

Framingham State University

CSCI 130 – Computer Science I Using Java

Summer 2019 Syllabus

Instructor Information

Instructor Name: Dr. Andrew Jung

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Office Hours: TBD / by appointment.

Semester and Year: 8th July-9th August 2019

Course Information

- I. **Course Credits:** 4 Credit hours including Lab hour
- II. **Course Prerequisite:** None
- III. **Required Textbook:** Java Software Solutions (Foundations of Program Design); John Lewis, William Loftus; ISBN-13: 978-0-13-446202-8, ISBN-10: 0-13-44602-5
- IV. **Course Description:**

An introduction to the general concepts of computer programming and problem-solving through practical hands-on experience using the Java programming language. Topics include: the basics of computer hardware and software; an introduction to the Java program-development environment and the Java Virtual Machine (JVM); problem-solving techniques for programming; development of algorithms, number systems, data types, and operators; input – output operations; program control structures including loops, methods (functions), and arrays; an introduction to object-oriented programming; and designing, implementing, compiling, testing, and debugging programs. Laboratory periods provide hands-on experience using programming exercises that include implementing designed algorithms as well as compiling, testing, and debugging programs.

V. **Learning Objectives:**

Upon completion of this course, students will be able to complete the following learning objectives:

- Identify the main programming features of the Java programming language.
- Write Java applications using primitive types, input, and output statements.
- Create interactive programs to input and process data to create acceptable output.
- Learn what classes, objects, methods, and instance variables are and how to declare and call them.
- Use the selection and repetition statements to execute statements in a program.
- Use the logical operators to form complex conditional expressions in control statements.
- Code programs to use method call/return mechanism, method overloading and Java API methods.
- Write programs to declare and use single and multidimensional arrays to store and retrieve data from lists and table of values.
- Use static and final variables to create class variable and methods.

VI. **Course Grading:**

Final grades evaluations are determined by a weighted average of examinations, assignments, projects, and class participation.

Your final grade in the course will be based on the following:

	Mid-term and Final-Exam	Percentage
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Examination	Performance Test (writing codes)	Programming Knowledge Test (multiple choices and true and false questions)	40%
	20%	20%	
Assignment	10 Programming Assignments (2 / week)		25%
LAB	Programming Practice (1 / each day)		25%
Quiz	1 quiz / week		5%
Participation	Class participation		5%
Total:			100%

Letter grades are determined as follows:

- A** 95–100% of the total percentage points possible
- A-** 90 – 94.9% of the total percentage points possible
- B+** 87-89.9% of the total percentage points possible
- B** 83–86.9% of the total percentage points possible
- B-** 80-82.9% of the total percentage points possible
- C+** 77-79.9% of the total percentage points possible
- C** 73–76.9% of the total percentage points possible
- C-** 70-72.9% of the total percentage points possible
- D+** 67-69.9% of the total percentage points possible
- D** 63–67.9% of the total percentage points possible
- D-** 60-62.9% of the total percentage points possible
- F** less than 60% of the total percentage points possible

VII. Tutoring:

Tutors who are eager to help students are available via the Computing Sciences Department.

VIII. Copyright Law

This course website may contain copyrighted materials that are used in compliance with the U.S. Copyright Law. Under that law, materials may not be saved to your computer, revised, copied, or distributed without permission. They are to be used in support of instructional activity as part of this course only and shall be limited to the duration of the course, unless otherwise specified by the instructor or owner of the material. You may only download or print materials at the direction of your instructor who knows which materials are copyrighted and which are not.

Class Policies

I. Late Assignments:

Assignments turned in late due to a documented excused absence will be graded as initially assigned. Late assignments due to unexcused absence will not be accepted.

II. Retest/Make-up Exam:

A student who misses an original examination may arrange with the instructor for a make-up/retest examination with official document provided. All make-up/retest examinations must be taken within three days of the student's return to class. Students will earn their full grade on make-ups for documented absences. Students who does not provide official documents may not allow to take test. Quizzes that are missed follow the same rules.

It is the student's responsibility to see the instructor of the course in order to schedule a retest/make-up examination. The appointment times for retest/make-ups are scheduled at the instructor's discretion.

III. Early Exam:

Students may elect to take an exam early due to a conflict. Students must submit official documents to take exam early. Arrangements should be made in advance with the instructor, and the student's grade will not be affected.

IV. Attendance:

Students are expected to attend all regularly scheduled class meetings. Students are encouraged to tell their instructor in advance or to call the administrative office if they will be absent.

V. Electronic Communication/Recording Devices:

To minimize classroom disruptions and protect the integrity of test-taking situations, activated electronic communication devices such as pagers, cellular telephones, and recording devices are not permitted in classrooms unless you have the specific written permission of the instructor. The only exception to this policy will be for on-call emergency personnel (police, fire, EMS), who will be required to notify their instructor of their need for such devices at the beginning of the semester and provide documentation verifying their occupation. However, on-call emergency personnel may not leave a testing situation; communicate by electronic means and return to complete an examination. In these cases, instructors should make arrangements for retesting. Use of personal laptop computers is acceptable during class.

VI. Academic Honesty:

Integrity is essential to academic life. Consequently, students who enroll at Framingham State agree to maintain high standards of academic honesty and scholarly practice. They shall be responsible for familiarizing themselves with the published policies and procedures regarding academic honesty. Students are referred to the University Catalog for detailed information on Framingham State policy regarding academic honesty.

VII. Submission Policy:

All submissions including assignments, projects, exams, quizzes, and documents must be submit through Blackboard unless the instructor requests hardcopy or through email.

Once the due date is past so that the Blackboard is closed, the instructor will not accept anything without permission.

Course Schedule

Week	Topics
Week 1 July 8 – July 12	<ul style="list-style-type: none">• Introduction, Java fundamental.• Variables, constant variable, and Primitive data type• Arithmetic operators• Escape sequences• Assignment operator• Operator precedence
Week 2 July 15 – July 19	<ul style="list-style-type: none">• Reading Input(Scanner class and methods)• Selection Structure I(if, and if else)• Selection Statement II(if ... elseif... else, and switch statement)• Relational operator and logical operator
Week 3 July 22 – July 26	<ul style="list-style-type: none">• While, for, and do... while loop• Random number generation• Nested loop• Mid-term
Week 4	<ul style="list-style-type: none">• Creating classes and objects• Object references• Access modifier

July 29 – August 2	<ul style="list-style-type: none">• Method call/return mechanism, method overloading• Constructor• Java API methods
Week 5 August 5 – August 9	<ul style="list-style-type: none">• Static field and method• Single dimensional array• Two dimensional array• Array list• Final-Exam