# CISC 1115: Introduction to Programming Using Java: Syllabus

Clickable Table of Contents:

# Course Information

**Section: TY8**
**Meeting Time: Tuesday and Thursday, 8:40 AM – 10:45 AM**
**Room: IA-214**

**Instructor:** Amara Auguste
**Email:** auguste@sci.brooklyn.cuny.edu
**Webpage:** https://amaraauguste.github.io/
**Office Hours:** Tuesdays from 1:00 PM - 2:00 PM, Room: IA-128

# Course Webpage

CISC 1115 Course Webpage at https://amaraauguste.github.io/courses/cisc1115.html

# Attendance Policy

Classes will meet on **Tuesdays and Thursdays from 8:40 AM to 10:45 AM.**

Although attendance is not mandatory (meaning that it does not specifically factor into your grade), you are responsible for whatever material is covered in class, whether or not you are there.

However, it is highly recommended that students attend class, as experience has shown that students who do not attend class or consistently arrive late tend to perform poorly.

# Course Materials

## Textbook

Although not required, it is **highly encouraged** to read the following text (our curriculum will primarily follow the chapter order, with a few modifications):

Allen Downey and Chris Mayfield, *Think Java: How to Think Like a Computer Scientist,* 2nd Edition, Version 6.1.3, Green Tea Press, 2016. Permission is granted to copy, distribute, and/or modify this work under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License, which is available at http://creativecommons.org/licenses/by-nc-sa/3.0/..

## Integrated Development Environment Software (IDEs)

You are encouraged to get a feel of writing programs by hand **(your exams and final will all be handwritten)** but you will also run your programs on your computers.

You are free to use whichever Java IDE you would like (e.g. NetBeans, Eclipse, IntelliJ, etc.).

Please consult the following Computer Science Department guide at this link:
http://www.sci.brooklyn.cuny.edu/~goetz/java/

# Topics

- The way of the program
- Variables and operators
- Input and output
- Conditionals and Logic
- Loops
- Strings and things
- Void methods
- Value methods
- Arrays

# CodeLab

Programming requires practice! You will gain programming experience by practicing in two forms throughout the semester:

1. Short supplementary exercises via CodeLab
2. Homework/Projects

We will use CodeLab, an online, interactive programming exercise system, for short practice problems. These problems typically consist of a few lines of code that are very narrowly focused on a topic covered in class. They are completed and submitted directly in CodeLab.

To Register:

- Go to turingscraft.com
- Click "Register" and follow the instructions
    - When you fill out the forms, use your preferred Email Address and Actual Name
    - When asked for a Section Access Code, use the one in the email you will receive from me a few days before class begins.
- To Login: Same URL, click "Login" and use your username (email) and password

## Homework Assignments

There will be up to 10 homework assignments. Homework/projects are larger, often complete programs incorporating several topics, and give you a better taste of 'real' programming.

These should be coded and tested in the IDE of your choice (e.g. NetBeans, Eclipse, IntelliJ,

etc.) and submitted to Brightspace by the due date provided.

Each homework assignment is due about a week and a half (two or three class meetings) after it is assigned. For example, homework assigned on a Monday is due on the Wednesday of the following week.

### Lateness Policy for Homework

**There will be a penalty for lateness—5% (—0.25 points ) off per class late. Lateness will no longer be accepted after 25% (—1.25 points ) of the penalty has been accumulated (five class sessions later).**

# Grading Policy

### CUNY Letter to Number Grade Guide

**Students will receive a letter grade for the course according to the following score distribution established by CUNY:**
**<60=F**
**60-62=D-**
**63-66=D**
**67-69=D+**
**70-72=C-**
**73-76=C**
**77-79=C+**
**80-82=B-**
**83-86=B**
**87-89=B+**
**90-92=A-**
**93-97=A**
**97-100 (with EC)=A+**

**(The grade of A+ will be granted for numerical grades of 97 or higher after all extra credit points you received are applied to the grade.)**

### CISC 1115 Grade breakdown

The course will be broken down into three parts, each counting for one-third of your grade:

- **CodeLab and homework assignments**
  - CodeLab questions total: TBD
  - Homework assignments total: 10 (5 pts each) = 50 pts

- **2 exams**

- Exam 1 total: 100 pts
- Exam 2 total: 100 pts

- **Final exam**
  - Total: 100 pts

| | |
|---|---|
| **A (CodeLab and Homework)** | (CodeLab * 1/6) + (Homework * 1/6) |
| **B (2 Exams)** | ((Exam1/100) * (1/6)) + ((Exam2/100) *(1/6)) |
| **C (Final Exam)** | ((Final Exam)/100) * (1/3) |
| **Final Grade** | (A + B + C) * 100 |

- Extra Credit: Class Lab Work
  - 5 labs total: Up to 5 additional points

Homework and CodeLab must be done individually; copying will result in a zero grade for all involved parties.

## Brooklyn College Bereavement Policy

Students who experience the death of a loved one should refer to:

http://www.brooklyn.cuny.edu/web/about/initiatives/policies/bereavement.php

## Brooklyn College Disability Policy

*In order to receive disability-related academic accommodations, students must first be registered with the Center for Student Disability Services.*(https://www.brooklyn.edu/dosa/student-support-services/csds/) *Students who have a documented disability or suspect they may have a disability are invited to set up an appointment with the Director of the Center for Student Disability Services, Ms. Valerie Stewart-Lovell, at 718-951-5538. If you have*

*already registered with the Center for Student Disability Services, please provide your professor with the course accommodation form and discuss your specific accommodation with him/her.*

## CUNY Policy on Academic Integrity

"Academic Dishonesty is prohibited in the City University of New York and is punishable by penalties, including failing grades, suspension, and expulsion, as provided herein."
-- CUNY Policy on Academic Integrity
-- Adopted by the Board of Trustees 6/28/2004

Please go to http://www.brooklyn.cuny.edu/bc/policies/ for further information about:
• CUNY Policy on Academic Integrity
• BC Procedures for Implementing the CUNY Policy on Academic Integrity
• Flow Chart of the BC Procedures for Implementing the CUNY Policy on Academic Integrity.

# CISC 1115 Course Schedule Fall 2025

- **WEEK 1: The Way of The Program/Variables and Operators**
  - **DAY 1 (Aug 26):**
    - Syllabus - Attendance, Homework, CodeLab, etc.
    - Topics:
      - Intro to Programming
        - What is a program?
        - What is Computer Science?
        - What are programming languages?
      - What is Java?
        - Defining Java
        - Examples using Java
        - How to install
      - Hello World
      - Variables
        - Declaring variables
        - Printing variables

            - Variable scope
            - Global/Member variables
        - Operators
            - Arithmetic operators
            - Assignment operators
    - **DAY 2 (Aug 28):**
        - Topics:
            - Floating-point Numbers
            - Math Methods
                - Random number generation – Math.random()
            - Error Types
                - Compiler errors
                - Run-time errors
                - Logic errors
            - The System Class
                - print()
                - println()
                - printf()
        - **Homework 1 assigned**

- **WEEK 2: Input and Output**
    - **DAY 1 (Sept 2):**
        - Topics:
            - Data Types
            - Reading Input – Scanner (from the keyboard)
                - Scanner methods
                - The Scanner bug
            - Literals and Constants
            - Putting it all together
            - Program Structure
    - **DAY 2 (Sept 4):**
        - Using Files
            - Reading from Files – Scanner (continued)
            - Writing to Files – PrintWriter
        - **Homework 2 assigned**

- **WEEK 3: Review/Conditionals and Logic**
    - **DAY 1 (Sept 9):**
        - Topics: (Review)
            - What is a program?
            - Creating a class

- Creating the main method
- Declaring, assigning, and initializing variables
- Operations, equations, and more calculations
- Printing output (print(), printf(), println())
- Reading in keyboard input, Scanners, and prompts
- Writing to files

- **DAY 2 (Sept 11):**
  - Topics:
    - Relational operators
    - Logical operators
    - Decision making with conditional statements
      - if statements
      - if/else blocks
      - Ternary operator (?:)
    - Chaining and nesting
      - else if statement(s)
      - Nested ifs
    - Flag (Boolean) variables
  - **Homework 3 assigned**

## WEEK 4: Conditionals and Logic Continued/Loops

- **DAY 1 (Sept 16):**
  - Topics:
    - Switch statement
      - Converting if/else if/else block to switch
      - Keyword: case
      - Keyword: break
      - Keyword: default
    - The char data type
  - **Homework 4 assigned**
- **DAY 2 (Sept 18):**
  - Topics:
    - Iteration
    - The while loop
      - while loop vs if statement
    - Generating Tables
    - Counters

- **WEEK 5: Loops Continued**
  - **DAY 1 (Sept 23): NO CLASSES SCHEDULED**
  - **DAY 2 (Sept 25):**
    - Topics:
      - while loops continued
      - if statements INSIDE while loops
      - The do-while loop
        - Pretest loops (while/for) vs posttest loops (do-while)
      - Keyword: break
      - Keyword: continue
    - **Homework 5 assigned**

- **WEEK 6: Loops Continued**
  - **DAY 1 (Sept 30):**
    - Topics:
      - The for loop
      - Nested loops
    - **Homework 6 assigned**
  - **DAY 2 (Oct 2): NO CLASSES SCHEDULED**

- **WEEK 7: First Exam Week**
  - **DAY 1 (Oct 7): Review for Exam 1**
  - **DAY 2 (Oct 9): EXAM 1**

- **WEEK 8: Strings and Things**
  - **DAY 1 (Oct 14): CONVERSION DAY - MONDAY SCHEDULE**
  - **DAY 2 (Oct 16):**
    - Review exam results
    - Topics:
      - Introduction to characters
      - Characters
        - The charAt() method
        - The Character class methods
      - Strings
        - String traversal
        - Substrings
        - The indexOf() method
        - String comparison

        - **Homework 7 assigned**

- **WEEK 9: Strings and Things Continued/Void Methods**
    - **DAY 1 (Oct 21):**
        - Topics:
            - Strings continued
    - **DAY 2 (Oct 23):**
        - Topics:
            - Adding new (void) methods
            - Flow of execution
            - Parameters and arguments

- **WEEK 10: Void Methods Continued/Value Methods**
    - **DAY 1 (Oct 28):**
        - Topics:
            - void methods continued
            - Stack diagrams
            - Tracing methods
    - **DAY 2 (Oct 30):**
        - Topics:
            - value methods
                - return values
                - Method composition
            - Boolean methods
            - Javadoc comments
        - **Homework 8 assigned**

- **WEEK 11: Arrays**
    - **DAY 1 (Nov 4):**
        - Topics:
            - Arrays
                - What are arrays?
                - Creating arrays
                - Accessing elements
                - Displaying arrays
    - **DAY 2 (Nov 6):**
        - Topics:
            - Arrays (continued)
                - Modifying arrays

        - Copying arrays
        - Array length
        - ArrayIndexOutOfBoundsException

- **WEEK 12: Arrays Continued**
    - **DAY 1 (Nov 11):**
        - Topics:
            - Arrays (continued)
                - Array traversal
                - Traverse and count
                - Enhanced for loop
    - **DAY 2 (Nov 13):**
        - Topics:
            - Parallel Arrays
        - **Homework 9 assigned**

- **WEEK 13: Arrays Continued**
    - **DAY 1 (Nov 18):**
        - Topics:
            - Searching arrays
                - Linear search
                - Binary search (tracing not writing)
    - **DAY 2 (Nov 20): Review for Exam 2**

- **WEEK 14: Second Exam Week**
    - **DAY 1 (Nov 25): EXAM 2**
    - **DAY 2 (Nov 27): COLLEGE CLOSED - THANKSGIVING HOLIDAY**

- **WEEK 15: Arrays Continued**
    - **DAY 1 (Dec 2):**
        - Review exam 2 results
        - Topics:
            - Sorting arrays
                - Bubble sort
    - **DAY 2 (Dec 4):**
        - Topics:
            - Sorting arrays (continued)
                - Selection sort

        - **Homework 10 assigned**

- **WEEK 16: Number Systems/Final Review**
    - **DAY 1 (Dec 9):**
        - Topics:
            - Number System Conversions
                - Binary
                - Hexadecimal
                - Decimal
    - **DAY 2 (Dec 11):**
        - Last day of class:
        - FINAL REVIEW

- **FINAL EXAM: TBA**

# SPECIAL DATES:

Aug. 26 First day of classes
Aug. 30-31 No classes scheduled
Sept. 1 College Closed
Sept. 22-24 No classes scheduled
Oct. 1-2 No classes scheduled
Oct. 13 College closed
Oct. 14 Conversion day, classes follow Monday schedule
Oct. 20 No classes scheduled
Oct. 24 Conversion day, classes follow Monday schedule
Nov. 27-28 College Closed
Nov. 29-30 No classes scheduled
Dec. 16-22 Undergraduate Final Examinations
Dec. 24-25 College Closed

# Bibliography

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