

MASTER OF SCIENCE IN ELECTRICAL AND COMPUTER ENGINEERING

The master's degree allows students to pursue advanced work in electrical and computer engineering technical interest areas including bioengineering, computer systems and software, digital signal processing, electrical energy, electromagnetics, electronic design and applications, microsystems, optics and photonics, systems and controls, telecommunications, and VLSI systems and digital design.

The master's degree program requires 30 credit hours beyond the bachelor's degree, including a minor outside ECE. Both thesis and non-thesis options are available. Courses are offered all three terms; however, full-time students planning to complete the MS degree in 12 months should start their programs in the fall semester.

MS Information

Program of Study

General Requirements (for non-thesis and thesis)

- Students are required to complete all degree requirements within 6 consecutive years and maintain a 2.7 GPA.
- The Institute permits up to 3 hours to be pass/fail (P/F) and up to 6 hours of transfer credit to be used toward a master's degree. ECE specifies that the 3 P/F hours must be ECE seminars (8001, 8002, 8003, and 6792). ECE 8022 (Professional Communication Skills) is also offered on a pass/fail basis and can be used. **Pass/fail hours can only be used toward the M.S. non-thesis option.**

Non-Thesis Option:

General Information for Non-thesis

- Classes used toward the M.S. degree must have grades of "C" or higher.
- At least 21 hours must be at 6000 level or above; no more than 6 hours may be Special Problems; the electives may include up to 3 ECE seminar hours.

Code	Title	Credit Hours
Group I ¹		9
Group II ^{2,4}		9
Group III ^{3,4}		12
Total Credit Hours		30

- ¹ 6000-level of higher ECE classes in one or two Technical Interest Areas (TIAs)
- ² 6000-level or higher ECE classes, at least two of which come from Technical Interest Area(s) other than those in Group I. These six hours may not be cross-listed with the technical interest area(s) from Group I.
- ³ Courses can be outside ECE. No more than nine (9) hours of 4000 level courses. No more than three (3) hours of approved Pass/Fail seminars.

- ⁴ A combined maximum of 6 VIP (Group II and/or III) or special problems (Group III) credits can count toward the degree requirements. Additional VIP or special problems credits cannot be applied.

Non-thesis students can count up to 6 credits of VIP coursework toward Group II and Group III as follows:

- The first 3 credits of 6000-level VIP courses can count as Group III (electives)
- The second 3 credits of 6000-level VIP courses can count as Group II or Group III (electives), and
- Students must submit a publication-quality paper. All six credits must be with the same VIP Team

Thesis Option:

Code	Title	Credit Hours
Group I ¹		6
Group II ²		6
Group III ³		6
Thesis Research		12
Responsible Conduct of Research (see paragraph below)		
Total Credit Hours		30

- ¹ 6000-level of higher ECE classes in one or two Technical Interest Areas (TIAs)
- ² 6000-level or higher ECE classes, at least two of which come from Technical Interest Area(s) other than those in Group I. These six hours may not be cross-listed with the technical interest area(s) from Group I.
- ³ Six (6) hours of coursework may be outside of ECE—not required to be in same discipline.

Responsible Conduct of Research (RCR) Requirement for M.S. Thesis

The Responsible Conduct of Research (RCR) Academic policy requires Masters students enrolled in 7000 thesis hours to complete the appropriate RCR training requirement before the Request for Approval of Master's Thesis Topic Form can be processed.

First Option - Successfully complete the online CITI RCR course

Second Option - Successfully complete an in-person requirement - PHIL 6000 has been approved for ECE doctoral students and may also be used for M.S. Thesis students. ECE does not have its own in-house RCR course but will accept an academic program's in-house RCR training approach (Please see the Ph.D. section of this handbook for approved courses).

More information pertaining to this new RCR policy can be found online.

BS/MS Electrical and Computer Engineering

This program allows highly qualified students to receive the Bachelor of Science in either Electrical Engineering or Computer Engineering and a master's degree in Electrical and Computer Engineering. The joint BS/MS degree program affords undergraduate electrical or computer engineering majors the opportunity to broaden their studies and improve their career prospects.

Eligible Georgia Tech undergraduates normally apply for this program during their junior year. Contact the Electrical and Computer Engineering Graduate Affairs Office for program information, eligibility requirements, and applications.