

Degree and Study Plan

College	Engineering
Department	Civil and Construction Engineering
Program	Civil Engineering
Degree Level	Bachelor of Engineering
Total Credit Hours	137
Cohort	2018 and above

Summary of Credits	
University Requirements (UR)	12
College Requirements (CR)	42
Program Requirements (PR)	74
Program Electives (PE)	9
Total	137

For more information contact: Dr. Motasem Al-Azaiza

HoD: 

Dean: 

Date: 30/09/2024

Year One	Semester 1 (Fall)				
	Course Code	Course Title	Credits	Pre-Request/ Co-Request*	Category
	ISLM101	Islamic Civilization	3		UR
	ENGL101	English Communication Skills 1	3		UR
	ENGR111	Computer Applications	3		CR
	MATH101	Calculus I	3		CR
	PHYS101	Physics I	3		CR
	Total Credits		15		
	Semester 2 (Spring)				
	Course Code	Course Title	Credits	Pre-Request/ Co-Request*	Category
	CHEM101	Chemistry	3		CR
	ENGL102	English Communication Skills 2	3	ENGL101	UR
	MATH102	Calculus 2	3	MATH101	CR
	PHYS102	Physics 2	3	PHYS101	CR
	ENGR110	Engineering Laboratories	3		CR
	Total Credits		15		

Year Two	Semester 3 (Fall)				
	Course Code	Course Title	Credits	Pre-Request/ Co-Request*	Category
	CVEN310	Surveying	3	MATH101	PR
	CVEN332	Civil Engineering Materials	3	ENGR110	PR
	ENGR201	Engineering Drawing	3		CR
	ENGR202	Technical Writing and Presentation	3	ENGL102	CR
	MATH215	Linear Algebra	3	MATH101	CR
	ENGR220	Statics	3	MATH101	PR
	Total Credits		18		
	Semester 4 (Spring)				
	Course Code	Course Title	Credits	Pre-Request/ Co-Request*	Category
	CVEN232	Engineering Geology	2	CHEM101	PR
	CVEN333	Mechanics of Materials	3	CVEN332	PR
	CVEN362	Transportation Engineering	3	CVEN310	PR
	CVEN340	Analysis of Structure I	3	ENGR220	PR
	ENGR321	Dynamics	3	ENGR220	PR
	Total Credits		14		

Year Three	Semester 5 (Fall)				
	Course Code	Course Title	Credits	Pre-Request/ Co-Request*	Category
	CVEN301	Design of Concrete Structure I	3	CVEN340	PR
	CNMN405	Building Information Modelling	3	ENGR201	PR
	CVEN324	Integrating Group Project	3	ENGR202	PR
	CVEN471	Engineering Project Management	3	ENGR201	PR
	MNGT313	Entrepreneurship	3	60CH	UR
	Total Credits		15		
	Semester 6 (Spring)				
	Course Code	Course Title	Credits	Pre-Request/ Co-Request*	Category
	MATH305	Numerical Methods	3	MATH102	CR
	CVEN260	Geotechnical Engineering	3	CVEN232	PR
	CVEN350	Thermofluids Engineering	3	PHYS102	PR
	MATH204	Probability and Statistics	3	MATH102	CR
	MATH203	Differential Equations	3	MATH102	CR
	Total Credits		15		

Year Four	Semester 7 (Fall)				
	Course Code	Course Title	Credits	Pre-Request/ Co-Request*	Category
	CVEN443	Foundation Engineering	3	CVEN260	PR
	MATH406	Calculus III	3	MATH102	CR
	CVEN451	Hydraulics Engineering	3	CVEN332	PR
	ENGR404	Engineering Economics	3	MATH204	CR
	CVEN444	Design of Concrete Structures II	3	CVEN301	PR
	Total Credits		15		
	Semester 8 (Spring)				
	Course Code	Course Title	Credits	Pre-Request/ Co-Request*	Category
	CVEN491	Capstone Design Project I	3	90CH	PR
	CVEN361	Environmental Engineering	3	CHEM101	PR
	CVEN545	Analysis of Structure II	3	CVEN340	PR
		Civil Engineering Elective	3		PE
	CVEN441	Design of Steel Structures	3	CVEN340	PR
	Total Credits		15		
	Summer				
	Course Code	Course Title	Credits	Pre-Request/ Co-Request*	Category
	ENGR322	Summer Internship	0		CR

Year Five	Semester 9 (Fall)				
	Course Code	Course Title	Credits	Pre-Request/ Co-Request*	Category
	CVEN592	Capstone Design Project II	3	CVEN491	PR
	CVEN563	Traffic Engineering	3	MATH204	PR
	CVEN552	Engineering Hydrology	3	CVEN451	PR
		Civil Engineering Elective	3		PE
		Civil Engineering Elective	3		PE
	Total Credits		15		

List of Elective Courses:

A student must register in 3 courses with total of 9 credits hours following the program study plan:				
Course Code	Course Title	Credits	Pre-Request/ Co-Request*	
CVEN536	Pre-stressed Concrete	3	CVEN444	
COEN586	Sustainable Construction	3	CVEN361	
CVEN544	Design of Temporary Structures	3	CVEN340	
CVEN537	Ground Improvement	3	CVEN443	
CVEN538	Earth Retaining Structures	3	CVEN443	
CVEN546	Design and Rehabilitation of Pavements	3	CVEN260	
CVEN554	Hydrogeology and Groundwater Contamination	3	CVEN451	
ENEN431	Water and Wastewater Treatment	3	CVEN451	
CVEN553	Water Resources Engineering	3	CVEN451	
ENEN531	Advanced Wastewater Treatment	3	CVEN451	
COEN282	Construction Equipment	3		
COEN280	Construction Methodology	3		
COEN585	GIS Applications in Civil Engineering	3		
COEN587	Cost Estimating	3		
CVEN521	Dynamics of Structures	3	ENGR321 CVEN340	
ENEN401	Renewable Energy	3		
CVEN520	Rock Engineering	3	CVEN443	
CVEN564	Coastal Engineering	3	CVEN451	
OJTR406	Industrial Internship I	0	90CH	
OJTR407	Industrial Internship II	0	OJTR406	