Programming & Mobile Apps

Syllabus: Ma153 Section OL1 Spring 2026

Info

3 Credits

This is an Online (OL) course, which runs on the same semester schedule as face-to-face courses. Login to Brightspace with your FIT username and password on the first day of the semester at (http://brightspace.fitnyc.edu)

Instructor Information

calvin_williamson@fitnyc.edu
office: B831 Science and Math
office hours: Monday 1-3, Tuesday 12-1, Thursday 12-1

Description

This course is an introduction to programming for mobile apps. Through visual programming tools, students learn to build mobile apps and control all aspects of the application. Computer science concepts are introduced to provide a complete understanding of the programming process. No previous programming experience is required. Prerequisite(s): mathematic proficiency (see beginning of Mathematics section).

Outcomes

1. Design and develop mobile applications using visual programming environments and development tools.
2. Apply application architecture concepts such as components, event handlers, logic, and control flow.
3. Represent and manipulate mathematical information through variables, expressions, and calculations in mobile apps.
4. Demonstrate logical reasoning by estimating, checking, and validating program results for accuracy and reasonableness.
5. Create applications that incorporate randomness, iteration, and data structures such as lists.
6. Implement persistent memory by designing applications that use databases for data storage and retrieval.

7. Perform quantitative analysis of user or application data and draw inferences from computational models.
8. Apply abstraction by creating reusable procedures and modular code components in application design.

Course Materials

We will use an online programming environment called AppInventor. The program is free and online so there is nothing to purchase.

Evaluation

Your grade will be determined as follows:

- Assignments (100%)

Assignments

You will submit programming assignments (roughly 20 assignments) as AppInventor project files (.aia project files). This is how your grade is determined. You are expected to demonstrate working programs in that format.

Late Assignments

Late Assignments submitted after the official due date and time but within 7 days of the that date and time are counted at 50% credit. Assignments more than 7 days late count for 0. You may petition to have the lateness penalty waived but do not expect that to be granted easily. You must provide official documentation of extenuating circumstances.

There is NO FINAL EXAM.

AI policy:

AI usage is not restricted in this course and you may use AI to help you compose the programs written in this course.