

## **Carnegie Mellon University**

### **95-733 Internet of Things**

#### **Syllabus**

##### **Instructor**

Name: Michael J. McCarthy

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Office: Hamburg Hall 3015

Phone: 412-268-4657

Officer Hours on Zoom: TBA

Zoom URL: See Canvas or Piazza

##### **Teaching Assistant**

Name: TBA

Email: TBA

Officer Hours on Zoom: TBA

Zoom URL: See Canvas or Piazza

##### **Prerequisite**

The ability to program is the main prerequisite. The student may be asked to learn and work with programming languages he or she has not been exposed to. A certain level of programming maturity is required. If you are unsure about your ability, speak with your instructor.

##### **Assignments**

There will be four programming projects equally weighted (60%). Three will be assigned by your instructor and one will be self-assigned. The self-assigned project (Project 4) will be demonstrated to the class during the final week of classes.

There will be four or five quizzes on the readings at the start of lecture with the low score dropped (15%).

There will be a closed Book Final Exam based on readings, lectures, and programming (25%).

##### **Late Assignment Policy**

You have 7 grace days to spend. This policy is meant to cover such issues as job interviews, travel and so on. After the seven days are spent, there is a late penalty of 10% per day.

### **Policy on collaboration**

Unless otherwise noted, collaboration is not permitted. While it is fine to discuss projects with others it is a cheating violation when code is copied or shared. If a student is caught sharing his or her work with another, a failing grade may be assigned for the course. Likewise, if a student uses another's work when completing his or her own, a failing grade may be assigned for the course. In either case, the Dean will be notified. Note that github submissions and past student solutions are checked for cheating. In addition, the exams are designed to test your knowledge and coding skills.

### **Policy on grading complaints**

Grading mistakes may occur. Please contact the TA who graded your assignment about grading mistakes. It will be up to the TA to handle the complaint. If you are still not satisfied with the TA's grade please contact me immediately. My initial reaction will be to support the TA's grade. In some cases, however, I might agree with the student and ask for the grade to be adjusted. Please make any grading concerns known to the TA immediately. Set up an appointment with the TA and get the matter resolved.

### **Use of Canvas**

There will be a Canvas site for the course. Grades will be posted there and assignments will be submitted there. We will also make good use of the discussion board on Piazza. It is far better to post a question to the discussion board than it is to send your instructor or TA an email. Answers posted there are available for all to see. The main site for the course (syllabus, course description and schedule) is this page.

### **FERPA Statement**

Classes may be recorded via Zoom so that students in this course (and only students in this course) can watch or re-watch past sessions. Please note that breakout rooms will not be recorded. These recordings will be available on Canvas as soon as possible after each session. Please note that you are not allowed to share these recordings. This is to protect your FERPA rights and those of your fellow students.

### **Software Requirements**

The student needs to download and install the most recent IntelliJ Ultimate IDE.

For server side coding use TomEE Plus Available  
here: <https://www.jetbrains.com/idea/>

Installation instructions are available  
here: [http://www.andrew.cmu.edu/user/mm6/95-733/IntelliJ\\_Installs.pdf](http://www.andrew.cmu.edu/user/mm6/95-733/IntelliJ_Installs.pdf)

### **Hardware Requirements**

The student needs to purchase a Particle Photon with Headers Starter Kit.  
Available here:<https://store.particle.io/products/photon-kit>

**Delivery Mode**

TBA

**Time and place**

TBA

**Review Session Time and place**

TBA

**Grading Scale**

97.5 - 100 A+

92.5 - 97.4 A

90.0 - 92.4 A-

87.5 - 89.9 B+

82.5 - 87.4 B

80.0 - 82.4 B-

77.5 - 79.9 C+

72.5 - 77.4 C

70.0 - 72.4 C-

**Recommended Text**

Building the Web of Things

By Guinard and Trifa [Available here] (<https://webofthings.org/>)

For an online copy, click on the O'Reilly for Education  
link:[https://cmu.primo.exlibrisgroup.com/discovery/fulldisplay?context=PC&vid=01CMU\\_INST:01CMU&search\\_scope=MyInst\\_and\\_CI&tab=Everything&docid=cdi\\_safari\\_books\\_9781617292682](https://cmu.primo.exlibrisgroup.com/discovery/fulldisplay?context=PC&vid=01CMU_INST:01CMU&search_scope=MyInst_and_CI&tab=Everything&docid=cdi_safari_books_9781617292682). You want to select View Online option.

You'll get a "Select your institution" dropdown menu prompt. Select the "Not listed? Click here" option in that dropdown.

Enter your Andrew email address and click "Let's Go." You'll then get full text access to the book through the platform.

**Optional Text**

Programming the World Wide Web, Eighth Edition

Robert W. Sebesta, University of Colorado, Colorado Springs

ISBN: 978-0-13-377598-3

Publisher: Addison-Wesley

[Available here.] (<https://www.amazon.com/Programming-World-Wide-Robert-Sebesta/dp/0201704846>)

### **Good health**

Take care of yourself. Do your best to maintain a healthy lifestyle this semester by eating well, exercising, avoiding drugs and alcohol, getting enough sleep and taking some time to relax. This will help you achieve your goals and cope with stress.

All of us benefit from support during times of struggle. You are not alone. There are many helpful resources available on campus and an important part of the college experience is learning how to ask for help. Asking for support sooner rather than later is often helpful.

If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, we strongly encourage you to seek support. Counseling and Psychological Services (CaPS) is here to help: call 412-268-2922 and visit their website here. Consider reaching out to a friend, faculty or family member you trust for help getting connected to the support that can help.

If you or someone you know is feeling suicidal or in danger of self-harm, call someone immediately, day or night:

CMU CaPS: 412-268-2922

Re:solve Crisis Network in Pittsburgh: 888-796-8226

If the situation is life threatening, call the police:

On campus: CMU Police: 412-268-2323

Off campus in Pittsburgh: 911

Off campus in Adelaide: 131 444