EVALUATION SCHEME

OF

B. TECH

OF

II YEAR

B. TECH. (CBCS)

DEPARTMENT OF CIVIL ENGINEERING

INTEGRAL UNIVERSITY
LUCKNOW

SYLLABUS AND EVALUATION SCHEME

Branch: B. Tech Civil Engineering Program

(w.e.f. 2022-23)

Year – II, Semester – III

S. No.	Course Category	Code No	Name of Subject	Periods				Evaluation Scheme				Subject Total	Attributes							United Nations Sustainable Development Goals (SDGs)
				L	T	P	C	Continuous Assessment (CA)			ESE		Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
								CT	TA	Total										
1	DC	CE201	Fluid Mechanics	3	1	-	4	40	20	60	40	100			✓					SDGs 4
2	DC	CE202	Basic Surveying	3	1	-	4	40	20	60	40	100	✓	✓	✓					SDGs 4
3	DC	CE204	Strength of Material	3	1	-	4	40	20	60	40	100			✓					SDGs 4
4	DC	CE231	Geotechnical Engineering	3	1	-	4	40	20	60	40	100	✓	✓	✓					SDGs 4
5	ESA	ES101	Environmental Studies	2	1	-	3	40	20	60	40	100					✓			SDGs 13
6	DE	CE211	Concrete Technology	3	1	-	4	40	20	60	40	100	✓	✓					✓	SDGs 4
	DE	CE261	Concreting Techniques and Practices*										✓	✓					✓	SDGs 4
PRACTICAL / DRAWING / DESIGN																				
7	DC	CE205	Fluid Mechanics Lab	0	0	2	1	40	20	60	40	100			✓					SDGs 4
8	DC	CE206	Basic Surveying Field Work	0	0	2	1	40	20	60	40	100	✓	✓	✓					SDGs 4
9	DC	CE238	Geotechnical Engineering Lab	0	0	2	1	40	20	60	40	100	✓	✓	✓					SDGs 4
10	DC	CE208	Material Testing Lab	0	0	2	1	40	20	60	40	100	✓	✓	✓					SDGs 4
Total				**17**	**6**	**8**	**27**					**1000**								

L – Lecture; **T –** Tutorial; **P –** Practical; **C** – Credits; **UE** – Unit Exams; **TA** – Teacher Assessment
Continuous Assessment (CA) = Unit Exams + Teacher Assessment

Subject Total = Continuous Assessment (CA) + End Semester Examination (ESE)

DC – Departmental Core **DE** – Departmental Elective

***Courses offered by L&T EduTech**

SYLLABUS AND EVALUATION SCHEME

Branch: B. Tech Civil Engineering Program

(w.e.f. 2022-23)

Year – II, Semester – IV

S. No.	Course Category	Code No	Name of Subject	Periods				Evaluation Scheme				Subject Total	Attributes							United Nations Sustainable Development Goals (SDGs)
				L	T	P	C	Continuous Assessment (CA)			ESE		Employability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
								CT	TA	Total										
1	DC	CE209	Hydraulic & Hydraulic Machines	3	1	-	4	40	20	60	40	100			✓					SDGs 4
2	DC	CE210	Advance Surveying	3	1	-	4	40	20	60	40	100	✓	✓	✓					SDGs 4
3	DC	CE212	Structural Analysis-I	3	1	-	4	40	20	60	40	100			✓					SDGs 4
4	DC	CE234	Design of Reinforced Concrete Elements	3	1	-	4	40	20	60	40	100	✓	✓	✓					SDGs 4, 9
5	OE	-	Open Elective I	3	1	-	4	40	20	60	40	100								
6	ESA	ES202	Disaster Management	2	1	-	3	40	20	60	40	100			✓		✓		✓	SDGs 4
7	HM	BM226	Human Value & Professional Ethics	3	0	-	0	-	-	-	50	50						✓	✓	SDGs 4
PRACTICAL / DRAWING / DESIGN																				
8	DC	CE213	Hydraulic & Hydraulic Machines Lab	0	0	2	1	40	20	60	40	100			✓					SDGs 4
9	DC	CE214	Advance Surveying Field Work	0	0	2	1	40	20	60	40	100	✓	✓	✓					SDGs 4
10	DC	CE215	Concrete Technology Lab	0	0	2	1	40	20	60	40	100	✓	✓	✓					SDGs 4
11	DC	CE252	Comprehensive Annual Assessment-I	-	-	-	1	-	-	100	-	100	✓							SDGs 4
Total				**20**	**6**	**6**	**27**					**1050**								

L – Lecture; **T –** Tutorial; **P –** Practical; **C** – Credits; **UE** – Unit Exams; **TA** – Teacher Assessment
Continuous Assessment (CA) = Unit Exams + Teacher Assessment

Subject Total = Continuous Assessment (CA) + End Semester Examination (ESE)

DC – Departmental Core **DE** – Departmental Elective

***Courses offered by L&T EduTech**

INTEGRAL UNIVERSITY

DEPARTMENT OF CIVIL ENGINEERING

PROGRAMME: B.TECH CIVIL ENGINEERING

PROGRAM SPECIFIC OUTCOMES (PSO):

PSO-1: Developing employability skills among students so that they are capable of qualifying State and National level competitive examinations in government/ semi-government/private sectors.

PSO-2: Developing Analytical and Design Skills among students in order to make them capable to peruse higher studies as well as have a career as an entrepreneur.

PROGRAM EDUCATIONAL OBJECTIVES (PEO):

PEO-1: Enabling the application of basic and engineering science principles in analysis, design and execution of civil engineering works.

PEO-2: Planning suitable infrastructure as per environmental and societal needs for sustainable development.

PEO-3: Promoting lifelong learning to meet the dynamic professional demands by developing ethical, IT, inter personal and team skills.

PROGRAM OUTCOMES (PO):

PO1- **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2- **Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3- **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4- **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5- **Modern tool usage**: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6- **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7- **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8- **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9- **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10- **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11- **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12- **Life-long learning:** Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.