UMass Dartmouth
COLLEGE OF ENGINEERING

CLASS OF 2022 AND BEYOND
(CATALOG YEAR OF 2018-2019 AND BEYOND)

Electrical and Computer Engineering Department

BACHELOR OF SCIENCE IN COMPUTER ENGINEERING AND 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]	3	2	3	ECE	250	Fundamentals of MATLAB	1	2	2
ECE	160	Foundations Comp. Engineering I	3	2	4	ECE	264	Object Oriented Software Devel.	3	2	4
MTH	153	Calculus Applied Science & Eng. I[2]	4	0	4	MTH	154	Calculus Applied Science & Eng. II	4	0	4
		University Studies Elective[3]	3	0	3	PHY	111	Physics for Science & Eng. I[4]	3½	1½	4
					17						**17**

SOPHOMORE YEAR

First Semester			R	L	C	Second Semester			R	L	C
ECE	201	Circuit Theory I	3	1½	3½	ENL	266	Technical Communications[5]	3	0	3
ECE	256	Foundations of Cybersecurity	2	3	3	ECE	161	Foundations Comp. Engineering II	3	2	4
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	112	Physics for Science & Eng. II	3½	1½	4	MTH	212	Differential Equations	3	0	3
					18						**17**

JUNIOR YEAR

First Semester			R	L	C	Second Semester			R	L	C
ECE	370	Design/Impl. RT Embedded RMS	2	3	3	ECE	310	Engineering Ethics	1	0	1
ECE	311	Digital Electronics	3	3	4	ECE	312	Analog Electronics	3	3	4
ECE	320	Discrete-Time Linear Systems	3	0	3	ECE	321	Continuous-Time Linear Systems	3	0	3
ECE	388	Embedded Design Project	2	3	3	ECE	368	Digital Design	2	3	3
ECE	355	Applied Discrete Structures	3	0	3	ECE	369	Computer Networks	3	0	3
						ECE	384	Random Signals and Noise	3	0	3
					16						**17**

SENIOR YEAR

First Semester			R	L	C	Second Semester			R	L	C
ECE	335	Electromagnetic Theory I	3	0	3	ECE	336	Electromagnetic Theory II	3	0	3
ECE	457	Design Project I[6]	3	0	3	ECE	458	Design Project II[7]	3	0	3
ECE	471	Communication Theory	3	0	3			Science Elective[8]	3	0	3
		Technical Elective[9]	3	0	3			Technical Elective[9]	3	0	3
EGR	303	Engineering Economics[10]	3	0	3			University Studies Elective[3]	3	0	3
					15						**15**

…plus 9 additional credits: Science Elective[8] and 2 University Studies courses[3].

TOTAL CREDITS = 141 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] See University Studies requirements (Clusters 3A, 4A, and 4B).
[4] This course meets the University Studies Cluster 2A requirement: Science of the Natural World.
[5] This course meets the University Studies Cluster 1C requirement: Intermediate Writing.
[6] This course meets the University Studies Cluster 5B requirement: Learning through Engagement.
[7] This course meets the University Studies Cluster 5A requirement: Capstone Study.
[8] 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.
[9] Must be taken from approved list of courses.
[10] This course meets the University Studies Cluster 4C requirement: The Nature of the Global Society.