In EECS388 labs, you will learn how to use microcontrollers and embedded processors for interacting with the physical environment using I/O devices. Below is the (tentative) lab topics:

- Introduction with the embedded software development environment
- C-programming
- UART
- Sensor reading
- Servo motor control
- Timers
- Introduction to embedded Linux
- Linux scheduler
- Real-time DNN inference
- Self-driving car

Each student needs to attend one lab section every week. All students will be given access to a private GitLab repo at https://git.eecs.ku.edu/. Before each lab, a branch with the name "labXX" (XX is the lab number) will be created within the repo that contains the lab instruction and files for that week's lab exercise. Students should pull the latest files from their repo before starting their lab each week.

After completing the lab, students should push the final version of their code with a commit message "Final submission" as an indication of which commit is to be graded.

git commit -m "FINAL COMMIT - LabXX"

If multiple commits have the message "Final submission," the latest commit will be graded. A student will have until the start of their next lab section to submit their code (e.g., If your lab section is 8:00 AM Monday, you will have until 7:59 AM Monday of the following week).

**Remote and After-Hour Lab Access**

All students can attend their lab section remotely. We equipped each lab machine with an Elmo camera. Students can connect to the lab machines using NoMachine application and then turn on the camera using Zoom to see the experimental board that they are working with. You can also ask assistance from your GTA during your lab section to adjust the Elmo camera or tweak the experimental board for you.

If you need to work on a lab outside of your lab time you should book a time slot via this link:

https://outlook.office365.com/owa/calendar/EECS388Labs@kansas.onmicrosoft.com/bookings/

In your booked time slot, you can either show up in the lab in-person or connect to a Lab machine remotely. For after-hour in-person lab access, a door pin will be provided to you in the first session of your lab.
If you want to remotely access the lab outside your lab time and need someone to be in the lab assisting you (by tweaking the experimental board or adjusting the Elmo camera), you should book a time slot by selecting "EECS 388 Lab after hour access (online with SI assist)" service through the booking link above.

**IMPORTANT: Booking Rules**

1: You should not book a time slot further than three days ahead.

2: When you book a timeslot, you should use it or cancel it at least three hours before your booking.

**Students who do not abide by the above rules will be penalized by losing their lab access.**

**Late Submission**

If a student fails to submit her/his final version of the code before the deadline, the student is still able to submit the code with a penalty taken off that lab grade. The penalty for late lab submission is 10% per late day. Assuming that your submission deadline is on Monday at 7:59 AM, the table below shows a few scenarios for a better understanding of the daily 10% penalty:

<table>
<thead>
<tr>
<th>Submission time</th>
<th>Maximum possible grade (out of 100%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:01 AM Monday</td>
<td>90%</td>
</tr>
<tr>
<td>6:00 PM Monday</td>
<td>90%</td>
</tr>
<tr>
<td>7:59 AM Tuesday</td>
<td>90%</td>
</tr>
<tr>
<td>8:01 AM Tuesday</td>
<td>80%</td>
</tr>
<tr>
<td>10:00 AM Thursday</td>
<td>60%</td>
</tr>
<tr>
<td>08:01 AM Wednesday the other week</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Academic misconduct**

Students should not share their homework, lab code, and lab report with others or copy other students' code or report. In the case of plagiarism, we follow the university policy for academic misconduct: [http://provost.ku.edu/memos/20090814](http://provost.ku.edu/memos/20090814)

**Attendance policy**

You **should not physically attend the labs** if you booked an online timeslot with an SI, feel sick, have tested positive for COVID, or have been around someone who has tested positive.