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InternetOfThingsCourse / Syllabus.md**mm6** August_2021 History 1 contributor

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Carnegie Mellon University

95-733 Internet of Things

Syllabus

Instructor

Name: Michael J. McCarthy

Email: mm6@andrew.cmu.edu

Office: Hamburg Hall 3015

Phone: 412-268-4657 (Office)

Officer Hours: Tuesday and Thursday from 1:00 - 3:00 PM

Teaching Assistant

Name: Kieran Walsh

Email: kawalsh@andrew.cmu.edu

Communication

Please see Mike McCarthy during office hours or by appointment for person to person meetings. Kieran Walsh will be grading projects and will be your main source of contact on Piazza. Please contact either of us by email but only for messages that are clearly inappropriate for Piazza. The lectures will all be recorded and available on Canvas under the zoom link.

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 three programming projects equally weighted (60%). You may replace the third project with a presentation on an IoT related topic. The presentation might demonstrate an interesting technology in action or might be a review of a published paper.

If you plan on replacing Project 3 with a presentation, be sure to discuss the topic with me two weeks prior to the end of the mini.

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.

If you elect to use the late days at the end of the course, alert your instructor before your final exam. An "I" grade will be submitted and changed to a normal grade when the work is complete.

Policy on collaboration

Any code copied from another source must be clearly cited. Provide as a comment in the code the exact URL where the code was copied from. Code that is provided by the instructor is allowed as long as the code is clearly cited as being provided by the instructor. Of course, if you have violated the spirit of the project, you will earn zero points. Copying code without citing it is cheating.

A student who shares code with another student will be treated the same as the person who does the copying. Keep your own code safe.

The penalty for each instance of cheating, whether on a quiz, exam, or homework project, will be a zero for that assignment and a lowering of the final grade by one letter (e.g. from B to C).

In addition to any penalties imposed by the instructor, all cheating and plagiarism infractions will be reported in writing to the Associate Dean for the program, the Associate Dean of Faculty, the Dean of Student Affairs, and the Dean. They will review and determine if expulsion should be recommended. The report will become part of the student's record.

Policy on grading complaints

Grading mistakes may occur. Please email 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. Communicate 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 or Slack. 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 on GitHub.

FERPA Statement

Classes will 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

You will need to install Node.js, Express, and Node-RED. Directions will be provided on the first project.

Hardware Requirements

The student needs to have access to a Particle Argon IoT Starter Kit. [Available here.](#) These will be provided to you for free as long as supplies last.

Delivery Mode: In Person Only

Time

Tuesday, Thursday 4:40-6:00 HBH 1007

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/Resources

- We will be using Node for web sites: [Visit Node](#)

- We will be using Node-RED to build flows: [Visit Node-RED](#)
- Building the Web of Things By Guinard and Trifa is [available here](#). For CMU students, a free online copy is available. Click on the O'Reilly for [Education link](#). 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 by Robert W. Sebesta, University of Colorado, Colorado Springs, ISBN: 978-0-13-377598-3, Publisher: Addison-Wesley [Available here](#).

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