

Graduate Student Handbook for M.S. and Ph.D. Students in Electrical Engineering

University of North Texas
Department of Electrical Engineering

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1. Introduction

This Handbook provides information about the current practices and policies of the Department of Electrical Engineering concerning graduate studies. It is the responsibility of each Graduate Student to familiarize themselves with these practices and policies and to ensure that all procedures relating to his or her degree have been fulfilled. Additionally, the student is expected to be thoroughly familiar with general requirements as detailed in this Handbook.

The Department of Electrical Engineering offers three degrees:

- Electrical Engineering, MS (Thesis track)
- Electrical Engineering, MS (Non-thesis track)
- Electrical Engineering, Ph.D.

2. Graduate Program Timelines/Sequences

Typical Sequence for MSEE Students (Thesis Option)

6 months - 1 year before the intended admission date	<ul style="list-style-type: none"> ○ Apply to Graduate Program (https://goapplytexas.org/).
Two weeks before classes begin	<ul style="list-style-type: none"> ○ Attend Orientation for new graduate students. ○ Discuss with the Faculty Graduate Advisor potential remedial courses if BS not in Electrical Engineering.
First Year	<ul style="list-style-type: none"> ○ Take Courses ○ Choose Major Professor (middle of 1st semester) Begin Research (thesis option) ○ Choose master's Committee (end of 2nd semester). ○ File Degree Plan (end of 1st semester).
Second Year	<ul style="list-style-type: none"> ○ Take Courses. ○ Begin Writing Thesis.
Semester of Graduation	<ul style="list-style-type: none"> ○ File for graduation. ○ Plan possible defense dates and times with major professor and committee members. ○ Complete the thesis and submit it to the thesis committee for review 2 weeks before the defense date. ○ Defend thesis. ○ Upload to Vireo with Toulouse Graduate School.

Typical Sequence for MSEE Students (Non-Thesis Option)

6 months - 1 year before the intended admission date	<ul style="list-style-type: none"> ○ Apply to Graduate Program (https://goapplytexas.org/).
Two weeks before classes begin	<ul style="list-style-type: none"> ○ Attend Orientation for new graduate students. ○ Discuss with the Graduate Advisor potential remedial courses if BS not in Electrical Engineering.
First Year	<ul style="list-style-type: none"> ○ Take Courses.

	<ul style="list-style-type: none"> ○ File Degree Plan (end of 1st semester).
Second Year	<ul style="list-style-type: none"> ○ Take Courses. ○ Work with the Faculty Graduate Advisor or Student Services Coordinator to select courses based on the desired direction for the first semester. ○ Work with the Faculty Graduate Advisor or Student Services Coordinator to plan out courses for the desired direction in Electrical Engineering and file degree plan.
Semester of Graduation	<ul style="list-style-type: none"> ○ File for graduation with the Graduate School.

Typical Sequence for Ph.D. Students

6 months - 1 year before the intended admission date	<ul style="list-style-type: none"> ○ Apply to Graduate Program (https://goapplytexas.org/).
Two weeks before classes begin	<ul style="list-style-type: none"> ○ Attend Orientation for new graduate students. ○ Discuss with the Faculty Graduate Advisor potential remedial courses if BS not in Electrical Engineering.
First Year	<ul style="list-style-type: none"> ○ Take Courses. ○ Choose a Major Professor (middle of 1st semester) Begin Research. ○ Choose Ph.D. Committee (end of 2nd semester) File Degree Plan (end of 2nd semester). ○ Take the Qualifier exam.
Second Year	<ul style="list-style-type: none"> ○ Take Courses. ○ Conduct Research.
Subsequent Years	<ul style="list-style-type: none"> ○ Take any remaining courses. ○ Conduct Research. ○ Take the Proposal 6 months before the defense.
Semester of Graduation	<ul style="list-style-type: none"> ○ File for graduation. ○ Plan possible defense dates and times with major professor and committee

	<p>members.</p> <ul style="list-style-type: none"> ○ Complete the thesis and submit to it to the thesis committee for review 2 weeks before the defense date. ○ Defend thesis. ○ Upload to Vireo with Toulouse Graduate School.
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Selection of Major Professor and Thesis/Dissertation Advisory Committee:

Masters (thesis): Students will contact faculty members within the area of their interest within the first semesters of studies.

Masters (non-thesis): No major professor required. May meet with any faculty member or graduate advisor. May also meet with the Student Services Coordinator.

Ph.D.: Students will secure a faculty advisor BEFORE starting the Ph.D. program to ensure a position with the faculty member's research team or position within the department as a teaching assistant/fellowship.

3. Admission Procedures

Holistic Policy:

Our admissions focus is on seeking positive indications of potential success in the program. These indications include:

- A detailed examination of the student's transcript. Grade point average per se is not weighed heavily as most candidates for admission have grade point averages greater than 3.0. Accordingly, we examine the coursework on the student's transcripts as evidence of research interests. Positive indicators of potential success in our program include greater than average coursework in physics, mathematics, and fields of engineering. Similarly, evidence of experimental research previously undertaken is viewed as a predictor of future research productivity.
- **Ph.D. ONLY:** A personal statement describing the applicant's laboratory, field, or applied interests, career plans, and a discussion of how the program can serve to further these interests and plans will be examined for evidence of the appropriateness of the candidate to the program.
- **Ph.D. ONLY:** Letters of recommendation offer evidence of the applicant's commitment to experimental research. Evidence of success in relevant employment will be considered.

- **Ph.D. ONLY:** A resume indicating the applicant's educational, research, and work experience. Evidence of success in relevant employment will be considered.

The department's mission is to train students to be enthusiastic about conducting research. We seek students who show aptitude as well as motivation for research. Students interested in the MSEE program will have their records examined for indicators of potential to succeed in related settings.

The Department of Electrical Engineering follows the application priority dates set by [Toulouse Graduate School](#).

Admission Criteria:

To apply for admission, the following documents are required:

- **GRE Scores** (official scores are submitted via ETS)
 - Verbal
 - Quantitative
 - Analytical
- **Official Transcripts** of all past degrees and currently enrolled programs (if applicable)
- **Ph.D. ONLY: Statement of purpose** for graduate study in the department and after graduation written by the applicant.
- **Ph.D. ONLY: Three recommendation letters** indicating research and academic potential as well as the ability to work in interdisciplinary teams. Recommenders should state whether they have recommended or are recommending other applicants to the department.
- **Ph.D. ONLY: CV** detailing education, research experiences, publications, conferences and presentations, and other critical information related to graduate admission.

Although not required, applicants with publications or other scholarly works are encouraged to include those as part of the package.

Application Process:

- Submit an online application to [Apply Texas](#) by the deadline.
- Submit standardized test scores (GRE, TOEFL, etc.) to UNT. The UNT school code for the GRE and TOEFL is 6481.
- Submit official transcripts from all colleges and universities you have attended and other relevant information to:

UNT Graduate School
1155 Union Circle #305459
Denton, Texas 76203-5017

Transcripts: Submit official or original academic transcripts (marksheet) and degree certificate(s) from ALL colleges or universities attended to the Toulouse Graduate School. Minimum credential is equivalent to a 4-year U.S. bachelor's degree.

Standardized tests: Submit your standardized test scores and provide proof of English language proficiency (<https://www.unt.edu/admissions/international/english-language-requirements>) to the Toulouse Graduate School.

- Proof of financial support must be provided to the graduate school before an I-20 document can be issued for international applicants.
- ***For Ph.D. applicants:*** After [receiving and setting up your UNT EUID](#), submit your supplemental documents, including your three letters of recommendation, to the department [online](#).
- [More information from the Toulouse Graduate School about graduate admissions.](#)

Applications received before the priority dates will receive full consideration and increase your chance of admission, however, after the priority dates applications will still be accepted and evaluated on a rolling basis.

1. The application priority dates for domestic students are June 15 for the Fall semester and October 15 for the Spring semester.
2. The application priority dates for international students are April 1 for the Fall semester and October 15 for the Spring semester.

The student must satisfy all general admission requirements of the Electrical Engineering Department as follows:

- Competitive score on the Graduate Record Examination (GRE); or graduation from the UNT undergraduate Electrical Engineering Program or a related program at UNT with an overall GPA of 3.0 or better within three years of earning the Bachelor's degree. Successful applicants typically present GRE scores of 160 or higher in the Quantitative section and 140 or higher in the Verbal section.
- Acceptable scores on the TOEFL for applicants whose native language is not English.
- A GPA of at least 3.0 on undergraduate Electrical Engineering coursework and 3.4 GPA on any graduate coursework.
- Coursework in mathematics

- Applicants to the doctoral program should submit three letters of recommendation, a statement of purpose, and a CV/Resume to the department (<https://engineering.unt.edu/webforms/submission-graduate-application-documents>)

Leveling courses will be required for applicants with degrees other than Electrical Engineering. The leveling courses include:

- Mathematics through multivariable calculus
- Physics including mechanics, electricity, and magnetism
- EENG 2610 - Circuit Analysis
- EENG 2611 - Circuit Analysis Lab
- EENG 2620 - Signals and Systems
- EENG 2621 - Signals and Systems Lab
- EENG 2710 - Digital Logic Design
- EENG 2711 - Digital Logic Design Lab
- EENG 3510 - Electronics I (Devices and Materials)
- EENG 3710 - Computer Organization

An overall evaluation of credentials is used as a basis for admission to the program.

4. Transfer Credit Policies and Procedures

To transfer graduate credits earned at other U.S. institutions of higher learning, the student must file a petition with the Graduate Advisor not later than two semesters after admission. The petition should be endorsed by the student's advisor and should list the courses to be transferred, the university, the year, and the grade earned. The student should provide proof that the course to be transferred was not part of a program for which a degree was granted. Only courses with grades "A" or "B", taken within the last 5 years, can be transferred. Credit for a course will be transferred only if an equivalent course is given at the University of North Texas and if the equivalent course is not one of the first-level or advanced level core courses offered by the program. A maximum of 12 semester credits may be transferred to satisfy either the M.S. or Ph.D. course requirements.

5. Curriculum for Each Grad Program

Course Work for MS Program

Degree requirements

Core courses:

Systems and control area

- EENG 5310 - Control Systems Design
- EENG 5320 - Systems Modeling and Simulation

Communication and signal processing area

- EENG 5610 - Digital Signal Processing
- EENG 5810 - Digital Communications

Digital systems

- EENG 5520 - Design and Testing of Digital Systems
- EENG 5540 - Digital Integrated Circuit Design

Microwave, analog, and RF systems

- EENG 5410 - Microwave Engineering
- EENG 5530 - Analog Integrated Circuit Design

Option A, Thesis Option:

Students are required to complete at least 30 hours in electrical engineering as specified below.

- **Electrical engineering core courses, 6 hours:** Students are required to complete 6 hours from the list of electrical engineering core courses with a grade of B or better.
- **Electrical engineering electives, 15-18 hours:** In addition to 6 hours of electrical engineering core courses, students are required to complete at least 15 hours of organized graduate courses in electrical engineering, excluding [EENG 5932](#), [EENG 5890](#), [EENG 5900](#), and [EENG 5950](#).
- **Directed study and special problems courses, 0-3 hours:** Students may apply no more than 3 hours of [EENG 5890](#) or [EENG 5900](#) to the degree.
- **Master's thesis, 6 hours:** Students are required to complete 6 hours of [EENG 5950](#).

Option B, Non-Thesis Option

Students are required to complete at least 30 hours in electrical engineering as specified below.

- **Electrical engineering core courses, 6 hours:** Students are required to complete 6 hours from the list of electrical engineering core courses with a grade of B or better.
- **Electrical engineering electives, 21-24 hours:** In addition to 6 hours of electrical engineering core courses, students are required to complete at least 21 hours of organized graduate courses in electrical engineering, excluding [EENG 5932](#), [EENG 5890](#), [EENG 5900](#), and [EENG 5950](#).
- **Directed study or special problems courses, 0-3 hours:** Students may apply no more than 3 hours of [EENG 5890](#) or [EENG 5900](#) to the degree.

Additional Requirements:

A student whose undergraduate major is not electrical engineering must take additional leveling courses listed in the “leveling courses” section above before the student can enroll in regular graduate courses.

Ph.D. Program:

The educational objectives of the EE Ph.D. program are twofold:

1. To prepare Ph.D. graduates to conduct research into new unexplored fields for the discovery of new knowledge principles that can revolutionize the technology sector.
2. To educate Ph.D. students on innovation and technology transfer to help them become tomorrow’s high-tech-job-creating entrepreneurs.

Degree Requirements:

The Ph.D. with a major in electrical engineering requires 72 credit hours beyond the bachelor's degree or 42 credit hours for students entering with a master's degree.

Course Selection:

1. **Required credit hours for students entering with a master's degree:**
 - 6 credit hours of core Electrical Engineering courses
 - 9 credit hours of Entrepreneurship courses or another area in consultation with a research advisor

- 6 credit hours of prescribed Electrical Engineering core electives
- 6 credit hours of free electives
- 12 credit hours of dissertation
- 3 credit hours of individual research

2. Required credit hours for students entering with a bachelor's degree:

- 12 credit hours of core Electrical Engineering courses
- 9 credit hours of Entrepreneurship courses or another area in consultation with a research advisor
- 12 credit hours of prescribed Electrical Engineering core electives
- 18 credit hours of free electives
- 12 credit hours of dissertation
- 9 credit hours of individual research

Core Courses:

- **Communication and Signal Processing**
 - EENG 5610 - Digital Signal Processing
 - EENG 5810 - Digital Communications
- **RF and Circuit Designs**
 - EENG 5520 - Design and Testing of Digital Systems
 - EENG 5530 - Analog Integrated Circuit Design
- **Systems and Control**
 - EENG 5310 - Control Systems Design
 - EENG 5320 - Systems Modeling and Simulation

Degree Plan:

The student should select a major advisor from the EE Department and together develop the Degree Plan before the second semester. The Graduate Program Director will provide general guidance for the course selection and other academic questions in the student's first semester. Failure to submit the degree plan will result in a block on course registration.

6. Degree Requirements

Degree Plans

- [Master's Degree Plan](#)
- [Ph.D.'s Degree Plan](#)

**** Students must complete a Degree Plan by the end of their second semester. ****

Suggested Steps to Writing Your Degree Plan:

- Meet with your research advisor, or if you do not have one assigned yet, then meet with the current graduate advisor.
- For the meeting, print out the degree plan form: [Master's Degree Plan](#) or [PhD's Degree Plan](#). Take a current unofficial transcript print out or a listing of courses you have taken to date.
- Graduate credit transfer from another program is possible for the MSEE and Ph.D. programs. Please consult with your research advisor on possibilities.

Requirements Related to Several Courses are Tabulated Below. Some Additional Points are Given Here:

- For students doing a master's you can take more than the total credit hours and take research hours.
- If you have past coursework that overlaps with the core courses, you are encouraged to meet with the professor teaching the core class and review whether you need to take it.
- M.S. students can take core courses throughout their program.
- Doctoral students should take core courses within the first two semesters, keeping in mind that they need to do a Ph.D. qualifier at the end of their first year.
- For doctoral students, the credit hours related to total in-class course hours represent the minimum required. You can take additional in-class courses and lower the number of research hours that you take. You cannot take more research hours to supplement in-class course requirements.
- The thesis/dissertation hours represent the maximum permitted on your degree plan. These require continuous enrollment. It is recommended that you take these hours close to the semester when you expect to defend your thesis/dissertation.

Hours At a Glance:

“Core” courses for EE graduate students:

- EENG 5310 - Control Systems Design
- EENG 5320 - Systems Modeling and Simulation
- EENG 5520 - Design and Testing of Digital Systems
- EENG 5530 - Analog Integrated Circuit Design
- EENG 5610 - Digital Signal Processing
- EENG 5810 - Digital Communications

- Graduate students who do not have a previous EE-related degree and do not have relevant fundamental EE courses shown in their transcript are required to take some leveling courses.

Leveling Courses:

- Mathematics through multivariable calculus
- Physics including mechanics, electricity, and magnetism.
- EENG 2610 - Circuit Analysis
- EENG 2611 - Circuit Analysis Lab
- EENG 2620 - Signals and Systems
- EENG 2621 - Signals and Systems Lab
- EENG 2710 - Digital Logic Design
- EENG 2711 - Digital Logic Design Lab
- EENG 3510 - Electronics I (Devices and Materials)
- EENG 3710 - Computer Organization

All entering students must demonstrate knowledge of the material covered in the leveling courses by:

- Completing the courses at UNT
- Completing similar courses at another recognized institution, or
- Evidence based on employment experience
- Ph.D. students are required to consult with their advising faculty on required specialty courses for their qualifying examinations. More information regarding PhD qualifying exams can be found at the following link ([Qualifying Examination Results Form](#)).

Complete core and elective course listing of the EE Department can be found on the [UNT Catalog page](#). The Exact courses offered will differ from year to year. Please visit the schedule of class on the Registrar's office webpage for the most up-to-date information: <http://registrar.unt.edu/registration/schedule-of-classes.html>.

Ph.D. students are allowed up to two special problems/special study courses and M.S. students are allowed to take one special problem/special study course in their degree plan.

For more information on graduate degree plans, contact

Jason Mieritz

Student Services Coordinator
Discovery Park B275

940-891-6873

Jason.Mieritz@unt.edu

7. Pass-Through Master's Procedure

This option is available to students who were admitted to the Ph.D. program and did not complete the degree requirements. Students under this track must first complete the necessary work for the MSEE. degree including completing all of the required coursework and successfully defending their thesis.

8. Academic Advising & Academic Calendar

A graduate advisor is one of the first people a student would want to contact when ready to begin studies. The advisor can help guide you in creating your degree plan.

Primary Advising Contact:

Jason Mieritz

Student Services Coordinator

Discovery Park B275

940-891-6873

Jason.Mieritz@unt.edu

Students can register for classes, withdraw from the semester, or drop classes within the timeframe set by UNT. You can find the academic calendars for each semester on the [Office of the Registrar's website](#).

9. Selection of Major Professor and Advisory Committee

Students admitted to the EE Program should make every effort to choose a thesis (research) advisor during the first semester of their enrollment in the Program. A student entering the program with GA-UGS support or UGS-only support should, before choosing his/her thesis or advisor, contact faculty members of the Program to determine an area of mutual research interest. The selection of the research advisor is the most important decision the student will make in the early stages of their career study. This selection should be made in writing using the degree plan form (signed by the student and the faculty advisor) and approved by the Graduate Advisor and the Chair of the Department.

If the research advisor is not a primary EE faculty member, the student must still have a primary EE faculty member as the academic advisor. In this case, the student would still perform research for their research advisor. Furthermore, the primary EE faculty member would assist in organizing the student's dissertation committee. Both may assist in organizing the student's progress review and act as dissertation advisor(s). The advisor(s) will advise the student on all phases of the progress toward the degree objective, including their academic program and the thesis or dissertation research project, which is carried out under close guidance by the research advisor. The student should, therefore, keep their advisor(s) informed at all times of their academic progress, courses taken, grades received, examinations passed, etc. The award of financial support beyond the first year invariably will depend on the academic performance of the student, as well as on the availability of financial resources. The Graduate Advisor must be advised of this support in writing.

10. Satisfactory Progress

A student having a grade of "F", "I", or "NG" or "UP" in any course registered is not considered to have completed the degree requirements. An "F" grade is permanent on the student's transcript and is included in the GPA. The student cannot graduate without retaking the course with the "F" grade and obtaining a Pass (A, B, C, etc.) grade. In unusual cases, an alternative procedure may be permitted, provided that such procedure has the approval of the course instructor and the advisor.

The student must maintain at least a 3.0 cumulative GPA in graduate courses at UNT and within the Graduate Program. Failure to maintain at least a 3.0 GPA may result in probation in the following semester (consult the 'Graduate Student's Responsibilities', for details about probation). No student with a GPA below 3.0 will be recommended for graduation.

Satisfactory progress is also required for all thesis requirements. For an MS degree, the thesis committee needs to approve that the candidate successfully finished all his/her degree requirements. For Ph.D. candidates, students need to pass all phases of the qualifier exam (see section 13).

11. Publication and Research Requirements

The doctoral research work of a student must be independent and original, leading to at least one refereed publication in a reputed journal with the student as the first author. It is expected that the candidate will have published at least two original research articles in refereed journals before graduation. The dissertation itself is a stand-alone, coherent document that reflects the highest quality that the EE Program at UNT strives to maintain. This document is archived by the

UNT Libraries and by the international professional community through the services of the “Dissertation Abstracts”.

12. Plan/guidelines for students to successfully exit the program(s)

The degree plan, highlighted in section 6, provides a plan for students to successfully exit the program. Students who satisfy the requirements highlighted in the degree plan, who maintained a GPA greater than 3.0, who successfully passed their thesis defense, and Ph.D. students all of their qualifier exams may successfully exit the program.

13. Qualifying/Comprehensive Exam(s)

Electrical engineering core courses need to be completed with a grade of B or better. An oral PhD qualifying examination is conducted by the student’s dissertation advisory committee to ensure the research readiness of the student. If the student fails the qualifying examination twice, the student will be dismissed from the doctoral program. Upon passing the qualifying exam, the student is admitted to doctoral candidacy.

14. Candidacy for Doctoral Program

Students will propose and defend a topic that is expected to lead to their Ph.D. dissertation. The topic must therefore be approved by the Ph.D. advisor. All faculty may participate in the exam. The Ph.D. committee (which includes one member from outside of UNT, preferably from industry) is expected to participate in the exam. Students will be admitted to Doctoral Candidacy after successfully passing the "Ph.D. proposal defense".

15. Dissertation Proposal

An oral dissertation proposal defense is conducted by the doctoral candidate’s dissertation advisory committee. The dissertation proposal defense must be conducted at least six months before the dissertation defense.

16. Thesis Preparation and Requirements

The doctoral research work of a student must be independent and original, leading to at least one refereed publication in a reputed journal with the student as the first author. A total of two papers is required before graduation. The dissertation itself is a stand-alone, coherent document that reflects the highest quality that the EE Program at UNT strives to maintain. This document is archived by the UNT Libraries and by the international professional community through the services of the “Dissertation Abstracts”.

17. Dissertation Preparation and Requirements

The student should initiate the process by submitting the Dissertation Defense application (use the relevant form) to the Graduate Advisor.

Before the public defense, copies of the dissertation for review by the Advisory Committee members must be submitted to the Departmental office two weeks before the scheduled defense date. The dissertation must be accompanied by a reprint of a publication, in a refereed journal, that has resulted from the dissertation research, or a manuscript that is ready to be submitted to a refereed journal.

The student will defend his/her dissertation in public, according to the procedures outlined in the University Graduate Handbook of the Graduate College. The defense must be scheduled no later than four weeks before the end of the semester in which the degree is expected. The Graduate Program Office will initiate the Ph.D. Dissertation Defense Approval form for the thesis advisory committee approval. A final copy of the dissertation, incorporating all recommended revisions, must be approved by the thesis advisor before the student can be certified (use relevant form) for graduation. In exceptional cases, the Graduate Studies Committee or Program head. may require additional revisions to the dissertation. One copy of the final document must be deposited with the program for archival purposes.

18. Requirements for Successful Continuation in Program

A. Graduate Student Responsibilities

The graduate student is responsible for monitoring progress toward the advanced degree by meeting the deadlines for specific events such as selecting the advisor, taking the qualifying examination, completing course requirements, etc. A checklist will be reviewed by the Director of Graduate Studies periodically, and the student will be notified in writing about their progress toward the degree. If the student is found to be in violation of any of the regulations (such as failing to maintain a “B” average in courses, failing to meet the appropriate deadlines, etc.), they may be recommended for probation for that academic semester. If a student is on probation for two consecutive semesters or three non-consecutive semesters, they may be denied further financial aid and dismissed from the program.

B. Course Deficiencies

A new graduate student who is deficient in undergraduate studies may be required by an advisor to take certain undergraduate courses to make up for such deficiencies. Graduate credit, however, will not be granted for these courses, unless they are listed as equivalent courses offered by the University. All students who enter the Graduate program with EE as their major

subject must be familiar with the fundamental principles and laboratory techniques that are characteristic of this discipline.

C. Graduate Committees

The various committees, for the MS thesis defense, Ph.D. dissertation research progress report, and Ph.D. dissertation defense, must be formally appointed by the Graduate Advisor with approval from the Graduate Studies Committee. The request for appointment of a thesis committee must be initiated by the graduate student, with the approval of his/her thesis advisor.

The students must submit the various written documents to the appropriate committees at least 10 days prior to the date of deliberation by the committee. Such written documents include the MS thesis, literature review report for Ph.D. qualifying examination, Ph.D. progress report, and Ph.D. dissertation.

D. Changing Advisor

It is recognized that occasionally, a student may have to change an academic advisor during tenure in the graduate program. Normally, such a change should be driven by academic considerations but, in any event, an approval form must be processed through the Graduate Advisor and Graduate Program Office, before the student can officially change an advisor. Approval and agreement by all parties to this change should indicate that all research obligations to the current advisor have been met as a pre-condition for the student to be allowed to change advisor.

E. Advisors from Other Departments

A student enrolled in the Program of EE may sometimes need to have an advisor from another department in the College or University, because of the interdisciplinary nature of the program they may plan to pursue. Approval may be requested from the Graduate Advisor. A condition for approval is that the student must also have a program advisor who will guide academic progress within the program. A graduate student may not choose an outside advisor in the first year if receiving an EE Program GA that year. The outside advisor may not advise more than two EE graduate students at any given time. A graduate student who was admitted and has received financial aid from the EE program is considered a graduate student of the Program and must abide by the prevailing graduate regulations, even when the research advisor is from another department.

F. Maximum Number of Credit Hours

The University has set an upper limit for the number of credit hours that a graduate student can earn and still be eligible for financial aid (UGS, GA, etc.). For students who start in the graduate program at UNT after a BS degree this upper limit is 174 graduate semester credit hours. For students starting after an M.S. degree from another institution this upper limit is 134 graduate

credit hours. For students transferring from another department within the University of Cincinnati, graduate credits earned in different departments are counted cumulatively in determining whether the above stated upper limit has been reached.

G. Certification for Graduation

The Graduate Director has the responsibility for certifying students for the award of the MS and Ph.D. degrees. At the time of certification, the entire academic file is reviewed to ensure compliance with all the academic requirements for graduation. It is the student's responsibility to make sure that they follow all the academic requirements. A student is expected to graduate within 12 months of the date of his/her thesis/dissertation defense. Any extension of this limit must be approved by the entire thesis/dissertation Examination Committee. Failure to comply with this time limit may result also in non-certification for graduation. Under these conditions, the Graduate Studies Director may recommend that an MS student be not allowed to continue in the Ph.D. program and that a Ph.D. student be asked to again defend his/her dissertation.

H. Part-time Students

All provisions stated in this Handbook apply to part-time students as well as to full-time students. However, part-time students are not subject to the time limitations set for Ph.D. qualifying examination and for dissertation research progress oral review. They are subject, however, to other time limits set by the University Graduate Handbook. A change in the status of a student from full-time to part-time or vice versa will require approval by the student's advisor and the Director of Graduate Studies.

I. Conflict and Grievance Resolution

Students who have a conflict with their advisor, course instructor, staff member, or other students should bring the issue to the attention of the Graduate Advisor, who will initiate the necessary ameliorative steps. If this route is not available, the student may appeal directly to the Program Head.

J. Degree Progress Review

The EE Graduate Program Office will maintain all records to monitor the progress of graduate students. Degree Progress Audit (DPA) forms summarizing the student's progress towards the stated degree objective will be made available to the advisor, periodically. The student is ultimately responsible for being thoroughly familiar with and comply with the Program, College, and University graduate regulations.

The EE Graduate Studies Office will maintain all records appropriate for monitoring the progress of graduate students toward their degree objectives. Degree Progress Audit (DPA) forms summarizing the student's progress towards the stated degree objective will be made available

to the advisor, periodically. The student must be familiar with these procedures and is responsible for complying with all Program, College, and University graduate regulations.

19. Policies and Procedures for Student Termination from Program(s)

The graduate student is responsible for monitoring progress toward the advanced degree by meeting the deadlines for specific events such as selecting the advisor, taking the qualifying examination, completing course requirements, etc. A checklist will be reviewed by the Director of Graduate Studies periodically, and the student will be notified in writing about progress toward the degree. If the student is found to be in violation of any of the regulations (such as failing to maintain a “B” average in courses, failing to meet the appropriate deadlines, etc.), they may be recommended for probation for that academic semester. If a student is on probation for two consecutive semesters or three non-consecutive semesters, may be denied further financial aid and dismissed from the program.

More information about probation and suspension can be found here on the [Graduate Student Success webpage](#).

20. Travel Grant Opportunities

Travel grants are available to graduate students who are in good academic standing. The 2021/2022 Travel Grants will support the cost of conference registration to professional meetings that are relevant to their degree.

Please consult the following website to apply for such grants:

<https://tgs.unt.edu/new-current-students/travel-grants>

<https://engineering.unt.edu/students/scholarships>

21. Important Campus Contacts:

Toulouse Graduate School: graduateschool@unt.edu

International: international@unt.edu

Student Affairs: student.affairs@unt.edu

22. Appendices:

- A. Master’s degree plan
- B. PhD degree plan
- C. Degree plan change form

Additional Requirements:

All M.S. students need to prepare a degree plan based on the department's degree requirements and seek approval from the department and the college **no later than the end of their second semester** in the program.

Ph.D. Requirements:

The Doctor of Philosophy degree represents the attainment of a high level of scholarship and achievement in independent research that culminates in the completion of a dissertation of original scientific merit. Hence, it cannot be prescribed in terms of a fixed semester credit hour requirement.

Generally, the degree consists of 72 semester credit hours beyond a bachelor's degree and 42 hours beyond the master's degree. Of these credit hours, 12 semester credit hours are allocated for the dissertation (after a bachelor's degree) and 9 semester credit hours are allocated for the dissertation (after a prior master's degree).

It is expected that the candidate will have published at least two original research articles in refereed journals before graduation.

Admission to the Doctoral Program:

Departmental admission to doctoral candidacy in EE requires a satisfactory score on the written and oral sections of the qualifying examination (see "Examinations" section below). Contact the Toulouse Graduate School or the program for current admission requirements, or see information posted on the graduate school website at gradschool.unt.edu.

Examinations:

After passing the written exam, students are required to complete and defend an original research proposal that, if executed, would lead to a Ph.D. dissertation.

Upon passing the written and oral examination by the examination committee, the applicant is admitted to candidacy.

Details of the examination schedule, expectations, and criteria for successful completion are available in the EE Graduate Student Handbook available in the department office and posted to the department website.

Final Examination:

This oral examination is primarily a defense of the dissertation, which must be submitted in final form to the final examination committee at least seven days before the scheduled oral examination.

Additional Requirements:

Ph.D. students must join a research group **no later than the end of their first semester** in the program, regardless of the source of funding.

Ph.D. students must prepare a degree and seek approval from the department and the college **no later than the end of their second semester** in the program.

Ph.D. Thesis Committee:

A Ph.D. student's thesis committee will consist of at least four members. The major professor of the Ph.D. student must be from the Department of EE (Note: Faculty outside of EE but within UNT can serve as major professor, only if championed by an EE faculty member and approved by the department). In addition to the major professor, two other committee members must also come from the Department of EE and Engineering. The fourth member should be external to UNT, preferably from industry. External committee members must be nominated by the major professor and approved by the grad school before they can serve.

M.S. Requirements:

The applicant seeking a master's degree with a major in EE will plan a degree program with the assistance of the student's major professor and the advisory committee. A graduate major must present credit for at least 30 semester credit hours. The student must maintain a B average in all courses.

Examinations:

An oral presentation of the master's thesis is required. A decision on acceptance of the thesis is made by the student's advisory committee after an oral examination is successfully completed. A decision on the acceptance of a written report based on problems instead of a thesis is made by the student's advisory committee. Guidelines for thesis preparation are available from the department secretary. See also the graduate school requirements at gradschool.unt.edu.

Research/Publications for Students

Facilities and Equipment Use:

UNT's Electrical Engineering labs offer a wide variety of research opportunities and experiences for all of our students.

Institutional labs can be used by any student, with or without faculty supervision, for any project. As the name suggests, these often double as classrooms.

Research labs are under the direct supervision of a faculty member and are usually dedicated to a single research area. They often contain specialized equipment appropriate for the study of the research area.

Finding your Research Niche:

Both graduate and undergraduate students can work with the three faculty research groups mentioned at the beginning of this page.

Faculty research areas give students the chance to work closely with professors and other students on a variety of projects centered around important engineering subjects.

If you're interested in participating in research in the Electrical Engineering department, it's as easy as knocking on a faculty member's door and asking what opportunities are available.

Research Requirements:

The doctoral research work of a student must be independent and original, leading to at least one refereed publication in a reputed journal with the student as the first author. It is expected that the candidate will have published at least two original research articles in refereed journals before graduation. The dissertation itself is a stand-alone, coherent document that reflects the highest quality that the EE Program at UNT strives to maintain. This document is archived by the UNT Libraries and by the international professional community through the services of the "Dissertation Abstracts".

Graduate Forms:

- [Master's Degree Plan](#)
- [PhD's Degree Plan](#)
- [Office Cubicle Application](#)
- [Qualifying Examination Results Form](#)
- [Dissertation Proposal Defense Results Form](#)