EML2322L – MAE Design and Manufacturing Laboratory

Tips for Working TA Office Hours

This document explains how to effectively and efficiently use the time during the TA office hours offered each semester for the course.

1. **Review the list of traits which makes a good TA for the course**, as every one of those tips applies just as much during office hours. Seriously, please review that list, as it really is vital to what we do.

2. **Put the students first.** Always try to prioritize working with the students who come to the office hours versus working on lab tasks during this time. If you are on the schedule to work and in a pinch need to use that time for studying or to complete a homework assignment, please let me know so I can substitute in your place, as that quickly undermines the students' belief that we are here to help them. In other words, please do not do work for another class while sitting at the lab tables during office hours (use the TA tables in the rear room instead).

3. **Mentor / mentee TA office hour teamwork / training.** Some office hours are hectic and others are slow. Mentor TAs, please train younger TAs on typical tasks they will need to be able to handle (see list below) and be patient and ready to answer questions newer TAs can't. When you do something for a student that a shadow TA likely hasn't done yet, please try to include them so their skill set is constantly growing. Mentee TAs, please assist older TAs by helping students with tasks with which you are comfortable, and be ready to ask older TAs questions about which you are unsure.

No.	Task / Description
1	Be familiar with every detail regarding the Project Description and Project Schedule
2	Be familiar with every detail regarding the Weekly Deliverables (which are also on the TA Notes that are emailed each weekend)
3	Be familiar with every detail regarding the DRT design report submissions
4	Be familiar with navigating the course website so you can confidently direct students to different course materials. Let Mike know if you think something is unclear or broken.
5	Be familiar with the TA Notebooks on the TA table and use it as a resource when needed
6	Understand how to engage students in meaningful conversations that cause them to use what was learned from the background research without just giving them the answer, so they feel smart and creative.
7	Understand how to setup a control box / mobile platform / drive wheel combo for testing
8	Understand where to find spare motor mounts and hubs for testing different concepts
9	Understand where to find common prototyping materials (screwdrivers, allen drivers, scissors, razor knives, cardboard and cutting boards, tape, PVC pipe, motor shaft hubs, etc.)
10	Be familiar with the different motors in the Motor Specifications document (specifications, physical location, where the find the mating fasteners, etc.)

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4. **Tasks during slow times.** During slower times please assist with some of the following so the administrative work is spread out among all of us:

   a. **Mark students absent in the roster.** Highlight the complete sign in block of any students who did not sign in the roster for the current or previous week.

   b. **Enter quiz and HW grades into the course grade sheet and collate in the folders on the TA table for return.** There is a passcode protected copy of the course grade sheet accessible on any of Mike's office computers. For security reasons, please never leave the computer alone with this document open. The passcode is the same as for our course homework keys.

   c. **Organize the TA and student worktables.** Everyone enjoys working in an organized space, so please help keep it that way throughout the week. In addition, put away items left out from previous labs or office hours. Place control boxes and the sample mobile platforms on charge in the rear room. Everything should have a place and everything should be in its place, so ask about anything that seems to just float in the lab.

   d. **Assist with routine laboratory maintenance.** A printed copy of the facility maintenance checklist should always reside on the TA table. Please help with a few maintenance tasks to distribute this workload among all TAs and learn more about the lab equipment. If you complete a task, please write your initials in the appropriate box on the checklist.

   e. **Be curious.** Take some time to walk about the lab, open the cabinets, and take stuff out to learn what we have. We only us about half of the machine accessories and tooling during a typical semester's course activities, so this is great way to grow you understanding. And it should be fun too!

   f. **Spend more time in the TA Informational Archive, Lab Resources Archive, and Advanced Manufacturing Archive.** There's a TON of good information here, so learn it on your way to becoming a truly great TA ☺!

   g. **Make something cool.** If it's slow and you've done one or two of these others tasks (or regularly do), then make something to develop your skills. We always have extra lab drops or other raw materials, so just ask if unsure, because there's no substitute for hands-on learning. Myself or a senior TA are always around if you are working on something new to you that could result in a broken tool (like boring, rigid tapping, parting, single point threading, etc.). You could also make progress on a **TA project** if you're involved with one.