

MASTER OF SCIENCE IN COMPUTER ENGINEERING, PLAN A

From self-driving cars to smart cities, we live in a hyper-connected world. As the smart thinkers behind today's smart devices and systems, computer engineers hold the key to understanding, advancing, and protecting the security of next generation technologies and data networks. The Master of Science in Computer Engineering, Plan A produces professionals capable of applying in-depth knowledge, creativity, and research experience to drive innovation in virtually any field. This program creates professionals with depth and breadth of knowledge to keep pace with a rapidly evolving high-tech field. 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, and lasers and photonics.

Students pursuing the Plan A degree complete a research-orientated plan of study involving a thesis and coursework. Students interested in graduate work should refer to CSU's Graduate and Professional Bulletin (<https://catalog.colostate.edu/general-catalog/graduate-bulletin/>) and the Electrical and Computer Engineering Department (<http://www.engr.colostate.edu/ece/>) website.

Learning Objectives

Upon successful completion, students will be able to:

1. Identify, formulate, and solve advanced engineering problems using fundamental computer 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](#).

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 credits 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 (<https://catalog.colostate.edu/general-catalog/graduate-bulletin/graduate-study/procedures-requirements-all-degrees/>) in the Graduate and Professional Bulletin (<https://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