UMass | Dartmouth
COLLEGE OF ENGINEERING

CLASS OF 2028 AND PRIOR
(CATALOG YEAR OF 2024-2025 AND PRIOR)

Electrical and Computer
Engineering Department

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

FRESHMAN YEAR

First Semester	R	L	C	Second Semester	R	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 160 Found. Comp. Engineering I	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	R	L	C	Second Semester	R	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
ECE 250 Fundamentals of MATLAB	1	2	2	ECE 263 Embedded System Design	3	1½	3½
MTH 213 Calculus Applied Science & Eng. III	4	0	4	ECE 264 Object Oriented Software Develop.	3	2	4
PHY 114 Classical Physics II	3½	1½	4	MTH 212 Differential Equations	3	0	3
			17				**17**

JUNIOR YEAR

First Semester	R	L	C	Second Semester	R	L	C
ECE 311 Digital Electronics	3	3	4	ECE 310 Engineering Ethics	1	0	1
ECE 320 Discrete-Time Linear Systems	3	0	3	ECE 312 Analog Electronics	3	3	4
ECE 335 Electromagnetic Theory I	3	0	3	ECE 321 Continuous-Time Linear Systems	3	0	3
ECE 388 Embedded Design Project	2	3	3	ECE 336 Electromagnetic Theory II	3	0	3
University Studies Elective[5]	3	0	3	ECE 384 Random Signals & Noise	3	0	3
				University Studies Elective[5]	3	0	3
			16				**17**

SENIOR YEAR

First Semester	R	L	C	Second Semester	R	L	C
ECE 457 Design Project I[7]	3	0	3	ECE 458 Design Project II[8]	3	0	3
ECE 471 Communication Theory	3	0	3	Technical Elective[9]	3	0	3
Technical Elective[9]	3	0	3	Science Elective[3]	3	0	3
Engineering Mathematics[10]	3	0	3	University Studies Elective[5]	3	0	3
EGR 303 Engineering Economics[11]	3	0	3				
			15				**12**

TOTAL CREDITS = 125   R = Recitation (hours)   L = Laboratory (hours)   C = Number of Credits

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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 the University Studies Cluster 5B requirement: Learning through Engagement.
8. This course meets the University Studies Cluster 5A requirement: Capstone Study.
9. Must be taken from approved list of courses.
10. Must be taken from this list: ECE 355, ECE 455, ECE 485, or MTH 221.
11. This course meets the University Studies Cluster 4C requirement: The Nature of the Global Society.