

From: [Matyas, Cory](#)
To: [Reed, Katie](#)
Subject: Informational Item - ECE Adding Course to Tech Elecs
Date: Thursday, March 26, 2026 3:00:06 PM
Attachments: [image003.png](#)
[ECE 5025 Electrical and Computer Engineering Program Change Request.pdf](#)

Hi Katie,
Electrical and Computer Engineering requests adding ECE 5025 to the VLSI & Computer Aided Design technical elective domain for both the current and previous Computer Engineering curricula. The addition expands student options in circuits and supports deeper exploration of a high-value technical area.

The Engineering College Committee on Academic Affairs met on March 25, 2026 and reviewed this proposal as an informational item. There were no questions or concerns and a College-level record of support for this proposal was created. Please let me know if you need any additional information or if you prefer this delivered in a different format.

Thank you!
Cory



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Electrical and Computer Engineering Program Update

For Consideration by the CCAA

Dr. Betty Lise Anderson, Associate Chair, ECE

3/13/2026

1) Program curricula change request detail

The Department of Electrical and Computer Engineering department is requesting a curriculum update to our Technical Electives for the Computer Engineering Program of Study. The request is to add ECE 5025, Power Electronics, Circuits, and Applications to our VLSI & Computer Aided Design domain. We would like to add ECE 5025 to the list of approved technical electives for students following the Autumn 2025 curriculum, as well as for students who began their studies under the previous curriculum (prior to Autumn 2025).

Rationale for the update

Students in the ECE department pursuing the new Computer Program of Study curriculum must complete at least 12 hours of technical electives, of these 6 credit hours must be taken within a single domain. We believe adding 5025 to the VLSI & Computer Aided Design domain will provide students with more options within this domain and will allow students the ability to further explore their interests of circuits, an area that remains highly valuable in an ever-changing job market.

Students in the ECE department pursuing the old Computer Engineering Program of Study curriculum must complete at least 9 hours of technical electives. We believe adding 5025 to the Technical Elective list will allow students to further explore their interest in circuits. In the curriculum prior to Autumn 2025 students did not have to complete domains so this course would be added to the list of options.

2) Effective Semester: As soon as possible

3) We are requesting that this change apply to all Computer Engineering students since this request allows for more options.

Bachelor of Science Electrical and Computer Engineering - Specialization: Computer Engineering

Students in this major will complete a minimum of 128 hours outlined as follows.

General Education Requirements		
Requirement	Course Options	Hours
GE Launch Seminar	ACADAFF 1201	1
Foundations: Writing and Information Literacy	<i>Student Choice</i>	3
Foundations: Mathematical & Quantitative Reasoning/Data Analysis	<i>Student Choice*</i>	0-5
Foundations: Literary, Visual and Performing Arts	<i>Student Choice</i>	3
Foundations: Historical & Cultural Studies	<i>Student Choice</i>	0-3
Foundations: Natural Science	<i>Student Choice*</i>	0-5
Foundations: Social & Behavioral Sciences	<i>Student Choice</i>	3
Foundations: Race, Ethnic and Gender Diversity	<i>Student Choice</i>	3
Theme: Citizenship for a Diverse & Just World	<i>Student Choice*</i>	4
Theme: Student Choice	<i>Student Choice</i>	4
GE Reflection	Capstone**	Embedded into Major Core Capstone
Total		21-34

College / Degree Requirements ^{a, b}		
Requirement	Course Options	Hours
MATH 1151*, 1172*, (Math & Quantitative Reasoning / Data Analysis)		10
PHYSICS 1250* (Nat Sci)		5
ENGR 1181.0x, 1182.0x		4
ENGR 1100.01		1
Total		20

Major Coursework ^{a, b}		
Course	Title	Hours
Major Core		
ECE 2060	Digital Logic	3
ECE 2020	Analog Systems & Circuits	3
ECE 2050	Discrete Time Signals & Systems	3
ECE 2560	Microcontrollers	2
CSE 2221	Software Development I	4
ECE 3020	Intro to Electronics	3
CSE 2321	Foundations I	3
CSE 2231	Software Development II	4
ECE 3027	Electronics Lab	1
ECE 3561	Advanced Digital Design	3
ECE 5362	Computer Architecture Design	3
ECE 3567	Microcontrollers Lab	1
ECE 3906	Capstone Design I	4
ECE 4905**	Capstone Design II	3
Total		40

Required Non-Major General Courses		
PHYSICS 1251	E&M, Waves, Optics, Modern Physics	5
CSE 1222	Introduction to Computer Programming in C++ for Engineers and Scientists	3
ISE 2040	Engineering Economics	2
MATH 2173	Engineering Math B	3
MATH 2174	Linear Algebra and Differential Equations	3
STAT 3470	Introduction to Probability and Statistics for Engineers	3
PHIL 1332, 2338, 2332.01 or 2332.02	Ethics in the Professions: Introduction to Engineering Ethics / Computing Ethics for a Just and Diverse World	3-4
Total		22-23

Required Technical / Directed / Targeted Electives; Career Courses		
Technical	List of courses organized by domains.	12
Directed	List of courses	13
Total		25

Here is a copy of our current technical elective list, highlighted you will find the course we are trying to add:

Major Technical Electives (choose at least 12 hours)
Humans & Justice: ECE 5050 (3), ECE 5550 (3)
VLSI & Computer Aided Design: ECE 5530 (3), ECE 3030 (3), ECE 4021 (3), ECE 5020 (3), ECE 5021 (3), ECE 5025 (3) , ECE 5560 (3)
Cyber Security: ECE 5555 (3), ECE 5561 (3), ECE 5567.01 (3), ECE 5567.02 (3)
Machine Learning: ECE 5500 (3), ECE 5307 (4), ECE 5460 (3)
Signal Processing and Application: ECE 3050 (3), ECE 5200 (3), ECE 5206 (3), ECE 5013 (3), ECE 5000 (3)
Robotics & Control: ECE 3050 (3), ECE 3551 (3), ECE 5200 (3), ECE 5307 (4), ECE 5463 (3), ECE 5500 (3),
Computer Networking: CSE 3461 (3), ECE 5101 (3), ECE 4567 (4)
Computer Architecture & Embedded Systems: ECE 5560 (3), ECE 5465 (3), CSE 2431 (3), ECE 4567 (4), ECE 5466 (3), CSE 5441 (3)
Operating Systems & Databases: CSE 2451 (2), CSE 2421 (4), CSE 2431 (3), CSE 3241 (3), CSE 3430 (3)
Additional Breadth: Any ECE course not on this list (except ECE 2300 and ECE 2360)