

From: [Matyas, Cory](#)
To: [Reed, Katie](#)
Subject: Informational Item - ECE Math Requirement
Date: Thursday, March 26, 2026 9:00:06 AM
Attachments: [image003.png](#)
[ECE Math Info Item.pdf](#)

Hi Katie,

The Department of Electrical and Computer Engineering proposes to make Math 2173 and 2174 the preferred math sequence for both Electrical and Computer Engineering while keeping Math 2568 and 2415 as an allowed alternative. The department requests that this change be effective Autumn 2026.

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



THE OHIO STATE UNIVERSITY

Corinne Matyas

Assistant Dean of Curriculum and Assessment

College of Engineering

117 Hitchcock Hall | 2070 Neil Ave. | Columbus, OH 43210

614-292-2154 | matyas.3@osu.edu

Electrical and Computer Engineering Program Update

For Consideration by the CCAA

Dr. Betty Lise Anderson, Associate Chair, ECE

2/20/2025

1) Program curricula change request detail

The Department of Electrical and Computer Engineering department is requesting a curriculum change to our mathematics requirement for both the Electrical Engineering Program of Study and the Computer Engineering Program of Study. The request is to make Math 2173 (Engineering Math B) and Math 2174 (Linear Algebra and Differential Equations) our preferred math sequence. Currently, ECE's preferred math sequence is Math 2568 (Linear Algebra) and Math 2415 (Differential Equations).

2) Rationale for the update

Students in the ECE department must complete linear algebra and differential equations to meet ABET and curriculum requirements. In Autumn 2024, we piloted the Math 2173–2174 sequence, which is designed specifically for engineers. Based on positive feedback from faculty and students, we would like to make Math 2173 and Math 2174 our preferred sequence.

Students may still take Math 2568 and Math 2415 as this option will remain helpful for transfer students since Math 2173–2174 is unique to OSU, but it will no longer be our preferred pathway.

3) Effective Semester: Autumn 2026

4) We are requesting that this change apply to all ECE 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

General Education	21-34
College / Degree	20
Major Core	40
Required Non-Major	22-23
Required Technical/Directed/Targeted Electives; Career Courses	25
Minimum Total Credit Hours for Degree	128

Bachelor of Science Electrical and Computer Engineering [Specialization: Electrical 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	GENED 1201	1
Foundations: Writing and Information Literacy ^a	<i>Student Choice</i>	3
Foundations: Mathematical & Quantitative Reasoning/Data Analysis ^a	<i>Student Choice*</i>	0-5
Foundations: Literary, Visual and Performing Arts ^a	<i>Student Choice</i>	3
Foundations: Historical & Cultural Studies ^a	<i>Student Choice</i>	0-3
Foundations: Natural Science ^a	<i>Student Choice*</i>	0-5
Foundations: Social & Behavioral Sciences ^a	<i>Student Choice</i>	3
Foundations: Race, Ethnic and Gender Diversity ^a	<i>Student Choice</i>	3
Theme: Citizenship for a Diverse & Just World ^b	<i>Student Choice*</i>	4
Theme: Student Choice ^b	<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
ECE 3010	RF & Optical Engineering	3
ECE 3020	Intro to Electronics	3
ECE 3030	Semiconductors and Electronic Devices	3
ECE 3040	Energy & Power Systems	3
ECE 3050	Signals & Systems	3
ECE 3027	Electronics Lab	1
ECE 3906	Capstone Design I	4
ECE 4905**	Capstone Design II	3
Total		34
Required Non-Major General Courses		
PHYSICS 1251	E & M, Waves, Optics, Modern Physics	5
CHEM 1250	General Chemistry for Engineers	4
CSE 1222	Introduction to Computer Programming in C/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, 2332.02	Ethics in the Professions: Introduction to Engineering Ethics / Computing Ethics for a Just and Diverse World	3-4
Total		26-27
Required Technical / Directed / Targeted Electives; Career Courses		
Technical Electives	List of courses	16
Directed Electives	List of courses	11
Total		27

General Education	21-34
College / Degree	20
Major Core	34
Required Non-Major	26-27
Technical, Directed, Targeted Electives; Career Courses	27
Minimum Total Credit Hours for Degree	128