

BACHELOR OF SCIENCE IN COMPUTER ENGINEERING

FRESHMAN YEAR

FIRST SEMESTER						SECOND SEMESTER					
Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite	Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite
			Lec	Lab					Lec	Lab	
ALIS 1211	Introduction to Islamic Culture	2	2	0		ALIS 1212	The Social System in Islam	2	2	0	ALIS 1211
COMM 1311	Written Communication	3	3	0		COMM 1312	Writing and Research	3	3	0	COMM 1311
UNIV 1211	Prof. Development and Competencies	2	2	0		UNIV 1212	Critical Thinking and Problem Solving	2	2	0	UNIV 1211
MATH 1422	Calculus I	4	4	1	PRPM 0022	PHYS 1421	Physics for Engineers I	4	3	3	PRPM 0022
GEIT 1411	Computer Science I	4	3	2		GEIT 1412	Computer Science II	4	3	2	GEIT 1411
PHED 1111	Active Living Lifestyle	1	1	0		MATH 1423	Calculus II	4	4	1	MATH 1422
Total Credit Hours		16				Total Credit Hours		19			

SOPHOMORE YEAR

FIRST SEMESTER						SECOND SEMESTER					
Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite	Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite
			Lec	Lab					Lec	Lab	
ALIS 2211	Linguistic Communication Skills	2	2	0	ALIS 1212	ALIS 2212	The Biography of Prophet Mohammad	2	2	0	ALIS 2211
UNIV 1213	Leadership and Teamwork	2	2	0	UNIV 1212	COMM 2312	Technical and Professional Communications	3	3	0	COMM 2311
PHYS 1422	Physics for Engineers II	4	3	3	PHYS1421 MATH1422	ASSE 2111	Learning Outcome Assessment I	1	1	1	Sophomore Standing
MATH 1324	Calculus III	3	3	1	MATH 1423	GEIT 2331	Mathematical Reasoning and Algorithmic Thinking	3	3	0	GEIT 1412
GEIT 2421	Data Structures	4	3	2	GEIT 1412	COEN 2411	Circuits	4	3	3	MATH 1423 PHYS 1422
COMM 2311	Oral Communication	3	3	0	COMM 1312	GEIT 2291	Professional Ethics	2	2	0	
PHED 1112	Healthy Behaviors and Management	1	1	0	PHED 1111	MATH 2313	Probability and Statistics	3	3	1	MATH 1423
Total Credit Hours		19				Total Credit Hours		18			

JUNIOR YEAR

FIRST SEMESTER						SECOND SEMESTER					
Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite	Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite
			Lec	Lab					Lec	Lab	
GEIT 3341	Database I	3	2	2	GEIT 1412	GEIT 3351	Principles of Software Engineering	3	3	0	GEIT 1412
GEIT 3331	Computer Organization	3	3	0	GEIT 1412	COEN 3361	Computer Networks	3	3	0	MATH 2313 GEIT 2421
MATH 3433	Linear Algebra and Differential Equation	4	4	1	MATH 1423	ASSE 3211	Learning Outcome Assessment II	2	2	1	ASSE 2111 & Junior Standing
COEN 3323	Digital and Logic Design	3	2	3	COEN 2411	COEN 3421	Electronics	4	3	3	COEN 2411
	CE Elective I***	3			See from the list		CE Elective II***	3			See from the list
Total Credit Hours		16				Total Credit Hours		15			

SUMMER OF JUNIOR YEAR

Course Number	Course Title	Credit Hours		Pre-requisite
GEIT 4361	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	Contact Hours		Pre-requisite	Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite
			Lec	Lab					Lec	Lab	
COEN 4361	Operating Systems	3	3	0	<i>GEIT 3331</i>	COEN 4413	Embedded Systems	4	3	2	<i>COEN 4361 GEIT 3351</i>
ASSE 4311	Assessment III – CE (<i>Capstone</i>)	3	3	0	<i>ASSE 3211 & Senior Standing</i>	COEN 4322	Digital Signal Processing	3	2	3	<i>COEN 3323 MATH 2313</i>
	Natural Science Elective **	4			<i>See from the list</i>		CE Elective IV***	3			<i>See from the list</i>
	CE Elective III***	3			<i>See from the list</i>		Social Science Elective II*	3			<i>See from the list</i>
	Social Science Elective I *	3			<i>See from the list</i>						
Total Credit Hours		16				Total Credit Hours		13			

COMPUTER ENGINEERING PROGRAM TOTAL DEGREE CREDIT HOURS = 135

* Social Science Electives: 2 Courses = 6 Credit Hours			
Course Number	Course Title	Credit Hours	Pre-Requisites
FREN 1311	Introduction to French Language	3	
FURS 1311	Introduction to Futures Skills	3	
FUTR 1311	Introduction to Futures Studies	3	
GEGR 1311	World Regional Geography	3	
HIST 1311	World Civilizations	3	
PSYC 1311	Introduction to Psychology	3	
SERV 1311	Introduction to Service Learning and Volunteering	3	
SPAN 1311	Introduction to Spanish Language	3	
SUST 1311	Introduction to Sustainability	3	
SYST 1311	Introduction to Systems Thinking	3	
BSTW 1311	Behavioral Sciences in 3D World	3	
DANT 1311	Digital Anthropology	3	
ECON 1311	Introduction to Macroeconomics	3	
ECON 1312	Introduction to Microeconomics	3	

** Natural Science Electives: 1 Course = 4 Credit Hours					
Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite
			LEC	LAB	
BIOL 1411	Introductory Biology	4	3	3	PRPM 0011
CHEM 1411	Introductory Chemistry	4	3	3	PRPM 0011
CHEM 1421	Chemistry for Engineers I	4	3	3	PRPM 0022
CHEM 1422	Chemistry for Engineers II	4	3	3	PRPM 0022
GEOL 1411	Introductory Geology	4	3	3	PRPM 0011

*** CE Electives: 4 Courses = 12 Credit Hours					
Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite
			LEC	LAB	
COSC 3354	Introduction to Cryptography	3	3	0	GEIT 2421
COSC 4371	Computer Graphics	3	3	0	GEIT 2421
COSC 4373	Computer Vision	3	3	0	GEIT 2421 MATH 2313
COEN 4331	Microprocessors	3	3	3	COEN 3323 GEIT 3331
COEN 4371	Synthesis with Hardware Description Languages	3	3	0	COEN 3323
COEN 4394	Digital Video Processing	3	3	0	COEN 4322
COEN 4395	Wireless and Mobile Computing	3	3	0	COEN 3361
COEN 4396	Modern Control Theory	3	3	0	MATH 3433 COEN 3421
COEN 4397	Robotics	3	3	2	MATH 3433 COEN 3421
COEN 4393	Special Topics - I	3	3	0	Senior Standing & Department Approval
COEN 4398	Special Topics - II	3	3	0	Senior Standing & Department Approval
COEN 4399	Special Topics - III	3	3	0	Senior Standing & Department Approval