"Twenty years from now you will be more disappointed by the things that you didn't do than by the ones you did do. So throw off the bowlines. Sail away from the safe harbor. Catch the trade winds in your sails. Explore. Dream. Discover."

- Mark Twain

BASIC INFORMATION

Course

Name:	COMP 415 Mobile Computing First and for Most
Credits:	4
Prerequisites:	None
Term:	Spring 2018
Class Meetings:	Wednesday, 5:30 - 8:30 PM
Location:	TBD
Discovery Category:	Environment, Technology, and Society
Course Site:	**http://highfivecode.com/courses/app-inventor-crash-course/** **http://mycourses.unh.edu**

Instructor

Name:	Jon Shallow, Adjunct Professor
Program:	Computing Technology, Division of Science and Technology, UNH Manchester
Office:	TBD
Email:	jax472@wildcats.unh.edu
Office hours:	One hour before and after class, or by appointment.

How to get in touch with me

There are three ways to get in touch with me:

1. For questions regarding the video material, leave comments on the video discussion. If you have questions, someone else probably has the same exact question.
2. For in-person, one-on-one communication, see me **during office hours**, or **by appointment**.
3. If you have personal issues, questions, or concerns send me or email me using **mycourses.unh.edu** course email tool.

Course Description

This course examines basic computer science concepts and how mobile computing is transforming our everyday lives and the society and environment in which we live. In this course the students will engage the mobile ecosystem by inventing apps and solving problems of personal, social, and environmental relevance. Students will learn computational thinking skills and create mobile apps using App Inventor, a free and open source visual blocks-based programming environment. Students will share their creative apps with peers and communities. They will also exercise inclusion, civic engagement, and peer learning in the context of innovating with free and open source software that empower individuals and communities.
4 cr. ETS.

Resources

Development Platform, Resources, and Tools

- **Platform: MIT App Inventor Version 2** at http://ai2.appinventor.mit.edu is a web-based development environment maintained by the MIT Center for Mobile Learning @ MIT Media Lab. The App Inventor development environment lets you build apps for Android devices using a browser on your computer. To have access to the App Inventor development environment you need to have a Google Account.
- **Resources**
  - **http://highfivecode.com/courses/app-inventor-crash-course/**
  - David Wolber's **appinvetor.org - app building for everyone** site at http://www.appinventor.org/
  - MIT App Inventor at http://appinventor.mit.edu/explore/
- **Tools**: free and open source tools will be used to create multimedia resources for the apps, such as pictures and graphics, audio, and video resources. There are also free mobile apps that you need to install on your development phone to do "live testing" of your app, QR code reading, and more.

Textbook

THERE ARE NO TEXTBOOK REQUIREMENTS FOR THIS COURSE!

Optionally you can look at:

App Inventor 2: Create Your Own Android Apps, by David Wolber, Hal Abelson, Ellen Spertus, and Liz Looney. O'Reilly Media, Inc., Oct 2014, 2nd edition.

- Online version of the App Inventor 2 book is available at http://www.appinventor.org/book2.
- Also available through the **UNH Library, Safari Books Online** digital library with your UNH credentials.

Phones

You will be loaned an unlocked Android phone with a memory card (secure digital SD) for the duration of the semester. You are expected to return at the time you take the final exam. If you lose the device, you'll be charged $100. If you don't pay this balance by the end of the semester, final grade submission will be on hold until the payment is done. You may use your own Android phones, if you have one. The phone must have an SD card to store your apps.

Communication and Collaboration Tools

Because of the highly collaborative nature of the course, which values sharing and openness, we'll be using a variety of online tools that support these values: collaboration, sharing, and openness.

- Google Drive for teaching resources and student learning portfolios
- HighFiveCode website for video specific questions.
- MyCourses and this course syllabus.

Tech Consultants

Computing Technology department has tech consultants who are available to help with software configuration and other technical questions you might have. You'll find them in the Tech Consultancy Workroom 124.

Teaching Resources

Video lectures and additional resources can be found at highfivecode.com
Additional resources and announcements will be made via mycourses.unh.edu

Learning Portfolios

All your work is uploaded to your student learning portfolio. You will use Google Drive to create and maintain your portfolio for everything you create in this course: documents, presentations, and code.

Instructional Approach

"“I have not failed. I’ve just found 10,000 ways that won’t work.",
- Thomas Edison

Learning in this class depends heavily on *active participation*, *open collaboration*, and *constructive failure*. The course has 15 weeks with Wednesday 2:50 hour class meetings. You are expected to study 6-8 hours outside class every week.

Learning activities are structured by blending *in-person* and *online time* to engage with the course content:

- During class time we participate in discussions, presentations, solution review, and guided lab activities.
- Outside class time is for studying concepts and techniques, applying them to solve problems, doing homework , giving feedback to peers, reflecting on one’s own work, collaborating with peers, and working on team projects.
- Online means of communication and collaboration include the class forum, learning resources repository, and learning portfolios.
- In-class collaboration uses pair programming and group deliberations for designing, coding, and discussion.

COURSE REQUIREMENTS

Learning Portfolios and Practice

All your work is uploaded to your student learning portfolio. You will use the Google Drive to create and maintain your portfolio. Portfolio work includes: labs, homeworks, and the team project. Portfolios will be evaluated weekly during the semester.

Homework Assignments

There will be **four** outside class homework assignments, each **5 points**, for a total of **20 points** of the final grade. Homework assignments must be completed in your portfolios before the first friday following class (no later than 12:59 PM). This gives you the chance to attempt the homework before class, ask questions during class, and then clean up the homework after class. Use this to your advantage!

Collaboration and Lab Practice

You are required to collaborate **in class** with your partner using **pair programming**, with your peers through **discussions** and **demonstrations**, and with your team members while working on the project.

Creative Projects

There will be a team project to create a mobile app that has to be proposed (pitched), designed, implemented, and presented to a general audience. The creative project will address an issue of interest to the team.

GRADING AND EVALUATION OF STUDENT WORK

To learn in this class you do homework assignments, work on the team creative project, do all your work in the learning portfolio, take a midterm and final exam, contribute to the class forum, and reflect on your weekly progress.

Final grade is calculated as follows:

- **4 homework assignments** @ **5 points** each, for a total of **20 points**
- **9 quizzes @ 2 points** each for a total of **18 points.**
    - Quiz retakes will be taken after class every week.
    - You are allowed an infinite number of retakes.
    - Each retake will get harder, it is in your best interest to show up prepared the first time the quiz is taken.
- **Team project, 22 points**, broken down into:
    - **Use Cases: 3 points.**
    - **MockUps: 3 points.**
    - **Code Base: 5 points.**
    - **Final Presentation: 3 points.**
    - **Report: 3 points.**
    - **Mid-Project Presentation: 3 points.**
    - **final report, 2 points**
- **Midterm exam @ 20 points** and **final exam @ 20** points each, for a total of **40 points**
- **Extra Credit Homework (+5 points possible)**

There is a **5 points** penalty for each unexcused absences (see policy on **Attendance** below).

COURSE POLICIES REGARDING STUDENT BEHAVIOR

Attendance

Attendance is taken every class. You are responsible for attending all classes and expected to abide by the **University Policy on Attendance** (see https://www.unh.edu/student-life/04-attendance-and-class-requirements-2017).
If you miss a class, you have the responsibility to do the following 3 things:

1. **Email me** about the circumstances for missing the class within a week of the absence.
2. **Contact your peers** to find out what you've missed.
3. **Make up the absence** by including a reflection detailing what you've done to make up the missed work.

Except for absences due to serious medical reasons or circumstances beyond your control, no more than **two such makeups will be accepted**. Each additional absence will lead to a **reduction of 5 points** from the final grade.

Late submissions and make-up exams

Policy for late submissions and make-up exams is very strict and applies only in exceptional cases of student illness, accident, or emergencies that are properly documented. A late submission or make-up exam **may be granted ONLY IF**:

1. You **email me prior to the deadline** AND
2. You explain and provide evidence for the circumstances that have prevented you from meeting the class requirement.

Failing to comply with these rules results in **no credit for the late submission or missed exam.**

Student use of computing devices

In-class use of any computing device is **not allowed** unless needed for lab activities and with the instructor's permission. Use of computing devices for non-class activities is not allowed. You will be asked to leave the class if you fail to comply with these rules. Students with a learning disability that requires the use of a computing device must provide evidence from the Disabilities Services office.

ACADEMIC HONESTY

No collaboration is allowed while taking the exams. Cheating on the exam is penalized with failing the course.

Assignment submissions should be entirely your work and may not include work done by others. Collaboration on assignments is encouraged, but does not include preparing and submitting the final artifacts that are uploaded to your portfolio.
Failing to comply with these rules is considered a violation of academic honesty policy.
See the https://www.unh.edu/student-life/handbook/academic/academic-honesty for more information.
There are very serious repercussions if you deviate from the academic honesty policy:

- The penalty for the first occurrence of an instance of academic dishonesty and plagiarism is no credit for the assignment in question. The Associate Dean will be immediately notified of the incident.
- The second attempt is penalized with failing the course.

STUDENTS WITH DISABILITIES

According to the Americans with Disabilities Act (as amended, 2008), each student with a disability has the right to request services from UNH to accommodate his/her disability. If you are a student with a documented disability or believe you may have a disability that requires accommodations, please contact Disability Services Coordinator, Janessa Zurek, room 410H (641-4383, Janessa.zurek@unh.edu) in the UNH Manchester Student Services Suite. Accommodation letters are created by the Disability Services Coordinator with the student. Please follow-up with me as soon as possible to ensure timely implementation of the identified accommodations in the letter. I will respond once I receive official notice of accommodations from the Disability Services Coordinator. For more information, please see http://manchester.unh.edu/disability-services.

TENTATIVE COURSE SCHEDULE

This is a **tentative** schedule, subject to change depending on the class pace, student learning needs, and/or

unforeseen circumstances, such as school closing due to inclement weather. Weekly assignments are communicated each class in the slide presentation.

HFC = HighFiveCode.
Classes with blue background means NO CLASS that week

Week #	Date	Core computational concept and practices	Due By 11:59pm Friday
1	1/24	Introduction. Course Expectations. Workspace Setup.	
2	13/1	Design View, Blocks View, Events and Event Handlers,	Videos 1 - 13 Complete.
3	2/7	Variables, Conditionals, and the Canvas	Videos 14 - 22 Complete. Homework 1
4	2/14	Quiz 1. Lists and Loops	Homework 2
5	2/21	Quiz 2. Persistent Data and Sprites.	Videos 23 - TBD Complete.
6	2/28	Quiz 3. Sprites and Clocks. Project teams.	Homework 3
7	3/7	Quiz 4. Project proposal presentations. Use Cases/Mock Ups	Use Cases/Mockups First Draft
8	3/14	Spring Break! Have Fun!	
9	3/21	Quiz 5. Project Work.	
10	3/28	Midterm Exam and Lab Work.	Midterm
11	4/4	Quiz 6. Project Work. Have First Draft of project mockups/use cases done.	Homework 4
12	4/11	Quiz 7. Project Work	Mid project presentation
13	4/18	Quiz 8. Project Work	
14	4/25	Quiz 9. Project Presentations. Final Review	Final Project Presentation
15	5/2	Final exam (Take Home)	
16	5/9	Final exam (Take Home)	