UNIVERSITY OF South Carolina

MIDLANDS TECHNICAL COLLEGE

**Transfer Pathway: Associate of Applied Science in Engineering Fundamentals Concentration in Computer Engineering
to Bachelor of Science in Engineering in Computer Engineering**
Bulletin Year: 2023-2024

This course plan is a recommended sequence for this major. Please see the University of South Carolina Bulletin for detailed degree requirements and contact your academic advisor for assistance in the application of specific coursework to a program of study and course selection and planning for upcoming semesters.

Course Subject and Title	Credit Hours	Min. Grade	UofSC Equivalent Course	UofSC Degree Applicability
Semester One (18 Credit Hours)				
ENG 101 English Composition I	3	C	ENGL 101 Critical Reading and Composition	CC-CMW
CHM 110 College Chemistry 1	4	C	CHEM 111 General Chemistry I and CHEM 111L General Chemistry I Lab	CC-SCI
MAT 110 College Algebra (7 week course)*	3	C	MATH 111 Basic College Mathematics	Pre-req
MAT 111 College Trigonometry (7 week course)*	3	C	MATH 112 Trigonometry	Pre-req
COL 101 College Orientation	1		Non-transferable	
EGR 281 Intro to Algorithmic Design	4	C	CSCE 145 Algorithmic Design I (counts toward computer programming elective)	PR
Semester Two (17 Credit Hours)				
MAT 140 Analytical Geometry and Calculus I	4	C	MATH 141 Calculus 1	CC-ARP
ENG 102 English Composition II	3	C	ENGL 102 Rhetoric and Composition	CC-CMW/INF
CPT 247 UNIX Operating System	3	C	CSCE 215 UNIX/Linux Fundamentals	PR
HIS 101 Western Civilization to 1689	3	C	Carolina Core GHS	CC-GHS
EGR 283 Intro to Algorithmic Design II	4	C	CSCE 146 Algorithmic Design II	PR
Summer (13 Credit Hours)				
MAT 141 Analytical Geometry and Calculus II	4	C	MATH 142 Calculus II	CC-ARP
AIU Transfer Course (ex: MUS 105 Music Appreciation, ART 101 Art History and Appreciation, etc.)	3	C	Carolina Core AIU	CC-AIU
SPC 205 Public Speaking	3	C	SPCH 140 Public Communication	CC-CMS
PSC 201 American Government	3	C	POLI 201 American National Government	CC-GSS, Founding Documents
Semester Three (17 Credit Hours)				
ECE 102 Instrument Control	3	C	ELCT 102 Electrical Science	PR
MAT 240 Analytical Geometry and Calculus III	4	C	MATH 241 Vector Calculus	PR
ECE 211 Intro to Computer Engineering	3	C	CSCE 211 Digital Logic Design	PR
PHY 221 University Physics I	4	C	PHYS 211 Essentials of Physics I and PHYS 211L Essentials of Physics I Lab	CC-SCI
ECE 245 Object-Oriented Program Technology	3	C	CSCE 240 Advanced Programming Techniques	PR
Semester Four (17 Credit Hours)				
ECE 221 Introduction to Electrical Engineering I	3	C	ELCT 221 Circuits	PR
MAT 242 Differential Equations	4	C	MATH 242 Elem. Differential Equations	PR
EGR 209 Statistics for Engineers	3	C	STAT 509 Statistics for Engineers	PR
PHY 222 University Physics II	4	C	PHYS 212 Essentials of Physics II and PHYS 212L Essentials of Physics II Lab	PR
ECE 212 Intro to Computer Engineering	3	C	CSCE 212 Intro to Computer Architecture	PR
Semester Five (15 Credit Hours)				
CSCE 311 Operating Systems	3	C		MR
CSCE 611 Advanced Digital Design (Fall only)	3	C		MR
MATH 374 Discrete Structures	3	C		MR
ELCT 222 Signals and Systems	3	C		PR
CSCE 274 Robotic Applications and Design (Fall only)	3	C		PR
Semester Six (14 Credit Hours)				
CSCE 313 Embedded Systems (Spring only)	3	C		MR
CSCE 350 Data Structures and Algorithms	3	C		MR
CSCE 390 Prof. Issues in Computer Science Engr.	1	C		CC-VSR
ELCT 201 Introductory Electrical Engineering Laboratory	3	C		PR
ENGL 462 Technical Writing or ENGL 463 Bus. Writing	3	C		PR
CSCE 190 Computing in the Modern World	1	C		PR
Semester Seven (12 Credit Hours)				
CSCE 490 Capstone Computing Project I (Fall only)	3	C		MR CC-INT
CSCE 416 Introduction to Computer Networks	3	C		MR
Computer Engineering Major Elective	3	C		MR
Computer Engineering Major Elective	3	C		PR
Semester Eight (13 Credit Hours)				
CSCE 492 Capstone Computing Project II (Spring only)	3	C		MR
CSCE 491 Capstone Computer Engineering Project I (Spring only)	3	C		MR

Renewed: June 2023

Computer Engineering Major Elective	3	C		MR
MATH 344 Applied Linear Algebra	3	C		PR
MATH 344L Applied Linear Algebra Lab	1	C		PR
Take during any semester (0-6 Credit Hours)				
Carolina Core GFL	0-6	C		CC-GFL

* Students may place into and begin with MAT 140.

Codes:			
CC	Carolina Core	**CC-INF**	Carolina Core – Information Literacy
CC-AIU	Carolina Core-Aesthetic and Interpretive Understanding	**CC-INT**	Carolina Core – Integrative Course
CC-ARP	Carolina Core-Analytical Reasoning and Problem-Solving	**CC-SCI**	Carolina Core – Scientific Literacy
CC-CMS	Carolina Core-Effective, Engaged, and Persuasive Communication: Spoken Component	**CC-VSR**	Carolina Core – Values, Ethics, and Social Responsibility
CC-CMW	Effective, Engaged, and Persuasive Communication: Written Component	**CR**	College Requirement
CC-GFL	Carolina Core-Global Citizenship and Multicultural Understanding: Foreign Language	**MR**	Major Requirement
CC-GHS	Carolina Core – Historical Thinking	**PR**	Program Requirement
CC-GSS	Carolina Core – Social Sciences		