INSTRUCTORS:
Name: Jim Feher                  Office: Green 1156c
Tel: 314 935 9106                E-mail: jefeher@wustl.edu
Office Hours: MW 1:00-2:00pm, F 2:00-3:00 (Urbauer 0015), And by appointment
Name: Dennis Mell                Office: Green 1156a
Tel: 314 935 4876                E-mail: dennismell@wustl.edu
Office Hours: W 1:00-5:00pm, And by appointment

TA Email
Sam Chai <chai.siyuan@wustl.edu>
Ellen Dai <ellen.dai@wustl.edu>
John Fordice <fordice@wustl.edu>
John Gibson <johngibson@wustl.edu>
Sam Hoff <hoff@wustl.edu>
Natalie Ng <natalie.ng@wustl.edu>
Nathan Schmetter <nwschmetter@wustl.edu>

NOTE: All questions regarding grades should be directed to Jim or Dennis.

WEBSITE: https://classes.engineering.wustl.edu/ese205

CLASS SCHEDULE: Full class meeting/lecture F 3:00-4:00, Couples II, L015
Class meetings are mandatory. If a full class meeting is not going to be held, it will be listed on the wiki.

TEXT BOOK: NONE

CATALOG DESCRIPTION: A hands-on course where students, divided in groups of two or three, will creatively solve one problem throughout the semester using tools from electrical and systems engineering. The groups choose their own schedule and work under the supervision of an academic team consisting of faculty and higher-level students. The evaluation considers the completion of objectives set by the students with help of the academic team, as well as the originality, innovation, and impact of the project. Prerequisite Course(s): CSE131, Phy117A or equivalent.

EVALUATION PROCEDURES:
Wiki and weekly logs 15%
Weekly meetings with TAs 20%
Biweekly meetings with instructor 20%
Preliminary group presentations 5%
Demonstration and project success 30%
Final report 10%

Letter grades are assigned as follows: A 90-100%, B 80-90%, C 70-80%, D 60-70%, F below 60%.
Minus and plus designations may be used as well. If circumstances dictate, the scale may be lowered, but it will never be raised. If you have any questions about the scoring of any material, direct those questions to me, not the TA/graders.
**Wiki & Weekly Logs:** The design for your project will be documented on the wiki along with the work of your group. The wiki should contain:

- A project proposal which includes a list of dated milestones to be achieved
  [https://classes.engineering.wustl.edu/ese205/Project_Proposal_Guidelines](https://classes.engineering.wustl.edu/ese205/Project_Proposal_Guidelines)
- All design documents required to explain how to complete your project. You will use most of this in your final report, so gather and document along the way. We want to avoid you having to do all the final report creation at the very end of the project. These items include but are not limited to:
  - Schematics
  - Gantt Chart detailing the timeline for the project.
  - Links to relevant software or modeling files and instructions
  - Suppliers and costs for various components
  - A simple manual of how to use/operate the project.
- A weekly log indicating the work performed by the group indicating the time allotted and which members participated, along with challenges faced, and a brief outline of the work for the following week.

For information regarding the wiki, please see:
[https://classes.engineering.wustl.edu/ese205/New_Student_Checklist](https://classes.engineering.wustl.edu/ese205/New_Student_Checklist)

**Weekly Meetings with TA:** Each group will be assigned a TA and will be required to meet with that TA at least once every week to discuss progress their project, progress being made to meet the milestones outlined in the original project proposal, challenges being faced and work to be undertaken the following week. The entire group is expected to meet with the TA. The weekly log should be updated 24 hours prior to meeting with the TA.

**Meetings with Instructor:** These meetings will serve as a means of evaluating the progress made toward the milestones of the project. The project proposal which included the goals and timeline may be amended with the approval of the instructor if unforeseen challenges have arisen and are correctly documented on the wiki. Note that the weekly log should also be completed 24 hours prior to the meeting with the instructor.

**Preliminary Group Presentations:** Groups will present their initial project proposal to the entire class twice. During this time, the goals of the project should be presented along with a condensed timeline for completion as well as anticipated challenges that have been or will be faced.

**Demonstration and Project Success:** Groups are expected to meet the goals of the project as stated in their proposal and successfully demonstrate and present their project at the “Demonstration and Poster Session”.
[https://classes.engineering.wustl.edu/ese205/Demonstration_Session_Guidelines](https://classes.engineering.wustl.edu/ese205/Demonstration_Session_Guidelines)

**Final Report:** Groups will document their final report on the wiki.

**Approved Lab Practices and Guidelines:** The lab and lab equipment are shared by all of the students in the course. Students are expected to keep the lab clean and tidy. Students are expected to follow the guidelines and best practices for using the lab equipment. This includes that the group provide payment for to the department for parts included in the project or disassembling the project with the approval of the TA. Students who fail to do so, will have points removed from their overall grade.

**Attendance:** Students are expected to attend all full class lectures, weekly group meetings with the TAs as well as biweekly group meetings with the instructor. All members of the group should be present at meetings with the instructor and with their TAs.
Academic Integrity: Students are expected to follow the Academic Integrity policy outlined in the student catalog. Students found in violation of the policy will be reported to the Academic Integrity Officer for the college. Sanctions will follow the procedure as outlined in the policy.

<table>
<thead>
<tr>
<th>Date</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/19</td>
<td>Go over syllabus, rules for class, best lab practices</td>
</tr>
<tr>
<td>1/26</td>
<td>Finalize groups and projects</td>
</tr>
<tr>
<td>2/2</td>
<td>Tutorials: Arduino &amp; PI</td>
</tr>
<tr>
<td>2/9</td>
<td>Short group presentations for project</td>
</tr>
<tr>
<td>2/16</td>
<td>Short group presentations for project</td>
</tr>
<tr>
<td>2/23</td>
<td>Short group presentations for project</td>
</tr>
<tr>
<td>3/2</td>
<td>Tutorials: 3D printing &amp; Soldering</td>
</tr>
<tr>
<td>3/9</td>
<td>No Full Class Meeting</td>
</tr>
<tr>
<td>3/23</td>
<td>No Full Class Meeting</td>
</tr>
<tr>
<td>3/30</td>
<td>Discussion of Demonstration and Poster Session</td>
</tr>
<tr>
<td>4/6</td>
<td>No Full Class Meeting</td>
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<tr>
<td>4/13</td>
<td>Group Project Presentations</td>
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<tr>
<td>4/20</td>
<td>Demonstration and Poster Session: Lopata Lobby, 2:00pm-3:30pm</td>
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<tr>
<td>5/4</td>
<td>Final Project Report Due</td>
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Tutorials will involve: soldering, arduino, pi and 3d printing. Group participation will vary depending upon the group project. The instructor and TAs will inform each group as to which tutorials are optional and which are mandatory for each group.