

**BACHELOR OF SCIENCE IN COMPUTER ENGINEERING****FRESHMAN YEAR**

<u>First Semester</u>				<u>Second Semester</u>			
	R	L	C		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 <sup>1</sup>	2	3	3	ECE 161 Foundations Comp. Engineering II	3	2	4
ECE 160 Foundations Comp. Engineering I	3	2	4	ECE 250 Fundamentals of MATLAB	1	2	2
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 111 Physics for Science & Eng. I <sup>4</sup>	3½	1½	4
	<b>17</b>				<b>17</b>		

**SOPHOMORE YEAR**

<u>First Semester</u>				<u>Second Semester</u>			
	R	L	C		R	L	C
ECE 201 Circuit Theory I	3	1½	3½	ENL 266 Technical Communications <sup>5</sup>	3	0	3
ECE 257 Fundamentals of UNIX	2	0	2	ECE 202 Circuit Theory II	3	1½	3½
ECE 260 Digital Logic & Computer Design	3	1½	3½	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 112 Physics for Science & Eng. II	3½	1½	4	MTH 212 Differential Equations	3	0	3
	<b>17</b>				<b>17</b>		

**JUNIOR YEAR**

<u>First Semester</u>				<u>Second Semester</u>			
	R	L	C		R	L	C
CIS 370 Design of Operating Systems	3	2	4	ECE 310 Engineering Ethics	1	0	1
ECE 311 Digital Electronics	3	3	4	ECE 368 Digital Design	2	3	3
ECE 388 Embedded Design Project	2	3	3	ECE 369 Computer Networks	3	0	3
ECE 355 Applied Discrete Structures	3	0	3	MTH 331 Probability	3	0	3
University Studies Elective <sup>3</sup>	3	0	3	Science Elective <sup>6</sup>	3	0	3
	<b>17</b>			University Studies Elective <sup>3</sup>	3	0	3
	<b>17</b>				<b>16</b>		

**SENIOR YEAR**

<u>First Semester</u>				<u>Second Semester</u>			
	R	L	C		R	L	C
CIS 360 Algorithms and Data Structures	3	0	3	ECE 458 Design Project II <sup>7</sup>	1	6	3
ECE 457 Design Project I <sup>8</sup>	2	3	3	ECE 460 Computer Systems Perform. Eval.	3	0	3
ECE 320 Discrete-Time Linear Systems	3	0	3	Technical Elective <sup>9</sup>	3	0	3
Technical Elective <sup>9</sup>	3	0	3	University Studies Elective <sup>3</sup>	3	0	3
University Studies Elective <sup>3</sup>	3	0	3				
	<b>15</b>				<b>12</b>		

**TOTAL CREDITS = 128**

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 3 and 4).<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, 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 5A requirement: Capstone Study.<sup>8</sup> This course meets the University Studies Cluster 5B requirement: Learning through Engagement.<sup>9</sup> Must be taken from approved list of courses.