

محتويات البرنامج مقسمة على خمسة مستويات دراسية وعشرة فصول دراسية:

1st Year (Semester-1)

Course Code	Course Name	Credit	The number of hours per week			Pre-requisites
			Lecture	Tutorial	Lab	
EB 101	Engineering Mathematics (1)	3	2	2	1	None
EB 111	Engineering Mechanics (1)	3	2	2	0	None
EB 121	Engineering Physics (1)	3	2	1	2	None
EB 141	Eng. Drawing & Descriptive Geometry (1)	3	2	3	0	None
UEC 01	Computer Skills & Programming Concepts (1)	2	1	1	2	None
EM 170	Introduction to Manufacturing Processes	2	1	1	2	None
HU 121	Engineering Perspectives and Technology	2	1	0	2	None
	Total Credit hours	18	11	10	9	

1st Year (Semester-2)

Course Code	Course Name	Credit	The number of hours per week			Pre-requisites
			Lecture	Tutorial	Lab	
EB 102	Engineering Mathematics (2)	3	2	2	1	EB 101
EB 112	Engineering Mechanics (2)	3	2	2	0	EB 111
EB 122	Engineering Physics (2)	3	2	1	2	EB 121
EB 142	Eng. Drawing & Descriptive Geometry (2)	2	1	2	1	EB 141
UEC 02	Computer Skills & Programming Concepts (2)	2	1	1	2	UEC 01
EB 131	General Chemistry	2	1	1	2	None
HU 113	Technical Report Writing and Presentation	2	1	0	2	None
UCS 01	Communication Skills (1)	1	0	0	2	None
	Total Credit hours	18	10	9	12	

2nd Year (Semester-3)

Course Code	Course Name	Credit	The number of hours per week			Pre-requisites
			Lecture	Tutorial	Lab	
EB 103	Engineering Mathematics (3)	3	2	2	1	EB 102
EB 113	Engineering Mechanics (3)	3	3	1	0	EB111, EB 112
ES 101	Engineering Materials	3	2	2	1	None
ES 102	Structural Analysis (1)	3	2	3	0	EB 112
ES 103	Introduction to CAD Systems	3	2	0	3	EB 142
ES 104	Surveying for Engineers	3	2	1	2	EB 102
	Total Credit hours	18	13	9	7	

2nd Year (Semester-4)

Course Code	Course Name	Credit	The number of hours per week			Pre-requisites
			Lecture	Tutorial	Lab	
EB 204	Engineering Mathematics (4)	3	2	2	1	EB 103
ES 105	Introduction to Construction Engineering.	3	2	2	0	None
ES 106	Civil Engineering Drawing	3	2	2	1	ES 103
ES 107	Structural Analysis (2)	3	2	3	0	ES 102
ES 108	Strength of Materials	3	2	3	0	ES 102
ES 202	Concrete Materials	3	2	2	1	ES 101
	Total Credit hours	18	12	14	3	

3rd Year (Semester-5)

Course Code	Course Name	Credit	The number of hours per week			Pre-requisites
			Lecture	Tutorial	Lab	
ES 201	Introduction to Environmental Engineering	2	2	1	0	None
ES 203	Construction Project Management	3	2	2	0	ES 105
ES 204	Soil Mechanics (1)	3	2	2	1	ES 101
ES 206	Reinforced Concrete Design (1)	3	2	3	0	ES 108, ES 202
UGE 01	English (1)	2	2	0	0	None
HU Elective	Elective(1) table 4	2	2	0	0	None
HU Elective	Elective(2) table 4	2	2	1	0	None
	Total Credit hours	17	14	9	1	

3rd Year (Semester-6)

Course Code	Course Name	Credit	The number of hours per week			Pre-requisites
			Lecture	Tutorial	Lab	
ES 205	Building Technology	3	2	3	1	None
ES 207	Construction Planning and Scheduling	3	2	2	1	ES 203
ES 302	Reinforced Concrete Design (2)	3	2	3	0	ES 206
ES 309	Foundation Engineering	3	2	3	0	ES 204
ES 401	Water and Waste Water Engineering	3	2	2	0	ES 201
UGE 02	English (2)	2	1	0	2	None
	Total Credit hours	17	11	13	4	

4th Year (Semester-7)

Course Code	Course Name	Credit	The number of hours per week			Pre-requisites
			Lecture	Tutorial	Lab	
ES 208	Hydraulics	3	2	2	1	EB 102
ES 210	Introduction to Electrical and Mechanical Systems	3	2	2	0	None
ES 301	Steel Structures Design (1)	3	2	3	0	ES 102, ES 108
ES 303	Project Cost Analysis	3	2	2	0	ES 203
ES 306	Highway Engineering	3	2	2	1	ES 106
ES elective	Elective (1) table 5	3	2	2	1	
	Total Credit hours	18	12	13	3	

4th Year (Semester-8)

Course Code	Course Name	Credit	The number of hours per week			Pre-requisites
			Lecture	Tutorial	Lab	
ES 304	Hydraulic Structures	3	2	2	0	ES 208
ES 305	Steel Structures Design (2)	3	2	3	0	ES 301
ES 307	Construction Productivity	3	2	2	0	ES 303
ES 308	Computer Aided Design	3	2	0	3	ES 206, ES 301
ES elective	Elective (2) table 5	3	2	2	0	
UGA 03	Arabic Language Skills	2	2	0	0	None
	Total Credit hours	17	12	9	3	

5th Year (Semester-9)

Course Code	Course Name	Credit	The number of hours per week			Pre-requisites
			Lecture	Tutorial	Lab	
ES 402	Harbor and Marine Constructions	3	2	2	0	ES 309
ES 403	Repair and Maintenance of Buildings	3	2	2	0	ES 202
ES 412	Design of Temporary Structures	3	2	2	0	ES 302, ES 305
ES 400_1	Graduation Project (1)	4	3	2	1	Department approval
UGE 03	English Language (3)	2	1	0	2	UGE 02
ES elective	Elective (3) table 5	3	2	2	0	
	Total Credit hours	18	12	10	3	

5th Year (Semester-10)

Course Code	Course Name	Credit	The number of hours per week			Pre-requisites
			Lecture	Tutorial	Lab	
ES 404	Construction Methods and Equipment	3	2	2	0	ES 307
ES 405	Construction Contracting	3	2	2	0	None
ES 406	Quality Control of Construction Materials	3	2	2	0	ES 202
ES 400_2	Graduation Project (2)	4	3	2	1	ES 400-1
UCS 02	Communications Skills (2)	1	0	0	2	UCS 01
ES elective	Elective (4) table 5	3	2	2	0	
	Total Credit hours	17	11	10	3	

Table 4 Elective Humanities and Social Sciences (HU) Courses for Faculty Requirement
(4 credits from the following courses)

Course Code	Course Name	Credit	The number of hours per week		
			Lecture	Tutorial	Lab
HU 134	Engineering Economy	2	2	1	0
HU 141	Ethics and Human Rights	2	2	1	0
HU 142	Legislations and Contracts	2	2	1	0
HU 143	Principles of Law	2	2	1	0
HU 133	Engineering Statistics	2	2	1	0
HU 151	Industrial Safety	2	2	1	0

Table 5 Required Elective Courses
For Construction Engineering and Management Specialization
(12 credits from the following courses)

Course Code	Course Name	Credit	The number of hours per week		
			Lecture	Tutorial	Lab
ES 311	Advanced topics in Materials	3	2	2	0
ES 313	Construction Risk Management	3	2	2	0
ES 316	Introduction to advanced BIM (1)	3	2	2	0
ES 315	Surveying (2)	3	2	2	0
ES 413	Construction Management using BIM (2)	3	2	2	0
ES 312	Reinforced Concrete Industrial Structures	3	2	2	0
ES 407	Design of Steel Bridges	3	2	2	0
ES 408	Reinforced Concrete High Rise Building	3	2	2	0
ES 409	Pre-stressed Concrete	3	2	2	0
ES 410	Design of Reinforced Concrete Bridges	3	2	2	0
ES 411	Soil Mechanics (2)	3	2	2	0