



**COMPUTER ENGINEERING PROGRAM**

**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	101	Intro. Engineering Applied Science I <sup>1</sup>	1½	1½	2	EGR	102	Intro. Engineering App. Science II	1½	1½	2
MTH	113	Calculus Applied Science & Eng. I <sup>2</sup>	4	0	4	MTH	114	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
ECE	160	Foundations Comp. Engineering I	3	2	4	ECE	161	Foundations Comp. Engineering II	3	2	4
						<b>16</b>			<b>17</b>		

**SOPHOMORE YEAR**

First Semester			R	L	C	Second Semester			R	L	C
ECE	201	Circuit Theory I	3	1½	3½	ECE	202	Circuit Theory II	3	1½	3½
ECE	257	Fund. System Software w/ UNIX	2	0	2	ECE	250	Fundamentals of MATLAB	½	1½	1
ECE	260	Digital Logic & Computer Design	3	1½	3½	ECE	263	Embedded System Design	3	1½	3½
PHY	112	Physics for Science & Eng. II	3½	1½	4	ECE	264	Object Oriented Software Develop.	3	2	4
MTH	213	Calculus Applied Science & Eng. III	4	0	4	MTH	212	Differential Equations	3	0	3
						<b>17</b>			<b>18</b>		

**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	388	Embedded Design Project	2	3	3	ECE	368	Digital Design	2	3	3
CIS	370	Design of Operating Systems	3	2	4	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>			<b>16</b>		

**SENIOR YEAR**

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