http://www.csee.umbc.edu/programs/undergraduate/computer-engineering-bs/
Dr. Chuck LaBerge, Undergraduate Program Director
chuck.laberge@umbc.edu

University of Maryland, Baltimore County
College of Engineering and Information Technology
(G = CMPE Gateway course; Fall = CMPE course only offered in Fall; Spring = CMPE course only offered in Spring; Both = CMPE course offered both semesters)

CMPE Curriculum—Electronic Systems

First Semester	Second Semester
MATH 151: Calculus I…..... 4	CMSC 202: Computer Science II…….……..... 4
CHEM 101 …… …….. 4	CMSC 203: Discrete Structures…..…… 3
CMSC 201: Computer Science I (G)..…….…. 4	MATH 152: Calculus II (G)…...…….…….4
PHYS 121: Physics I…… 4	ENES 101: Intro to Engineering Science (G)….....3
Total…..……..……16	ENGL 100:……...…….. 3
	Total……..…… 17
Third Semester	**Fourth Semester**
PHIL 251: Ethical Issues in Science and Eng'ing…….. 3	CMPE 306 Basic Circuit Theory (Both)…….. 4
MATH 251: Multivariable Calculus……..…… 4	MATH 225: Intro to Differential Eqs……..…… 3
PHYS 122: Physics II (G)……..…….…… 4	CMPE 310: Systems Design and Prog (Both) ... …..4
CMPE 212: Prin. of Digital Design (Both)..(G + 3.0)…..4	CMSC 341: Data Structures (Both)…….…...3
Total…… 15	Total …… ……..... 14
Fifth Semester	**Sixth Semester**
2 GEP ……..……..…… 6	GEP…….…… 3
MATH 221: Linear Algebra…….……..…… 3	CMPE 320: Prob. & Random Processes (Spring)….3
CMPE 314: Electronic Circuits (Both)… ……..... 4	CMSC 421: Operating Systems (Both)…….. 3
CMPE 311: C Prog and Embedded Systems (Fall)…… 3	CMPE 415: FPGA Arch and App. (Spring)……..... 3
	ENGL 393: Technical Communication……3
Total……...……16	Total…….…… 15
Seventh Semester	**Eighth Semester**
2 GEP…….……..... 6	2 GEP..... 7
CMPE 315: Principles of VLSI (Fall)…...…….. 4	CMPE 451 Capstone II (Spring) ……. 2
CMSC 411: Computer Architecture (Both)...…...…… 3	2 x List A/List B electice …… …….. 6
CMPE 450 Capstone I (Fall)...…… 2	
List A/List B Elective..…….……. 3	Total…….…… 15
Total…….……..18	

Reconstructed 7/12/14 EFCL

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CMPE Curriculum--Communications Track	
First Semester MATH 151: Calculus I…..…….. 4 CHEM 101 …… …….. 4 CMSC 201: Computer Science I (G)..…….…. 4 PHYS 121: Physics I……. 4 Total…..……..……16	Second Semester CMSC 202: Computer Science II……..……..... 4 CMSC 203: Discrete Structures…..…… 3 MATH 152: Calculus II (G)…...…….…….4 ENES 101: Intro to Engineering Science (G).....3 ENGL 100…….. 3 Total…….…… 17
Third Semester PHIL 251…….. 3 MATH 251: Multivariable Calculus……..…….… 4 PHYS 122: Physics II (G)……..…….…… 4 CMPE 212: Prin. of Digital Design (Both)..(G + 3.0)... 4 Total…… 15	Fourth Semester CMPE 306 Basic Circuit Theory (Both)…….. 4 MATH 225: Intro to Differential Eqs……..…… 3 CMPE 310: Systems Design and Prog (Spring)…….4 CMSC 341: Data Structures (Both)…….…...3 Total …… ……..... 14
Fifth Semester GEP ……. ……..3 MATH 221: Linear Algebra…….…… 3 CMPE 314: Electronic Circuits (Fall)……..... 4 CMPE 311: C Prog and Embedded Systems (Fall)….. 3 CMPE 323: Signals and System (Fall)…….. 3 Total…….……..…….. 16	Sixth Semester 2 x GEP..……..…….. ...6 CMPE 320: Prob. & Random Processes (Spring)…..3 CMSC 421: Operating Systems (Both) ……..…….. 3 CMPE 330: Wave and Signal Trans. (Spring)……3 ENGL 393: Technical Communication……3 Total……..……..…… 18
Seventh Semester GEP……..... 6 CMSC 411: Computer Architecture (Both…… 3 CMPE 450 Capstone I (Fall)……...…….. 2 List A/List B electives x 2…… 3 Total …… 14	Eighth Semester GEP……...……..…….. 7 CMPE 451 Capstone II (Spring)…….…….. 2 2 x List A/List B elective …….. 6 Total ……..…… 15

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CMPE List A:
CMPE315 Principles of VLSI (elective for Comm track students only)
CMPE321 Communication Laboratory
CMPE323 Signals and Systems (elective for Electronic System track students only)
CMPE330 Wave and Signal Transmission (elective for Electronic System track students only)
CMPE415 FPGA Architecture and Applications (elective for Comm track students only)
CMPE419 Arithmetic Algorithms
CMPE422 Digital Signal Processing
CMPE423 Principles of Communication Engineering
CMPE447 Analog Integrated Circuit Design
CMPE491 Special Topics in Computer Engineering
CMSC426 Principles of Computer Security
CMSC479 Introduction to Robotics
CMSC481 Computer Networks

CMPE List B:
CMSC345 Software Design and Development
CMSC422 Operating System Design
CMSC425 Performance Analysis of Computer Systems
CMSC431 Compiler Design Principles
CMSC435 Computer Graphics
CMSC441 Design and Analysis of Algorithms
CMSC442 Information and Coding Theory
CMSC443 Cryptology
CMSC445 Numerical Computations
CMSC482 Computer Systems Security
CMSC483 Parallel and Distributed Processing
CMSC486 Mobile Radio Communications
ENME403 Automatic Controls