



College : **ENGINEERING**
 Department : **CIVIL AND ARCHITECTURAL ENGINEERING**
 Cohorts : **2011**
 Degree : **B. ENG**
 Major : **CIVL ENGINEERING**
 Specialization:

Summary of Credits:

University Requirements (UR)	6
General Foundation Program	NC*
Arabic	3
Contemporary Omani Society	1
Oman & Islamic Civilization or Islamic Culture	2
University Electives (UE)	6
See List A	
College Requirements (CR)	35
See list B	
College Electives (CE)	0
See list C	
Departmental Requirements (DR)	44
See list D	
Departmental Electives (DE)	0
See list E	
Major Requirements (AR)	30
See list F	
Major Electives (AE)	15
See list G	
Minor Requirements (IR)	0
See list H	
Minor Electives (IE)	0
See list I	
Specialization Requirements (SR)	0
See list J	
Specialization Electives (SE)	0
See list K	
TOTAL	136

* Not Credited

For reference contact: HoD	Ext. 1332
HoD	Date
Dean's Office	Date
Admission and Registration	Date

Department of Civil and Architectural Engineering
Civil Engineering Study Plan: 2011 Cohort (Scheme I)

	Course Code	Course Title	Cr.	Pre-req./Co-req.*	Cat.
Semester 1 Fall 2011		General Foundation Program	0		UR
	Total		0		

Semester 2 Spring 2012	ARAB1001	Arabic	3		UR
	HIST1010	Oman & Islamic Civilization or			
	ISLM1010	Islamic Culture	2		UR
	LANC2160	English for Engineering I	3		CR
	ENGR1501	Introduction to Engineering	1		CR
	ENGR1600	Workshop I	1		CR
	MATH2107	Calculus I	4		CR
Total		14			

Semester 3 Fall 2012		University Elective I	2		UE
	SOCI3320	Contemporary Omani Society	1		UR
	LANC2161	English for Engineering II	3	LANC2160	CR
	CHEM1071	General Chemistry for Engineers	3		CR
	MATH2108	Calculus II	3	MATH 2107	CR
	PHYS2107	General Physics I	4	MATH2107*	CR
Total		16			

Semester 4 Spring 2013	ENGR2216 or COMP 2002	Programming in Fortran or Introduction to Comp. Programming	3		CR
	MATH3171	Linear Algebra & Multivariate	3	MATH2108, LANC2161	CR
	PHYS2108	General Physics II	4	PHYS 2107	CR
	CIVL2401	Professional Practice & Ethics	2		DR
	CIVL3216	Basic Mechanics	4	PHYS2107	DR
Total		16			

Semester 5 Fall 2013	CIVL3002	Drawing I	2		DR
	CIVL3056	Surveying	3	MATH2107, PHYS 2108*	DR
	CIVL3086	Mechanics of Materials	3	CIVL3216	DR
	CIVL3096	Construction Materials	3	CIVL3086*, CIVL3216	DR
	PETM3006	Engineering Geology	3		DR
Total		14			

January 2014	ENGR3006	Industrial Training I	0	CIVL3056	CR
	Total		0		

Semester 6 Spring 2014	MATH4174	Differential Equations for Engineers	3	MATH2108, LANC2161	CR
	CIVL3036	Structures I	3	CIVL3086	DR
	CIVL3046	Drawing II	2	CIVL3002	AR
	CIVL 3076	Transportation Engineering	3		AR
	CIVL3106	Geotechnical Engineering I	3	PETM3006*	AR
	CIVL4046	Fluid Mechanics	3	CIVL3216	DR
Total			17		

Semester 7 Fall 2014	CIVL4036	Highway Engineering	3	CIVL3106	AR
	CIVL4136	Environmental Engineering I	3	CIVL4046, CHEM1071	AR
	CIVL4146	Hydraulics	3	CIVL4046, MATH 4174	AR
	CIVL4206	Concrete Design	3	CIVL3036, CIVL 3096, (CIVL 3046 or AREN3312)	DR
	CIVL5146	Numerical Methods	3	ENGR2216/COMP2002), MATH3171	DR
Total			15		

Semester 8 Spring 2015		University Elective II	2		UE
		Department Elective I ^b	3		AE
	CIVL3066	Engineering Hydrology	3	CIVL4046	AR
	CIVL4016	Structures II	3	CIVL 3036	AR
	CIVL5204	Engineering Economics	3	MATH2107	DR
Total			14		

Summer 2015	ENGR4006	Industrial Training II	0	ENGR3006	CR
	Total			0	
Semester 9 Fall 2015		University Elective III	2		UE
		Department Elective II ^b or			AE
	CIVL5993	Research Project I	3	Department Approval	
	CIVL4216	Steelwork Design	3	CIVL3036, (CIVL 3046 or AREN3312)	DR
	CIVL4226	Foundation Engineering	3	CIVL3106, CIVL4206	AR
	CIVL5336	Construction Management	3	CIVL5204	DR
	CIVL5995	Project I	2	CIVL4206, CIVL4216*	AR
Total			16		

Semester 10 Spring 2016		Department Elective III ^b	3		AE
		Department Elective IV ^b	3		AE
		Department Elective V ^b or			AE
	CIVL5994	Research Project II	3	CIVL5993	
	CIVL4006	Prob. & Statistics for Engineers	3	MATH2107	DR
	CIVL5996	Project II	2	CIVL5995	AR
Total			14		

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

Last updated on 30 Nov. 2011

Department of Civil and Architectural Engineering
Civil Engineering Degree Plan: 2011 Cohort (Scheme II)

Semester 1 Fall 2011	Course Code	Course Title	Cr.	Pre-req./Co-req.*	Cat.
		General Foundation Program	0		UR
	Total			0	
Semester 2 Spring 2012		General Foundation Program	0		UR
	Total			0	
	Total			0	
Semester 3 Fall 2012		University Elective I	2		UE
	LANC2160	English for Engineering I	3		CR
	CHEM1071	General Chemistry for Engineers	3		CR
	ENGR1501	Introduction to Engineering	1		CR
	ENGR1600	Workshop I	1		CR
	MATH2107	Calculus I	4		CR
	Total			14	
Semester 4 Spring 2013	ARAB1001	Arabic	3		UR
	HIST1010	Oman & Islamic Civilization or			
	ISLM1010	Islamic Culture	2		UR
	LANC2161	English for Engineering II	3	LANC 2160	CR
	SOCI3320	Contemporary Omani Society	1		UR
	MATH2108	Calculus II	3	MATH2107	CR
	PHYS2107	General Physics I	4	MATH2107*	CR
	Total			16	
Summer 2013	ENGR2216 or COMP 2002	Programming in Fortran or Introduction to Comp. Programming	3		CR
	CIVL3216	Basic Mechanics	4	PHYS2107	DR
	Total			7	
Semester 5 Fall 2013	MATH3171	Linear Algebra & Multivariate	3	MATH2108, LANC2161	CR
	PHYS2108	General Physics II	4	PHYS 2107	CR
	CIVL2401	Professional Practice & Ethics	2		DR
	CIVL3002	Drawing I	2		DR
	CIVL3056	Surveying	3	MATH2107, PHYS 2108*	DR
	CIVL3086	Mechanics of Materials	3	CIVL3216	DR
	Total			17	
Jan. 2014	ENGR3006	Industrial Training I	0	CIVL3056	CR

Semester 6 Spring 2014	MATH4174	Differential Equations for Engineers	3	MATH2108, LANC2161	CR
	CIVL3036	Structures I	3	CIVL3086	DR
	CIVL3046	Drawing II	2	CIVL3002	AR
	CIVL 3076	Transportation Engineering	3		AR
	CIVL3096	Construction Materials	3	CIVL3086*, CIVL3216	DR
	PETM3006	Engineering Geology	3		DR
Total			17		

Summer 2014	CIVL3106	Geotechnical Engineering I	3	PETM3006*	AR
	CIVL4046	Fluid Mechanics	3	CIVL3216	DR
Total			6		

Semester 7 Fall 2014	CIVL4036	Highway Engineering	3	CIVL3106	AR
	CIVL4136	Environmental Engineering I	3	CIVL4046, CHEM1071	AR
	CIVL4146	Hydraulics	3	CIVL4046, MATH 4174	AR
	CIVL4206	Concrete Design	3	CIVL3036, CIVL3096, (CIVL 3046 or AREN3312)	DR
	CIVL5146	Numerical Methods	3	ENGR2216/COMP2002), MATH 3171	DR
Total			15		

Semester 8 Spring 2015		University Elective II	2		UE
		Department Elective I ^b	3		AE
	CIVL3066	Engineering Hydrology	3	CIVL4046	AR
	CIVL4016	Structures II	3	CIVL3036	AR
	CIVL5204	Engineering Economics	3	MATH2107	DR
Total			14		

Summer 2015	ENGR4006	Industrial Training II	0	ENGR3006	CR
	Total		0		

Semester 9 Fall 2015		University Elective III	2		UE
		Department Elective II ^b or			
	CIVL5993	Research Project I	3	Department Approval	AE
	CIVL4216	Steelwork Design	3	CIVL3036, (CIVL 3046 or AREN3312)	DR
	CIVL4226	Foundation Engineering	3	CIVL3106, CIVL4206	AR
	CIVL5336	Construction Management	3	CIVL5204	DR
CIVL5995	Project I	2	CIVL4206, CIVL4216*	AR	
Total			16		

Semester 10 Spring 2016		Department Elective III ^b	3		AE
		Department Elective IV ^b	3		AE
		Department Elective V ^b or			AE
	CIVL5994	Research Project II	3	CIVL5993	
	CIVL4006	Prob. & Statistics for Engineers	3	MATH2107	DR
	CIVL5996	Project II	2	CIVL5995	AR
Total			14		

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

Last updated on 30 Nov. 2011

Department of Civil and Architectural Engineering -Degree Plan for 2011

LIST A^T – UNIVERSITY ELECTIVES

Course Code	Course Title	Credits	College
ARAB1040	Literature and Sociology	2	Arts
ARAB1050	Language and Sociology	2	Arts
ARCH1170	Development Civilization in Oman	2	Arts
ARCH1180	Archhaeology and Environment in Oman	2	Arts
ARCH1520	Arch in Ancient Oman	2	Arts
ARCH1525	Arch Style Arab Gulf	2	Arts
ARCH1526	Islamic Arch	2	Arts
ARCH1530	Oman Arch Through Ages	2	Arts
ARCH1531	Hist Animals in Oman	2	Arts
ARCH1535	Oman Town Culture Rem	2	Arts
ARCH1536	Arch. Know Arab Peninsulum	2	Arts
ARCH1537	Cult. Development Arab Gulf	2	Arts
ARCH1538	Oral History Cult. Heritage	2	Arts
ARCH1539	Hist. Ethn Jewwl. Oman	2	Arts
ARCH1540	Natural Culture Heritage Oman	2	Arts
ARCH1541	Cult. Scent and Arom. Oman	2	Arts
ARCH1550	Devl. Art Arch. Oman	2	Arts
ARCH1551	Admin. Arch. Heritage	2	Arts
ARCH5500	Sea Port and Mart. Arch	2	Arts
ARED1001	Contemporary Visual Arts	2	Education
ARED1002	Appreciation of Islamic Arts and Arabic Varieties of Public and Professional Communication	2	Education
BCOM1950	Communication	3	Commerce
BCOM1960	Cross-Cultural Communication	2	Commerce
BIOL1003	Genetics in our Life	2	Science
BIOL1004	Environment Issues	2	Science
CUTM1002	Environmental Education	2	Education
CUTM1003	Principles of Teaching	2	Education
GEOG2021	Man and Natur. Env. In Oman	2	Arts
GEOG2031	Urbanization in the Arabian Gulf	2	Arts
GEOG2122	Man and Enviroment	2	Arts
GEOG2341	Dev. Countries	2	Arts
HIST1030	History of the GCCCountries	2	Arts
HIST1040	Some Aspects of the History of Oman	2	Arts
INFO4100	Children's Lierature	2	Arts
ISLM1020	Human Right in Islam	2	Education
ISLM2010	Prophet Biog.	2	Education
ISLM2030	The Miracle of the Holy Quran	2	Education
ISLM2040	Islamic Economy	2	Education

ISLM2060	Family Systems in Islam	2	Education
ISLM2070	Quranic Stories	2	Education
ISLM2080	General Aims	2	Education
ISLM2090	Islamic Ethics	2	Education
ISLM2150	Islamn and the Modern World	2	Education
MASS1020	Arts of Media Edit	2	Arts
MASS1030	Public Opinion (UE)	2	Arts
MASS1060	Mass Media and Society	2	Arts
MASS1070	International Comm	2	Arts
MASS1080	Principles of Public Relations (UE)	2	Arts
NURS1004	First Aid	2	Nursing
NURS1005	Physical & Psychological Child Health	2	Nursing
PHED1000	Physical Fitness	2	Education
PHIL2050	International Meth	2	Arts
PHIL2060	Ethics	2	Arts
PHIL2070	Tren. Cont. Phi. Though	2	Arts
PHIL2213	Science in Arab Through	2	Arts
PSYC1001	Human Behavior	2	Education
PSYC1002	Psych/Human Problems	2	Education
SOCI2151	Medical Sociology	2	Arts
SOCI2361	Introduction to Social Work	2	Arts
THAR1001	Theater Appreciation	2	Arts
THAR1003	Music Appreciation	2	Arts
THAR1012	Play Writing	2	Arts
THAR1013	Oratory/Presentation	2	Arts
THAR1014	Scholastic Theater	2	Arts
THAR1016	Child's Theater	2	Arts
THAR1017	Theater Scenography	2	Arts
TOUR1050	Tourism in Oman	2	Arts

Updated September 24, 2008

Second Updating July 4, 2011

T: University elective must be non-science and non-linguistic course. Any humanity and social course not listed above can be accepted as university elective.

Department of Civil and Architectural Engineering

Civil Engineering Degree Plan: 2011 Cohort

LIST B: COLLEGE REQUIREMENTS (CR)

Code	Title	Credits	Pre-Requisite / Co-req. *
ENGR1501	Introduction to Engineering	1	
ENGR1600	Workshop I	1	
LANC2160	English for Engineering I	3	
LANC2161	English for Engineering I	3	LANC2160
MATH2107	Calculus I	4	
MATH2108	Calculus II	3	MATH 2107
MATH3171	Linear Algebra & Multivariate Calculus	3	MATH2108, LANC2161
MATH4174	Differential Equations for Engineers	3	MATH2108, LANC2161
ENGR2216 COMP2002	Programming in Fortran or Introduction to Comp. Programming	3	
PHYS2107	General Physics I	4	MATH2107*
PHYS2108	General Physics II	4	PHYS 2107
CHEM1071	General Chemistry for Engineers	3	
ENGR3006	Industrial Training I	0	CIVL3056
ENGR4006	Industrial Training II	0	ENGR3006
Total		35	

Department of Civil and Architectural Engineering

Civil Engineering Degree Plan: 2011 Cohort

LIST C: COLLEGE ELECTIVES (CE)

None

Department of Civil and Architectural Engineering

Civil Engineering Degree Plan: 2011 Cohort

LIST D: DEPARTMENT REQUIREMENTS (DR)

Code	Title	Credits	Pre-Requisite / Co-req. *
CIVL2401	Professional Practice & Ethics	2	
CIVL3216	Basic Mechanics	4	PHYS2107
CIVL3002	Drawing I	2	
CIVL3056	Surveying	3	MATH2107, PHYS 2108*
CIVL3086	Mechanics of Materials	3	CIVL3216
CIVL3096	Construction Materials	3	CIVL3086*, CIVL3216
PETM3006	Engineering Geology	3	
CIVL3036	Structures I	3	CIVL3086
CIVL4006	Prob. & Statistics for Engineers	3	MATH2107
CIVL4046	Fluid Mechanics	3	CIVL3216
CIVL4206	Concrete Design	3	CIVL3036,3046,3096
CIVL5146	Numerical Methods	3	(ENGR2216/COMP2002), MATH 3171
CIVL5204	Engineering Economics	3	MATH2107
CIVL4216	Steelwork Design	3	CIVL3036 & 3046
CIVL5336	Construction Management	3	CIVL5204
Total		44	

Department of Civil and Architectural Engineering

Civil Engineering Degree Plan: 2011 Cohort

LIST F: MAJOR REQUIREMENTS (AR)

Code	Title	Credits	Pre-Requisite / Co-req. *
CIVL3046	Drawing II	2	CIVL3002
CIVL3106	Geotechnical Engineering I	3	PETM3006*
CIVL4036	Highway Engineering	3	CIVL3106, CIVL3076
CIVL3076	Transportation Engineering	3	
CIVL4136	Environmental Engineering I	3	CIVL4046, CHEM1071
CIVL4146	Hydraulics	3	CIVL4046, MATH4174
CIVL3066	Engineering Hydrology	3	CIVL4046
CIVL4016	Structures II	3	CIVL 3036
CIVL4226	Foundation Engineering	3	CIVL3106 & 4206
CIVL5995	Project I	2	CIVL4206, CIVL4216*
CIVL5996	Project II	2	CIVL5995
Total		30	

Department of Civil and Architectural Engineering

Civil Engineering Degree Plan: 2011 Cohort

LIST G: MAJOR ELECTIVES (AE)

Civil Engineering Electives

Technical Elective Courses – 15 credit hours

The student should select 5 courses (15 credit hours) or 3 courses (9 credit hours) and Research Project I and Research Project II. The electives can be taken from: (1) Civil Engineering optional technical electives; or (2) one course (max. 3 credits) offered in the M.Sc. Program in Civil Engineering after approval of advisor.

Civil Engineering: General

Code	Title	Credits	Pre-Requisite / Co-req. *
CIVL5104	Special Topics in Civil Engineering	3	Department Council Approval
CIVL5150	Remote Sensing		
CIVL5156	Estimating Construction Cost	3	CIVL3046,CIVL4206
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

Code	Title	Credits	Pre-Requisite / Co-req. *
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

Code	Title	Credits	Pre-Requisite / Co-req. *
CIVL4106	Geotechnical Engineering II	3	CIVL3106
CIVL5106	Slope Stability	3	CIVL3106
CIVL5132	Environmental Geotechnics	3	CIVL3106
CIVL5133	Soil Improvement	3	CIVL3106

Civil Engineering: Transportation

Code	Title	Credits	Pre-Requisite / Co-req. *
CIVL5122	Highway Materials	3	CIVL4036
CIVL5206	Traffic Engineering	3	
CIVL5216	Pavement Design and Maintenance	3	CIVL4036
CIVL5226	Airport Design	3	CIVL4036

Civil Engineering: Structures

Code	Title	Credits	Pre-Requisite / Co-req. *
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

Civil Engineering: Construction

Code	Title	Credits	Pre-Requisite / Co-req. *
CIVL5102	Construction Engineering	3	
CIVL5156	Estimating Construction Cost	3	CIVL3046, CIVL4206
CIVL5306	Specifications and Contracts	3	CIVL4206

Civil Engineering: Environmental

Code	Title	Credits	Pre-Requisite / Co-req. *
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