

BACHELOR OF SCIENCE IN COMPUTER ENGINEERING

FRESHMAN YEAR

FIRST SEMESTER				SECOND SEMESTER			
Course Number	Course Title	Credit Hours	Pre-requisite	Course Number	Course Title	Credit Hours	Pre-requisite
ALIS 1211	Introduction to Islamic culture	2		ALIS 1212	The Social System in Islam	2	
COMM 1311	Written Communication	3		COMM 1312	Writing and Research	3	COMM 1311
UNIV 1211	Prof. Development and Competencies	2		UNIV 1212	Critical Thinking and Problem Solving	2	
MATH 1422	Calculus I	4	PRPM 0022	PHYS 1421	Physics for Engineers I	4	PRPM 0022
GEIT 1411	Computer Science I	4		GEIT 1412	Computer Science II	4	GEIT 1411
PHED 1111	Active Living Lifestyle	1		MATH 1423	Calculus II	4	MATH 1422
Total Credit Hours		16		Total Credit Hours		19	

SOPHOMORE YEAR

FIRST SEMESTER				SECOND SEMESTER			
Course Number	Course Title	Credit Hours	Pre-requisite	Course Number	Course Title	Credit Hours	Pre-requisite
ALIS 2211	Linguistic Communication Skills	2		ALIS 2212	The Biography of Prophet Mohammad	2	
UNIV 1213	Leadership and Teamwork	2		COMM 2312	Technical and Professional Communications	3	COMM 2311
PHYS 1422	Physics for Engineers II	4	PHYS1421 MATH1422	ASSE 2111	Learning Outcome Assessment I	1	Sophomore Level
MATH 1324	Calculus III	3	MATH 1423	GEIT 2331	Mathematical Reasoning and Algorithmic Thinking	3	GEIT 1412
GEIT 2421	Data Structures	4	GEIT 1412	COEN 2411	Circuits	4	MATH1423 PHYS 1422
COMM 2311	Oral Communication	3	COMM 1312	GEIT 2291	Professional Ethics	2	
PHED 1112	Healthy Behaviors and Management	1		MATH 2313	Probability and Statistics	3	MATH1422
Total Credit Hours		19		Total Credit Hours		18	

JUNIOR YEAR

FIRST SEMESTER				SECOND SEMESTER			
Course Number	Course Title	Credit Hours	Pre-requisite	Course Number	Course Title	Credit Hours	Pre-requisite
GEIT 3341	Database I	3	GEIT 1412	GEIT 3351	Principles of Software Engineering	3	GEIT 1412
GEIT 3331	Computer Organization	3	GEIT 2421	COEN 3361	Computer Networks	3	MATH 3433 MATH 2313 GEIT 2421
MATH 3433	Linear Algebra and Differential Equation	4	MATH 1324	ASSE 3211	Learning Outcome Assessment II	2	ASSE 2111
COEN 3323	Digital and Logic Design	3	COEN 2411	COEN 3421	Electronics	4	COEN 2411
	CE Elective I***	3			CE Elective II***	3	
Total Credit Hours		16		Total Credit Hours		15	

SUMMER OF JUNIOR YEAR

Course Number	Course Title	Credit Hours		Pre-requisite
	Internship	3	8 weeks (320 hours) full time	End of Junior Year (summer before graduation) and department approval

SENIOR YEAR

FIRST SEMESTER				SECOND SEMESTER			
Course Number	Course Title	Credit Hours	Pre-requisite	Course Number	Course Title	Credit Hours	Pre-requisite
COEN 4361	Operating Systems	3	GEIT 3331	COEN 4413	Embedded Systems	4	COEN 4361, GEIT 3351
ASSE 4311 - CE	Assessment III – CE (<i>Capstone</i>)	3	ASSE 3211		Social Science Elective II*	3	
	Natural Science Elective **	4		COEN 4322	Digital Signal Processing	3	COEN 3323 MATH 2313
	CE Elective III***	3			CE Elective IV***	3	
	Social Science Elective I *	3					
Total Credit Hours		16		Total Credit Hours		13	

COMPUTER ENGINEERING PROGRAM TOTAL DEGREE CREDIT HOURS = 135

Electives:

*Social Science Electives		**Natural Science Electives	
ECON1311	Intro. to Macroeconomics	BIOL1411	Introductory Biology
ECON1312	Intro. to Microeconomics	CHEM1411	Introductory Chemistry
GEGR1311	World Regional Geography	CHEM1421	Chemistry for Engineers I
HIST1311	World Civilizations	CHEM1422	Chemistry for Engineers II
PSYC1311	Intro. to Psychology	PHYS1411	Introductory Physics
FREN1311	Introduction to French Language		
SPAN1311	Intro. to Spanish Language		
SUST 1311	Introduction to Sustainability		

*****CE Electives**

Course Code	Course Title	Pre - requisite
COSC3354	Introduction to Cryptography	GEIT2421
COSC4371	Computer Graphics	GEIT2421
COSC4373	Computer Vision	GEIT2421 MATH 2313
COEN4331	Microprocessors	COEN3323 GEIT 3331
COEN4371	Synthesis with Hardware Description Languages	COEN3323

Course Code	Course Title	Pre - requisite
COEN4393	Special Topics	OVER 90 CH
COEN4394	Digital Video Processing	COEN 4322
COEN4395	Wireless and Mobile Computing	COEN 3361
COEN4396	Modern Control Theory	MATH 3433 COEN 3412
COEN4397	Robotics	MATH 3433 COEN 3412