



BMS INSTITUTE OF TECHNOLOGY AND MANAGEMENT

(Autonomous Institute affiliated to VTU, Belagavi, Approved by AICTE, New Delhi)

Avalahalli, Yelahanka, Bengaluru 560064



Bachelor of Engineering
Department of Civil Engineering

VIII Semester Scheme and Syllabus
2022 Scheme - Autonomous

Approved in the BoS meeting held on 23/08/2025

Program Educational Objectives (PEOs)

- Lead a successful career by analyzing, designing and solving various problems in the field of Civil Engineering.
- Execute projects through team building, communication and professionalism.
- Excel through higher education and research for endured learning.
- Provide effective solution for sustainable environmental development.

Vision and Mission of the Department

Vision

To be an Exemplary Centre, disseminating quality education and developing technically competent civil engineers with professional integrity for the betterment of society.

Mission

- Impart technical proficiency through quality education.
- Motivate entrepreneurship through enhanced industry - interaction and skill-based training.
- Inculcate human values through outreach activities.

Program Specific Outcomes (PSOs)

- Identify & address the challenges in transportation, sanitation, waste management, and urban flooding in metropolitan cities.
- Provide solutions related to civil engineering built environment through a multidisciplinary approach.



ಬಿ.ಎಂ.ಎಸ್. ತಾಂತ್ರಿಕ ಮತ್ತು ವ್ಯವಸ್ಥಾಪನಾ ಮಹಾವಿದ್ಯಾಲಯ

BMS Institute of Technology and Management

(An Autonomous Institution, Affiliated to VTU Belagavi)

Avalahalli, Doddaballapur Main Road, Bengaluru, Karnataka – 560064

REVISED

Date: 18-12-2024

**CONTINUOUS INTERNAL EVALUATION (CIE)
AND
SEMESTER END EXAMINATION (SEE) PATTERN**

(Applicable to UG students admitted from the 2022 batch, effective from the Academic year 2024-25 onwards)

The UG students admitted from the 2022 batch onwards are hereby informed to note the following regarding Continuous Internal Evaluation and Semester End Examination pattern:

- The Weightage of Continuous Internal Evaluation (CIE) is 50% and for Semester End Examination (SEE) is 50%.
- The Minimum passing mark for the CIE is 40% of the Maximum marks (i.e. 20 marks out of 50) and for the SEE minimum passing mark is 35% of the Maximum marks (i.e. 18 out of 50 marks).
- A student will be declared to have passed the course if they secure a minimum of 40% (i.e. 40 marks out of 100) in the combined total of the CIE and SEE.

The following tables summarize the CIE and SEE Patterns for the courses of various credits:

IPCC COURSES: 4 CREDITS OR 3 CREDITS						
Evaluation Type		Internal Assessments (IAs)	Test/ Exam Marks Conducted for	Marks to be scaled down to	Min. Marks to be Scored	Evaluation Details
Theory Component	CIE – IA Tests	CIE – Test 1 (1.5 hr)	40	20	-	The sum of the two internal assessment tests will be 80 Marks and the same will be scaled down to 20 Marks .
		CIE – Test 2 (1.5 hr)	40			

	CIE – CCA (Comprehensive Continuous Assessment)	CCA	10	05	-	Any one assessment method can be used from the list appended below.
Total CIE Theory				25	10	
Practical Component	CIE - Practical		30	15	-	Each laboratory experiment is to be evaluated for 30 Marks using appropriate rubrics.
	CIE Practical Test		20	10	-	One test after all experiments to be conducted for 20 Marks
	Total CIE Practical			25	10	
Total CIE Theory + Practical				50	20	
SEE			100	50	18	SEE exam is a theory exam, conducted for 100 Marks , scored marks are scaled down to 50 Marks .
CIE + SEE				100	40	

The laboratory component of the IPCC shall be for CIE only.

Professional Core Courses (PCC) / Engineering Science Courses (ESC): 03 and 02 Credit						
Evaluation Type		Internal Assessments (IAs)	Test/Exam Marks Conducted for	Marks to be scaled down to	Min. Marks to be Scored	Evaluation Details
Theory Component	CIE – IA Tests	CIE – Test 1 (1.5 hr)	40	30	-	The sum of the two internal assessment tests will be 80 Marks and the same will be scaled down to 30 Marks . Any Two assessment methods can be used from the list. If it is project-based, one CCA shall be given.
		CIE – Test 2 (1.5 hr)	40			
	CIE - CCAs	CCA	20	20	-	
	Total CIE Theory				50	
SEE			100	50	18	SEE is a theory exam, conducted for 100 Marks , scored marks are scaled down to 50 Marks .
CIE + SEE				100	40	

NON-IPCC COURSES: 01 Credit Course - MCQ


Evaluation Type		Internal Assessments (IAs)	Test/Exam Marks Conducted for	Marks to be scaled down to	Min. Marks to be Scored	Evaluation Details	
Continu ous Internal Evaluati on Compon ent	CIE - IA Tests (MCQs)	CIE - Test 1 (1 hr)	40	40	-	<p>The question paper pattern for this course shall be an MCQ of 1 or 2 Marks (s).</p> <p>The questions with 2 Marks can be framed based on a higher Bloom's level.</p> <p>The sum of the two internal assessment tests will be 80 Marks, and the same will be scaled down to 40 Marks.</p>	
		CIE - Test 2 (1 hr)	40				
	CIE - CCAs	CCA	10	10	-		Any One Assessment method can be used from the list provided below.
	Total CIE				50		20
SEE (MCQ Type)				50	18	<p>The question paper pattern for this course shall be an MCQ of 1 or 2 Marks (s).</p> <p>The questions with 2 Marks can be framed based on higher Bloom's level.</p> <p>MCQ-type question papers of 50 questions with each question of a 01 Mark, examination duration is 01 hour.</p>	
CIE + SEE				100	40		

Professional Core Course Laboratory (PCCL) / Ability Enhancement Course Laboratory (AEC) - 01 Credit					
Evaluation Type	Internal Assessments (IAs)	Test/ Exam Marks Conduct ed for	Marks to be scaled down to	Min. Marks to be Scored	Evaluation Details
Continuous Internal Evaluation	CIE - Practical	30	30		Each laboratory experiment is to be evaluated for 30 Marks using appropriate rubrics.
	CIE - Practical Test	50	20		One test after all experiments is to be conducted for 50 Marks and to be scaled down to 20 Marks .
	Total CIE	-	50	20	
Semester End Examination		100	50	18	SEE to be conducted for 100 Marks .
CIE+SEE		100		40	

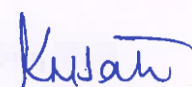
Learning Activities for CCAs:

A faculty member may choose the following CCAs based on the needs of the course:

1. Course project
2. Literature review
3. MOOC
4. Case studies
5. Tool exploration
6. GATE-based aptitude test
7. Open book tests
8. Industry integrated learning
9. Analysis of Industry / Technical / Business reports
10. Programming assignments with higher Bloom level
11. Group discussions
12. Industrial / Social / Rural projects


CoE 18/12/2024


Principal 18/12/24


Dean AA 18.12.24

Copy To:

1. The Vice-Principal, Deans, HoDs, and Associate HoDs
2. All faculty members and students of 2022, 2023, and 2024 batch.
3. Examination Section

Scheme of VIII Semester



BMS INSTITUTE OF TECHNOLOGY & MANAGEMENT

(Autonomous Institution Affiliated to VTU, Belagavi)

B. E. in Civil Engineering

Scheme of Teaching and Examinations – 2022 Scheme

Outcome-Based Education (OBE) and Choice Based Credit System (CBCS)

VIII Semester

Sl. No.	Course Category	Course Code	Course Title	Teaching Department (TD) and Question Paper Setting Board (PSB)	Credits Distribution				Examination				Contact Hours/week
					L	T	P	Total	CIE Marks	SEE Marks	Total Marks	SEE Duration (H)	
1	PEC	BCV801X	Professional Elective Course IV (Online courses)	TD: CV PSB: CV	3	0	0	3	25	75	100	3	-
2	OEC	BCV802X	Open Elective Course III (Online courses)		3	0	0	3	25	75	100	3	-
3	INT	BCV803	Industry Internship / Research Internship	-	0	0	10	10	100	100	200	3	20
TOTAL					0	0	10	16	150	250	400	-	20

Professional Elective Course IV (Online courses)

Course Code	NPTEL Course ID	Course Name
BCV801A	noc25-ce19	Environmental Remediation of Contaminated Sites
BCV801B	noc25-ce06	Applied Seismology for Engineers
BCV801C	noc25-ce33	Industrial Wastewater Treatment
BCV801D	noc25-ce38	Maintenance and Repair of Concrete Structures
BCV801E	noc25-ce41	Modern Construction Materials
BCV801F	noc25-ce50	Rock Engineering
BCV801G	noc25-ce51	Soil Dynamics
BCV801H	noc25-ce27	Geophysical Exploration Methods

**LIST OF VIII SEM NPTEL OPEN ELECTIVE COURSES for the Academic Year 2024-25 (For the students of VI semester 2022 Scheme)
NPTEL SESSION JANUARY - MAY 2025**

SL. NO.	NPTEL Course Code	Course Name	NPTEL COURSE LINK	APPLICABLE FOR
1	noc25-hs59	Online Communication in the Digital Age	https://onlinecourses.nptel.ac.in/noc25_hs59/preview	ALL STUDENTS
2	noc25-hs28	Globalization: Theoretical Perspectives	https://onlinecourses.nptel.ac.in/noc25_hs28/preview	ALL STUDENTS
3	noc25-mg62	Supply Chain Digitization	https://onlinecourses.nptel.ac.in/noc25_mg62/preview	ALL STUDENTS
4	noc25-mg64	Talent Acquisition and Management	https://onlinecourses.nptel.ac.in/noc25_mg64/preview	ALL STUDENTS
5	noc25-mg12	Business Ethics	https://onlinecourses.nptel.ac.in/noc25_mg12/preview	ALL STUDENTS
6	noc25-mg38	Leadership and Team Effectiveness	https://onlinecourses.nptel.ac.in/noc25_mg38/preview	ALL STUDENTS
7	noc25-ag04	Food Science and Technology	https://onlinecourses.nptel.ac.in/noc25_ag04/preview	ALL STUDENTS
8	noc25-mg50	Organizational Behaviour: Individual Dynamics in Organization	https://onlinecourses.nptel.ac.in/noc25_mg50/preview	ALL STUDENTS
9	noc25-hs43	Introduction to Japanese Language and Culture	https://onlinecourses.nptel.ac.in/noc25_hs43/preview	ALL STUDENTS
10	noc25-hs25	German - I	https://onlinecourses.nptel.ac.in/noc25_hs25/preview	ALL STUDENTS
11	noc25-ec03	Health Economics	https://onlinecourses.nptel.ac.in/noc25_ec03/preview	ALL STUDENTS
12	noc25-de04	Strategies for Sustainable Design	https://onlinecourses.nptel.ac.in/noc25_de04/preview	ALL STUDENTS
13	noc25-mg05	AI in Human Resource Management	https://onlinecourses.nptel.ac.in/noc25_mg05/preview	ALL STUDENTS
14	noc25-mg07	AI in Product Management	https://onlinecourses.nptel.ac.in/noc25_mg07/preview	ALL STUDENTS
15	noc25-mg10	Business Analytics For Management Decision	https://onlinecourses.nptel.ac.in/noc25_mg10/preview	ALL STUDENTS
16	noc25-mg19	E-Business	https://onlinecourses.nptel.ac.in/noc25_mg19/preview	ALL STUDENTS
17	noc25-mg23	Financial Management For Managers	https://onlinecourses.nptel.ac.in/noc25_mg23/preview	ALL STUDENTS
18	noc25-mg55	Quality Design And Control	https://onlinecourses.nptel.ac.in/noc25_mg55/preview	ALL STUDENTS
19	noc25-mg57	Safety and Risk Analytics	https://onlinecourses.nptel.ac.in/noc25_mg57/preview	ALL STUDENTS
20	noc25-mg13	Business Fundamentals for Entrepreneurs	https://onlinecourses.nptel.ac.in/noc25_mg13/preview	ALL STUDENTS
21	noc25-de07	Understanding Incubation and Entrepreneurship	https://onlinecourses.nptel.ac.in/noc22_de08/preview	ALL STUDENTS
22	noc25-hs18	Energy Resources, Economics and Environment	https://onlinecourses.nptel.ac.in/noc25_hs18/preview	ALL STUDENTS
23	noc25-me70	Robotics: Basics and Selected Advanced Concepts	https://onlinecourses.nptel.ac.in/noc25_me70/preview	ALL STUDENTS
24	noc25-bt22	Human Physiology	https://onlinecourses.nptel.ac.in/noc25_bt22/preview	ALL STUDENTS
25	noc25-hs12	Education for Sustainable Development	https://onlinecourses.nptel.ac.in/noc25_hs12/preview	ALL STUDENTS
26	noc25-cs09	Business Intelligence & Analytics	https://onlinecourses.nptel.ac.in/noc25_cs09/preview	ALL STUDENTS
27	noc25-hs02	An Introduction to Microeconomics	https://onlinecourses.nptel.ac.in/noc25_hs02/preview	ALL STUDENTS
28	noc25-me59	Operations Management	https://onlinecourses.nptel.ac.in/noc25_me59/preview	ALL STUDENTS

29	noc25-ag09	Soil and Water Conservation Engineering	https://onlinecourses.nptel.ac.in/noc25_ag09/preview	ALL STUDENTS
30	noc25-ch24	Environmental Quality Monitoring & Analysis	https://onlinecourses.nptel.ac.in/noc25_ch24/preview	ALL STUDENTS
31	noc25-ag12	Water Quality Management Practices	https://onlinecourses.nptel.ac.in/noc25_ag12/preview	ALL STUDENTS
32	noc25-ce04	Air Pollution and Control	https://onlinecourses.nptel.ac.in/noc25_ce04/preview	NOT FOR CIVIL STUDENTS
33	noc25-ce33	Industrial Wastewater Treatment	https://onlinecourses.nptel.ac.in/noc25_ce33/preview	NOT FOR CIVIL STUDENTS
34	noc25-ee76	Sensors and Actuators	https://onlinecourses.nptel.ac.in/noc25_ee76/preview	NOT FOR EEE, ETE, ECE
35	noc25-cs40	Introduction to Database Systems	https://onlinecourses.nptel.ac.in/noc25_cs40/preview	NOT FOR CSE, ISE, AIML
36	noc25-cs43	Introduction To Industry 4.0 And Industrial Internet Of Things	https://onlinecourses.nptel.ac.in/noc25_cs43/preview	NOT FOR CSE, ISE, AIML
37	noc25-cs46	Introduction to Machine Learning	https://onlinecourses.nptel.ac.in/noc25_cs46/preview	NOT FOR CSE, ISE, AIML
38	noc25-cs49	Machine Learning for Engineering and science applications	https://onlinecourses.nptel.ac.in/noc25_cs49/preview	NOT FOR CSE, ISE, AIML
39	noc25-cs36	Getting Started with Competitive Programming	https://onlinecourses.nptel.ac.in/noc25_cs36/preview	NOT FOR CSE, ISE, AIML
40	noc25-cs07	Artificial Intelligence: Knowledge Representation And Reasoning	https://onlinecourses.nptel.ac.in/noc25_cs07/preview	NOT FOR CSE, ISE, AIML
41	noc25-cs08	Blockchain and its Applications	https://onlinecourses.nptel.ac.in/noc25_cs08/preview	NOT FOR CSE, ISE, AIML
42	noc25-cs57	Programming In Java	https://onlinecourses.nptel.ac.in/noc25_cs57/preview	NOT FOR CSE, ISE, AIML
43	noc25-cs45	Introduction to Large Language Models (LLMs)	https://onlinecourses.nptel.ac.in/noc25_cs45/preview	NOT FOR CSE, ISE, AIML
44	noc25-ee16	Deep Learning	https://onlinecourses.nptel.ac.in/noc25_ee16/preview	NOT FOR CSE, ISE, AIML

Professional Elective / Open Elective Online Courses: These are ONLINE courses suggested by the respective Board of Studies. Details of these courses shall be made available for students during the VI semester only. Students are required to choose only the courses which are suggested by the respective BoS. Duration of the online course should be of a minimum of 12 weeks. Students can able to complete the specified online courses with a qualifying certificate issued by the competent authority. The online courses can be registered and completed from the VI semester onwards and the credits will be considered during the VIII semester only. The courses are to be chosen from the SWAYAM – NPTEL platform only. The credits earned for these courses will not be considered for claiming the credits under the Honors Degree programme.

Industry Internship / Research Internship: The mandatory Industry / Research internship is for 14 to 20 weeks. The internship shall be considered as a head of passing and shall be considered for the award of a degree. Those who do not take up/complete the internship shall be declared to fail and shall have to complete it during the subsequent examination after satisfying the internship requirements.

Research internship: A research internship is intended to offer the flavour of current research going on in the research field. It helps students get familiarized with the field and imparts the skill required for carrying out research.

Industry internship: Is an extended period of work experience undertaken by students to supplement their degree for professional development. It also helps them learn to overcome unexpected obstacles and successfully navigate organizations, perspectives, and cultures. Dealing with contingencies helps students recognize, appreciate, and adapt to organizational realities by tempering their knowledge with practical constraints.