

College of Engineering

Bachelor of Science in Electrical Engineering for Full Time Students Four Years Study Plan as of Academic Year 2024/2025

FRESHMAN YEAR (34 Credit Hours)											
FIRST "FALL" SEMESTER						SECOND "SPRING" SEMESTER					
Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite	Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite
			Lecture	Lab / Tutorial					Lecture	Lab / Tutorial	
ALIS 1211	Introduction to Islamic culture	2	2	0		Social Science	Elective	3	3	0	<i>Select one from List</i>
COMM 1311	Written Communication	3	3	0		PHED 1111	Active Living Lifestyle	1	1	0	
UNIV 1211	Professional Development and Competencies	2	2	0		COMM 1312	Writing and Research	3	3	0	<i>COMM 1311</i>
MATH 1422	Calculus I	4	4	1	<i>PRPM 0022</i>	UNIV 1212	Critical Thinking & Problem Solving	2	2	0	<i>UNIV 1211</i>
PHYS 1421	Physics for Engineers I	4	3	3	<i>PRPM 0022</i>	MATH 1423	Calculus II	4	4	0	<i>MATH 1422</i>
GEEN 1211	Intro to Engineering	2	2	0	<i>PRPM 0022</i>	PHYS 1422	Physics for Engineers II	4	3	3	<i>PHYS 1421 MATH 1422</i>
Total		17	16	4		Total		17	16	3	

SOPHOMORE YEAR (33 Credit Hours)											
FIRST "FALL" SEMESTER						SECOND "SPRING" SEMESTER					
Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite	Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite
			Lecture	Lab / Tutorial					Lecture	Lab / Tutorial	
ASSE 2111	Learning Outcome Assessment I	1	1	0	<i>Sophomore Level</i>	ALIS 1212	The Social System in Islam	2	2	0	<i>ALIS 1211</i>
COMM 2311	Oral Communication	3	3	0	<i>COMM 1312</i>	COMM 2312	Technical & Professional Communication	3	3	0	<i>COMM 2311</i>
EEEN 2411	Circuits I	4	3	3	<i>MATH 1423 PHYS 1422</i>	UNIV 1213	Leadership & Teamwork	2	2	0	<i>UNIV 1212</i>
MATH 1324	Calculus III	3	3	0	<i>MATH 1423</i>	GEEN 2310	Applied Linear Algebra for Engineers	3	3	0	<i>MATH 1324</i>
CHEM 1421	Chemistry for Engineers I	4	3	3	<i>PRPM 0022</i>	MATH 2332	Ordinary Differential Equations	3	3	0	<i>MATH 1324</i>
GEEN 2211	Engineering Computing	2	1	3	<i>MATH 1423 GEEN 1211</i>	EEEN 2312	Circuits II	3	3	0	<i>EEEN 2411</i>
Total		17	16	6		Total		16	15	3	

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JUNIOR YEAR (35 Credit Hours)											
FIRST "FALL" SEMESTER						SECOND "SPRING" SEMESTER					
Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite	Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite
			Lecture	Lab / Tutorial					Lecture	Studio / Tutorial	
ASSE 3211	Learning Outcome Assessment II	2	2	0	ASSE 2111 & Junior Level	EEEN 3422	Electronics II	4	3	3	EEEN 3421
EEEN 3392	Advanced Applied Mathematics	3	3	0	GEEN 2310 & MATH 2332	EEEN 3432	Microcontroller Systems	4	3	3	EEEN 3331 GEEN 2211
EEEN 3361	Electromagnetic Fields and Waves	3	3	0	EEEN 2411 MATH 1324	EEEN 3341	Signals and Systems	3	3	0	EEEN 2312 EEEN 3392
EEEN 3421	Electronics I	4	3	3	EEEN 2411	EEEN 3461	Electric Machinery	4	3	3	EEEN 3361
EEEN 3331	Digital Systems	3	2	3	EEEN 2411						
ALIS 2211	Linguistic Communication Skills	2	2	0	ALIS 1212	EEEN 3391	Probability and Random Signal Analysis	3	3	0	EEEN 2312 EEEN 3392
Total		17	15	6		Total		18	15	9	

SUMMER OF JUNIOR YEAR (3 Credit Hours)				
Course Number	Course Title	Credit Hours		Pre-requisite
EEEN 3301	Internship	3	8 weeks (320 hours) full time	End of Junior Year (summer before graduation) and department approval

SENIOR YEAR (34 Credit Hours)											
FIRST "FALL" SEMESTER						SECOND "SPRING" SEMESTER					
Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite	Course Number	Course Title	Credit Hours	Contact Hours		Pre-requisite
			Lecture	Lab / Tutorial					Lecture	Lab / Tutorial	
EEEN 4440	Communication Systems	4	3	3	EEEN 3391 EEEN 3341	EEEN 4394	Electrical Engineering Senior Design II	3	3	3	GEEN 4311 EEEN 4393
EEEN 4393	Electrical Engineering Senior Design I	3	3	3	EEEN 3301 EEEN 3432 EEEN 3461	EEEN 4451	Automatic Control Systems	4	3	3	EEEN 3341 EEEN 4423
EEEN 4423	Sensors and Instrumentation	4	3	3	EEEN 3422	EEEN 4XXX	Technical Elective II	3	3	0	Select from List
EEEN 4XXX	Technical Elective I	3	3	0	Select from List	EEEN 4424	Power Electronics	4	3	3	EEEN 3422
GEEN 4311	Engineering Economy	3	3	0	EEEN 3301	PHED 1112	Healthy Behaviors and Management	1	1	0	PHED 1111
						ALIS 2212	The Biography of Prophet Mohammad	2	2	0	ALIS 2211
Total		17	15	9		Total		17	15	9	
TOTAL DEGREE CREDIT HOURS = 139											

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SOCIAL SCIENCE ELECTIVES			
Course Number	Course Title	Credit Hours	Pre-requisites
GEGR 1311	World Regional Geography	3	None
HIST 1311	World Civilizations	3	None
PSYC 1311	Introduction to Psychology	3	None
SUST 1311	Introduction to Sustainability	3	None
FREN 1311	Introduction to French Language	3	None
SPAN 1311	Introduction to Spanish Language	3	None
ECON 1311	Introduction to Macroeconomics	3	None
ECON 1312	Introduction to Microeconomics	3	None

ELECTRICAL ENGINEERING TECHNICAL ELECTIVES			
Course Number	Course Title	Credit Hours	Pre-requisites
EEEN 4371	Electric Power Systems	3	EEEN 3461 Electric Machinery
EEEN 4372	Electric Power Transmission & Distribution	3	EEEN 3461 Electric Machinery
EEEN 4342	Digital Communication Systems	3	EEEN 4440 Communication Systems
EEEN 4343	Wireless Communication Systems	3	EEEN 4440 Communication Systems

NOTES:

- Completion of PRPM 0022 Pre-Calculus is required before entry into Electrical Engineering.
- This Program of Study applies to ONLY full time students. Minimum of 12 credit hours constitutes full time status.
- Student GPA determines maximum semester course load as per department advisement criteria.
- EEEN major courses may be offered only in the semester shown on this plan.
- EEEN major summer course offerings are not guaranteed.
- Internship experience may not be combined with any courses.