

**EVALUATION SCHEME**  
**OF**  
***M. TECH***  
**(CONSTRUCTION TECHNOLOGY AND MANAGEMENT)**  
***I YEAR***

**DEPARTMENT OF CIVIL ENGINEERING**  
**INTEGRAL UNIVERSITY**  
**LUCKNOW**

**EVALUATION SCHEME**  
**Branch: M. Tech Construction Technology and Management Program**  
**(w.e.f. 2020-21)**

**Year – I, Semester – I**

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)				Exam ESE	Employ ability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value		Professional Ethics
								UE	TA	Total										
1	DC	CE541	Infrastructure Planning & Contract Management	3	1	0	4	40	20	60	40	100	√	√	√				√	SDGs 11
2	DC	CE542	Project Management in Construction	3	1	0	4	40	20	60	40	100	√	√	√				√	SDGs 11
3	DC	CE543	Construction Methods & Equipment Management	3	1	0	4	40	20	60	40	100	√	√	√		√		√	
4	DC	CE550	Organization and Legislations in Construction	3	1	-	4	40	20	60	40	100								
<b>PRACTICAL / DRAWING / DESIGN</b>																				
5	DC	CE551	Software and Procedures in Construction	-	-	3	2	40	20	60	40	100								
<b>Total</b>				<b>12</b>	<b>4</b>	<b>3</b>	<b>18</b>					<b>500</b>								

**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)

**BS** – Basic Sciences

**DC** – Departmental Core

**HM** – Humanities

**OE** – Open Elective

**DE** – Departmental Elective **ESA** – Engineering Science & Art (Foundation Course & Engineering Courses)

**EVALUATION SCHEME**  
**Branch: M. Tech Construction Technology and Management Program**  
(w.e.f. 2020-21)

**Year – I, Semester – II**

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)			Exam ESE		Employ ability	Entrepreneurship	Skill Development	Gender Equality	Environment & Sustainability	Human Value	Professional Ethics	
								UE	TA	Total										
1	DC	CE546	Infrastructural Economics & Finance	3	1	0	4	40	20	60	40	100	√	√	√				√	
2	DC	CE552	Research Methodology	3	1	-	4	40	20	60	40	100								
3	DC	CE547	Quality & Safety Management in Construction	3	1	0	4	40	20	60	40	100	√	√	√				√	SDGs 11
4	DC	CE548	Modern Construction Techniques	3	1	0	4	40	20	60	40	100	√	√	√		√			SDGs 11
<b>PRACTICAL / DRAWING / DESIGN</b>																				
5	DC	CE553	Statistics for Construction Managers	-	-	3	2	40	20	60	40	100								
<b>Total</b>				<b>12</b>	<b>4</b>	<b>3</b>	<b>18</b>					<b>500</b>								

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**INTEGRAL UNIVERSITY**

***DEPARTMENT OF CIVIL ENGINEERING***

**PROGRAMME:** M. Tech (Construction Technology and Management)

**PROGRAM SPECIFIC OUTCOMES (PSO):**

**PSO-1:** Facilitate and develop knowledge based on construction engineering, management and research in the various fields of project management in the construction industry.

**PSO-2:** Able to become professionals such as Construction Managers and Entrepreneurs in the construction Industry.

**PSO-3:** To comprehend the ability to create, analyze, formulate and solve complex problems associated with construction technology and management.

**PROGRAM EDUCATIONAL OBJECTIVES (PEO):**

**PEO-1:** To facilitate appropriate theoretical concepts in dealing with practical based real-life problems associated with construction management and develop the necessary tools for the same.

**PEO-2:** To promote a skillset required for excellence in a particular profession to achieve desired project objectives in an organization.

**PEO-3:** To circulate the manner & ability to acquire, utilize the specific knowledge to deliver effective management based solutions using latest tools and techniques.

**PEO-4:** To enhance and inculcate the concepts required to promote a, develop and finish large scale projects within a particular time frame successfully.

**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.