

**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 COMPUTER ENGINEERING****FRESHMAN YEAR**

<u>First Semester</u>				<u>R</u>	<u>L</u>	<u>C</u>	<u>Second Semester</u>				<u>R</u>	<u>L</u>	<u>C</u>
ENL	101	Critical Writing & Reading I		3	0	3	ENL	102	Critical Writing & Reading II		3	0	3
EGR	111	Intro. Engineering & Computing <sup>1</sup>		2	3	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 <sup>2</sup>		4	0	4	MTH	154	Calculus Applied Science & Eng. II		4	0	4
		University Studies Elective <sup>3</sup>		3	0	3	PHY	113	Physics for Science & Eng. I <sup>4</sup>		3½	1½	4
				<b>17</b>							<b>17</b>		

**SOPHOMORE YEAR**

<u>First Semester</u>				<u>R</u>	<u>L</u>	<u>C</u>	<u>Second Semester</u>				<u>R</u>	<u>L</u>	<u>C</u>
ECE	201	Circuit Theory I		3	1½	3½	ENL	266	Technical Communications <sup>5</sup>		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	114	Physics for Science & Eng. II		3½	1½	4	MTH	212	Differential Equations		3	0	3
				<b>18</b>							<b>17</b>		

**JUNIOR YEAR**

<u>First Semester</u>				<u>R</u>	<u>L</u>	<u>C</u>	<u>Second Semester</u>				<u>R</u>	<u>L</u>	<u>C</u>
ECE	311	Digital Electronics		3	3	4	ECE	310	Engineering Ethics		1	0	1
ECE	370	Design/Impl. RT Embedded RMS		2	3	3	ECE	355	Applied Discrete Structures		3	0	3
ECE	388	Embedded System Design Project		2	3	3	ECE	368	Digital Design		2	3	3
MTH	331	Probability		3	0	3	ECE	369	Computer Networks		3	0	3
		University Studies Elective <sup>3</sup>		3	0	3			Science Elective <sup>6</sup>		3	0	3
				<b>16</b>							<b>13</b>		

**SENIOR YEAR**

<u>First Semester</u>				<u>R</u>	<u>L</u>	<u>C</u>	<u>Second Semester</u>				<u>R</u>	<u>L</u>	<u>C</u>
ECE	457	Design Project I <sup>7</sup>		3	0	3	ECE	458	Design Project II <sup>8</sup>		3	0	3
ECE	320	Discrete-Time Linear Systems		3	0	3			University Studies Elective <sup>3</sup>		3	0	3
		Technical Elective <sup>9</sup>		3	0	3			Technical Elective <sup>9</sup>		3	0	3
EGR	303	Engineering Economics <sup>10</sup>		3	0	3			University Studies Elective <sup>3</sup>		3	0	3
				<b>12</b>							<b>12</b>		

**TOTAL CREDITS = 122**

R = Recitation (hours)

L = Laboratory (hours)

C = Number of Credits

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