INSTRUCTORS:
Name: Jim Feher
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Tel: 314 935 9106
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Office Hours: MWF 1:00-2:00pm, and by appointment

TA
Chance Bayles <cbayles@wustl.edu>
Keith Kammons <k.kamons@wustl.edu>
Will Parkinson <wbparkinson@wustl.edu>
Tony Sancho-Spore <a.sancho@wustl.edu>
Ethan Shry <ethan.shry@wustl.edu>
David Tekien <dtekien@wustl.edu>
Michael Williams <r.m.williams@wustl.edu>

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

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

CLASS SCHEDULE: Full class meeting/lecture F 3:00-4:00, Couples II, 230
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 progress & weekly meetings 35%
with TA and instructor
Preliminary group presentations 5%
Demonstration and project success 20%
Project Success 15%
Final report 10%

These percentages reflect the importance of the various aspects of the course. While numerical values for these items will not be continuously reported throughout the semester, students will be provided feedback during the semester as to where they stand and what grade they are likely to receive. Students are welcome and encouraged to ask for additional feedback from the instructor at any time if they are uncertain about their status in the course.

If you have any questions about the scoring of any material, direct those questions to the instructor, not the TA/graders.

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.
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
- 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 contains the following items completed 24 hours prior to instructor or TA meetings. Students are expected to devote 6-9 hours of time to this course outside of the normal meetings and class sessions. This should be reflected in the log.
  - What work was performed by the group indicating
    - How much time it took
    - Who did the work
    - When the work was done
  - Any immediate concerns
  - A brief outline of items to be completed the following week

For information regarding the wiki, please see:
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 of 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.

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: Regarding “Weekly meetings with TA” and “Meetings with Instructor”

- Groups failing to make progress as outlined by their Gantt chart or meet milestones articulated by the TA and instructor may face deductions in these categories.
- Note that the weekly log should also be completed 24 hours prior to the meetings.
- A weekly meeting will most likely always be conducted with both the TA and instructor present, but groups should feel comfortable asking for additional meetings if they feel they need more assistance or guidance.

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

Final Report: Groups will document their final report on the wiki.
https://classes.engineering.wustl.edu/ese205/Final_Report_Guidelines
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, may 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 of the policy will be reported to the Academic Integrity Officer for the college. Sanctions will follow the procedure as outlined in the policy.

**Tentative SCHEDULE**

<table>
<thead>
<tr>
<th>Date</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/14</td>
<td>• Go over syllabus, rules for class, best lab practices.</td>
</tr>
<tr>
<td></td>
<td>• Hand in self assessment.</td>
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<tr>
<td></td>
<td>• Start group formation.</td>
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<tr>
<td>1/18</td>
<td>• Continue discussion of course rules and procedures</td>
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<td></td>
<td>• Finals groups</td>
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<tr>
<td></td>
<td>• Discuss initial projects (night light or other depending upon group goals)</td>
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<tr>
<td>1/25</td>
<td>• Finalize projects</td>
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<tr>
<td></td>
<td>• Discussion of initial projects</td>
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<tr>
<td>2/1</td>
<td>Tutorials: Which depend upon group initial projects</td>
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<tr>
<td>2/8</td>
<td>• Short group presentations for project  <em>(See wiki for dates which groups are assigned)</em></td>
</tr>
<tr>
<td></td>
<td>• Project Proposals Due</td>
</tr>
<tr>
<td>2/15</td>
<td>• Short group presentations for project  <em>(See wiki for dates which groups are assigned)</em></td>
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<tr>
<td></td>
<td>• <em>Night Light Project Due – for groups in which it was assigned</em></td>
</tr>
<tr>
<td>2/22</td>
<td>Short group presentations for project  <em>(See wiki for dates which groups are assigned)</em></td>
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<tr>
<td>3/1 &amp; 3/8</td>
<td><em>No Full Class Meeting</em></td>
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<tr>
<td>3/22</td>
<td>Discussion of Demonstration and Poster Session</td>
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<tr>
<td>3/29</td>
<td><em>No Full Class Meeting</em></td>
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<tr>
<td>4/5 &amp; 4/12</td>
<td>Discussion of Demonstration and Poster Session</td>
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<tr>
<td>4/19</td>
<td>Demonstration and Poster Session: Lopata Lobby, 2:00pm-3:30pm</td>
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<tr>
<td>4/26</td>
<td>Recap from Demo &amp; Poster Session</td>
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<tr>
<td>5/6</td>
<td>Final Project Report Due</td>
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