

B.S. Computer Engineering – Cybersecurity Track

Academic Pathway

2017-2018

Degree Requirements

Degree Requirement

Minimum Cumulative GPA: 2.0 Minimum Major GPA: 2.0

Total Credits: 125

Major Credits: 97

Curriculum Notes

- This plan assumes no AP/IB/CLEP or transfer credit and foreign language proficiency up to the 201 level
- This major can provide all upper-level (300 or 400) credits toward the 45-total needed to earn a UMBC degree.
- Gateway information http://advising.coeit.umbc.edu/gateway-information/cmpe-gateway/
- Unless designated, electives can be taken within or outside of the major

For complete information on degree requirements, reference the Undergraduate Course Catalog (catalog.umbc.edu). Your personal program of study may vary.

	FALL SEMESTER		SPRING SEMESTER	
	Course	Credits	Course	Credits
	CMSC 201 Computer Science I for Majors	4	CMSC 202 Computer Science II for Majors	4
an	PHYS 121 Introductory Physics I	4	MATH 151 Calculus & Amplytic Geometry II	4
Freshman	MATH 151 (MATH GEP) Calculus & Analytic Geometry I	4	CMPE 212 Principles of Digital Design	4
est	ENGL 100/110 Composition	3	NES 101 Introduction to Engineering	3
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	Total:	15	Total:	15
Sophomore	Course	Credits	Course	Credits
	AH GEP	3	CMPE 306 Introductory Circuit Theory (Lab)	4
	AH GEP	3	MATH 225 Introduction to Differential Equations	3
	MATH 251 Multivariable Calculus	4	CMPE 310/Systems Design & Programming	4
hd	PHYS 122 Introductory Physics II	4	CMSC 341 Data Structures	3
So	CMSC 203 Discrete Structures	3 6		
	Total:	17 Credi	Total:	14
	Course AH GEP M A JM 390	Credi	Course CMPE 320 Probability, Statistics & Random Processes	Credits
		_	**	3
ō	Science Elective (Major)	4	CMSC 421 Principles of Operating Systems	3
Junior				
=	CMPE 314 Principles of Electronic Circuits	4	CMPE 415 FPGA Arch & Applications	3
Jul	CMPE 311 C Programming & Embedded Systems	3	CMPE 349 Intro. to Prof. Practice, WI	2
Inf	•		CMPE 349 Intro. to Prof. Practice, WI	2
Inf	CMPE 311 C Programming & Embedded Systems	3	CMPE 349 Intro. to Prof. Practice, WI	2
Inf	CMPE 311 C Programming & Embedded Systems MATH 221 Linear Algebra	3	CMPE 349 Intro. to Prof. Practice, WI	2 3 1.5
ınf	CMPE 311 C Programming & Embedded Systems MATH 221 Linear Algebra Total:	3 3 17	CMPE 349 Intro. to Prof. Practice, WI SG-17 Total:	2 3 1.5 15.5
	CMPE 311 C Programming & Embedded Systems MATH 221 Linear Algebra Total: Course CMPE 315 Principles of VLSI Design	3 3 17 Credits	CMPE 349 Intro. to Prof. Practice, WI S Total: Course CMPE 451 Capstone II	2 3 1.5 15.5 Credits
	CMPE 311 C Programming & Embedded Systems MATH 221 Linear Aigebra Total: Course CMPE 315 Principles of VLSI Design CMSC 411 Computer Architecture	3 3 17 Credits 4 3	Course CMPE 451 Capstone II Course Course CMPE 451 Capstone II	2 3 1.5 15.5 Credits
Senior Jui	CMPE 311 C Programming & Embedded Systems MATH 221 Linear Algebra Total: Course CMPE 315 Principles of VLSI Design	3 3 17 Credits	CMPE 349 Intro. to Prof. Practice, WI S Total: Course CMPE 451 Capstone II	2 3 1.5 15.5 Credits 2 3
	Course CMPE 315 Principles of VLSI Design CMSC 411 Computer Architecture CMPE 450 Capstone I	3 3 17 Credits 4 3	Course CMPE 451 Capstone II Course Course CMPE 451 Capstone II	2 3 1.5 15.5 Credits 2 3
	Course CMPE 315 Principles of VLSI Design CMSC 411 Computer Architecture CMPE 450 Capstone I CMSC 426 Principles of Computer Security	3 3 17 Credits 4 3 2	Course CMPE 451 Capstone II State Course Course Course CMPE 451 Capstone II	2 3 1.5 15.5 Credits 2 3 4