

# GRADUATE CERTIFICATE IN EMBEDDED SYSTEMS

---

The Graduate Certificate in Embedded Systems provides an introduction to embedded systems, including hardware design and software engineering principles. Students learn to apply electrical engineering, computer engineering, and computer science principles in real-world embedded platforms.

Students interested in graduate work should refer to CSU's Graduate and Professional Bulletin (<http://catalog.colostate.edu/general-catalog/graduate-bulletin/>).

## Learning Objectives

Students will:

1. Think critically about embedded and Internet-of-Things (IoT) computing.
2. Communicate effectively both with technical experts in their field and with experts from related fields who do not have specific backgrounds in embedded and IoT computing.
3. Assimilate advanced knowledge from disciplines of science and engineering to broaden their expertise in Embedded and IoT computing.

## Requirements Effective Fall 2021

Additional coursework may be required due to prerequisites.

Code	Title	Credits
Select three courses from the following: <sup>1</sup>		11-12
CS 545	Machine Learning	
CS 560/ECE 560	Foundations of Fine-Grain Parallelism	
CS 575	Parallel Processing	
ECE 528/CS 528	Embedded Systems and Machine Learning	
ECE 554	Computer Architecture	
ECE 558	Manycore System Design Using Machine Learning	
ECE 561/CS 561	Hardware/Software Design of Embedded Systems	
ECE 661	Advanced Topics in Embedded Systems	
<b>Program Total Credits:</b>		<b>11-12</b>

\*This certificate may have courses in common with other graduate certificates. A student may earn more than one certificate, but a given course may be counted only in one certificate.

<sup>1</sup> At least one ECE course is required.