

Civil Engineering Department NIT Silchar

New Course Structure for UG

Semester I

Sl. No.	Code No.	Course Title	Hours per week			Credit
			L	T	P	
1	PH 101	Physics	3	1	0	4
2	MA 101	Mathematics I	3	1	0	4
3	ME 101	Engineering Mechanics	3	1	0	4
4	EE 101	Basic Electrical Engineering	3	1	0	4
5	HS 101	Communicative English	3	0	0	3
6	PH 111	Physics Laboratory	0	0	3	2
7	CE 101	Engineering Graphics & Design	1	0	3	3
8	EE 111	Basic Electrical Engineering Laboratory	0	0	3	2
9	HS 111	Language Laboratory	0	0	3	2
10		Extra Academic Activities (EAA) ¹	0	0	2	0
Semester Credits						28

Semester II

Sl. No.	Code No.	Course Title	Hours per week			Credit
			L	T	P	
1	CH 101	Chemistry	3	1	0	4
2	MA 102	Mathematics II	3	1	0	4
3	CS 101	Introduction to Programming	3	1	0	4
4	EC 101	Basic Electronics	3	1	0	4
5	CE 102	Environmental Science & Engineering	3	0	0	3
6	CH 111	Chemistry Laboratory	0	0	3	2
7	CS 111	Programming Laboratory	0	0	3	2
8	EC 111	Basic Electronics Laboratory	0	0	3	2
9	ME 111	Workshop Practice	0	0	3	2
10		Extra Academic Activities (EAA) ¹	0	0	2	0
Semester Credits						27

1 EAA consists of YOGA/Physical Training/NCC/NSS/NSO, where YOGA is compulsory as a one semester course (first or second semester), while any one from the rest is compulsory as a one semester course. Thus, if YOGA is registered in first semester then any one from the rest four is to be opted in second semester and vice-versa.

Semester III

Sl. No.	Category	Course Title	Hours per week			Credit
			L	T	P	
1	Professional Core Course	Mechanics of Materials	3	1	0	4
2	Basic Science course	Mathematics III	3	1	0	4
3	Professional Core Course	Civil Engineering Material, Testing and Evaluation	3	0	0	3
4	Engineering Science Courses / Professional Core Course	Introduction to Geo Sciences	3	0	0	3
5	Professional Core Course	Surveying & Geomatics	3	1	0	4
6	Professional Core Course	Fluid Mechanics	3	0	0	3
7	Professional Core Laboratory	Surveying & Geomatics Lab.	0	0	3	2
8	Professional Core Laboratory	Civil Engineering Materials, Testing and Evaluation Lab.	0	0	3	2
9	Professional Core Laboratory	Civil Engineering Drawing Lab.	0	0	3	2

TOTAL CREDIT (Semester III) 27**Semester IV**

Sl. No.	Category	Course Title	Hours per week			Credit
			L	T	P	
1	Professional Core Course	Structural Analysis I	3	1	0	4
2	Professional Core Course	Hydraulics	3	1	0	4
3	Professional Core Course	Design of Concrete Structures-I	3	1	0	4
4	Professional Core Course / Basic Science Course	Transportation Engineering	3	1	0	4
5	Engineering Science Courses / Professional Core Course	Geotechnical Engineering	3	1	0	4
6	Professional Core Laboratory	Hydraulics Lab	0	0	3	2
7	Professional Core Laboratory	Concrete Lab	0	0	3	2
8	Professional Core Laboratory	Geotechnical Engineering Lab	0	0	3	2
9	Professional Core Laboratory	Geo Science Lab.	0	0	3	2

TOTAL CREDIT (Semester IV) 28**Second Year Total Credit - 55**

Semester V

Sl. No.	Category	Course Title	Hours per week			Credit
			L	T	P	
1	Professional Core Course	Water Supply Engineering	3	1	0	4
2	Professional Core Course	Structural Analysis- II	3	1	0	4
3	Professional Core Course	Foundation Engineering	3	1	0	4
4	Professional Core Course	Design of Concrete Structures-II	3	1	0	4
5	Professional Core Course	Surface and Ground water Hydrology	3	1	0	4
6	Professional Core Laboratory	RC Design and Detailing	0	0	3	2
7	Professional Core Laboratory	Transportation Engineering Lab	0	0	3	2
8	Professional Core Laboratory	Foundation Engineering Lab	0	0	3	2
9	Professional Core Laboratory	Water Resource Engineering Lab	0	0	3	2

TOTAL CREDIT (Semester V) 28**Semester VI**

Sl. No.	Category	Course Title	Hours per week			Credit
			L	T	P	
1	Professional Core Course	Sewage Treatment and Disposal	3	0	0	3
2	Professional Core Course	Estimation and Valuation	3	1	0	3
3	Professional Core Course	Design of Steel Structures	3	1	0	4
	Professional Core Course	Structural Analysis III	3	1	0	4
4	Professional Core Elective	1. Soil Dynamics & Machine Foundation 2. Open Channel Flow	3	1	0	4
5	Open Elective I	1. Water Resource & Irrigation Engineering 2. Elements of Ocean Engineering 3. Railway and Bridge Engg.	3	0	0	4
6	Professional Core Laboratory	Environment Engineering Lab	0	0	3	2
7	Professional Core Laboratory	CAD Lab (MATLAB/ ANSYS/ Fluent/ ABAQUS/ ...)	0	0	3	2
8	Professional Core Elective Laboratory	Civil Engineering Instrumentation Lab.	0	0	3	2

TOTAL CREDIT (Semester VI) 28**Third Year Total Credit - 56**

Semester VII

Sl. No.	Category	Course Title	Hours per week			Credit
			L	T	P	
1	Professional Core Course	Concrete Technology	3	1	0	4
2	Professional Core Elective	1. Coastal Engineering 2. Advanced Structural Analysis 3. Advanced Foundation Engineering 4. Numerical Methods in Engineering	3	1	0	4
4	Open Elective	1. Dynamics of Structures 2. Modeling, Simulation & Application 3. Data Analytics in Engineering	3	0	0	3
5	Economics / Management	Engineering Economics / Management Studies	3	0	0	2
6	Project	Project I	0	0	6	6

TOTAL CREDIT (Semester VII) 19**Semester VIII**

Sl. No.	Category	Course Title	Hours per week			Credit
			L	T	P	
1	Economics / Management	Engineering Economics / Management Studies	3	0	0	2
2	Professional Core Elective*	1. Earthquake Resistant Design of Structures 2. Elementary Performance-Based Seismic Design 3. Application of Geosynthetics 4. Engineering Risk Analysis	3	1	0	4
3	Open Elective**	1. Construction Engg & Management 2. Remote Sensing and GIS 3. Finite Elements Methods in Engineering 4. Optimization Techniques	3	0	0	3
4	Project	Project II	0	0	6	6

TOTAL CREDIT (Semester VIII) 15**Fourth Year Total Credit - 34**