

BACHELOR OF SCIENCE IN COMPUTER ENGINEERING

FRESHMAN YEAR*

First Semester			I	L	C	Second Semester			I	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	171	Data Structures	3	2	4
ECE	170	Introduction to Programming	3	2	4	MTH	154	Calculus Applied Science & Eng. II	4	0	4
MTH	153	Calculus Applied Science & Eng. I ²	4	0	4	PHY	113	Classical Physics I ³	3½	1½	4
					14						15

SOPHOMORE YEAR*

<u>First Semester</u>			<u>I</u>	<u>L</u>	<u>C</u>	<u>Second Semester</u>			<u>I</u>	<u>L</u>	<u>C</u>
ECE	201	Circuit Theory I	3	1½	3½	ECE	202	Circuit Theory II	3	1½	3½
ECE	258	OS Essentials for Cybersecurity	2	3	3	ECE	263	Embedded System Design	3	1½	3½
ECE	260	Digital Logic & Computer Design	3	1½	3½	PHY	114	Classical Physics II	4	2	4
MTH	213	Calculus Applied Science & Eng. III	4	0	4	MTH	212	Differential Equations	3	0	3
						14			14		

JUNIOR YEAR

<u>First Semester</u>	I	L	C	<u>Second Semester</u>	I	L	C
ECE 311 Digital Electronics	3	3	4	ECE 310 Engineering Ethics	1	0	1
ECE 370 Real-Time Embedded RMS	3	1½	3½	ECE 355 Applied Discrete Structures	3	0	3
MTH 331 Probability	3	0	3	ECE 368 Digital Design	2	3	3
ENL 266 Technical Communications ⁴	3	0	3	ECE 369 Computer Networks	3	0	3
Free Elective	3	0	3	Science Elective ⁵	3	0	3
				University Studies Elective ⁶	3	0	3
			<u>16½</u>				<u>16</u>

SENIOR YEAR

First Semester				I	L	C	Second Semester				I	L	C
ECE	457	Design Project I ⁷		3	0	3	ECE	458	Design Project II ⁸		3	0	3
ECE	320	Discrete-Time Linear Systems		3	1½	3½			Technical Elective ⁹		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 ⁶		3	0	3
		University Studies Elective ⁶		3	0	3			University Studies Elective ⁶		3	0	3
						15½							15

TOTAL CREDITS = 120

I = Instruction (hours)

L = Laboratory (hours)

C = Number of Credits

* Students are encouraged to take University Studies during their lower-years or summers to lighten their upper-years load.

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 This course meets the University Studies Cluster 2A requirement: Science of the Natural World.

⁴ This course meets the University Studies Cluster 1C requirement: Intermediate Writing.

⁵ Must be chosen from the University Studies Cluster 2B (Science in the Engaged Community) approved list:

(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.

⁶ See University Studies requirements (Clusters 3A, 3B, 4A, and 4B).

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 the approved list of courses:

(www.umassd.edu/engineering/ece/undergraduate/curriculum-and-courses/computer-engineering-technical-electives/)

¹⁰ This course meets the University Studies Cluster 4C requirement: The Nature of the Global Society.