
Civil Engineering Department

Curriculum Plan for the Bachelor's Degree in Civil Engineering

The curriculum for the Bachelor's Degree in Civil Engineering consists of (157) credit units distributed as follows:

- 1. University Requirements: (6) credit units**
- 2. College Requirements: (32) credit units**
- 3. Major Requirements: (119) credit units distributed as follows:**
 - Compulsory Major Requirements: (113) credit units**
 - Elective Major Requirements: (6) credit units**

Civil Engineering Department Laboratories:

Material Strength Lab

Fluid Mechanics Lab (1 and 2)

Soil Lab (1 and 2)

Surveying Lab (1 and 2)

Building Materials Lab

Computer Lab

First Year: General Engineering

First Semester (Fall)

No	Code	Course of study	hours		Units	No. of study hours per week
			theoretical	practical		
1	GS 101	Mathematics I	4	-	4	4
2	GS 103	Physics I	3	-	3	3
3	GE104	Computer	3	-	3	3
4	HS 106	Arabic language	2	-	2	2
5	GS 204	Statistics and probability	3	-	3	3
6	GE 103	Mechanics Engineering I	3	-	3	3
Total Units					18	

Second Semester (Spring)

No	Code	Course of study	hours		Units	No. of study hours per week
			theoretical	practical		
1	GS 102	Mathematics II	3	-	3	3
2	GS 104	Physics II	3	3	4	6
3	GS 105	Chemistry	4	-	4	6
4	HS 103	English language	2	-	2	2
5	GE 102	Engineering drawing	1	4	3	5
6	HS 110	National culture	2	-	2	2
Total Units					18	

No	Course Name	Course Code	Credits	Prerequisites	
1	Mathematics III	GS 201	3	Mathematics I	GS 101
2	Strength of Materials	CIEN 203	4	Engineering Mechanics I	ES 103
3	Surveying I	CIEN 205	4	Mathematics I	GS 101
4	Engineering Geology	CIEN 207	2	--	--
5	Mechanics II	ES 209	3	Engineering Mechanics I, Physics I	ES 103, GS 103
6	Workshop Technology	ES 211	2	--	--
7	Mathematics IV	GS 202	3	Mathematics II	GS 102
8	Building Construction	CIEN 204	2	--	--
9	Descriptive Geometry	ES 206	2	--	--
10	Structural Analysis I	CIEN 208	3	Strength of Materials	CIEN 203
11	Surveying II	CIEN 210	4	Surveying I	CIEN 205
12	Academic English Language	ES 212	2	English Language	HS 103
13	Transportation and Traffic Engineering	CIEN 313	3	Surveying II	CIEN 210
14	Structural Analysis II	CIEN 315	3	Structural Analysis I	CIEN 208
15	Construction Materials	CIEN 317	3	Building Construction	CIEN 204
16	Fluid Mechanics I	CIEN 319	4	Mechanics II	ES 209
17	Soil Mechanics I	CIEN 321	4	Engineering Geology	CIEN 207
18	Engineering Drawing using Computer	ES 323	1	Engineering Drawing	ES 102
19	Water Science	CIEN 314	3	Fluid Mechanics I	CIEN 319
20	Technical Report Writing	ES 316	1	--	--
21	Fluid Mechanics II	CIEN 324	4	Fluid Mechanics I	CIEN 319
22	Structural Analysis III	CIEN 320	3	Structural Analysis II	CIEN 315
23	Soil Mechanics II	CIEN 322	4	Soil Mechanics I	CIEN 321
24	Effective Communication	ES 318	1	--	--
25	Numerical Analysis	CIEN 425	3	Mathematics IV	GS 202
26	Steel Design I	CIEN 427	3	Structural Analysis II	CIEN 315
27	Concrete Design I	CIEN 429	3	Construction Materials, Structural Analysis II	CIEN 317, CIEN 315
28	Environmental Engineering	CIEN 431	3	Water Science	CIEN 314
29	Hydraulics	CIEN 433	3	Fluid Mechanics II	CIEN 324
30	Foundation Engineering	CIEN 426	3	Soil Mechanics II	CIEN 322
31	Steel Design II	CIEN 428	3	Steel Design I	CIEN 427
32	Concrete Design II	CIEN 430	3	Concrete Design I	CIEN 429

No	Course Name	Course Code	Credits	Prerequisites	
33	Civil Engineering Drawing	CIEN 432	3	Concrete Design I	CIEN 429
34	Highway Engineering	CIEN 434	4	Transportation Engineering	CIEN 313
35	Sanitary Engineering	CIEN 535	3	Hydraulics	CIEN 433
36	Hydraulic Structures	CIEN 537	3	Water Science, Hydraulics	CIEN 314, CIEN 433
37	Concrete Design III	CIEN 539	3	Concrete Design II	CIEN 430
38	Contracts and Specifications	CIEN 541	2	Civil Engineering Drawing	CIEN 432
39	Introduction to Engineering Projects	CIEN 543	1	Technical Report Writing	ES 316
40	Harbor Engineering	CIEN 536	3	Hydraulics	CIEN 433
41	Engineering Management and Economics	CIEN 538	2	Contracts and Specifications	CIEN 541
42	Elective Course I	-	3	--	--
43	Elective Course II	-	3	--	--
44	Engineering Project	CIEN 544	3	Introduction to Engineering Projects	CIEN 543
-	Optional Specialization Requirements	-	-	--	--
1	Concrete Technology	CIEN 540	3	Building Materials	CIEN 317
2	Bridge Design	CIEN 542	3	Concrete Design II	CIEN 430
3	Structural Analysis with Matrices	CIEN 552	3	Structural Analysis III, Mathematics III	CIEN 320, GS 201
4	Airport Planning and Design	CIEN 546	3	Transportation Engineering	CIEN 313
5	Precast Concrete Design and Stressing	CIEN 548	3	Concrete Design II	CIEN 430
6	Soil Improvement	CIEN 550	3	Soil Mechanics II	CIEN 322
7	Structure Dynamic	CIEN 554	3	Structural Analysis III	CIEN 320