

MASTER OF SCIENCE IN ELECTRICAL ENGINEERING, PLAN A

Arthur C. Clark said, "Any sufficiently advanced technology is indistinguishable from magic." The Master of Science in Electrical Engineering, Plan A produces leaders who make the magic happen in our modern world. From electric cars to smartphones to Global Positioning Systems, our graduates turn ideas into reality.

This program creates professionals with depth and breadth of knowledge, as well as the skills and mindset to continue to evolve and grow in a constantly changing high-tech environment. Offering a highly customizable curriculum, this program specializes in the following focus areas: biomedical engineering, communications and signal processing, computer engineering, controls and robotics, electromagnetics and remote sensing, lasers and photonics.

Students pursuing the M.S. in Electrical Engineering, Plan A complete a research-oriented plan of study involving a thesis and coursework. Interested applicants should refer to CSU's Graduate and Professional Bulletin (<http://catalog.colostate.edu/general-catalog/graduate-bulletin/>) and the Electrical and Computer Engineering website (<http://www.engr.colostate.edu/ece/>).

Program Learning Objectives

1. Identify, formulate, and solve advanced engineering problems using fundamental electrical engineering principles, methodologies, and tools
2. Apply in-depth knowledge and creativity in a variety of contexts to achieve a significant research objective.
3. Demonstrate effective oral and written communication to convey technical concepts to both engineers and non-engineers.
4. Demonstrate professional behavior and understand the ethical, economic, environmental, and societal impacts of their work.

Institutional Learning Objectives

Program Learning Objectives (PLOs) align with and support the University's Institutional Learning Objectives (ILOs), which are Creativity, Reasoning, Communication, Responsibility, and Collaboration.

Creativity: PLOs 1 and 2 ensure that students can creatively apply their disciplinary expertise to solve complex problems using fundamental electrical engineering principles and methods.

Reasoning: PLOs 1 and 2 ensure that students can apply reasoning skills to solve complex problems using fundamental electrical engineering principles and methods.

Communication: PLO 3 ensures that students demonstrate effective communication to a variety of audiences.

Responsibility: PLO 4 ensures that students exhibit responsible behavior according to professional standards.

Collaboration: PLOs 3 and 4 ensure that students demonstrate professional skills to engage collaboratively to solve problems in a societal context.

Requirements Effective Fall 2024

Code	Title	Credits
Regular Coursework ^{1, 2, 3}		21
CS 4XX	Any CS course at the 400-level (excluding courses numbered 482-499)	
CS 5XX	Any CS course at the 500-level (excluding courses numbered 582-599)	
CS 6XX	Any CS course at the 600-level (excluding courses numbered 682-699)	
ECE 4XX	Any ECE course at the 400-level (excluding courses numbered 482-499)	
ECE 5XX	Any ECE course at the 500-level (excluding courses numbered 582-599)	
ECE 6XX	Any ECE course at the 600-level (excluding courses numbered 682-699)	
ECE 7XX	Any ECE course at the 700-level (excluding courses numbered 782-799)	
MATH 4XX	Any MATH course at the 400-level (excluding courses numbered 482-499)	
MATH 5XX	Any MATH course at the 500-level (excluding courses numbered 582-599)	
MATH 6XX	Any MATH course at the 600-level (excluding courses numbered 682-699)	
MATH 7XX	Any MATH course at the 700-level (excluding courses numbered 782-799)	
PH 4XX	Any PH course at the 400-level (excluding courses numbered 482-499)	
PH 5XX	Any PH course at the 500-level (excluding courses numbered 582-599)	
PH 6XX	Any PH course at the 600-level (excluding courses numbered 682-699)	
PH 7XX	Any PH course at the 700-level (excluding courses numbered 782-799)	
ECE 699	Thesis	9
Final Oral Examination		
Program Total Credits:		30

A minimum of 30 credits are required to complete this program.

¹ Courses not accepted as regular include all courses ending in the range -82 through -99.

² A maximum of 8 credit hours of 400-level undergraduate coursework can be counted to the degree. Remaining credits must be in 500-level or higher courses.

³ A maximum of 12 credit hours outside of the ECE department can be counted to the degree.

Requirements for All Graduate Degrees

For more information, please visit Requirements for All Graduate Degrees (<http://catalog.colostate.edu/general-catalog/graduate-bulletin/graduate-study/procedures-requirements-all-degrees/>) in the Graduate and Professional Bulletin (<http://catalog.colostate.edu/general-catalog/graduate-bulletin/>).

Summary of Procedures for the Master's and Doctoral Degrees

NOTE: Each semester the Graduate School publishes a schedule of deadlines. Deadlines are available on the Graduate School website (<https://graduateschool.colostate.edu/deadline-dates/>). Students should consult this schedule whenever they approach important steps in their careers.

Forms (<https://graduateschool.colostate.edu/forms/>) are available online.

Step	Due Date
1. Application for admission (online)	Six months before first registration
2. Diagnostic examination when required	Before first registration
3. Appointment of advisor	Before first registration
4. Selection of graduate committee	Before the time of fourth regular semester registration
5. Filing of program of study (GS Form 6)	Before the time of fourth regular semester registration
6. Preliminary examination (Ph.D. and PD)	Two terms prior to final examination
7. Report of preliminary examination (GS Form 16) - (Ph.D. and PD)	Within two working days after results are known
8. Changes in committee (GS Form 9A)	When change is made
9. Application for Graduation (GS Form 25)	Refer to published deadlines from the Graduate School Website
9a. Reapplication for Graduation (online)	Failure to graduate requires Reapplication for Graduation (online) for the next time term for which you are applying
10. Submit thesis or dissertation to committee	At least two weeks prior to the examination or at the discretion of the graduate committee
11. Final examination	Refer to published deadlines from the Graduate School Website
12. Report of final examination (GS Form 24)	Within two working days after results are known; refer to published deadlines from the Graduate School website
13. Submit a signed Thesis/ Dissertation Submission Form (GS Form 30) to the Graduate School and Submit the Survey of Earned Doctorates (Ph.D. only) prior to submitting the electronic thesis/ dissertation	Refer to published deadlines from the Graduate School website.
14. Submit the thesis/dissertation electronically	Refer to published deadlines from the Graduate School website
15. Graduation	Ceremony information is available from the Graduate School website