

Information Systems Department
University of Maryland Baltimore County
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IS 147 Introduction to Programming
Fall 2021

Instructor: Ben Johnson

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Course Delivery Site: blackboard.com

Office Hours: Wednesday 12-2 PM

Meeting Times:

Section 101 M/W 8:30-9:45 AM ILSB 233

Section 102 M/W 10:30-11:45 AM ILSB 233

Textbook: REVEL for Liang, online version of Introduction to Java Programming from Pearson publishing: ISBN 13: 978-134167008

Course Description and Rationale: This course introduces the basic principles and techniques involved in computer programming and computing. Methods of algorithm development, program development, and program design are taught using an object-oriented programming language. Projects are geared toward those typically encountered in the Information Systems field. This course is an introduction to both programming and the principles of computer science. You will learn how to program with principles that are relevant to all programming languages and also learn the basic concepts and vocabulary of computer science. It is a very important course in your education and will require significant weekly work on the readings and the programming projects. You will learn foundational computing concepts and develop programming skills. This course serves as preparation for IS 247. We will be using the Java programming language. This course is 3 credits.

Prerequisites: Recommended Preparation: IS 101 or COMP 101Y

Course Objectives:

Demonstrate skill necessary to succeed as a computing student and professional

Work effectively in a team to solve a complex technological challenge

Understand and apply fundamental concepts in computing (i.e., computational thinking, social responsibility and ethical inquiry)

Write basic programs using variables, conditional logic, loops, and functions

Instructional Methods: Lecture

Attendance and Participation: Regular and punctual attendance is expected of all students. In the case of absence due to emergency (illness, death in the family, accident, religious holiday, or participation in official College functions, it is the student's responsibility to confer with the instructor about the absence and missed course work.

Class Preparation and Student Success: All of the reading assignments should be completed before the class in which the material is to be discussed. Students should expect that for every 3 credit hours course they are devoting at least 9 additional hours preparing and studying course materials which are required or suggested. Students should contact the instructor for additional information about how to best achieve the goals and meet the academic expectations for this course. Additional support may be available through university or department resources in order to guide students toward success.

Course Requirements: Regular, punctual attendance is expected of all students in lecture. In-class assignments and homework must be completed by the time and date specified for full credit. Students are expected to be respectful, active contributors during group work.

Grade Apportionment:

In-class programming = 20%

Reading and Programming Homework = 10%

Test = 30%

Hands-on Programming Test = 30%

Attendance = 10%

In-class Programming: For many of the classes, there will be in-class programming assignments that I will work through in-class. At the end of class, you are expected to submit your assignment. These will be graded based on completion.

Reading and Programming Homework: There will be a weekly homework assignment. You can work with your classmates on these assignments, but you are not allowed to submit the same work.

Tests: There will be 3 two tests. One midterm and one final. The midterm is worth 10% and the final is worth 20%. These will be in-person, and you must bring your student ID.

Hands-on Programming Test: This will take place in class towards the end of the semester. You will not be able to work with your peers for this test.

Attendance: For each class, I will mark attendance. If you miss more than 3 classes, your cumulative grade at the end of the semester will drop one letter grade. For example, if you got an 'A' in the course but missed 4 classes, your grade will drop to a 'B'. The missed attendances stack, so for every multiple of 3 classes that you miss, your letter grade drops.

Grading Standards: IS instructors are expected to have exams and evaluations, which result in a reasonable distribution of grades. With respect to final letter grades, the University's Undergraduate Catalogue states that, "A, indicates superior achievement; B, good performance; C, adequate performance, D; minimal performance; F, failure." There is specifically no mention of any numerical scores associated with these letter grades. Consequently, there are no pre-defined numerical demarcations that determine final letter grade. These numerical demarcations that determine final letter grade can only be defined at the end of the semester after all numerical grades have been earned. At that point, numerical demarcations for final letter grades can be defined such that final letter grades in the course conform to the University's officially published definitions of the respective letter grades. In accordance with the published University grading policy, it is important to understand that final letter grades reflect academic achievement and not effort. While mistakes in the arithmetic computation of grades and grade recording errors will always be corrected, it is important to understand that in all other situations final letter grades are not negotiable and challenges to final letter grades are not entertained. Historical data suggest an "A" may be in the 91-100 range, "B"s may be from 81-90 and "C" grades from 70-80. All points from assignments and exams are additive for the semester. Each student starts at zero points which is an "F", any other grade must be earned. There will be no extra credit assignments available.

Due Dates: All assignments are to be handed in by the due date. If an assignment is not completed and submitted on time it may be accepted the following class session with an accompanying reduct of 70% of the earned grade. Due to some scheduling issues, some late assignments may not be accepted at all and will result in a total loss of points.

Make-up Policy: No make-up exams are allowed except through arrangement with the instructor prior to the exam date. As a result of creating new questions, make-up exams may be harder then the original scheduled exam.

Academic Integrity: By enrolling in this course, each student assumes the responsibilities of an active participant in UMBC's scholarly community in which everyone's academic work and behavior are held to the highest standard of honesty. Cheating, fabricating, plagiarism, and helping others to commit these acts are all forms of academic dishonesty and they are wrong. Academic misconduct could result in disciplinary action that may include, but is not limited to, suspension or dismissal. Full policies on academic integrity should be available in the UMBC Student

Handbook, Faculty Handbook, or the UMBC Directory.

Accessibility and Disability accommodations, Guidance and Resources: Support services for students with disabilities are provided for all students qualified under the Americans with Disabilities Act (ADA & ADAAA) and Section 504 of the Rehabilitation Act who request and are eligible for accommodations. The Office of Student Disability Services (SDS) is the UMBC department designated to coordinate accommodations that would create equal access for students when barriers to participation exist in University courses, programs, or activities. If you have a documented disability and need to request academic accommodations in your courses, please refer to the SDS website at <https://sds.umbc.edu/> for registration information and office procedures. SDS email: disability@umbc.edu SDS phone: (410)-455-2459 If you will be using SDS approved accommodations in this class, please contact me (instructor) to discuss implementation of the accommodations. During remote instruction requirements due to COVID, communication and flexibility will be essential for success.

Course Schedule:

| Week | Material | Due |
|--------|-----------------------------|-------------------|
| Week 1 | Intro Week | |
| Week 2 | Object Oriented Programming | Homework 1 |
| Week 3 | Data Structures | Exam & Homework 2 |
| Week 4 | Algorithms | Homework 3 |
| Week 5 | Review | Final Exam |

Inclement Weather: Any work or test due on a class date that has been canceled due to inclement weather will be due the next class meeting. (If the semester's last exam is postponed, it will be given during the time period assigned during the University's official Final Exam week.