

# ECE 438 Digital Signal Processing Lab

## WISE Lab, MSEE 190 (Fall 2017)

Lab page: [https://www.projectrhea.org/rhea/index.php/ECE438\\_Lab\\_Fall\\_2017](https://www.projectrhea.org/rhea/index.php/ECE438_Lab_Fall_2017)

### TA Information

Garrett McMindes, [gmcminde@purdue.edu](mailto:gmcminde@purdue.edu)  
Ikbeom Jang, [jang69@purdue.edu](mailto:jang69@purdue.edu)

**Office hours** - Office hours will be posted on the lab page under each TAs name.

### Lab Content

The experiments in this course generally build upon material covered in lecture. Each experiment describes one or more theoretical concepts, and then presents exercises to implement the concepts within the Matlab environment. All of the lab content is directly relevant to the exercises, so it is important that each section be read and understood before performing the corresponding exercises. As a rule, the entire lab should be read before your section meeting. You will spend less time in lab that way. If the lab work is not completed during the lab period, the remaining work should be done during open lab time or at home.

### Prerequisite

Fluency in MATLAB. Students who had few or no experience in MATLAB programming usually have much difficulty doing 438 labs.

### Attendance

Students must attend every laboratory. If you need to miss a lab due to an academic/business trip, job interview, or illness you should notify your TA (not the instructor) before the missing lab and should submit suitable documentation. There will be NO EXCEPTION! Students are not allowed to leave before the end of their lab section unless they hand in the completed lab report to the TA. At the end of the section, students should sign out. If the signature is missing, your quiz score will be reduced by 2 points.

### Laboratory Components

#### 1. Weekly Quiz:

- 30% of total lab grade (Your lowest quiz grade will be dropped.)
- 15 minutes to complete and 10 points per quiz, which is based on homework assignments and lab content of the previous week

If a student is late more than 10 minutes for the quiz, they will NOT be allowed to take a makeup without a valid excuse. The makeup quiz may be held during your TA's other lab section or by an appointment. Makeup quiz can be held up to twice.

## 2. Laboratory Report

- 70% of total lab grade
- Lab reports will consist of plots, written work, and code specified in the lab document.
- Two students make one group and each group turns in one report (hard copy) every week due beginning of the next lab session before quiz.

You only need to turn in what is specifically requested in the "INLAB REPORT" boxes in the lab instructions. No formal reports are required. Please use a cover sheet (a sample is provided in "EE438L Introduction and Guidelines"). Include your name and the lab number/title in the cover page. It is the student's responsibility to staple the lab report together (TAs are not responsible for unstapled pages that get lost).

- Late reports will be penalized at 15 points per day. Submitting a report right after the quiz will be considered one-day delay.
- Discussions about concepts and equations are encouraged, but sharing/copying code is prohibited.
- Lab report is graded out of 100 points
- Grading rubrics established in previous semesters (contain list of points for each exercise and question) will be used to grade lab reports. Rubrics will not be distributed to the students.
- At the end of the semester, if the average proportion of your participation for lab reports is below 40%, your lab grade will be dropped by one level. (If you get B for labs, will be given C.)

## 3. Code Submission

- Affect your report score: 50 points will be deducted for no code submission and 10 points for late submission per day. Submitting a report right after the quiz will be considered one-day delay.
- Each student will submit his/her own code (electronic copy) before the due time of lab report.
- Compress all your codes into one zip/rar/tar file and name it "Lab#\_Sec#\_FirstName\_LastName"
- Email them to [438lab@gmail.com](mailto:438lab@gmail.com) with a subject title "Lab#\_Sec#\_FirstName\_LastName" (e.g., Lab1\_Sec3\_Ikbeom\_Jang).  
\* Tue 11:30 – 2:20 (Sec3), Tue 2:30 – 5:20 (Sec5), Thu 2:30 – 5:20 (Sec6); Fri 2:30 – 5:20 (Sec7).
- Please follow the format. Otherwise, your code will not be accepted.
- Most students get full score if they submit all the relevant codes in time.

## Cheating

Don't do it. Specifically, if you have access to a previously graded lab report, do not even look at it. Certainly do not use someone else's code to perform the exercises. Some examples of cheating would be:

- Downloading large portions of code from the internet.
- Looking at another student's completed code.
- Writing code while looking at other's code.
- Copying written work from others.
- Copying your lab partner's code.
- Submitting report or code that includes someone else's work.
- Requesting a re-grade of lab report that has been altered.
- Looking at another student's quiz.

**Any kind of cheating will result in a failing lab grade.** This would require the student to retake the lab in a subsequent semester. All occurrences of academic dishonesty will be reported to the Assistant Dean of Students and copied to the ECE Assistant Head for Education. If there is any question as to whether a given action might be construed as cheating, please see the professor or the TA before you engage in any such action.