successfully complete. For part 1, you must complete the exercises by **Saturday, February 29**, and for part 2 the hard deadline is **Monday, April 27**. *Each MyProgrammingLab exercise part may be used to replace either your term Prelab or Quiz grade.* The MyProgrammingLab course id is CASE-41431-ZQHP-43

Labs:

There will be a lab/recitation section every week beginning Wednesday, January 15. The lab will consist of an exercise you are to complete in the hour provided. The lab serves two purposes: to give you hands on practice with Java concepts, and to introduce you to the industrial technique of paired-programming. *You are encouraged to have a lab partner.* If you have a lab partner during the recitation, your lab grade will be determined by how well you follow the paired-programming technique and whether you focused on the lab task for the entire hour. If you do not have a lab partner (for example you miss the lab due to illness), you will not be practicing paired-programming and so your grade will be determined only by the percent of the lab assignment you correctly complete. **If you are unable to attend the recitation, you can have an automatic extension. The lab must be submitted no later than the Tuesday (and before Reading Day) following the missed recitation.**

Programming Projects:

There will be a programming project assigned every two weeks starting the fourth week of the course. The first project will be assigned Friday, February 7 and will be due Friday, February 21. Each homework will consist of Java programming. In addition, there will be written work to include with the program. *All homework is assumed to be your own work. The late policy for homework is as follows: -10% if within one hour late. -25% if within 24 hours late. -50% if over 24 hours late. There will be no homework accepted once the grading is done or after a week past the deadline.*

Midterm:

The midterm exam will consist of short answer, fill in the blank, and free response sections. You may be asked to provide correct Java code or proper English descriptions for the questions asked. The midterm will be in class on Monday, March 2.

Final:

The final exam is at the time specified by the registrar and posted on SIS. The exam will be the same format as the midterm exam, and the exam will be cumulative.

Calculators:

You are permitted to use calculators on prelabs, labs, homework, and quizzes. *No calculators will be permitted on midterms and finals.*

Grading Scheme:

Prelabs: 5% *
Labs: 10%
Quizzes: 5% *
Homework: 30%
Midterm: 15%
Final Exam: 35%

* You may replace the 5% quiz grade or the 5% prelabs grade with a 5% MyProgrammingLab grade.

Grade scale:

The class will use the following scale to translate your percentage grade to a final grade.

If your percentage grade is at least	Your final grade will be at least
90	A
80	B
70	C
60	D

You must score at least 50% on the final exam to pass the course.

Academic Integrity Policy

All students in this course are expected to adhere to University standards of academic integrity. Cheating, plagiarism, misrepresentation, and other forms of academic dishonesty will not be tolerated. This includes, but is not limited to, consulting with another person during an exam, turning in written work that was prepared by someone other than you, making minor modifications to the work of someone else and turning it in as your own, or engaging in misrepresentation in seeking a postponement or extension. Ignorance will not be accepted as an excuse. If you are not sure whether something you plan to submit would be considered either cheating or plagiarism, it is your responsibility to ask for clarification. For complete information, please go to <http://bulletin.case.edu/undergraduatestudies/academicintegrity/> ^e

The specifics for this course are listed in the document, [Course Honor Policy](#), found on the Canvas site.

Special Considerations

Physical Disabilities or Other Hardships: ESS Disability Resources is committed to assisting all CWRU students with disabilities by creating opportunities to take full advantage of the University's educational, academic, and residential programs. For further information, please go to <https://students.case.edu/academic/disability/> ^e

Religious Holidays: I strive to schedule all major projects and tests so that they do not conflict with important religious holidays. However, I am not always successful in doing that. If an important religious holiday conflicts with a class test or assignment in a way that makes it so that you can not take the test or complete the assignment as originally assigned, please see me as soon as possible to make necessary arrangements.

Course Summary:

Date	Details
Tue Jan 21, 2020	Week 1 Quiz due by 11:59pm
	Lab 1 due by 11:59pm
Wed Jan 22, 2020	Pre-lab for Lab 2 due by 2:15pm
Tue Jan 28, 2020	Week 2 Quiz due by 11:59pm
	Lab 2 due by 11:59pm
Wed Jan 29, 2020	Pre-lab for Lab 3 due by 2:15pm
Mon Feb 3, 2020	Midterm due by 2:15pm
Tue Feb 4, 2020	Week 3 Quiz due by 11:59pm
	Lab 3 due by 11:59pm
Wed Feb 5, 2020	Pre-lab for Lab 4 due by 2:15pm
Tue Feb 11, 2020	Week 4 Quiz due by 11:59pm
	Lab 4 due by 11:59pm
Wed Feb 12, 2020	Pre-lab for Lab 5 due by 2:15pm
Tue Feb 18, 2020	Week 5 Quiz due by 11:59pm
	Lab 5 due by 11:59pm
Wed Feb 19, 2020	Pre-lab for Lab 6 due by 2:15pm
Fri Feb 21, 2020	Programming Project 1 due by 11:59pm
	Project 1: Readability due by 11:59pm
	Project 1: Correctness due by 11:59pm
	Project 1: Testine due by 11:59pm
Tue Feb 25, 2020	Week 6 Quiz due by 11:59pm
	Lab 6 due by 11:59pm
Wed Feb 26, 2020	Pre-lab for Lab 7 due by 2:15pm
Sat Feb 29, 2020	MyProgrammingLab, Part 1 due by 11:59pm
	Week 7 Quiz due by 11:59pm
Tue Mar 3, 2020	EECS 132 Environment Survey due by 11:59pm
	Lab 7 due by 11:59pm
Wed Mar 4, 2020	Prelab for Lab 8 due by 2:15pm
Fri Mar 6, 2020	Programming Project 2 due by 11:59pm
	Project 2: Correctness due by 11:59pm
	Project 2: Readability due by 11:59pm
	Project 2: Testine due by 11:59pm
Tue Mar 10, 2020	Lab 8 due by 11:59pm
Tue Mar 17, 2020	Week 8 Quiz due by 11:59pm
Wed Mar 18, 2020	Pre-lab for Lab 9 due by 2:15pm
Tue Mar 24, 2020	Week 9 Quiz due by 11:59pm
	Lab 9 due by 11:59pm
Wed Mar 25, 2020	Pre-lab for Lab 10 due by 2:15pm
Tue Mar 31, 2020	Week 10 Quiz due by 11:59pm
	Lab 10 due by 11:59pm
	Programming Project 3 due by 11:59pm
	Project 3: Correctness due by 11:59pm
	Project 3: Readability due by 11:59pm
	Project 3: Testine due by 11:59pm
Wed Apr 1, 2020	Pre-lab for Lab 11 due by 2:15pm
Tue Apr 7, 2020	Week 11 Quiz due by 11:59pm
	Lab 11 due by 11:59pm
Wed Apr 8, 2020	Pre-lab for Lab 12 due by 2:15pm
Tue Apr 14, 2020	Week 12 Quiz due by 11:59pm
	Lab 12 due by 11:59pm
	Programming Project 4 due by 11:59pm
	Project 4: Correctness due by 11:59pm
	Project 4: Readability due by 11:59pm
	Project 4: Testine due by 11:59pm
Wed Apr 15, 2020	Pre-lab for Lab 13 due by 2:15pm
Tue Apr 21, 2020	Week 13 Quiz due by 11:59pm
	Lab 13 due by 11:59pm
Wed Apr 22, 2020	Pre-lab for Lab 14 due by 2:15pm
Mon Apr 27, 2020	Week 14 Quiz due by 11:59pm
	Lab 14 due by 11:59pm
	MyProgrammingLab, Part 2 due by 11:59pm
	Programming Project 5 due by 11:59pm
	Project 5: Correctness due by 11:59pm
	Project 5: Readability due by 11:59pm
	Project 5: Testine due by 11:59pm
Wed May 6, 2020	Final Exam due by 6:30pm
Thu May 7, 2020	EECS Course Evaluation due by 11:59pm
	HackCWRU

<	May 2020												>
26	27	28	29	30	1	2							
3	4	5	6	7	8	9							
10	11	12	13	14	15	16							
17	18	19	20	21	22	23							
24	25	26	27	28	29	30							
31	1	2	3	4	5	6							

Assignments are weighted by group:	
Group	Weight
Quizzes	5%
Prelab Exercises	5%
Labs	10%
Projects	30%
Tests	15%
Optional MyProgrammingLab	0%
Extra Credit	0%
Final Exam	35%
Total	100%