

CLASS OF 2022 AND BEYOND

(CATALOG YEAR OF 2018-2019 AND BEYOND)

Electrical and Computer Engineering Department

C = Number of Credits

BACHELOR OF SCIENCE IN COMPUTER ENGINEERING AND ELECTRICAL ENGINEERING

BACHELOR OF SCIENCE IN COMP	UTE	:K L	:NG	INEE	KING AND ELECTRICAL ENGINEER	KIN	G _	
FRESHMAN YEAR								
First Semester ENL 101 Critical Writing & Reading I EGR 111 Intro. Engineering & Computing ¹ ECE 160 Foundations Comp. Engineering I MTH 153 Calculus Applied Science & Eng. I ² University Studies Elective ³	R 3 3 4 3	L 0 2 2 0 0	3 3 4 4	ENL ECE ECE MTH	102 Critical Writing & Reading II250 Fundamentals of MATLAB264 Object Oriented Software Devel.154 Calculus Applied Science & Eng. II	R 3 1 3 4 3½	_	<u>C</u> 3 2 4 4 4
SOPHOMORE YEAR								
First Semester ECE 201 Circuit Theory I ECE 256 Foundations of Cybersecurity ECE 260 Digital Logic & Computer Design MTH 213 Calculus Applied Science & Eng. III PHY 114 Physics for Science & Eng. II	R 3 2 3 4 3½	3 1½ 0	3½ 3 3½ 4 4	ENL ECE ECE ECE	nd Semester 266 Technical Communications ⁵ 161 Foundations Comp. Engineering II 202 Circuit Theory II 263 Embedded System Design 212 Differential Equations		<u>L</u> 0 2 1½: 1½:	3½ 3
18 17								
JUNIOR YEAR								
First Semester ECE 370 Design/Impl. RT Embedded RMS ECE 311 Digital Electronics ECE 320 Discrete-Time Linear Systems ECE 388 Embedded System Design Project Science Elective ⁶	R 2 3 3 2 3	<u>L</u> 3 0 3 0	3 4 3 3 3		nd Semester 310 Engineering Ethics 312 Analog Electronics 321 Continuous-Time Linear Systems 368 Digital Design 384 Random Signals and Noise 355 Applied Discrete Structures	R 1 3 2 3 3	<u>L</u> 0 3 0 3 0 0	<u>C</u> 1 4 3 3 3
			16				•	17
SENIOR YEAR								
First Semester ECE 335 Electromagnetic Theory I ECE 457 Design Project I ⁷ ECE 471 Communication Theory Technical Elective ⁹ EGR 303 Engineering Economics ¹⁰	R 3 3 3 3	<u>L</u> 0 0 0 0 0		Secor ECE ECE ECE	nd Semester 336 Electromagnetic Theory II 458 Design Project II ⁸ 369 Computer Networks Technical Elective ⁹ University Studies Elective ³	R 3 3 3 3	0	<u>C</u> 3 3 3 3 15

...plus 9 additional credits: Science Elective⁶ and 2 University Studies courses³.

L = Laboratory (hours)

This course meets the University Studies Cluster 1E requirement: Foundation for Learning through Engagement.

R = Recitation (hours)

TOTAL CREDITS = 141

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 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.

This course meets the University Studies Cluster 5B requirement: Learning through Engagement.

This course meets the University Studies Cluster 5A requirement: Capstone Study.

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.