

**UMass****Dartmouth**

COLLEGE OF ENGINEERING

CLASS OF 2029 AND BEYOND

(CATALOG YEAR OF 2025-2026 AND BEYOND)

Electrical and Computer
Engineering Department**BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING****FRESHMAN YEAR**

First Semester				I	L	C	Second Semester				I	L	C
ENL	101	Critical Writing & Reading I		3	0	3	ENL	102	Critical Writing & Reading II		3	0	3
EGR	111	Intro. Engineering & Computing ¹		2	3	3	ECE	170	Introduction to Programming		3	2	4
MTH	153	Calculus Applied Science & Eng. I ²		4	0	4	MTH	154	Calculus Applied Science & Eng. II		4	0	4
		Science Elective ³		3	0	3	PHY	113	Classical Physics I ⁴		3½	1½	4
		University Studies Elective ⁵		3	0	3							
				16							15		

SOPHOMORE YEAR

First Semester				I	L	C	Second Semester				I	L	C
ECE	201	Circuit Theory I		3	1½	3½	ENL	266	Technical Communications ⁶		3	0	3
ECE	260	Digital Logic & Computer Design		3	1½	3½	ECE	202	Circuit Theory II		3	1½	3½
MTH	213	Calculus Applied Science & Eng. III		4	0	4	ECE	263	Embedded System Design		3	1½	3½
PHY	114	Classical Physics II		3½	1½	4	MTH	212	Differential Equations		3	0	3
				15							13		

JUNIOR YEAR

First Semester				I	L	C	Second Semester				I	L	C
ECE	311	Digital Electronics		3	3	4	ECE	310	Engineering Ethics		1	0	1
ECE	320	Discrete-Time Linear Systems		3	1½	3½	ECE	312	Analog Electronics		3	3	4
ECE	335	Electromagnetic Theory I		3	0	3	ECE	321	Continuous-Time Linear Systems		3	1½	3½
MTH	221	Linear Algebra ⁷		3	0	3	ECE	336	Electromagnetic Theory II		3	0	3
		University Studies Elective ⁵		3	0	3	ECE	384	Random Signals & Noise		3	0	3
				16½							14½		

SENIOR YEAR

First Semester				I	L	C	Second Semester				I	L	C
ECE	457	Design Project I ⁸		3	0	3	ECE	458	Design Project II ⁹		3	0	3
ECE	471	Communication Theory		3	0	3			Technical Elective ¹⁰		3	0	3
		Technical Elective ¹⁰		3	0	3			Science Elective ³		3	0	3
		Technical Elective ¹⁰		3	0	3			University Studies Elective ⁵		3	0	3
EGR	303	Engineering Economics ¹¹		3	0	3			University Studies Elective ⁵		3	0	3
				15							15		

TOTAL CREDITS = 120

I = Instruction (hours)

L = Laboratory (hours)

C = Number of Credits

¹ This course meets the University Studies Cluster 1E requirement: Foundation for Learning through Engagement.² This course meets the University Studies Cluster 1D requirement: Mathematics.³ Must be chosen from this list: BIO, BNG, CHM, MAR, or MLS course; or a PHY course numbered above 150. One of the courses must come from the University Studies cluster 2B (Science in the Engaged Community) approved list (www.umassd.edu/universitystudies/approvedcourses/). Requirement may not be satisfied by independent study, seminars or internships.⁴ This course meets the University Studies Cluster 2A requirement: Science of the Natural World.⁵ See University Studies requirements (Clusters 3A, 3B, 4A, and 4B).⁶ This course meets the University Studies Cluster 1C requirement: Intermediate Writing.⁷ This course meets Engineering Math requirement.⁸ This course meets the University Studies Cluster 5B requirement: Learning through Engagement.⁹ This course meets the University Studies Cluster 5A requirement: Capstone Study.¹⁰ Must be taken from approved list of courses:(<https://www.umassd.edu/engineering/ece/undergraduate/curriculum-and-courses/electrical-engineering-technical-electives/>)¹¹ This course meets the University Studies Cluster 4C requirement: The Nature of the Global Society.