Degree and Study Plan

College: **Engineering**
Department: **Civil and Architectural Engineering**
Cohorts: **2009**
Degree: **Bachelor of Engineering**
Major: **Architectural Engineering**
Specialization:

Summary of Credits:		
University Requirements (UR)		**12**
Intensive English	NC*	
English Requirements	6	
Arabic	3	
Contemporary Omani Society	1	
Oman & Islamic Civilization or Islamic Culture	2	
University Electives (UE)		**6**
See List A		
College Requirements (CR)		**31**
See list B		
College Electives (CE)		**1**
See list C		
Departmental Requirements (DR)		**45**
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		**160**

* Not Credited

For reference contact: Dr. Abdul Wahid Hago (HoD) Ext. 1332

HoD Date

Dean's Office Date

Admission and Registration Date

Department of Civil and Architectural Engineering

Architectural Engineering Study Plan for cohort 2009 (Scheme I)

	Course Code	Course Title	Cr.	Pre-req./Co-req.*	Cat.
Semester 1 Fall 2009		University English	**0**		UR
	Total		**0**		

Semester 2 Spring 2010	ARAB1001	Arabic	**3**		UR
	HIST1010 ISLM1010	Oman & Islamic Civilization **or** Islamic Culture	**2**		UR
	LANC2160	English for Engineering I	**3**		UR
	ENGR1500	Introduction to Engineering	**2**		CR
	ENGR1600	Workshop I	**1**		CR
	MATH1106	Pre-Calculus Mathematics	**4**		CR
	Total		**15**		

Semester 3 Fall 2010	LANC2161	English for Engineering II	**3**	LANC2160	UR
	SOCI3320	Contemporary Omani Society	**1**		UR
	CHEM1071	General Chemistry for Engineers	**3**		CR
	MATH2107	Calculus I	**4**	MATH1106	CR
	PHYS2107	General Physics I	**4**	MATH2107*	CR
	Total		**15**		

Semester 4 Spring 2011		College Elective [a]	**1**		CE
	ENGR2216 or COMP2002	Programming in Fortran **or** Intr. to Comp. Program for Engineers	**3**		DR
	MATH2108	Calculus II	**3**	MATH 2107	CR
	PHYS2108	General Physics II	**4**	PHYS 2107	CR
	CIVL3216	Basic Mechanics	**4**	PHYS2107	DR
	Total		**15**		

Semester 5 Fall 2011	MATH3171	Linear Algebra & Multivariate	**3**	MATH2108, LANC2161	CR
	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		**17**		

January 2011	ENGR3006	Industrial Training I	**0**	CIVL3056	CR
	Total		**0**		

[a] CIVL2400 Professional Practice and Ethics

	Course Code	Course Title	Cr.	Pre-req./Co-req.*	Cat.
Semester 6 Spring 2012	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 2012	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
	MATH4174	Differential Equations for	**3**	MATH2108, LANC2161	CR
	MEIE 3141	Thermodynamics I	**3**	PHYS 2108*	AR
	Total		**17**		

Semester 8 Spring 2013	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 2013		Architectural Elective I	**2**		AE
	CIVL 4206	Concrete Design	**3**	CIVL3036, CIVL3096, (CIVL3046 **or** AREN3312)	DR
		University Elective I	**3**		UE
	AREN 4813	Building Illumination	**2**	PHYS 2108*	AR
	AREN 4817	Sanitary & Plumbing Design	**2**	CIVL 4046	AR
	AREN 4114	Architectural Design IV	**4**	AREN 3113	AR
	Total		**16**		

Semester 10 Spring 2014	CIVL4216	Steelwork Design	**3**	CIVL3036, (CIVL3046 **or** AREN 3312)	DR
		Architectural Elective II	**2**		AE
	AREN 4818	Building Electrical Systems	**3**	AREN 4813	AR
	AREN 4115	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 2014	ENGR4006	Industrial Training II	**0**	ENGR3006	CR
	Total		**0**		

Semester 11 Fall 2014		University Elective II	**3**		UE
		Architectural Elective III	**2**		AE
	CIVL 5146	Numerical Methods	**3**	(COMP2002,MATH3171) or (ENGR2216,MATH3171)	DR
	AREN 5819	Specifications and Quantities	**2**	AREN 3313	AR
	AREN 5116	Graduation Project II	**3**	AREN 4115, AREN 3816, AREN 4818	AR
	CIVL 5336	Construction Management	**3**	CIVL5204	DR
	Total		**16**		

Department of Civil and Architectural Engineering

Architectural Engineering Study Plan for Cohort 2009 (Scheme II)

	Course Code	Course Title	Cr.	Pre-req./Co-req.*	Cat.
Semester 1 Fall 2009		University English	**0**		UR
	Total		**0**		
Semester 2 Spring 2010		University English	**0**		UR
	Total		**0**		
Semester 3 Fall 2010		University Elective I	**3**		UE
	LANC2160	English for Engineering I	**3**		UR
	CHEM1071	General Chemistry for Engineers	**3**		CR
	ENGR1500	Introduction to Engineering	**2**		CR
	ENGR1600	Workshop I	**1**		CR
	MATH1106	Pre-Calculus Mathematics	**4**		CR
	Total		**16**		
Semester 4 Spring 2011	ARAB1001	Arabic	**3**		UR
	HIST1010 ISLM1010	Oman & Islamic Civilization **or** Islamic Culture	**2**		UR
	LANC2161	English for Engineering II	**3**	LANC 2160	UR
	SOCI3320	Contemporary Omani Society	**1**		UR
	MATH2107	Calculus I	**4**	MATH1106	CR
	PHYS2107	General Physics I	**4**	MATH2107*	CR
	Total		**17**		
Summer 2011	MATH2108	Calculus II	**3**	MATH2107	CR
	CIVL3216	Basic Mechanics	**4**	PHYS2107	DR
	Total		**7**		
Semester 5 Fall 2011		College Elective [b]	**1**		CE
	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		**16**		
January 2012	ENGR3006	Industrial Training I	**0**	CIVL3056	CR
	Total		**0**		

[a] CIVL2400 Professional Practice and Ethics

Last Modification: 29 January 2010

	Course Code	Course Title	Cr.	Pre-req./Co-req.*	Cat.
Semester 6 Spring 2012	CIVL3096	Construction Materials	**3**	CIVL3086*, CIVL3216	DR
	CIVL 4006	Probability & Statistics	**3**	MATH 2107	DR
	CIVL3036	Structures I	**3**	CIVL3086	DR
	AREN 2111	Architectural Design I	**3**		AR
	AREN 2311	Architectural Drawing	**3**	CIVL3002	AR
	AREN 2411	History I: Modern &Contemporary	**2**		AR
	Total		**17**		

Summer 2012	CIVL4046	Fluid Mechanics	**3**	CIVL3216	DR
	ENGR2216 0r COMP2002	Programming in Fortran **or** Intr. to Comp. Program for Engineers	**3**		DR
	Total		**6**		

Semester 7 Fall 2012	AREN 3811	Building Construction Methods	**3**	CIVL 3096	AR
	AREN 3112	Architectural Design II	**3**	AREN 2111	AR
	AREN 3312	Introduction to CAAD	**3**	AREN2311	AR
	AREN 3211	Architectural Design Theory	**2**		AR
	MATH4174	Differential Equations for Engineers	**3**	MATH2108, LANC2161	CR
	MEIE 3141	Thermodynamics I	**3**	PHYS 2108*	AR
	Total		**17**		

Semester 8 Spring 2013	AREN 3814	Climate-responsive Design	**3**	PHYS 2107	AR
	AREN 3313	Architectural Working Drawing	**3**	AREN 3811, AREN 3312	AR
	AREN 3113	Architectural Design III	**4**	AREN 3112	AR
	AREN 3816	Building Mechanical Systems	**3**	MEIE 3141	AR
	AREN3812	Architectural Acoustics	**2**	PHYS 2108*	AR
	AREN 3412	History II: Islamic & Vernacular	**2**		AR
	Total		**17**		

	Course Code	Course Title	Cr.	Pre-req./Co-req.*	Cat.
Semester 9 Fall 2013	PETM3006	Engineering Geology	**3**		DR
	CIVL 4206	Concrete Design	3	CIVL3036,3096, CIVL3046 or AREN3312	DR
		Architectural Elective I	**2**		AE
	AREN 4813	Building Illumination	**2**	PHYS 2108*	AR
	AREN 4817	Sanitary & Plumbing Design	**2**	CIVL4046	AR
	AREN 4114	Architectural Design IV	**4**	AREN 3113	AR
	Total		**16**		

Semester 10 Spring 2014	CIVL4216	Steelwork Design	CIVL3036, (CIVL3046 or AREN 3312)	DR
		Architectural Elective II		AE
	AREN 4818	Building Electrical Systems	AREN 4813	AR
	AREN 4115	Graduation Project I	AREN 4114, CIVL4216* **or** CIVL 4206	AR
	CIVL5204	Engineering Economics	MATH2107	DR
	Total		**15**	

Summer 2014	ENGR4006	Industrial Training II	**0**	ENGR3006	CR
	Total		**0**		

Semester 11 Fall 2014		University Elective II	**3**		UE
		Architectural Elective III	**2**		AE
	CIVL 5146	Numerical Methods	**3**	(COMP2002,MATH3171) or (ENGR2216,MATH3171)	DR
	AREN 5819	Specifications and Quantities	**2**	AREN 3313	AR
	AREN 5116	Graduation Project II	**3**	AREN 4115, AREN 3816, AREN 4818	AR
	CIVL 5336	Construction Management	**3**	CIVL5204	DR
	Total		**16**		

Department of Civil and Architectural Engineering - Degree Plan for cohort 2007

LIST A[T] – UNIVERSITY ELECTIVES

Course Code	Course Title	Credits	College
ARAB1110	An Introduction to Linguistics	3	Arts
ARAB1220	Pre-Islamic Literature	3	Arts
ARAB1540	The Natural and Cultural Heritage of Oman	2	Arts
ARAB1551	Administering Archaeological Heritage in Oman	2	Arts
ARCH1120	Principles of Archaeology	3	Arts
ARCH1180	Archaeology and Environment in Oman	2	Arts
GEOG1015	Introduction to Geography	2	Arts
GEOG1110	Physical Geography	3	Arts
GEOG1220	Human Geography	3	Arts
GEOG2031	Urbanization in the Arabian Gulf	2	Arts
GEOG2122	Man and Environment	2	Arts
GEOG2124	Geography of Climate	3	Arts
HIST1024	Introduction to World History	2	Arts
HIST1030	History of the GCC Countries	2	Arts
HIST1040	Some Aspects of the History of Oman	2	Arts
HIST1050	The Arab World and the West	2	Arts
HIST1060	The Spread of Islam in Europe	2	Arts
HIST1070	The Contemporary of the Islamic World	2	Arts
HIST1090	Civilizations of the Arabian Peninsula	2	Arts
HIST1110	History of the Ancient Near Eastern	2	Arts
HIST1320	History of Prophet and Caliphate Era	3	Arts
HIST2210	European History and Civilization in the Middle Ages	3	Arts
INFO1060	Information Science	2	Arts
INFO2210	Information Technology	3	Arts
MASS1030	Public Opinion (UE)	2	Arts
MASS1080	Principles of Public Relations (UE)	2	Arts
MASS2021	Mass Media in Oman	3	Arts
MASS2110	Communication and Development	3	Arts
PHIL1011	An Introduction to Philosophy	3	Arts
PHIL1100	Critical Thinking and Problem Solving	3	Arts
PHIL2060	Ethics	2	Arts
SOCI101	Introduction to Sociology	3	Arts
SOCI1230	Sociology of Populations	3	Arts
SOCI2112	Education System in Oman	3	Arts
SOCI2120	Sociology of Family	3	Arts
SOCI2151	Medical Sociology	2	Arts
SOWK1100	Introduction to Social Work	2	Arts
SOWK1211	Research in Social Work	3	Arts

THAR1003	Music Appreciation	2	Arts
THAR1001	Theater Appreciation	2	Arts
THAR1013	Oratory/Presentation	2	Arts
THAR1012	Play Writing	2	Arts
THAR1016	Child's Theater	2	Arts
TOUR1010	Introduction to Tourism	2	Arts
TOUR1020	Modern Trends in Tourism	3	Arts
TOUR1050	Tourism in Oman	2	Arts
TOUR1060	Introduction to Tourism Guidance	3	Arts
TOUR2160	Tourism and Ecology	3	Arts
ISLM1020	Human Right in Islam	2	Education
ISLM1101	Recitation and Memorization of the Holy Quran 1	1	Education
ISLM1102	Introduction to Islamic Fiqh	3	Education
ISLM2030	The Miracle of the Holy Quran	2	Education
ISLM2031	Islamic Economy	2	Education
ISLM2060	Family Systems in Islam	2	Education
ISLM2090	Islamic Ethics	2	Education
ISPR1106	Interpretation and quranic sciences	3	Education
ISPR1601	Islam and the Modern World	2	Education
ARED1001	Contemporary Visual Arts	2	Education
ARED1002	Appreciation of Islamic Arts and Arabic	2	Education
FOND1101	The Miracle of the Holy Quran	2	Education
FOND2106	Analytical Interpretation	3	Education
TECH1000	Study Skills	2	Education
INFS4100	Children's Literature	2	Commerce
BCOM1950	Varieties of Public and Professional Communication	3	Commerce
BCOM1960	Cross-Cultural Communication	2	Commerce
PHYS2802	Universe Exploring	2	Science
PHYS2901	Astronomy	3	Science
PHYS3901	Universe's Mysteries	3	Science
CUTM1001	Sci & Sci Education	2	Science
ERSC1002	Geological wonders	2	Science
ERSC1003	Int. Env. Geology	2	Science
ERSC1005	Water Resources in Oman	2	Science
ERSC1006	Gemstones	2	Science
SWAE2003	Water in Arid Environment	2	Agriculture
BHSC2025	Behavioral Science I	3	Medicine
NURS1005			
BHSC2029	The Fundamentals of Thinking and Creativity	2	Medicine
AREN4404	Environmental Psychology	3	Engineering

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 2009

LIST B: COLLEGE REQUIREMENTS (CR)

Code	Title	Credits	Pre-Requisite / Co-req. *
ENGR1500	Introduction to Engineering	**2**	
ENGR1600	Workshop I	**1**	
MATH1106	Pre-Calculus Mathematics	**4**	
MATH2107	Calculus I	**4**	MATH1106
MATH2108	Calculus II	**3**	MATH 2107
MATH3171	Linear Algebra & Multivariate Calculus	**3**	MATH2108, LANC2161
MATH4174	Differential Equations for Engineers	**3**	MATH2108, LANC2161
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		**31**	

Department of Civil and Architectural Engineering

Architectural Engineering Degree Plan for cohort 2009

LIST C: COLLEGE ELECTIVES (1 Credit**) (CE)**

Code	Title	Credits	Pre-Requisite / Co-req. *
CIVL2400:	Professional Practice & Ethics	**1**	

Department of Civil and Architectural Engineering

Architectural Engineering Degree Plan for cohort 2009

LIST D: DEPARTEMENT REQUIREMENTS (DR)

Code	Title	Credits	Pre-Requisite / Co-req. *
ENGR2216	Programming in Fortran	3	
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		**45**	

Department of Civil and Architectural Engineering

Architectural Engineering Degree Plan for Cohort 2009

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, AREN 4818
Total		**59**	

Department of Civil and Architectural Engineering

Architectural Engineering Degree Plan for Cohort 2009

LIST G: MAJOR ELECTIVES (AE)

<u>Architectural Engineering Electives -</u> 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	