

# CISC 3115: Introduction to Modern Programming Techniques

Spring 2023, Section EWQ6

## 1 Basic Information

- Instructor: Moshe Lach
- Email: [lach@sci.brooklyn.cuny.edu](mailto:lach@sci.brooklyn.cuny.edu)
- Class meetings: Wednesdays 6:30-10:00 p.m. in 238 New Ingersoll
- Office hours:
  - Wednesdays 5:00-6:00 p.m. in 128 New Ingersoll
  - Thursdays 3:40-4:40 p.m. in 128 New Ingersoll
  - Other times by appointment, either on campus or on Zoom.
- Tutoring hours at the Learning Center: TBA
- There is a class Discord server, which you are encouraged to join. A link has been emailed to you.
  - You do not have to use your real name.
  - Discord DMs are welcome.
- All course material, except for homework, will be posted at the following link, which you may want to bookmark:

[bit.ly/cisc3115sp23](https://bit.ly/cisc3115sp23)

## 2 Course Topics

- Brief prerequisite review: loops, methods, menu-driven programs, parallel arrays, array algorithms, file I/O
- Command line: basic Unix commands, command line arguments
- Objects and references: aliases, parameter passing, wrapper classes, auto-boxing and auto-unboxing, `String`, `StringBuilder`, `BigInteger`, `BigDecimal`

- Classes: instance variables and methods, constructors, encapsulation, static variables and methods, aggregation, UML diagrams, copying objects, `enums`
- Exam 1
- Inheritance: superclasses and subclasses, overriding methods, constructor chaining, polymorphism, dynamic binding, the `Object` class and its `toString` and `equals` methods, abstract classes
- `ArrayLists`
- Exceptions: `try`, `catch`, `finally`, throwing exceptions, declaring exceptions, exception types (checked vs. unchecked), polymorphism and dynamic binding with exceptions, stack trace, defining custom exception types, `try-with-resources`
- Interfaces: `Comparable`, `Comparator`, lambda expressions
- Exam 2
- Collections: `Collection`, `Iterable`, `Iterator`, `List`, `Set`, `Queue`, `Deque`, `Map`
- Recursion: tracing recursive code, thinking recursively, mathematical functions, recursion involving `Strings`, recursion involving arrays, recursive helper methods
- If there's extra time: JavaFX: basic components, event handling, CSS, MVC
- Final exam

### 3 Homework

There will be 10-13 programming assignments over the course of the semester. Almost all assignments will contain many parts and require a lot of time to complete.

In order to be successful in this course, it is crucial to devote a lot of time and effort to working on homework, since many exam questions will be similar to, or based on, homework questions.

You are allowed to work on homework together with others. But submitting work without understanding it is a bad idea.

Homework assignments and solutions will be posted on CodeLab: [codelab.turingscraft.com](http://codelab.turingscraft.com). More information about CodeLab is available at this link: [bit.ly/cisc3115codelab](http://bit.ly/cisc3115codelab).

### 4 Exams

There will be two midterm exams, tentatively scheduled for Wednesday, March 1 and Wednesday, April 26; these dates are subject to change. The final exam has been [scheduled](#) by the Registrar's office for Wednesday, May 17 at **6:00 p.m.**

On the Sunday before each exam, there will be an optional Zoom meeting devoted to exam-related Q & A.

All exam questions will be similar to, or based on, homework problems or questions from previous semesters, which will be provided to you. Most exam questions will ask you to write code—often lots of it—on paper.

**Makeup exams will not be given for the midterm exams. See below in section 5.**

**If you miss the final exam (regardless of the number of midterms you took), you will not pass the course, unless I decide to give you a grade of INC, which would allow you to retake the final exam at a later date. I almost never give INC grades.**

## 5 Grading

The final course grade will be determined by:

- Two midterm exams: 25% each
- Final exam: 35%
- Homework: 10-13% (1% each)
- Attendance: 5%

**Note: Makeup exams will not be given for the midterm exams. If you miss one of the two midterms, then the other midterm will be worth 35% of the course grade and the final exam will be worth 50% of the course grade (instead of 25% per midterm and 35% for the final). If you miss both midterms, then the final exam will be worth 85% of the course grade. This policy applies specifically if you missed an exam. If you come to class to take an exam, then the grade you get for that exam will not be removed, even if you do better on another exam.**

Course letter grades will be assigned according to this table:

Numeric score	above 97	93-97	90-92	87-89	83-86	80-82	77-79	73-76	70-72	67-69	63-66	60-62	below 60
Letter grade	A+	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F

## 6 Other Notices

### 6.1 Academic Integrity

The faculty and administration of Brooklyn College support an environment free from cheating and plagiarism. Each student is responsible for being aware of what constitutes cheating and plagiarism and for avoiding both. The complete text of the CUNY Academic Integrity Policy and the Brooklyn College procedure for policy implementation can be found at [www.brooklyn.cuny.edu/bc/policies](http://www.brooklyn.cuny.edu/bc/policies). If a faculty member suspects a violation of academic integrity and, upon investigation, confirms that violation, or if the student admits the violation, the faculty member **MUST** report the violation. Students should be aware that faculty may use plagiarism detection software.

## 6.2 Disability-Related Accommodations

The Center for Student Disability Services (CSDS) is committed to ensuring students with disabilities enjoy an equal opportunity to participate at Brooklyn College. In order to receive disability-related academic accommodations, students must first be registered with CSDS. Students who have a documented disability or suspect they may have a disability are invited to schedule an interview by calling (718) 951-5538 or emailing [testingcsds@brooklyn.cuny.edu](mailto:testingcsds@brooklyn.cuny.edu). If you have already registered with CSDS, email [Josephine.Patterson@brooklyn.cuny.edu](mailto:Josephine.Patterson@brooklyn.cuny.edu) or [testingcsds@brooklyn.cuny.edu](mailto:testingcsds@brooklyn.cuny.edu) to ensure accommodation emails are sent to your professor.

## 6.3 Student Bereavement Policy

Brooklyn College's student bereavement policy can be found [on the college's website](#).

## 6.4 Nonattendance Due to Religious Beliefs

Information regarding nonattendance due to religious beliefs can be found on [page 68](#) of Brooklyn College's *Undergraduate Bulletin*.

If you will need to miss a class due to a religious observance, please try to let me know as far in advance as possible, so that I do not schedule an exam for that day.

## 7 Important Dates

Wednesday, January 25	First day of classes
Tuesday, January 31	Last day to add a course
Sunday, February 12	No classes scheduled
Monday, February 13	College closed
Monday, February 20	College closed
Tuesday, February 21	Conversion day — classes follow a Monday schedule
Wednesday-Thursday, April 5-13	Spring recess — no classes scheduled
Friday-Saturday, May 12-13	Reading days
Tuesday, May 16	Last day of classes; last day to withdraw with a grade of W
Wednesday-Tuesday, May 17-23	Final examinations
Friday, May 26	Final grade submission deadline

The full academic calendar, including other important dates, is available [on the college's website](#).