



EE 1202 Labs: Overview

- You will be doing **eight lab exercises** in EE 1202.
- The EE 1202 lab is ECSS 4.622 (“new” engineering building), on the **third floor** of the ECSS building.
- Lab exercises will be done by teams of two students, working together. You can choose your own lab partner. If you do not have a partner, come to the instructor and he will find you one.
- You will do these labs **on your own, at your own rate.**
- **There are no scheduled lab times. Go to the lab and do your lab work when you wish (subject to lab open hours).**



Lab Hours

- **ECSS 4.622 is open ten hours a day, 10 AM to 8 PM, four days a week, Monday-Thursday.**
- **You are free to work on your lab at any time during these hours. You can do the lab all at once, or do a part of it and come back and do the rest later.**
- **There are 12 workstations in the lab. You must sign up to reserve a workstation. Workstations may be reserved in two-hour slots, M-R.**
- **If you come to the lab and a station is free, you may start work immediately. Remember to put your name on the reservation chart for the current period!**



Reservation Sheets

- Each week, reservation sheets for the next week be available in the lab at 10 AM Thursday morning.
- **You must reserve a lab station (you can “drop in” and start immediately if a station is free). Write your name in the reservation block. Include the course number, since EE 1202 and EE 2310 both use this lab.**
- **You can reserve no more than four hours per week, either in different 2-hour slots or contiguously.**
- **Please be prompt. If you are 15 minutes or more late, your reservation is voided.**
- **Reservations for the week may be made from the previous Thursday through the rest of the next week.**

Workstation	Time Slot Reserved				
	10 AM	12 Noon	2 PM	4PM	6 PM
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

ECSS 4.622 Lab

- **The entrance to 4.622 is shown on the right.**
- **There are twelve workstations in the lab room.**
- **Each workstation has oscilloscope, signal generator, digital multimeter (DMM), power supply, and IDL-800 digital prototyping unit.**
- **There are also to inductor-capacitor measurement units, one on each aisle.**
- **Oscilloscope probes and instruments leads are on hangars at the front of the lab.**



Lab Cabinets

- ECSS 4.622 is used for two sets of laboratory exercises, those in EE 1202 and those in EE 2319.
- As shown in the picture to the right, there are three cabinets inside the 4.622 door, to your immediate left.
- One cabinet contains EE 2310 parts.
- The second contain your EE 1202 experimental parts.
- The third is a general-purpose cabinet for both labs, containing miscellaneous support material required for both labs.
- If any EE 1202 material is not in the 1202 cabinet, it is in the “misc” cabinet.



Layout of 1202 Cabinet

- **The contents of the 1202 cabinet are shown to right.**
- **Note the layout of the cabinet to be sure that you can quickly get required components and get to work.**



Layout of Miscellaneous Cabinet

- **The Miscellaneous cabinet contains many items that will not be used regularly.**
- **Items such as the first aid kit are available in case of minor injuries (e.g., soldering iron burns).**
- **Check items in this cabinet when you first go into the lab to make sure you know the various items that are available.**



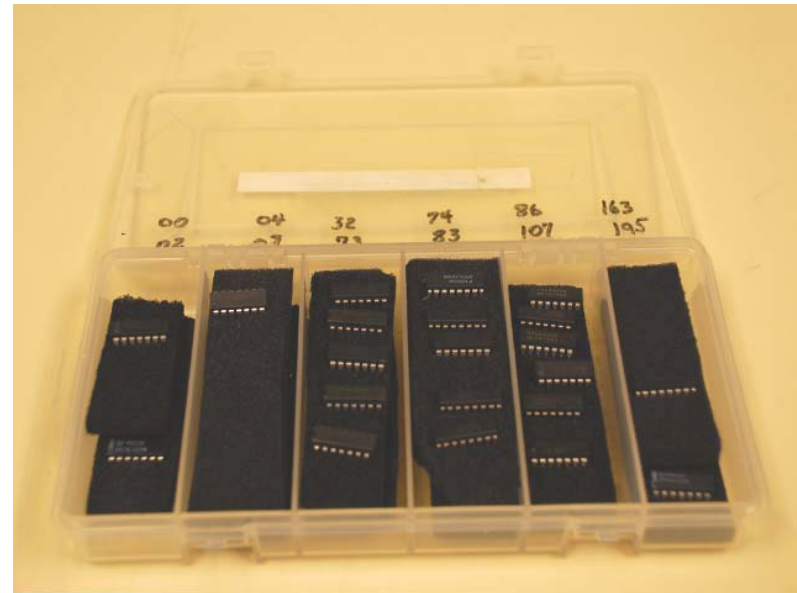
Component Parts Kits

- **Parts kits have compartments that contain the various components, including resistors, capacitors, inductors, op amps, etc.**
- **Note that resistors are in a common compartment. Students will need to be able to interpret resistor color codes to find a specific resistor value.**
- **Always put up ALL parts properly in their kits (either components or digital chips as described on the next page).**



Digital Parts Kits

- These kits will be used only for Experiment #3 (they are mainly for EE 2310).
- They contain the digital circuits, (“ic’s”) also arranged in partitions in groups of digital circuits.
- The circuit parts that are needed are identified on the last page of Lab #3.
- You can select the ic’s from the kit by their part numbers.



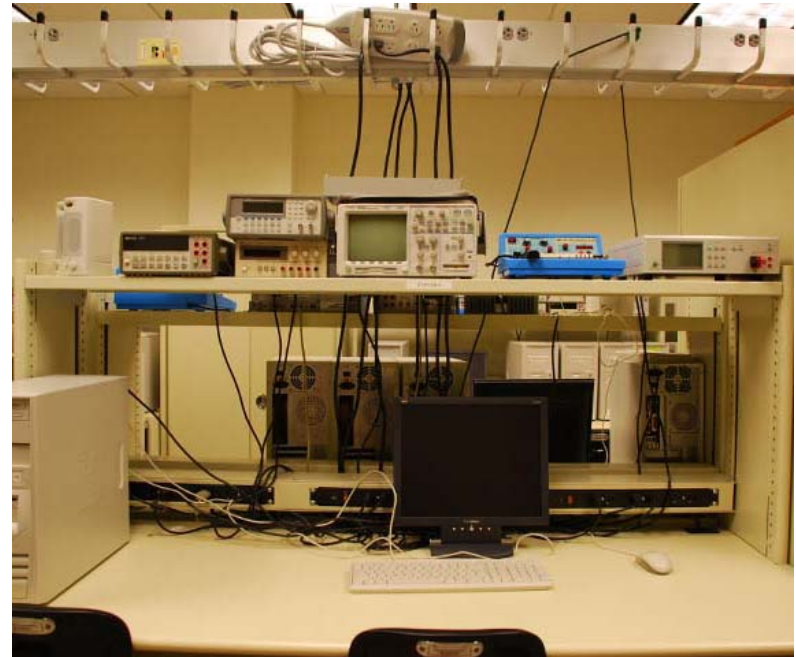
Wiring Kits

- **Wiring Kits are mainly for use in EE 2310 labs.**
- **You will use wiring kits on Lab 3.**
- **The wires are various lengths, made of multi-strand copper, with hardened tips to plug into the circuit boards.**
- **Please be certain that the wires are returned to the kits and properly arrange in the various kit partitions.**



Bench Layout

- The layout of the bench instruments is shown to the right.
- The items as shown to the right are:
 - Power supply
 - Digital multimeter
 - Signal generator
 - Oscilloscope
 - Digital prototyper
 - LC meter (stations 5, 12)



Instrument Identification



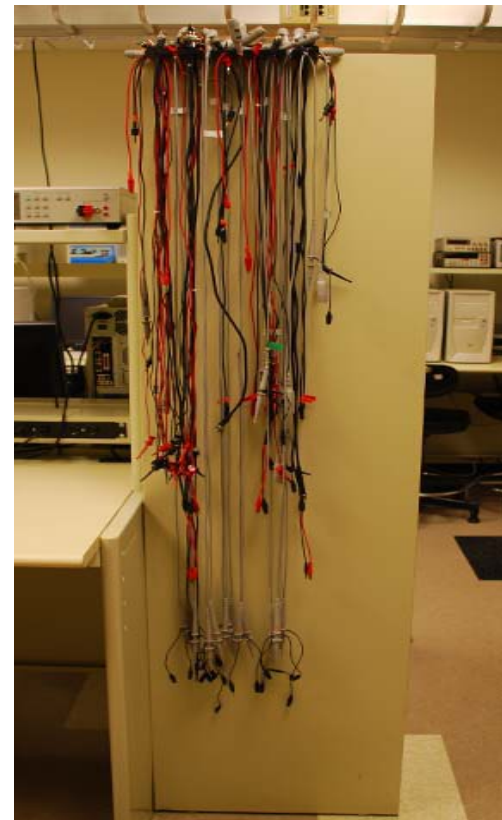
A

Instrument identification:

- A – Power supply
- B – Digital multimeter
- C – Signal generator
- D – Oscilloscope
- E – Digital prototyper
- F – LC meter (stations 5, 12)

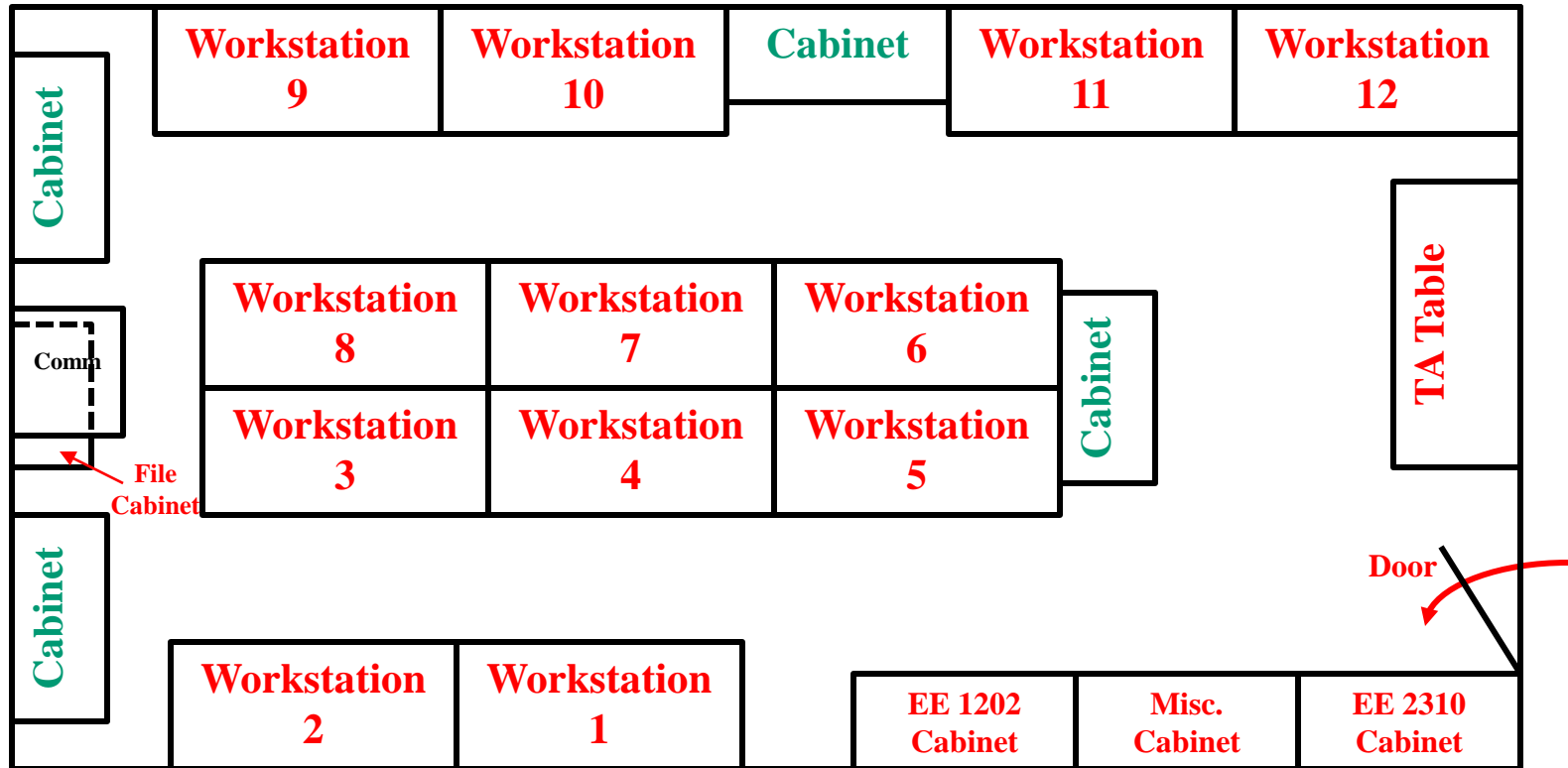
Lead Hangers

- Leads are stored on the hangars at the front of the lab as shown in the picture to the left (leads also on the other side of the cabinet).
- Get the leads you need and make sure you return them when you are finished.





Lab Layout





Lab Report Cycle

- Lab assignments are noted on the syllabus. The lab report is turned in directly to the EE 1202 class TA.
- Lab reports are due in the Monday class **two weeks after they are assigned**. One lab report is due from each team. The exact due time is shown on the web site.
- For Lab 8, turn in the data sheet only, signed off by the lab TA. One data sheet per team. Sign both names.
- Late lab reports are NOT accepted. **Exceptions can be made for very severe problems (such as your death)**.
- **Partners must each due three reports (you can share the last report or draw straws to see who does it)**.



Lab Routine

- 1. Read the exercise in the lab text before the classroom briefing.**
- 2. Reserve lab space (can do on previous Thursday) with partner.**
- 3. Make sure you attend the lab briefing in 1202 class!**
- 4. As soon as possible after the briefing, complete your worksheet! This will help prepare you for the lab exercise. Include the worksheet as a part of your report (it counts 20% of grade).**
- 5. Go to the lab with your partner, get out a parts kit (or soldering irons and tool kit for labs 1 and 6). Do the lab exercise at your reserved station.**
- 6. When your team has finished, have lab TA initial your filled-in data sheet, put away parts and other items from cabinets, and make sure that your workstation is clean. The TA will check.**
- 7. Write your lab report and turn in on the due day. Make sure to follow report guidelines in your text.**