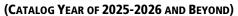
## CLASS OF 2029 AND BEYOND





Electrical and Computer Engineering Department

C = Number of Credits

## **BACHELOR OF SCIENCE IN COMPUTER ENGINEERING AND ELECTRICAL ENGINEERING**

DACHELOR OF SCIENCE III CO	WIII C	,1151		GINEERING AND ELECTRICAL ENGINEERING
FRESHMAN YEAR				
First Semester ENL 101 Critical Writing & Reading I EGR 111 Intro. Engineering & Computing <sup>1</sup> MTH 153 Calculus Applied Science & Eng. I <sup>2</sup> ECE 170 Introduction to Programming University Studies Elective <sup>4</sup>	<u>I</u> 3 2 4 3 3	L 0 3 0 2 0	3 4	Second Semester         I         L         C           ENL 102         Critical Writing & Reading II         3         0         3           ECE 171         Data Structures         3         2         4           MTH 154         Calculus Applied Science & Eng. II         4         0         4           PHY 113         Classical Physics I³         3½         1½         4           University Studies Elective⁴         3         0         3           18
SOPHOMORE YEAR				
First Semester  ECE 201 Circuit Theory I  ECE 260 Digital Logic & Computer Design  MTH 213 Calculus Applied Science & Eng. III  PHY 114 Classical Physics II  ECE 258 OS Essentials for Cybersecurity	3 4	1½ 0	3½ 4	
JUNIOR YEAR				
First Semester  ECE 311 Digital Electronics  ECE 320 Discrete-Time Linear Systems  ECE 370 Real-Time Embedded RMS  MTH 331 Probability  Science Elective <sup>10</sup>	<u>I</u> 3 3 3 3 3 3		4 3½ 3½	
SENIOR YEAR				
First Semester  ECE 457 Design Project I <sup>7</sup> ECE 335 Electromagnetic Theory I  ECE 471 Communication Theory  Technical Elective <sup>9</sup> Technical Elective <sup>9</sup> EGR 303 Engineering Economics <sup>11</sup>	<u>I</u> 3 3 3 3 3 3 3	L 0 0 0 0 0 0	C 3 3 3 3 3 3	Second Semester         I         L         C           ECE 458 Design Project II8         3 0 3           ECE 336 Electromagnetic Theory II         3 0 3           Technical Elective9         3 0 3           Science Elective10         3 0 3           University Studies Elective4         3 0 3           ECE 369 Computer Networks         3 0 3           18

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

I = Instruction (hours)

**TOTAL CREDITS = 139**½

L = Laboratory (hours)

<sup>&</sup>lt;sup>2</sup> This course meets the University Studies Cluster 1D requirement: Mathematics.

<sup>&</sup>lt;sup>3</sup> This course meets the University Studies Cluster 2A requirement: Science of the Natural World.

<sup>&</sup>lt;sup>4</sup> See University Studies requirements (Clusters 3A, 3B, 4A, and 4B).

<sup>&</sup>lt;sup>5</sup> This course meets the University Studies Cluster 1C requirement: Intermediate Writing.

<sup>&</sup>lt;sup>6</sup> For only the dual majors, this course is considered equivalent to MTH 221.

<sup>&</sup>lt;sup>7</sup> This course meets the University Studies Cluster 5B requirement: Learning through Engagement.

<sup>&</sup>lt;sup>8</sup> This course meets the University Studies Cluster 5A requirement: Capstone Study.

<sup>&</sup>lt;sup>9</sup> Must be taken from approved list of courses:

<sup>(</sup>https://www.umassd.edu/engineering/ece/undergraduate/curriculum-and-courses/electrical-engineering-technical-electives/)

<sup>&</sup>lt;sup>10</sup> 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/).

<sup>&</sup>lt;sup>11</sup> This course meets the University Studies Cluster 4C requirement: The Nature of the Global Society.