
Architectural Engineering Department
Study Plan

Architectural Engineering Department

The department includes the Architectural Engineering branch.

As the nature of study in the Architectural Department needs special talents and skills, the Faculty has established a suitable curriculum and coding for the study in the department.

In order to complete the requirements for the B.Sc. degree in the Architectural Engineering specialization, the students must pass successfully, a total of at least 177 credit hours, through the 5 Academic Years (10 Semesters). A summer training of 60 days over 3 years is a degree requirement in Architecture Department. Training has to be undertaken in companies or establishments approved by the faculty. Student's performance is evaluated at the end of the training period by the company where training is undergone and by the department and the faculty coordination.

The total required credit hours are distributed as follows:

1. Faculty Requirements	37 Cr
2. Department Requirements	97 Cr
3. Humanity subjects	8 Cr
4. Specialization Requirements	
- Architecture Engineering	30 Cr
5. Elective Courses	8 Cr

PROGRAM AND COURSE DESCRIPTIONS

PREPARATORY STAGE

GENERAL

FIRST SEMESTER AND SECOND SEMESTER

Faculty Requirements

The faculty Requirements include the following courses in different fields

Courses of Basic Sciences:

Code No	Course Title	Cr	Prerequisites
BE101	Engineering Mathematics (1)	3	None
BE102	Engineering Mathematics (2)	3	BE101
BE111	Engineering Mechanics (1)	3	None
BE112	Engineering Mechanics (2)	2	BE111
BE121	Engineering Physics (1)	3	None
BE122	Engineering Physics (2)	3	BE121

Engineering Sciences:

Code No	Course Title	Cr	Prerequisites
BE141	Eng. Drawing & Descriptive Geometry (1)	3	None
BE142	Eng. Drawing & Descriptive Geometry (2)	3	BE141
UEC 01	Computer Skills & Programming Concepts I	3	None
UEC 02	Computer Skills & Programming Concepts II	3	UEC 01
BE131	General Chemistry	2	None
ME170	Introduction to Manufacturing Processes	2	None

General Courses:

Code No	Course Title	Cr	Prerequisites
UGE 01	English Language (1)	2	None
UGE 02	English Language (2)	2	UGE 01
HU121*	History of Vernacular Arch.	2	None
HU164	Research Methods & Techniques	2	None
HU141	Ethics & Human Rights	2	None

Humanity Courses:

Two courses should be elected from the following table:

Code No	Course Title	Cr	Prerequisites
HU113	Technical Reports Writing and Presentation Skills	2	None
HU122	Arabic Culture	2	None
HU131	Project Management	2	None
HU132	Accounting and Costs for Engineers	2	None
HU133	Engineering Statistics		
HU134	Engineering Economy	2	None
HU135	Sales, Marketing and communication techniques	2	None
HU142	Legislations and Contracts	2	None
HU143	Principles of Law	2	None
HU144	Communications Laws and Rules	2	None
HU151	Industrial Safety	2	None
HU161	Environment and Society	2	None
HU162	Human Computer Interaction	2	None
HU163	Astronomy and Space Sciences	2	None
HU171	Psychology	2	None
HU172	Logic	2	None

Total of Faculty Requirements 34 Cr.

Preparatory stage: level one (freshman)

Sample for the preparatory year:

SEMESTER	CODE NO	COURSE TITLE	CR
1	BE 101	Engineering Mathematics(1)	3
	BE 121	Engineering Physics (1)	3
	BE 111	Engineering Mechanics (1)	3
	BE 141	Eng. Drawing & Descriptive Geometry (1)	3
	UGE 01	English Language (1)	2
	UEC 01	Computer Skills & Programming Concepts I	2
	HU121*	History of Vernacular Arch.*	2
TOTAL			18 CR.
2	BE 102	Engineering Mathematics(2)	3
	BE 121	Engineering Physics (2)	3
	BE 112	Engineering Mechanics (2)	3
	BE 142*	Eng. Drawing & Descriptive Geometry (2)*	2
	UGE 02	English Language (2)	2
	UEC 02	Computer Skills & Programming Concepts II	2
	BE131	General Chemistry	2
	ME170	Introduction to Manufacturing Processes	2
TOTAL			19 CR.

PRELIMINARY STAGE

GENERAL

Level Two: Third Semester and Fourth Semester

Level Three: Fifth Semester and Sixth Semester

Department Requirements

The following courses constitute the department requirements that need to be taken by all students

Table (1)

CODE No.	COURSE TITLE	CR	PREREQUISITES
AE111	Basic design	4	None
AE210*	Arch. Design (0)*	4	AE111
AE211	Architectural Design Level 1	6	AE112
AE212	Architectural Design Level 2	6	AE211
AE311	Architectural Design Level 3	6	AE212
AE121	Building Technology Level 1	4	None
AE122	Building Technology Level 2	4	AE 121
AE221	Building Technology Level 3	4	AE 122
AE222	Details Design Level 1	4	AE 221
AE131	History and Theories of Architecture1	2	None
AE132	History and Theories of Architecture2	2	AE131
AE133	History and Theories of Architecture3	2	AE132
AE134	History and Theories of Architecture4	2	AE133
AE135	History and Theories of Architecture5	2	AE134
AE141	Colors In Built Environment	3	None
AE142	3D Projection and Shadows	3	BE142*
AE151	Computer Aided Drafting	2	None
AE152	Computer Aided Drafting 2	2	AE 151
AE231	Theories of Planning	2	None
AE232	Site Planning	2	None
AE241	Technical Systems in Buildings	3	AE112
AE331	Theories of city planning	3	AE231
AE341	Specifications and Quantities	2	AE222
AE342	Project Management	2	AE341
AE343	Building Regulations and Codes	2	None
AE344	Professional Practice	2	AE345
AE345	Building Law	2	None
AE346	Environmental Studies	2	None
AE347	Interior Design	3	AE311
AE348	Theories of Housing	2	AE231
CV 252	Theory of Structure	2	BE101, BE111, RF121
CV 253	Reinforced Concrete and Steel Structures	2	CV 252
CV 254	Surveying	2	BE101
CV 255	Materials Testing	2	None
CV 256	Soil Mechanics	2	CV 255

LEVEL TWO: Sophomore**Third Semester:**

CODE	SUBJECT	CONTACT HOURS		CREDIT HOURS
		Lecture	Exercise	
AE121	Building Technology level 1	2	4	4
AE141	Colors in Built Environment	2	2	3
AE111	Basic design	2	4	4
AE151	Computer Aided Drafting	1	2	2
AE131	History and Theories of Architecture1	2	0	2
HU	Humanity's elective course (1)	1	2	2
Total		12	14	17
		26		

Fourth semester:

CODE	SUBJECT	CONTACT HOURS		CREDIT HOURS
		Lecture	Exercise	
AE122	Building Technology level 2	2	4	4
AE210*	Architectural Design Level (0)*	2	4	4
AE142	3D projection and Shadows	2	2	3
AE152	Computer Aided Drafting 2	1	2	2
CV254	Surveying	2	0	2
AE246	Environmental Studies	2	0	2
Total		11	12	17
		23		

LEVEL THREE: Junior**Fifth Semester:**

CODE	SUBJECT	CONTACT HOURS		CREDIT HOURS
		Lecture	Exercise	
AE221	Building Technology level 3	2	8	4
AE211	Architectural Design Level 1	2	4	6
AE232	Site planning	2	0	2
AE132	History and Theories of Architecture 2	2	0	2
HU141	Ethics & Human Rights	2	0	2
CV252	Theory of Structure	2	0	2
Total		12	12	18
		24		

Sixth semester:

CODE	SUBJECT	CONTACT HOURS		CREDIT HOURS
		Lecture	Exercise	
AE222	Design Details Level 1	2	8	6
AE212	Architectural Design Level 2	2	4	4
AE232	Theories of Planning	2	0	2
AE241	Technical Systems in Buildings	3	0	3
AE133	History and Theories of Architecture3	2	0	2
CV255	Material Testing	2	0	2
Total		13	12	19
		25		

SPECIALIZED STAGE

Level Four: Seventh Semester and Eights Semester

Level Five: Ninth Semester and Tenth Semester

SPECIALIZED REQUIREMENTS:**Architectural Engineering**

The required courses for this branch are given in Table (2a)

Table (2a)

CODE No.	COURSE TITLE	CR	PREREQUISITES
AE312	Design Applications (Architectural design)	6	AE311
AE400-1	Graduation Project part 1	4	AE312
AE400-2	Graduation Project part 2	8	AE 400-1
AE321	Design Details Level 2	4	AE222
AE322	Design Details Level 3	4	AE-A321
AE135	Theories & History of Architecture 5	2	AE 134
AE431	Housing economics	2	AE352

Elective Courses:

The elective courses from this branch are given in table (2b)

Table (2b)

CODE No.	COURSE TITLE	CR	PREREQUISITES
AE461	Digital Architecture	2	AE134
AE462	Architecture and Society	2	None
AE463	Introduction to City planning	2	AE331
AE464	Restoration and Conservation	2	AE311
AE465	Landscape Design	2	AE232

LEVEL Four: Mid-Senior

Seventh Semester:

CODE	SUBJECT	CONTACT HOURS		CREDIT HOURS
		Lecture	Exercise	
AE321	Design Details Level 2	2	8	6
AE311	Architectural Design level 3	2	4	4
AE348	Theories of Housing	2	0	2
AE331	Theories of City Planning	2	1	3
CV256	Soil Mechanics	2	0	2
AE	Elective 1	2	0	2
Total		12	13	19
		25		

Total specialized requirements for seventh semester : 4 cr

Eighth Semester:

CODE	SUBJECT	CONTACT HOURS		CREDIT HOURS
		Lecture	Exercise	
EA322	Design Details level 3	2	4	4
EA347	Interior Design	2	2	3
EA312	Design Applications (Architectural Design)	2	8	6
EA134	History and Theories of Architecture 4	1	2	2
CV253	Reinforced Concrete and steel Construction	2	2	2
Total		9	18	17
		27		

Total specialized requirements for 8th semester: 10 cr

LEVEL FOUR: Senior

Ninth Semester:

- Architecture Branch

CODE	SUBJECT	CONTACT HOURS		CREDIT HOURS
		Lecture	Exercise	
AE400-1	Graduation Project Part1	1	6	4
AE345	Building Laws	2	0	2
AE431	Housing Economics	2	0	2
HU113	Technical Reports Writing and Presentation Skills	2	0	2
HU164	Research Methods & Techniques	2	0	2
AE341	Specifications and Quantities	1	2	2
	Elective course 2	2	0	2
	Elective course 3	2	0	2
		14	8	18
		22		

Total specialized requirements for 9th semester: 8 cr

LEVEL FOUR:

Tenth Semester:

- Architecture Branch

CODE	SUBJECT	CONTACT HOURS		CREDIT HOURS
		Lecture	Exercise	
AE400-2	Graduation Project Part2	2	12	8
AE342	Project Management	2	0	2
AE343	Building Regulations and Codes	2	0	2
AE344	Professional Practice	2	0	2
AE135	History and Theories of Architecture 5	2	0	2
	Elective Course 4	2	0	2
Total		12	12	18
		24		

Total specialized requirements for 10th semester: 8 cr

TOTAL CREDIT ACHIEVED = 180