



Degree and Study Plan

College: **ENGINEERING**
 Department: **CIVIL AND ARCHITECTURAL ENGINEERING**
 Cohorts: **2011**
 Degree: **BACHELOR OF ENGINEERING**
 Major: **ARCHITECTURAL 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)	59
See list F	
Major Electives (AE)	6
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	156

* Not Credited

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HoD _____ Date _____

Dean's Office _____ Date _____

Admission and Registration _____ Date _____

Department of Civil and Architectural Engineering
Architectural Engineering Study Plan for cohort 2011 (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
	CHEM1071	General Chemistry for Engineers	3		CR
	LANC2161	English for Engineering II	3	LANC2160	CR
	MATH2108	Calculus II	3	MATH 2107	CR
	PHYS2107	General Physics I	4	MATH2107*	CR
Total			16		

Semester 4 Spring 2013	CIVL2401	Professional Practice and Ethics	2		DR
	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
	CIVL3216	Basic Mechanics	4	PHYS2107	DR
Total			16		

Semester 5 Fall 2013	CIVL3002	Drawing I	2		DR
	CIVL3056	Surveying	3	MATH2107, PHYS2108*	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	

	Course Code	Course Title	Cr.	Pre-req./Co-req.*	Cat.
Semester 6 Spring 2014	CIVL4046	Fluid Mechanics	3	CIVL3216	DR
	CIVL 4006	Prob. & Statistics for Engineers	3	MATH 2107	DR
	CIVL3036	Structures I	3	CIVL3086	DR
	AREN2111	Architectural Design I	3		AR
	AREN2311	Architectural Drawing	3	CIVL3002	AR
	AREN2411	History I: Modern & Contemporary	2		AR
Total			17		

Semester 7 Fall 2014	AREN3811	Building Construction Methods	3	CIVL 3096	AR
	AREN3112	Architectural Design II	3	AREN 2111	AR
	AREN3312	Introduction to CAAD	3	AREN2311	AR
	AREN3211	Architectural Design Theory	2		AR
		University Elective II	2		UE
	MEIE 3141	Thermodynamics I	3	PHYS 2108*	AR
Total			16		

Semester 8 Spring 2015	AREN3814	Climate-responsive Design	3	PHYS 2107	AR
	AREN3313	Architectural Working Drawing	3	AREN 3811, AREN 3312	AR
	AREN3113	Architectural Design III	4	AREN 3112	AR
	AREN3816	Building Mechanical Systems	3	MEIE 3141	AR
	AREN3812	Architectural Acoustics	2	PHYS 2108*	AR
	AREN3412	History II: Islamic & Vernacular	2		AR
Total			17		

Semester 9 Fall 2015		Architectural Elective I	2		AE
	CIVL 4206	Concrete Design	3	CIVL3036,3096, (CIVL3046 or AREN3312)	DR
	MATH4174	Differential Equations for Engineers	3	MATH2108, LANC2161	CR
	AREN4813	Building Illumination	2	PHYS 2108*	AR
	AREN4817	Sanitary & Plumbing Design	2	CIVL 4046	AR
	AREN4114	Architectural Design IV	4	AREN 3113	AR
Total			16		

Semester 10 Spring 2016	CIVL4216	Steelwork Design	3	CIVL3036, (CIVL3046 or AREN 3312)	DR
		Architectural Elective II	2		AE
	AREN4818	Building Electrical Systems	3	AREN 4813	AR
	AREN4115	Graduation Project I	4	AREN 4114, CIVL4216* or CIVL 4206	AR
	CIVL5204	Engineering Economics	3	MATH2107	DR
	Total			15	

	Course Code	Course Title	Cr.	Pre-req./Co-req.*	Cat.
Summer 2016	ENGR4006	Industrial Training II	0	ENGR3006	CR
	Total			0	

Semester 11 Fall 2016		University Elective III	2		UE
		Architectural Elective III	2		AE
	CIVL5146	Numerical Methods	3	(COMP2002,MATH3171) or (ENGR2216,MATH3171)	DR
	AREN5819	Specifications and Quantities	2	AREN 3313	AR
	AREN5116	Graduation Project II	3	AREN 4115, AREN 3816, AREN 4818	AR
	CIVL 5336	Construction Management	3	CIVL5204	DR
	Total			15	

Department of Civil and Architectural Engineering
Architectural Engineering Study Plan for cohort 2011 (Scheme II)

Semester 1 Fall	Course Code	Course Title	Cr.	Pre-req./Co-req.*	Cat.
			General Foundation Program	0	
Total			0		
Semester 2 Spring		General Foundation Program	0		UR
	Total			0	
Semester 3 Fall		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	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 2012	ENGR2216 or COMP2002	Programming in Fortran or Introduction to Comp. Programming	3		CR
	CIVL3216	Basic Mechanics	4	PHYS2107	DR
	Total			7	
Semester 5 Fall	CIVL2401	Professional Practice and Ethics	2		DR
	PHYS2108	General Physics II	4	PHYS 2107	CR
	MATH3171	Linear Algebra and Multivariate	3	MATH2108, LANC2161	CR
	CIVL3002	Drawing I	2		DR
	CIVL3056	Surveying	3	MATH2107, PHYS2108*	DR
	CIVL3086	Mechanics of Materials	3	CIVL3216	DR
	Total			17	
January 2013	ENGR3006	Industrial Training I	0	CIVL3056	CR
	Total			0	

	Course Code	Course Title	Cr.	Pre-req./Co-req.*	Cat.
Semester 6 Spring	CIVL3096	Construction Materials	3	CIVL3086*, CIVL3216	DR
	CIVL4006	Probability & Statistics	3	MATH 2107	DR
	CIVL3036	Structures I	3	CIVL3086	DR
	AREN2111	Architectural Design I	3		AR
	AREN2311	Architectural Drawing	3	CIVL3002	AR
	AREN2411	History I: Modern & Contemporary	2		AR
Total			17		

Summer 2013	CIVL4046	Fluid Mechanics	3	CIVL3216	DR
	MATH4174	Differential Equations for Engineers	3	MATH2108, LANC2161	CR
	Total			6	

Semester 7 Fall	AREN3811	Building Construction Methods	3	CIVL 3096	AR
	AREN3112	Architectural Design II	3	AREN 2111	AR
	AREN3312	Introduction to CAAD	3	AREN2311	AR
	AREN3211	Architectural Design Theory	2		AR
		University Elective II	2		UE
	MEIE3141	Thermodynamics I	3	PHYS 2108*	AR
Total			16		

Semester 8 Spring	AREN3814	Climate-responsive Design	3	PHYS 2107	AR
	AREN3313	Architectural Working Drawing	3	AREN 3811, AREN 3312	AR
	AREN3113	Architectural Design III	4	AREN 3112	AR
	AREN3816	Building Mechanical Systems	3	MEIE 3141	AR
	AREN3812	Architectural Acoustics	2	PHYS 2108*	AR
	AREN3412	History II: Islamic & Vernacular	2		AR
Total			17		

	Course Code	Course Title	Cr.	Pre-req./Co-req.*	Cat.
Semester 9 Fall	PETM3006	Engineering Geology	3		DR
	CIVL4206	Concrete Design	3	CIVL3036,3096, (CIVL3046 or AREN3312)	DR
		Architectural Elective I	2		AE
	AREN4813	Building Illumination	2	PHYS 2108*	AR
	AREN4817	Sanitary & Plumbing Design	2	CIVL4046	AR
	AREN4114	Architectural Design IV	4	AREN 3113	AR
Total			16		

Semester 10 Spring	CIVL4216	Steelwork Design	3	CIVL3036, (CIVL3046 or AREN 3312)	DR
		Architectural Elective II	2		AE
	AREN4818	Building Electrical Systems	3	AREN 4813	AR
	AREN4115	Graduation Project I	4	AREN 4114, CIVL4216* or CIVL 4206	AR
	CIVL5204	Engineering Economics	3	MATH2107	DR
Total			15		

Summer 2015	ENGR4006	Industrial Training II	0	ENGR3006	CR
	Total			0	

Semester 11 Fall		University Elective III	2		UE
		Architectural Elective III	2		AE
	CIVL5146	Numerical Methods	3	(COMP2002,MATH3171) or (ENGR2216,MATH3171)	DR
	AREN5819	Specifications and Quantities	2	AREN 3313	AR
	AREN5116	Graduation Project II	3	AREN 4115, AREN 3816, AREN 4818	AR
	CIVL 5336	Construction Management	3	CIVL5204	DR
	Total			15	

Department of Civil and Architectural Engineering - Degree Plan for cohort 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	2	Education
BCOM1950	Varieties of Public and Professional 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

T: Engineering students must select a humanity or social course (non-scientific & non-linguistic course) from any college as a University Elective.

Department of Civil and Architectural Engineering

Architectural Engineering Degree Plan for cohort 2011

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 II	3	
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 or COMP 2002	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

Architectural Engineering Degree Plan for cohort 2011

LIST C: COLLEGE ELECTIVES (0 Credit) (CE)

None

Department of Civil and Architectural Engineering
Architectural Engineering Degree Plan for cohort 2011
LIST D: DEPARTEMENT REQUIREMENTS (DR)

Code	Title	Credits	Pre-Requisite / Co-req. *
CIVL2401	Professional Practice and Ethics	2	
CIVL 3216	Basic Mechanics	4	PHYS 2017
CIVL 3002	Drawing I	2	
CIVL 3056	Surveying	3	MATH 2017
CIVL 3086	Mechanics of Materials	3	CIVL 3216
CIVL 3096	Construction Materials	3	CIVL 3086*
PETM 3006	Engineering Geology	3	
CIVL 3036	Structures I	3	CIVL 3086
CIVL 4046	Fluid Mechanics	3	CIVL 3216
CIVL 4206	Concrete Design	3	CIVL 3036, 3046, 3096
CIVL 5146	Numerical Methods	3	ENGR 2216
CIVL 4216	Steelwork Design	3	CIVL 2036, 3046
CIVL 4006	Prob. & Statistics for Engineers	3	MATH 2107
CIVL 5204	Engineering Economics	3	MATH 2107
CIVL 5336	Construction Management	3	CIVL 5204
Total		44	

Department of Civil and Architectural Engineering

Architectural Engineering Degree Plan for Cohort 2011

LIST F: MAJOR REQUIREMENTS (AR)

Code	Title	Credits	Pre-Requisite / Co-req. *
AREN2111	Architectural Design I	3	
AREN2311	Architectural Drawing	3	CIVL3002
AREN2411	History I: Modern & Contemporary	2	
AREN3811	Building Construction Methods	3	CIVL 3096
AREN3112	Architectural Design II	3	AREN 2111
AREN3312	Introduction to CAAD	3	AREN2311
AREN3211	Architectural Design Theory	2	
MEIE 3141	Thermodynamics I	3	PHYS 2108*
AREN3814	Climate-responsive Design	3	PHYS 2107
AREN3313	Architectural Working Drawing	3	AREN 3811, AREN 3312
AREN3113	Architectural Design III	4	AREN 3112
AREN3816	Building Mechanical Systems	3	MEIE 3141
AREN3812	Architectural Acoustics	2	PHYS 2108*
AREN3412	History II: Islamic & Vernacular	2	
AREN 4813	Building Illumination	2	PHYS 2108*
AREN 4817	Sanitary & Plumbing Design	2	CIVL 4046
AREN 4114	Architectural Design IV	4	AREN 3113
AREN 4818	Building Electrical Systems	3	AREN 4813
AREN 4115	Graduation Project I	4	AREN 4114, CIVL 4206
AREN 5819	Specifications and Quantities	2	AREN 3313
AREN 5116	Graduation Project II	3	AREN 4115, AREN 3816,
Total		59	

Department of Civil and Architectural Engineering

Architectural Engineering Degree Plan for cohort 2011

LIST G: MAJOR ELECTIVES (AE)

Architectural Engineering Electives - 6 credit hours

The student should select 3 courses (6 credit hours) from the following architectural elective courses:

Code	Title	Credits	Pre-Requisite / Co-req. *
AREN 3611	Principles of Settlement Planning	2	
AREN 4205	Residential Planning and Design	2	
AREN 4304	Special Topics in CAD	2	
AREN 5403	Omani Vernacular Architecture	2	
AREN 4203	Behavioral Factors in Housing Design	2	
AREN 5801	Solar Energy in Buildings	2	
AREN 3815	Sustainable Design in Hot climates	2	AREN 3814
AREN 3808	Computer Aided Lighting Design	2	AREN 4813
AREN 3809	Architectural Conservation Techniques	2	
AREN 5802	Modern Building Construction Systems	2	AREN 3811
AREN 4202	Architectural Professional Practice	2	CIVL 2400
AREN 5805	Building Energy Conservation and Analysis	2	