College: **ENGINEERING**
Department: **CIVIL AND ARCHITECTURAL ENGINEERING**
Cohort: **2005**
Degree: **B. ENG.**
Major: **CIVIL ENGINEERING**

Summary of Credits:

University Requirements (UR)	**18**	
Arabic		3
English		6
Contemporary Omani Society		1
Oman & Islamic Civilization or Islamic Culture		2
Free Elective		6
College Requirements (CR)	**35**	
Math		17
Physics		8
Computer Programming		3
Chemistry		3
Introduction to Engineering		2
Workshop I		1
Elective		1
Industrial Training		0
Department Requirements (DR)	**87**	
Department Core		69
Electives		18
TOTAL	**140**	

For reference contact: Professor Ramzi Taha Ext. 1332

HoD Date

Dean's Office Date

Registrar's Office Date

Department of Civil and Architectural Engineering

Civil Engineering Degree Plan: 2005 Cohort (Scheme I)

	Course Code	Course Title	Cr.	Lec.	Lab.	Tut.	Pre-req./Co-req.*	Cat.
Semester 1 Fall 2005		University English	**0**					UR
	Total		**0**					
Semester 2 Spring 2006	ARAB1001	Arabic	**3**	3				UR
	HIST1010 ISLM1010	Oman & Islamic Civilization **or** Islamic Culture	**2**	2				UR
	LANC2160	English for Engineering I	**3**	3				UR
	ENGR1500	Introduction to Engineering	**2**	1		2		CR
	ENGR1600	Workshop I	**1**		2			CR
	MATH1106	Pre-Calculus Mathematics	**4**	3		2		CR
	Total		**15**					
Semester 3 Fall 2006	LANC2161	English for Engineering II	**3**	3			LANC2160	UR
	SOCI3320	Contemporary Omani Society	**1**	1				UR
	CHEM1071	General Chemistry for Engineers	**3**	3				CR
	MATH2107	Calculus I	**4**	3		2	MATH1106	CR
	PHYS2107	General Physics I	**4**	3	3		MATH2107*	CR
	Total		**15**					
Semester 4 Spring 2007		College Elective [a]	**1**		2			CR
	COMP2216	Programming in Fortran	**3**	2	2			CR
	MATH2108	Calculus II	**3**	2		2	MATH 2107	CR
	PHYS2108	General Physics II	**4**	3	3		PHYS 2107	CR
	CIVL3216	Basic Mechanics	**4**	3		2	PHYS2107	DR
	Total		**15**					
Semester 5 Fall 2007	MATH3171	Linear Algebra & Multivariate	**3**	2		2	MATH2108, LANC2161	CR
	CIVL3002	Drawing I	**2**		2			DR
	CIVL3056	Surveying	**3**	2	2		MATH2107	DR
	CIVL3086	Mechanics of Materials	**3**	2		2	CIVL3216	DR
	CIVL3096	Construction Materials	**3**	2	2		CIVL3086*	DR
	PETM3006	Engineering Geology	**3**	2	2			DR
	Total		**17**					
January 2008	ENGR3006	Industrial Training I	**0**				CIVL3056	CR
	Total		**0**					
Semester 6 Spring 2008		University Elective I	**3**					UR
	MATH4174	Differential Equations for Engineers	**3**	2		2	MATH2108, LANC2161	CR
	CIVL3036	Structures I	**3**	2	2		CIVL3086	DR
	CIVL3046	Drawing II	**2**		4		CIVL3002	DR
	CIVL3106	Geotechnical Engineering I	**3**	2	2		PETM3006*	DR
	CIVL4046	Fluid Mechanics	**3**	2	2		CIVL3216	DR
	Total		**17**					

[a] CIVL2400: Professional Practice & Ethics

Last Modification: March 2008.

Department of Civil and Architectural Engineering

Civil Engineering Degree Plan: 2005 Cohort (Scheme I)

	Course Code	Course Title	Cr.	Lec.	Lab.	Tut.	Pre-req./Co-req.*	Cat.
Semester 7 Fall 2008	CIVL4036	Highway Engineering	**3**	2	2		CIVL3106	DR
	CIVL4136	Environmental Engineering I	**3**	2	2		CIVL4046, CHEM1071	DR
	CIVL4146	Hydraulics	**3**	2		2	CIVL4046	DR
	CIVL4206	Concrete Design	**3**	2	2		CIVL3036,3046,3096	DR
	CIVL5146	Numerical Methods	**3**	2	2		COMP2XXX	DR
	Total		**15**					
Semester 8 Spring 2009		Department Elective I[b]	**3**					DR
		Department Elective II[b]	**3**					DR
	CIVL3066	Engineering Hydrology	**3**	2		2	MATH 3171, CIVL4046	DR
	CIVL4016	Structures II	**3**	2		2	CIVL 3036, MATH 4174	DR
	CIVL5204	Engineering Economics	**3**	2		2	MATH2107	DR
	Total		**15**					
Summer 2009	ENGR4006	Industrial Training II	**0**				ENGR3006	CR
	Total		**0**					
Semester 9 Fall 2009		Department Elective III[b]	**3**					DR
	CIVL5993	Department Elective IV[b] **or** Research Project I	**3**				Department Approval	DR DR
	CIVL4216	Steelwork Design	**3**	2	2		CIVL3036 & 3046	DR
	CIVL4226	Foundation Engineering	**3**	2		2	CIVL3106 & 4206	DR
	CIVL5336	Construction Management	**3**	3			CIVL5204	DR
	CIVL5995	Project I	**2**				CIVL4206, CIVL4216*	DR
	Total		**17**					
Semester 10 Spring 2010		University Elective II	**3**					UR
		Department Elective V[b]	**3**					DR
	CIVL5994	Department Elective VI[b] **or** Research Project II	**3**				CIVL5993	DR DR
	CIVL4006	Prob. & Statistics for Engineers	**3**	2		2	MATH2107	DR
	CIVL5996	Project II	**2**				CIVL5995	DR
	Total		**14**					

[b] Departmental Electives-a student must choose six courses from elective courses offered in semesters 8, 9 and 10. The student who successfully completed CIVL5993 must also take CIVL5994.

Last Modification: March 2008.

Department of Civil and Architectural Engineering

Civil Engineering Degree Plan: 2005 Cohort (Scheme II)

	Course Code	Course Title	Cr.	Lec.	Lab.	Tut.	Pre-req./Co-req.*	Cat.
Semester 1 Fall 2005		University English	**0**					UR
	Total		**0**					
Semester 2 Spring 2006		University English	**0**					UR
	Total		**0**					
Semester 3 Fall 2006		University Elective	**3**					UR
	LANC2160	English for Engineering I	**3**	3				UR
	CHEM1071	General Chemistry for Engineers	**3**	3				CR
	ENGR1500	Introduction to Engineering	**2**	1		2		CR
	ENGR1600	Workshop I	**1**		2			CR
	MATH1106	Pre-Calculus Mathematics	**4**	3		2		CR
	Total		**16**					
Semester 4 Spring 2007	ARAB1001	Arabic	**3**	3				UR
	HIST1010 ISLM1010	Oman & Islamic Civilization **or** Islamic Culture	**2**	2				UR
	LANC2161	English for Engineering II	**3**	3			LANC 2160	UR
	SOCI3320	Contemporary Omani Society	**1**	1				UR
	MATH2107	Calculus I	**4**	3		2	MATH1106	CR
	PHYS2107	General Physics I	**4**	3	3		MATH2107*	CR
	Total		**17**					
Summer 2007	MATH2108	Calculus II	**3**				MATH2107	CR
	CIVL3216	Basic Mechanics	**4**	3		2	PHYS2107	DR
	Total		**7**					
Semester 5 Fall 2007		College Elective [a]	**1**		2			CR
	MATH3171	Linear Algebra & Multivariate	**3**	2		2	MATH2108, LANC2161	CR
	PHYS2108	General Physics II	**4**	3	3		PHYS 2107	CR
	CIVL3002	Drawing I	**2**		2			DR
	CIVL3056	Surveying	**3**	2	2		MATH2107	DR
	CIVL3086	Mechanics of Materials	**3**	2		2	CIVL3216	DR
	Total		**16**					
January 2008	ENGR3006	Industrial Training I	**0**				CIVL3056	CR
	Total		**0**					

[a] CIVL2400: Professional Practice & Ethics

Last Modification: March 2008.

Department of Civil and Architectural Engineering

Civil Engineering Degree Plan: 2005 Cohort (Scheme II)

	Course Code	Course Title	Cr.	Lec.	Lab.	Tut.	Pre-req./Co-req.*	Cat.
Semester 6 Spring 2008	COMP2216	Programming in Fortran	**3**	2	2			CR
	MATH4174	Differential Equations for	**3**	2		2	MATH2108, LANC2161	CR
	CIVL3036	Structures I	**3**	2	2		CIVL3086	DR
	CIVL3046	Drawing II	**2**		4		CIVL3002	DR
	CIVL3096	Construction Materials	**3**	2	2		CIVL3086*	DR
	PETM3006	Engineering Geology	**3**	2	2			DR
	Total		**17**					
Summer 2008	CIVL3106	Geotechnical Engineering I	**3**	2	2		PETM3006*	DR
	CIVL4046	Fluid Mechanics	**3**	2	2		CIVL3216	DR
	Total		**6**					
Semester 7 Fall 2008	CIVL4036	Highway Engineering	**3**	2	2		CIVL3106	DR
	CIVL4136	Environmental Engineering I	**3**	2	2		CIVL4046, CHEM1071	DR
	CIVL4146	Hydraulics	**3**	2		2	CIVL4046	DR
	CIVL4206	Concrete Design	**3**	2	2		CIVL3036,3046,3096	DR
	CIVL5146	Numerical Methods	**3**	2	2		COMP2XXX	DR
	Total		**15**					
Semester 8 Spring 2009		Department Elective I[b]	**3**					DR
		Department Elective II[b]	**3**					DR
	CIVL3066	Engineering Hydrology	**3**	2		2	MATH 3171, CIVL4046	DR
	CIVL4016	Structures II	**3**	2		2	CIVL3036, MATH4174	DR
	CIVL5204	Engineering Economics	**3**	2		2	MATH2107	DR
	Total		**15**					
Summer 2009	ENGR4006	Industrial Training II	**0**				ENGR3006	CR
	Total		**0**					
Semester 9 Fall 2009		Department Elective III[b]	**3**					DR
	CIVL5993	Department Elective IV[b] **or** Research Project I	**3**				Department Approval	DR DR
	CIVL4216	Steelwork Design	**3**	2	2		CIVL3036 & 3046	DR
	CIVL4226	Foundation Engineering	**3**	2		2	CIVL3106 & 4206	DR
	CIVL5336	Construction Management	**3**	3			CIVL5204	DR
	CIVL5995	Project I	**2**				CIVL4206, CIVL4216*	DR
	Total		**17**					
Semester 10 Spring 2010		University Elective II	**3**					UR
		Department Elective V[b]	**3**					DR
	CIVL5994	Department Elective VI[b] **or** Research Project II	**3**				CIVL5993	DR DR
	CIVL4006	Prob. & Statistics for Engineers	**3**	2		2	MATH2107	DR
	CIVL5996	Project II	**2**				CIVL5995	DR
	Total		**14**					

[b] Departmental Electives-a student must choose six courses from elective courses offered in semesters 8, 9 and 10. The student who successfully completed CIVL5993 must also take CIVL5994.

Last Modification: March 2008.

Civil Engineering Electives

Technical Elective Courses - 18 credit hours

The student should select 6 courses (18 credit hours) to be taken from: (1) Civil Engineering optional technical electives; (2) courses from the technical electives offered in the Environmental and Construction Engineering Streams; or (3) one course (max. 3 credits) offered in the M.Sc. Program in Civil Engineering after approval of advisor.

Civil Engineering: General

Course Code	Course Name	Credit Hours	Prerequisite
CIVL5104	Special Topics in Civil Engineering	3	Department Council Approval
CIVL 5376	Conservation of Structures	3	
CIVL 5993	Research Project I	3	Department Council Approval
CIVL 5994	Research Project II	3	CIVL 5993

Civil Engineering: Water Resources

Course Code	Course Name	Credit Hours	Prerequisite
CIVL5076	Coastal Engineering	3	CIVL4146
CIVL5142	Groundwater	3	CIVL 3066
CIVL5246	Hydraulic Structures	3	CIVL4146
CIVL5346	Water Resources Engineering	3	CIVL3066, CIVL4046

Civil Engineering: Geotechnical

Course Code	Course Name	Credit Hours	Prerequisite
CIVL4106	Geotechnical Engineering II	3	CIVL3106
CIVL5106	Slope Stability	3	CIVL3106
CIVL5132	Environmental Geotechnics	3	CIVL3106
CIVL5133	Soil Improvement	3	CIVL3106

Civil Engineering: Transportation

Course Code	Course Name	Credit Hours	Prerequisite
CIVL3076	Transportation Engineering	3	
CIVL5122	Highway Materials	3	
CIVL5206	Traffic Engineering	3	CIVL3076
CIVL5216	Pavement Design and Maintenance	3	CIVL4036

Civil Engineering: Structures

Course Code	Course Name	Credit Hours	Prerequisite
CIVL5096	Concrete Structures	3	CIVL4016, CIVL4206
CIVL5126	Concrete Materials and Technology	3	CIVL3036, 3086, 3096
CIVL5214	Computer Applications in Structural Engineering	3	CIVL4016, CIVL4206
CIVL5236	Prestressed Concrete	3	CIVL4206
CIVL5296	Design of Masonry Structures	3	CIVL3086

Construction Engineering Stream

Course Code	Course Name	Credit Hours	Prerequisite
CIVL5102	Construction Engineering	3	
CIVL5156	Estimating Construction Cost	3	CIVL3046,CIVL4206
CIVL5306	Specifications and Contracts	3	CIVL4206

Environmental Engineering Stream

Course Code	Course Name	Credit Hours	Prerequisite
CIVL5151	Solid Waste Management	3	CIVL5326
CIVL5152	Microbiology for Engineers	3	CIVL4136
CIVL5153	Chemistry for Environmental Engineering	3	CIVL4136
CIVL5186	Water and Wastewater Management	3	CIVL4136
CIVL5254	Environmental Pollution	3	CIVL5326
CIVL5255	Environmental Management Systems	3	CIVL5326
CIVL5326	Environmental Engineering II	3	CIVL4136