

COLLEGE OF ENGINEERING

Bachelor of Science in Civil Engineering for Full Time Students Four Year Study Plan as of Academic Year 2019/2020

FRESHMAN 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	Lab / Tutorial	
ALIS 1211	Introduction to Islamic Culture	2	2	0		PHEH 1112	Healthy Behaviors and Management	1	1	0	
PHEH 1111	Active Living Lifestyle	1	1	0		COMM 1312	Writing and Research	3	3	0	COMM 1311
COMM 1311	Written Communication	3	3	0		UNIV 1212	Critical Thinking & Problem Solving	2	2	0	
UNIV 1211	Professional Development and Competencies	2	2	0		MATH 1423	Calculus II	4	4	1	MATH 1422
MATH 1422	Calculus I	4	4	1	PRPM 0022	CHEM 1421	Chemistry for Engineers I	4	3	3	PRPM 0022
PHYS 1421	Physics for Engineers I	4	3	3	PRPM 0022	GEEN 2311	Engineering Mechanics I: Statics	3	3	0	PHYS 1421 (C)MATH 1423
GEEN 1211	Intro to Engineering	2	2	0	PRPM 0022						
Total		18	17	4		Total		17	16	4	

SOPHOMORE 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	
COMM 2311	Oral Communication	3	3	0	COMM 1312	CVEN 2311	CAD for Civil Engineering	3	2	3	MATH 1324
UNIV 1213	Leadership And Teamwork	2	2	0		GEEN 2313	Thermodynamics I	3	3	0	MATH 1324 CHEM 1421
MATH 1324	Calculus III	3	3	1	MATH 1423	MATH 2332	Ordinary Differential Equations	3	3	1	MATH 1324
PHYS 1422	Physics for Engineers II	4	3	3	PHYS 1421 MATH 1422	MEEN 2313	Solid Mechanics	3	2	3	GEEN 2311 MATH 1324
GEEN 2211	Engineering Computing	2	1	3	MATH 1423	COMM 2312	Technical & Professional Communication	3	3	0	COMM 2311
ASSE 2111	Learning Outcome Assessment I	1	1	0	Sophomore Level						
MEEN 2312	Engineering Mechanics II: Dynamics	3	3	0	GEEN 2311	ALIS 1212	The Social System in Islam	2	2	0	
Total		18	16	7		Total		17	15	7	

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JUNIOR 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	Studio / Tutorial	
ASSE 3211	Learning Outcome Assessment II	2	2	0	ASSE 2111 & Junior Level	CVEN 3331	Environmental Engineering Fundamental	3	3	0	GEEN 3311
GEEN 3311	Intro to Fluid Mechanics	3	3	0	GEEN 2313	CVEN 3332	Hydraulic Engineering	3	2	3	GEEN 3311
CVEN 3322	Materials in Civil Engineering	3	2	3	MEEN 2313	CVEN 3343	Engineering Probability & Statistics	3	3	0	MATH 1324
CVEN 3311	Structural Analysis	3	3	0	MEEN 2313	CVEN 3312	Reinforced Concrete Design	3	3	0	CVEN 3311
CVEN 3323	Engineering Geology	3	3	0	GEEN 2313	CVEN 3344	Sustainable Engineering	3	3	0	CVEN 3322
CVEN 3341	Engineering Measurement	3	2	3	CVEN 2311	ALIS 2211	Linguistic Communication Skills (Arabic)	2	2	0	
Total		17	15	6		Total		17	16	3	

SUMMER OF JUNIOR YEAR (3 Credit Hours)

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

SENIOR YEAR (32 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	
CVEN 4313	Design of Steel Structures	3	3	0	MEEN 2313 CVEN 3312	ALIS 2212	The Biography of Prophet Mohammad	2	2	0	
CVEN 4323	Intro to Geotechnical Engineering	3	2	3	CVEN 3322 CVEN 3323	CVEN 4314	Construction Management	3	3	0	GEEN 4311
CVEN 4396	Civil Engineering Senior Design I	3	2	3	CVEN 3301 CVEN 3312 & department approval	CVEN 4397	Civil Engineering Senior Design II	3	2	3	CVEN 4396 GEEN 4311
GEEN 4311	Engineering Economy	3	3	0	90 student credit hours	CVEN XXXX	CE Tech. Elective II	3	3	0	**Graduation year and department approval. Select from list.
CVEN 4342	Transportation Engineering	3	3	0	CVEN 3341	Social Science	Social Science Elective	3	3	0	Select one from list.
CVEN XXXX	CE Tech. Elective I	3	3	0	**Graduation year and dept. approval. Select from list.						
Total		18	16	6		Total		14	13	3	

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

CIVIL ENGINEERING TECHNICAL ELECTIVES			
Course Number	Course Title	Credit Hours	Pre-requisites
CVEN 4324	Foundation Analysis & Design	3	CVEN 4323: Introduction to Geotechnical Engineering
CVEN 4334	Air Pollution & Control	3	CVEN 3331: Environmental Engineering Fundamental
CVEN 4333	Water & Waste Water Treatment	3	CVEN 3331: Environmental Engineering Fundamental CVEN 3332: Hydraulic Engineering

NOTES:

- Completion of PRPM 0022 Pre-Calculus is required before entry into Civil 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.
- CVEN major courses may be offered only in the semester shown on this plan.
- CVEN major summer course offerings are not guaranteed.
- Internship experience may not be combined with any courses.

Chair Signature
Dr. Andi Asiz

COE Dean Signature
Dr. Jamal F. Nayfeh

Core Dean Signature
Dr. Mohammad Ashraf