

2021-2022 Information Manual

Graduate Teaching Assistants

Introduction

The purpose of this document is to provide information to the Graduate Teaching Assistants of the School of Electrical and Computer Engineering concerning regulations and procedures applicable to the daily conduct of the instructional functions of the School. This manual is not intended to be an exhaustive set of rules. The policies and procedures of the Board of Regents of the University System of Georgia, both present and future, as well as those issued to the central administration of the Georgia Institute of Technology, automatically supersede the contents of this manual.

A GTA is a temporary member of the instructional staff. Every instructor, including each GTA, is expected to conduct himself or herself in a mature professional manner. An understanding of this requirement is implicit in accepting and continuing employment. All instructors are expected to diligently prepare for the courses that they are assigned to teach and to equitably assign student grades for these courses. Laboratory instructors have the additional responsibility of being entrusted with expensive equipment in which the School has a considerable investment.

Assignments for GTAs normally consist of teaching a lecture or laboratory course, grading for undergraduate or graduate level courses, supervising computer laboratories, or working in the writing laboratory. These assignments may vary from semester to semester depending on your preference and the needs of the School.

Academic Requirements

New GTAs are required to undergo proper training. All the new GTAs who join the program in Fall and Spring semesters must take a Pass/Fail class offered by the Center for the Enhancement of Teaching and Learning (CETL). CETL 8000 is a one credit hour pass/fail class and is taught by the ECE senior TA's. **Please note that CETL 8000 does not count towards your MS or PhD coursework requirements.** The class format is as follows: 10 of the 15 meeting hours meet at the beginning of the semester, in the first to second week of classes and outside the regular class hours to avoid conflicts (evenings and weekends). The rest of 5 hours are covered in weekly meetings in the following five weeks of classes. All the new TAs will be notified in advance about the class meeting times for each semester, so they can clear their schedules at those times. Failing CETL8000 will disqualify the TA from obtaining subsequent TA appointments. GTAs who join the program in the Summer semester or on a different campus need to pass an online training and test. All the new GTA training is coordinated by Dr. Staiculescu in the Academic Office.

All GTAs must register for **ECE 8997**, for 3 credit hours, for each semester that they are performing TA work. ECE 8997 is an audit class that counts on the student's transcript for the time spent performing the TA duties. Additionally, all GTAs, domestic and international, must be registered full time (at least 12 credit hours, of which at least 9 hours of Pass/Fail or Letter Grade) in the semesters with GTA appointments, including the Summer term.

In addition to the GTA preparation class, CETL offers an orientation for all the new international TA's. While not required by ECE, we strongly encourage all our new international GTAs to attend the orientation. Details are found on the CETL website: <http://www.cetl.gatech.edu/students/events>.

General Procedures

All teaching assignments are made through the ECE Graduate Affairs Office. Every student must use the GTA interface to apply for GTA positions. There are no continuing assignments; you must reapply for each term at least two months before the start of the term. Please keep the graduate office informed of your laboratory or course preferences and your status in case you cannot accept a GTA position. However, assigning of your preferred courses will not always be possible because of scheduling difficulties.

It is vital that you always check your Georgia Tech e-mail for schedule changes and/or notices of meetings regarding your teaching assignment. You are responsible of checking your GT email and keep in mind that forwards to your personal email might not always work. The GTA assignments are also posted on the inside of the door of **Room W-203** or the bulletin board on the second floor of the Van Leer Building (next to room W-204). Once you have received your assignment, immediately contact your course supervisor for instructions. Failure to do so may imperil your assistantship.

- New GTAs should go to the Office of Human Resources to complete all personnel forms. Failure to do this may result in a delay of paychecks. Paychecks are direct-deposited into your checking account at the end of each month.
- A lab manual or text for an assigned course is provided by the Resource Professor for a particular course or lab. The book is free of charge and should not be obtained from the Georgia Tech Bookstore or the publisher.
- Do not switch your teaching assignment with another TA unless you have the approval of Dr. Matthieu Bloch.
- GTA mailboxes are in room W-203 and should be checked daily for correspondence from faculty. The mailboxes are sorted by course number and section number.
- Keys to offices and labs are distributed by Mr. Zachariah Worley in Van Leer 319. Please email Mr. Worley at zach.worley@ece.gatech.edu prior to visiting him in his office so he can get the keys ready for you. These keys must be returned when the GTA appointment is terminated and must never be loaned to anyone or duplicated.

The use of the copy machines by GTAs is limited to activities directly related to your instructional assignment. Try to minimize use of the copy machines by posting notes and solutions online. Graduate students can use the copy machine by the window only. When copying notes or examinations for a lab or course you are teaching, please design your job to use as little paper and as few copies as possible.

At the end of each Semester:

- Leave with your laboratory or lecture course supervisor the following items:
 - (a) Your grade distribution for your courses taught.
 - (b) The method by which you arrived at your final grade distribution.
 - (c) Copies of all examinations and solutions.
- As a part of your “final Semester checkout” please be sure to do the following:
 - (a) Turn in all School keys to Mr. Zachariah Worley’s office, Room VL 319.
 - (b) Leave with your supervisor information where you can be reached if needed. (If your supervisor is unavailable, please leave this information with the ECE Academic Office.)

The policies of the Board of Regents of the University System of Georgia require all terminating Georgia Tech employees to comply with these “final Semester checkout” policies before receiving their final paycheck.

Teaching Excellence Awards

At the end of each academic year, awards for teaching excellence will be made to those GTAs who have demonstrated the greatest proficiency in laboratory and lecture class instruction. The awards will consist of both citations and modest financial grants. Adherence to the guidelines outlined in this document is one of the criteria used in making these awards.

Grading and Tutorial Lab Assignments

Many of ECE undergraduate lecture courses have TAs whose job is to grade homework and projects and to tutor students in the course. ECE has a tutoring lab, in Van Leer C449, to support these courses. Students assigned to TA a lecture course are expected to have office hours, usually 3 hours a week, either in the tutoring lab or some other designated area. If a GTA plans to have office hours in the tutoring lab, he/she should contact Dr. Daniela Staiculescu to schedule times. In addition to a course assignment, some students are assigned undesignated tutoring lab hours. These hours are for tutoring in a variety of undergraduate courses. Dr. Staiculescu is the Tutoring Lab Instructor and will mail out detailed instructions to GTAs assigned tutoring lab hours. She will also oversee scheduling lab hours.

Grader Job Responsibilities:

- Grade homework in a timely manner. The grading completion date should be specified and agreed upon by both the course instructor and the GTA when the homework is given to the grader. Factors such as the course schedule as well as the GTA's schedule should be considered.
- Work all assignments before the due date to answer questions about the assignment and grade effectively
- Try to get the solutions from your instructor in advance. If the given solution to a problem is incorrect, please rework the solution and send it back to the instructor.
- Meet with the instructor immediately after receiving the assignment to set specific responsibilities and procedures.
- Hold office hours in the Tutoring Lab, C449 or some other designated place, but try to stay as close to Van Leer as possible (Klaus or Bunger Henry are acceptable locations for office hours, but Centergy and TSRB are not).

Tutoring Lab Responsibilities:

- Help students in the class for which you are assigned, minimum of 3 hours a week in the tutoring lab.
- Students assigned general tutoring hours help students in a variety of ECE undergraduate courses.
- If you do not know the answer to a question, please tell them that you don't know and will either check on it and get back to them or recommend that they meet with the course instructor. Wrong answers are worse than no answers!
- Do not be late or miss any of your assignments. It not only means that you are not fulfilling your job responsibility, you are hurting the students who are depending on you. Moreover, it reflects badly on ECE.
- If for any reason you have a problem with a certain time, arrange a swap with another GTA ASAP (at least one week before the problem). Use the email list or contact the GTA at the Lab and inform Dr. Staiculescu. In case of emergency, call, or e-mail Dr. Daniela Staiculescu. Any absences not covered by another GTA must be rescheduled.

Laboratory Teaching Assignments

General responsibility for the undergraduate laboratory program is assigned to Dr. Allen Robinson. Any laboratory-related questions may be directed to him, including equipment problems and constructive criticism of the experiments, lab manuals, etc.

Each individual laboratory course has a faculty member who has the supervisory and administrative responsibility for this course. This person will establish the schedule of experiments, assist the GTAs in teaching the course, and coordinate equipment repairs with the technical staff. The information presented here is generally applicable to a laboratory teaching assignment. The course supervisor will contact you once laboratory assignments are made to discuss the particular requirements for that course. You may also reach out to the course supervisor to introduce yourself once you receive your assignment.

The course supervisor will establish the course schedule during the first week of the semester if it is not obvious from the lab manual. Strict adherence to this schedule is expected. Each experiment should be performed by the instructor prior to the lab session to ensure that it is thoroughly understood.

The course may require weekly meetings for GTAs who are teaching laboratory sections, with either the lab instructor and/or the head TA (if the class has one). These mandatory meetings are for the benefit of the lab instructors and the students in these laboratories. These meetings allow the laboratory supervisor and the GTAs to discuss the laboratory experiments, the equipment, and any problems that have been observed during the previous weeks.

Occasionally, some GTAs may be given laboratory development assignments. This consists of planning new experiments and rewriting lab manuals under the direction of a faculty member. These assignments are limited to experienced GTAs who are familiar with the specific labs. This type of assignment must be jointly requested by the GTA and the faculty member(s).

Conduct of the Laboratory Class

At the first meeting, identify yourself and specify your office hours and location, any special laboratory procedures you expect of them, and how many students will work together in a group (usually two). At this time, the grading policy should be explained.

Work the lab ahead of time to make sure that you understand the procedures and the possible problems. Come early before each lab to be sure equipment is available in sufficient quantity. If anything is missing, please report this to the technician in the technical service area. Make sure you inform the supervisor or the graduate office if you will be unavoidably late, so they can announce it to the class.

The week before the lab, inform students of the equipment they must bring to the laboratory such as calculators, breadboards, Smith charts, etc. Also inform them of any preparations that should be made to aid in completing the experiment such as design calculations, circuit simulations, review of particular material, etc.

At the beginning of lab, you should discuss:

- Safety considerations (a first-aid kit is in each laboratory)
- The experiments to be performed, touching on theory to the extent necessary as dictated by recent class coverage
- Use and idiosyncrasies of equipment
- Corrections/changes in the written instructions
- Questions they may have on the experiment

While laboratory work is in progress, you should:

- Remain in the laboratory while students are at work both in regular sections and during extra or make-up experiments.
- Periodically check on students' progress.
- Instruct the students in the use of complex instruments (such as a curve tracer) with which they may not be familiar.
- Prohibit food, drinks, radios, music players, and smoking in the laboratory. This is both a School policy and a wise practice.
- Prohibit the playing of musical instruments, audio, or video equipment such as radios, TVs, music players, etc., with or without headphones; this is not conducive to the learning process and gives a poor image of the Institute to visitors. This prohibition applies to both students and instructors. (It is permissible for students to record lectures with the lecturer's permission.)
- Prohibit pets in the laboratory. The only exception is guide dogs for students with visual or aural impairments.
- Prohibit any raucous behavior.

Attempt to rectify malfunctioning equipment yourself by checking the power connection, wiring, fuses (is the correct value installed?), supply voltages, leads, and instruments. It often helps, if all else fails, to substitute a known-good piece of equipment. Encourage the students to make efforts to locate the difficulty before asking for help. If a faulty piece of equipment is discovered, remove it from "circulation" and tag it so that it may be repaired; or if time allows or necessity dictates, take it to the technician for immediate repair. If it is necessary to borrow equipment from another room, leave a note at the spot from which the equipment was borrowed and replace it immediately after use. Student lab equipment is for the conduct of student labs – not for personal office use.

- Prohibit abuse of the equipment. Most of the equipment is quite expensive and repair funds are always scarce. Physically striking equipment will rarely improve its performance and usually has the opposite effect. Knob and switch settings should be gently changed. Discourage the stacking of instruments.
- Never remove equipment from the building.
- Ensure that all instruments are turned off and leads rehung as each group finishes. Pay particular attention to battery-operated instruments.
- Leave the lab neat; return equipment to cabinets (if yours is the last section), put up leads, dispose of trash, and lock cabinet doors. Keep track of small, useful items that can be carried out in a briefcase or pocketbook, such as tools, leads, multimeters, and scope probes.
- Inform the lab supervisor of difficulties that you encounter with equipment that habitually fails, unclear lab instruction, insufficient equipment, etc.

Grades

Each lab report received should be graded and returned on a date mutually agreed upon by the course instructor and the GTA. The student should understand exactly why he or she lost credit. Neither all A's nor all D's accurately reflect average lab performance; critically graded lab sections have had B averages in the past. Establish quantitative criteria for fair grading by assigning definite weights for each part of the total experiment; preparation for lab, performance in lab, comprehensibility of report (including correct grammar, spelling, style, etc.), correctness of calculations and answers to questions, conclusions, presentation of data, etc. Particular recognition should be given to original, unique, and correct solutions to laboratory exercises. Discourage late lab reports.

Be sure to state your ground rules on academic honesty in the performance of laboratory work and report writing. You should read and understand the Georgia Tech Honor code.

Lab exams should be graded and returned on a date mutually agreed upon by the course instructor and the GTA. The exams should test the students' knowledge of the material covered in lab and not a related lecture course.

Writing Consultant Assignments

Several GTAs are employed as writing consultants for the Undergraduate Professional Communications Program. The primary responsibility for these GTAs is to grade writing assignments and to work with students to help them improve their communication skills. Job responsibilities of writing consultants for undergraduate courses are:

- Attend a mandatory GTA orientation and training session offered by the UPCP Director, Christina Bourgeois
- Enroll in ECE 8901: Writing Consultant Practicum (a 1 credit, pass/fail course)
- Hold between 7-10 office hours per week in the ECE Coleman Family Professional Communication Studio (Van Leer 448)
- Evaluate and provide meaningful feedback on course-specific writing assignments
- Work one-on-one with ECE undergraduate students to improve their communication skills
- Work on at least one major project per semester as directed by the UPCP Director or Assistant Director

More detailed information is given to students during the orientation session for GTA writing consultants.

Guidelines for Course Instructors (ECE 3710)

The guidelines for being an instructor in a course are given in the ECE Faculty Handbook. Some of the rules are summarized below, if there is a discrepancy between these rules and those in the Faculty Handbook, the Faculty Handbook should be used.

Course Structure

ECE 3710 is taught by a faculty lead instructor and several GTAs. To standardize the content taught to each section, the course lectures have already been prepared and are available through two online Coursera courses: Linear Circuits and Introduction to Electronics. All the lectures for the term are online, and the homework is completed online as well. In addition, instructors give daily quizzes in class that cover the online lecture material. The assigned lectures for each class period are listed in the Coursera site. Class time is devoted to reinforcing concepts learned through the online lectures; completing hands-on activities; working homework and sample problems; and providing recitation.

In addition to the online homework, the course contains six in-class labs where students perform hands-on activities using data acquisition boards. Laboratory exercises include exploration of RC and RLC circuits, op amp circuits, filters, and physically-motivated applications of electronic circuits. These hands-on activities are designed for students to complete during class and turn in a worksheet. Three or four instructors proctor each lab to answer questions, explain concepts, and help students complete the labs successfully.

Instructors collaborate to create common tests among all sections and a common final exam. In addition to grading the tests, instructors also grade the lab worksheets and in-class quizzes. Grades for the online homework are accessed through the Coursera sites.

Operations

The curricula of the School are the purview of the faculty, acting through the agencies of the Curriculum and Graduate Committees. Each undergraduate course and laboratory in the curriculum have an assigned “Technical Interest Group” that is responsible for the implementation and management of that course. Resource Technical Interest Groups and a detailed list of the courses for which they are responsible are listed in the E/CompE Undergraduate Student Handbook. Proper implementation of courses requires that Resource Technical Interest Group responsibilities include:

- Enforcement of course coverage as outlined in the EE/CompE Student Handbook or as amended by the ECE faculty.
- Ensuring the implementation of quizzes and examinations consistent with currently accepted standards.
- Availability of appropriate laboratory equipment in working order, as well as readable copies of lab instruction sheets.
- Dissemination, at the beginning of every Semester, of all relevant handouts and information material to all faculty and/or graduate assistants assigned to teach the course(s) for which he or she is responsible.
- Coordination of changes in course content and/or textbook with the appropriate ECE Technical Group and Standing Faculty Committee.

Scheduling

- Most Monday-Wednesday-Friday lecture classes begin at 5 minutes past the hour and end at 55 minutes past the hour. Summer session hours are different.
- Most Tuesday-Thursday lecture classes begin either 5 minutes past the hour or 35 minutes past the hour and are of 75 minutes duration. Summer session hours are different.

Announcements

A set of announcements must be made, or distributed, during the first week of each class. These must cover:

Instructor’s Office Hours
Text(s) and References
Grading Policy
Institute Honor Code
Attendance Policy
Name of Grader (if one is used)
Smoking, Eating, and Drinking Policy (i.e. none permitted)
Availability of Old Quizzes and Other Materials in the Library or Through Other Means
Other Specific Requirements

Class Management

- Strict adherence to published course outlines is expected. The assigned textbook is the one that must be used for the course. Additional references may be used.
- Any books used as class references should be placed on reserve at the Reserve Desk of the Library before they are needed by the students.

- Food and drinks are prohibited in all classrooms and laboratories. Smoking is not permitted anywhere inside the ECE buildings. Music players are not permitted in laboratories.

Grading and Quizzes

- In all course's students should receive some performance evaluation prior to "drop day", which occurs at the end of the fifth week of the Semester.
- Quizzes must not be given within one week of the scheduled final exam or later than Wednesday of "dead week" which is the week prior to the final examination period for the course involved. All quizzes must be graded and returned on or before the Friday preceding final exam week.
- **Each regularly scheduled lecture course of the Institute shall have a final examination, which is to be administered at the time specified in the official final examination schedule as distributed by the Office of the Registrar. Conflicts and exceptions are defined by the Registrar.**
- Please refer to the **EE/CMPE Undergraduate Student Handbook** for further information.

Instructor Absences

If it is necessary for you to miss a scheduled class or laboratory for any reason, please notify Dr. Matthieu Bloch. If the absence is planned, each teacher is responsible for making his or her own arrangements and for notifying the appropriate supervising faculty member of such changes. A person who is not on the ECE payroll should not be asked to serve as a substitute teacher. If there is an emergency, please notify the ECE Academic Office(894-2900, 894-2946) It is not sufficient to notify one of the secretaries, except as a final resort. Secretaries should not be asked to handle exams or other class work.

Please remember that most semesters are 16 weeks long. You should plan to be available to discharge your teaching duties during the entire semester, including final examination week.

Old Quizzes

Old quizzes are a valuable resource for students studying for a quiz. Many organizations on campus save these in files for their members. To equalize the resource, please have available old quizzes from other instructors or your old quizzes. Many instructors simply post these online.

Course Grades

Grades are reported online are usually due by noon the Monday following final exams week. Failure to turn in Grades by this time results in an "**incomplete**" for all the students registered for the course.