



বাংলাদেশ আর্মি ইন্টারন্যাশনাল ইউনিভার্সিটি অব সায়েন্স এন্ড টেকনোলজি (বিএআইইউএসটি), কুমিল্লা সেনানিবাস
Bangladesh Army International University of Science and Technology (BAIUST), Comilla Cantonment

Faculty: CIVIL ENGINEERING

DEPARTMENT OF CIVIL ENGINEERING

INTRODUCTION

1.1 Civil engineering is one of the oldest engineering disciplines. As far back as the Great Pyramids at Giza, brilliant engineering minds have been thinking up ways to design and build mind-blowing structures. Today, the only thing that has changed is what they create. With new, lighter and stronger materials to work with, and greater challenges to be met, there is no limit to what civil engineers can achieve. They build towers, bridges, roads, railways and tunnels; airports and mines; dams, ports and harbors; water supplies and sewerage schemes; and irrigation systems and flood mitigation works. In fact, any infrastructure that's required to run our modern society needs the input of civil engineers along the way.

1.2 Civil engineering is an exciting profession because at the end of the day you can see the results of your work, whether this is a completed bridge, a high-rise building, a subway station, or a hydroelectric dam. The profession is very broad, with opportunities for a specialized career, including (but not limited to):

- ✓ Structural Engineering
- ✓ Geotechnical Engineering
- ✓ Transportation Engineering
- ✓ Environmental Engineering
- ✓ Water Resources Engineering

PROGRAMS OFFERED

Bachelor of Science in Civil Engineering (B.Sc in CE)

2. Objective: The objective of the courses is to achieve the highest quality education with technical foundation and leadership skills in the field of Structural, Transportation, Geotechnical, Environmental and Water Resources Engineering to meet the worldwide challenge.

3. Program Distribution: The 4-Year B.Sc. in CE course contains 164 credit hours. In addition to the conventional courses, the program includes some modern courses like Pre-stressed Concrete, Design of Steel Structures, Construction Project Management, Professional Practice etc. It also covers several non-departmental courses like Chemistry, Physics, Mathematics, Accounting, Economics, Sociology and English, with the aim to improve student's logic understanding of the

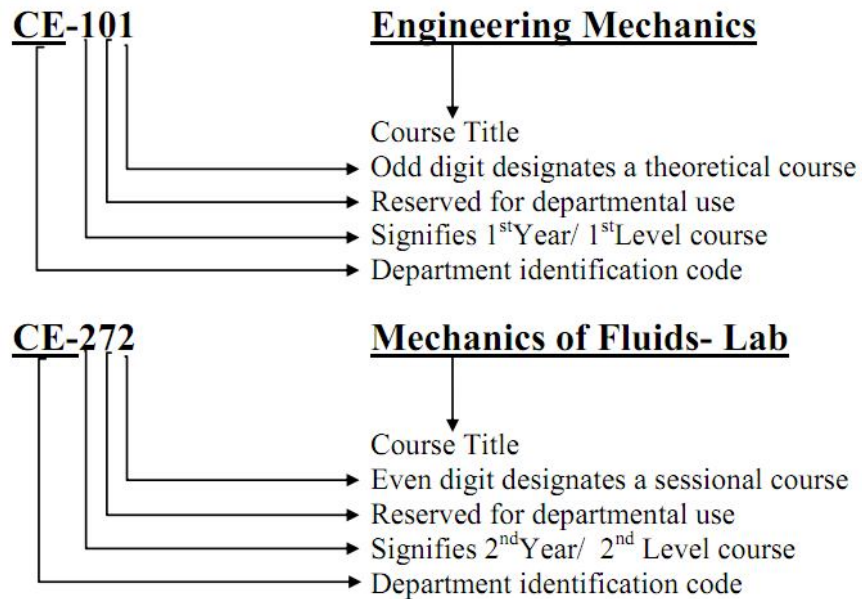


people and environment. These certainly will help them to interact with concerned personnel very wisely.

4. Course Designation System

Each course is designated by a maximum of four letter code identifying the department offering the course followed by a three-digit number having the following interpretation:

- The first digit corresponds to the year/level in which the course is normally taken by the students.
 - The second digit is reserved for departmental use. It usually identifies a specific area/group of study within the department.
 - The last digit is an odd number for theoretical courses and an even number for sessional courses.
5. The course designation system is illustrated as follows:





COURSE AND CREDIT STRUCTURE

6. B.Sc in CE: The undergraduate program is covered by a set of theoretical courses along with a set of laboratory (Sessional) courses to support them. The level and term wise distribution of the courses with corresponding credits are shown below:

Level-1, Term-I

Ser	Course No	Course Title	Credits
1	CE-100	Civil Engineering Drawing- I	1.50
2	PHY-101	Physics-I	3.00
2	CHEM-101	Chemistry-I	3.00
3	CHEM-112	Chemistry- Lab	1.50
4	CE-103	Surveying	4.00
5	MATH-101	Mathematics-I	3.00
6	EEE-165	Basic Electrical Technology	3.00
7	EEE-166	Basic Electrical Technology Lab	1.50
	Total		20.5

Level-1, Term-II

Ser	Course No	Course Title	Credits
1	CE-110	Civil Engineering Drawing-II	1.50
2	CE-101	Engineering Mechanics	4.00
3	CE- 104	Surveying Practical	1.50
4	MATH-103	Mathematics-II	2.00
5	HUM-101	English and Economics	4.00
6	PHY-103	Physics-II	2.00
7	PHY-104	Physics- Lab	1.50
8	CHEM-103	Chemistry-II	2.00
	Total		18.5



Level-2, Term-I

Ser	Course No	Course Title	Credits
1	MATH-231	Mathematics-III	3.00
2	HUM-201	Accounting and Sociology	4.00
3	CE-201	Engineering Materials	3.00
4	CE-202	Engineering Materials Lab	1.50
5	CSE-215	Numerical Methods and Computer Programming	3.00
6	CSE-216	Numerical Methods and Computer Programming- Lab	1.50
7	CE-211	Mechanics of Solids-I	3.00
8	CE-212	Mechanics of Solids- Lab	1.50
	Total		20.5

Level-2, Term-II

Ser	Course No	Course Title	Credits
1	CE-200	Details of Construction	1.50
2	CE-203	Geology and Geomorphology	3.00
3	CE-208	Quantity Surveying	1.50
4	CE-213	Mechanics of Solids- II	3.00
5	CE-271	Mechanics of Fluids	3.00
6	CE-272	Mechanics of Fluids- Lab	1.50
7	MATH-233	Mathematics-IV	2.00
8	HUM-202	English Sessional	1.50
	Total		17.0



Level-3, Term-I

Ser	Course No	Course Title	Credits
1	CE-311	Structural Analysis and Design- I	3.00
2	CE-312	Structural Analysis and Design Lab- I	1.50
3	CE-315	Design of Concrete Structure- I	3.00
4	CE-316	Design of Concrete Structure- Lab	1.50
5	CE-331	Environmental Engineering- I	3.00
6	CE-332	Environmental Engineering Lab- I	1.50
7	CE-341	Geotechnical Engineering- I	3.00
8	CE-371	Water Resources Engineering- I	3.00
9	CE-351	Transportation Engineering- I	3.00
	Total		22.50

Level-3, Term-II

Ser	Course No	Course Title	Credits
1	CE-313	Structural Analysis and Design- II	3.00
2	CE-317	Design of Concrete Structures- II	3.00
3	CE-333	Environmental Engineering- II	3.00
4	CE-343	Geotechnical Engineering- II	3.00
5	CE-344	Geotechnical Engineering Lab- I	1.50
6	CE-353	Transportation Engineering- II	3.00
7	CE-354	Transportation Engineering Lab- I	1.50
8	CE-373	Water Resources Engineering- II	3.00
9	CE-374	Water Resources Engineering Lab- I	1.50
	Total		22.50

Level-4, Term-I

Ser	Course No	Course Title	Credits
1	CE-400	Project and Thesis	1.50
2	CE-401	Construction Project Management	3.00
3	CE-411	Structural Analysis and Design- III	3.00
4	CE-412	Structural Analysis and Design Lab-II	1.50
5	CE-415	Prestressed Concrete	3.00
6	CE-431	Environmental Engineering- III	3.00
7	CE-432	Environmental Engineering Lab- II	0.75
8	CE-441	Geotechnical Engineering- III	3.00
9	CE-442	Geotechnical Engineering Lab-II	0.75
	Total		19.50



বাংলাদেশ আর্মি ইন্টারন্যাশনাল ইউনিভার্সিটি অব সায়েন্স এন্ড টেকনোলজি (বিএআইইউএসটি), কুমিল্লা সেনানিবাস
Bangladesh Army International University of Science and Technology (BAIUST), Comilla Cantonment

Level-4, Term-II

Ser	Course No	Course Title	Credits
1	CE-400	Project and Thesis	3.00
2	CE-403	Professional Practice	3.00
3	CE-413	Structural Analysis and Design- IV	3.00
4	CE- 416	Prestressed Concrete Lab	1.50
5	CE-417	Design of Steel Structures	3.00
6	CE-451	Transportation Engineering- III	3.00
7	CE-452	Transportation Engineering Lab- II	0.75
8	CE-471	Water Resources Engineering- III	3.00
9	CE-472	Water Resources Engineering Lab- II	0.75
	Total		21.00

Summary

Level and Term	Credits
Level-1 Term-I	20.5
Level-1 Term-II	18.5
Level-2 Term-I	20.5
Level-2 Term-II	17
Level-3 Term-I	22.5
Level-3 Term-II	22.5
Level-4 Term-I	19.5
Level-4 Term-II	21
Grand Total	162