Department of Electrical and Computer Engineering
Tufts University

ECE Department Online Laboratory Safety Policy
Fall 2020
Revision: June 22, 2020

1. The Department of Electrical and Computer Engineering is committed to providing an online safe environment for all its students, staff and faculty. The department chairperson or his/her designate, coordinates the safety program in the department and is responsible for ensuring its compliance and implementation. The department safety coordinator will be familiar will all applicable University, State and Federal safety rules and regulations that pertain to third level educational institutions.

2. The ECE Department Online Laboratory Safety Policy will be reviewed annually by the faculty and approved by the Tufts University Department of Public and Environmental Safety.

3. To ensure an online safe environment for a students, any student-centered activity will have associated with it a cognizant faculty or staff member who is responsible for the safe conduct of the students engaged in that activity. It is the responsibility of this cognizant individual to assure that applicable safety regulations are considered, that good safety practices are followed, that appropriate safety equipment is made available, and that necessary safety training is completed.

4. At the beginning of each semester, the department safety coordinator will provide a safety checklist to be used to validate any laboratory work conducted remotely at the student's dwelling. Any safety concern will be reported in writing to the appropriate faculty and the chairperson.

5. The online safety information related to the department will be provided periodically to all students, staff and faculty. All accidents involving staff, students or faculty should be reported to the ECE office staff immediately. If an accident occurs during a remote laboratory, it is the responsibility of the faculty / teaching assistant to report the accident. The reporting of accidents that occur in an online laboratory project is the responsibility of the faculty in charge of the course. In the case of a student-centered activity such as a club or student organization, the associated cognizant faculty or staff member who is responsible for the safe conduct of the students has the responsibility of reporting an accident.

6. A online laboratory safety manual will be available on the course Canvas website for all ECE courses with laboratory assignments. Prior to the first laboratory assignment, the faculty or teaching assistant will review the safety manual with the students.

7. Appropriate operator training is required for all students, staff and faculty who work on online experiments and with equipment (other than a personal computer) sent to the student for use during the preparation, performances, or analysis. An *online review of standard lab safety procedures* should be done before the online laboratory experimentation assignment is initiated. As an alternative a faculty provided document detailing standard safety measures to undertake when working with these materials should be disseminated to all students in the course.

8. Faculty will provide instructions on how to complete the experiments or any laboratory work with equipment beyond the use of a personal computer. equipment, documentation, and processes required that might cause harm or injury must be reviewed by Tufts Environmental Health & Safety (EH&S) prior to the start of the semester when the course is offered to students.

9. The faculty or TA is required to describe a safe workspace for conducting the lab (e.g., away from open containers of liquids, or in a well-ventilated area away from an active open gas flame in the event the electronic equipment spark). Further, the students enrolled in the course will inform the faculty or teaching assistant where the they will conduct their experimental laboratory work. The intent is to make sure all students and their respective environment are safe.

10. Computers, low voltage microprocessor, integrated circuits, wires, and other parts similar to commercially available electronic hobby parts (such as robot motors) are acceptable. Common household items such has scissors, screw drivers, markers, and other items sold at stationary supplies may be used.

11. No lab will require students to solder electronic components. Circuits may be constructed using prototype boards (or breadboards).

12. Power tools such as drills, saws, cutters, are not permitted to be part of the tool set for online experimental work.

13. Hazardous household or other dangerous chemicals are not to be used for any ECE laboratory experiments.

14. The faculty instructor responsible for the laboratory is required to define the proper disposition of the parts sent to the students. Extra parts and depleted components will be eventually be reclaimed by the ECE department.

15. The students should be encouraged to have in-home emergency protocols in place if something were to happen (e.g. ingestion of these components by a pet, what to do if injury were to occur during the experiment, etc.). This can be simply having

access to a phone to call 911 or having someone check on them. The purpose is to provide reasonable safety measures and responses to protect ECE students.