



Semester-Wise General Scheme Structure & Important Guidelines for Flexible Curriculum

(Batch admitted in Academic Session 2024-25 onwards)

Abbreviations Used

L	Lecture
T	Tutorial
P	Practical
HSMC	Humanities and Social Sciences including Management Courses
BSC	Basic Science Courses
ESC	Engineering Science Courses
DC	Departmental Core
DE	Departmental Elective
SPC	Specialization Courses
OC	Open Category
DLC	Departmental Laboratory Courses
MOOC	Massive Open Online Course
MWS	Mandatory Workshop
SP	Semester Proficiency
SIP	Skill Internship Program
SLP	Self-learning Presentation
PDC	Professional Development Component
PBL	Project Based Learning
PC	Professional Certification
MAC	Mandatory Audit Course
NEC	Novel Engaging Course



S. No.	Course Code	Category Code	Course Name	Maximum Marks Allotted						Total Marks	Contact Hours per week			Total Credits	Mode of Learning	Mode of Major Evaluation	Duration of Major Evaluation
				Theory Block				Practical Block			L	T	P				
				Continuous Evaluation			Major Evaluation	Continuous Evaluation Lab Work & Sessional	Major Evaluation								
				Minor Evaluation I	Minor Evaluation II	Quiz/Assignment											
1.	11241101	DC	Civil Engineering Materials & Construction	20	20	30	30	-	-	100	3	-	-	3	Face to Face	PP	2 Hrs
2.	11241102	ESC	Computer Programming	20	20	30	30	-	-	100	2	-	-	2	Face to Face	MCQ	2 Hrs
3.	11241103	DC	Engineering Mechanics	20	20	30	30	-	-	100	2	1	-	3	Face to Face	MCQ	2 Hrs
4.	11241104	DC	Building Design & Drawing	20	20	30	30	-	-	100	2	1	-	3	Face to Face	PP	2 Hrs
5.	11241105	ESC	Basic Electrical & Electronics Engineering	20	20	30	30	-	-	100	2	-	-	2	Face to Face	MCQ	2 Hrs
6.	11241106	DLC	Computer Programming Lab	-	-	-	-	70	30	100	-	-	2	1	Experimental	AO	-
7.	11241107	DLC	Electrical & Electronics Engineering Lab	-	-	-	-	70	30	100	-	-	2	1	Experimental	AO	-
8.	11241108	SP	Semester Proficiency [§]	-	-	-	-	50	-	50	-	-	2	1	Face to Face	SO	-
9.	11241109	PBL	Micro Project-I [#]	-	-	-	-	70	30	100	-	-	2	1	Experiential	SO	-
10.	11241110	ESC	Engineering Chemistry Lab ^{§§}	-	-	-	-	70	30	100	-	-	2	1	Experimental	AO	-
11.	NECXXXXX	NEC	Novel Engaging Course (Activity Based Learning)	-	-	-	-	-	50	50	-	1	-	1	Interactive	SO	-
Total				100	100	150	150	330	170	1000	11	03	10	19	-	-	-
12.	11241111	MAC	Universal Human Values & Professional Ethics (UHVPE)	20	20	30	30	-	-	100	2	-	-	GRADE	Blended	MCQ	1.5 Hrs
13.	11241112	MWS	Mandatory Workshop on Indian Constitution and Traditional Knowledge at Department Level (Duration: Two Days)											GRADE	Interactive	MCQ	-
Induction programme of three weeks (MC): Physical activity, Creative Arts, Universal Human Values, Literary, Proficiency Modules, Lectures by Eminent People, Visits to local Areas, Familiarization to Dept./Branch & Innovations.																	
Skill Internship Program (Soft Skill): Minimum 45 hours duration: To be credited in II Semester.																	

[§]Semester Proficiency- includes the weightage towards ability/ skill/ competency /knowledge level /expertise attained etc. in the semester courses.

MCQ: Multiple Choice Question AO: Assignment + Oral PP: Pen Paper SO: Submission + Oral OB: Open Book

^{§§} This course will be distributed in the I Year Group wise among the programmes where ever required.

[#] Micro Project-I will be presented and evaluated through an interdisciplinary project evaluation committee.

HSMC	BSC	ESC	DC	DE	SPC	OC	DLC	NEC	SP	SIP	SLP	PDC	PBL	MAC	MWS
0	0	3	3	0	0	0	2	1	1	0	0	0	1	1	1

Mode of Learning						Mode of Examination						Total Credits
Theory		NEC		Lab		Theory			Lab		NEC	
Face to Face	Online	Interactive	Face to Face	Experiential	Experimental	PP	AO	MCQ	OB	SO	AO	
13		1	1	1	3	6		7		2	3	1
68.42%		5.26%	5.26%	5.26%	15.8%	31.6%		36.84%		10.52%	15.8%	5.26%



S. No.	Course Code	Category Code	Course Name	Maximum Marks Allotted						Total Marks	Contact Hours per week			Total Credits	Mode of Learning	Mode of Major Evaluation	Duration of Major Evaluation
				Theory Block			Practical Block				L	T	P				
				Continuous Evaluation			Major Evaluation	Continuous Evaluation	Major Evaluation								
				Minor Evaluation I	Minor Evaluation II	Quiz/Assignment											
1.	11241201	DC	Surveying	20	20	30	30	-	-	100	3	-	-	3	Face to Face	MCQ	2 Hrs
2.	11241202	DC	Strength of Material	20	20	30	30	-	-	100	2	1	-	3	Face to Face	MCQ	2 Hrs
3.	11241203	DC	Concrete Technology	20	20	30	30	-	-	100	2	1	-	3	Face to Face	MCQ	2 Hrs
4.	11241204	DC	Fluid Mechanics – I	20	20	30	30	-	-	100	2	1	-	3	Face to Face	PP	2 Hrs
5.	11241205	BSC	Matrices & Calculus	20	20	30	30	-	-	100	3	-	-	3	Face to Face	PP	2 Hrs
6.	11241206	DLC	Building Materials & Construction Lab	-	-	-	-	70	30	100	-	-	2	1	Experimental	AO	-
7.	11241207	DLC	Problem Solving through Python Programming	-	-	-	-	70	30	100	-	-	2	1	Experimental	AO	-
8.	11241208	SP	Semester Proficiency ^{\$}	-	-	-	-	50	-	50	-	-	2	1	Face to Face	SO	-
9.	11241209	PBL	Micro Project-II [#]	-	-	-	-	70	30	100	-	-	2	1	Experiential	SO	-
10.	11241210	ESC	Engineering Physics Lab ^{\$\$}	-	-	-	-	70	30	100	-	-	2	1	Experimental	AO	-
11.	11241211	HSMC	Language Lab	-	-	-	-	70	30	100	-	-	2	1	Blended	AO	-
12.	NECXXXXX	NEC	Novel Engaging Course (Activity Based Learning)	-	-	-	-	-	50	50	-	1	-	1	Interactive	SO	-
13.	SIP1XXXX	SIP	Skill Internship Program (Soft Skills)	-	-	-	-	42	18	60	-	-	-	2**	Experiential	SO	-
Total				100	100	150	150	442	218	1160	12	04	12	24	-	-	-
14.	11241212	MAC	Sustainability & Environmental Science	20	20	30	30	-	-	100	2	-	-	GRADE	Blended	MCQ	1.5 Hrs
15.	11241213	MWS	Mandatory Workshop on Indian Knowledge System at Department Level (Duration: Two Days)	-	-	-	-	-	-	-	-	-	-	GRADE	Interactive	MCQ	-

Summer Semester of six-eight weeks duration will be conducted for makeup of I & II semester examination.

^{\$}Semester Proficiency– includes the weightage towards ability/ skill/ competency /knowledge level /expertise attained etc. in the semester courses

MCQ: Multiple Choice Question **AO:** Assignment + Oral **PP:** Pen Paper **SO:** Submission + Oral **OB:** Open Book

^{\$\$} This course will be distributed in the I Year Group wise among the programmes where ever required.

^{**} These credits will be transferred from Skill Internship Program (Soft Skills).

[#] Micro Project-II will be presented and evaluated through an interdisciplinary project evaluation committee.

HSMC	BSC	ESC	DC	DE	SPC	OC	DLC	NEC	SP	SIP	SLP	PDC	PBL	MAC	MWS
1	1	1	4	0	0	0	2	1	1	1	0	0	1	1	1

Mode of Learning							Mode of Examination						Total Credits	
Theory		NEC	Lab				Theory			Lab		NEC		
Face to Face	Online	Interactive	Face to Face	Blended	Experiential	Experiential	PP	AO	MCQ	OB	SO	AO		SO
15		1	1	1	3	3	6		9		4	4	1	24
62.5%		4.17%	4.17%	4.17%	12.5%	12.5%	25%		37.5%		16.67%	16.67%	4.17%	Credits %



S. No.	Course Code	Category Code	Course Name	Maximum Marks Allotted						Total Marks	Contact Hours per week			Total Credits	Mode of Learning	Mode of Major Evaluation	Duration of Major Evaluation
				Theory Block			Practical Block				L	T	P				
				Continuous Evaluation			Major Evaluation	Continuous Evaluation Lab Work & Sessional	Major Evaluation								
				Minor Evaluation I	Minor Evaluation II	Quiz/Assignment											
1.	11242101	BSC	Transforms & Vector Calculus	20	20	30	30	-	-	100	3	-	-	3	Face to Face	PP	2 Hrs
2.	11242102	DC	Data Structures	20	20	30	30	-	-	100	2	1	-	3	Face to Face	MCQ	2 Hrs
3.	11242103	DC	Fluid Mechanics – II	20	20	30	30	-	-	100	2	1	-	3	Face to Face	PP	2 Hrs
4.	11242104	DC	Geotechnical Engineering	20	20	30	30	-	-	100	2	1	-	3	Face to Face	MCQ	2 Hrs
5.	11242105	DC	Structural Analysis	20	20	30	30	-	-	100	2	1	-	3	Face to Face	OB	2 Hrs
6.	11242106	DLC	Fluid Mechanics Lab	-	-	-	-	70	30	100	-	-	2	1	Experimental	AO	-
7.	11242107	DLC	Survey Practice Lab	-	-	-	-	70	30	100	-	-	2	1	Experimental	SO	-
8.	11242108	SP	Semester Proficiency [§]	-	-	-	-	50	-	50	-	-	2	1	Face to Face	SO	-
9.	11242109	PBL	Macro Project-I [#]	-	-	-	-	70	30	100	-	-	2	1	Experiential	SO	-
10.	11242110	SLP	Self-learning/Presentation ^{§§§} (SWAYAM/NPTEL/MOOC)	-	-	-	-	40	-	40	-	-	2	1	Mentoring	SO	-
11.	NECXXXXX	NEC	Novel Engaging Course (Activity Based Learning)	-	-	-	-	-	50	50	-	1	-	1	Interactive	SO	-
Total				100	100	150	150	300	140	940	11	05	10	21	-	-	-
12.	11242111	MAC	Cyber Security	20	20	30	30	-	-	100	2	-	-	GRADE	Blended	MCQ	1.5 Hrs
13.	11242112	MWS	Mandatory Workshop on Internet of Things (IoT) at Department Level (Duration: Two Days)	-	-	-	-	-	-	-	-	-	-	GRADE	Interactive	MCQ	-

Skill Internship Program (Institute Level) (Qualifier): Minimum 30 hours duration: To be credited in IV Semester

[§]Semester Proficiency– includes the weightage towards ability/ skill/ competency /knowledge level /expertise attained etc. in the semester courses

MCQ: Multiple Choice Question AO: Assignment + Oral PP: Pen Paper SO: Submission + Oral OB: Open Book

[#] Macro Project-I will be presented and evaluated through an interdisciplinary project evaluation committee.

^{§§§} Compulsory registration for one online course using SWAYAM/NPTEL/ MOOC, evaluation through attendance and presentation.

HSMC	BSC	ESC	DC	DE	SPC	OC	DLC	NEC	SP	SIP	SLP	PDC	PBL	MAC	MWS
0	1	0	4	0	0	0	2	1	1	0	1	0	1	1	1

Mode of Learning							Mode of Examination						Total Credits	
Theory		NEC		Lab			Theory			Lab		NEC		
Face to Face	Online	Interactive	Face to Face	Mentoring	Experiential	Experimental	PP	AO	MCQ	OB	SO	AO		SO
15		1	1	1	1	2	6		6	3	4	1	1	21
71.5%		4.76%	4.76%	4.76%	4.76%	9.5%	28.6%		28.6%	14.3%	19.05%	4.76%	4.76%	Credits %



S. No.	Course Code	Category Code	Course Name	Maximum Marks Allotted						Total Marks	Contact Hours per week			Total Credits	Mode of Learning	Mode of Major Evaluation	Duration of Major Evaluation
				Theory Block				Practical Block			L	T	P				
				Continuous Evaluation			Major Evaluation	Continuous Evaluation	Major Evaluation								
				Minor Evaluation I	Minor Evaluation II	Quiz/Assignment											
1.	11242201	DC	Highway Engineering	20	20	30	30	-	-	100	2	1	-	3	Face to Face	MCQ	2 Hrs
2.	11242202	DC	Water Supply Engineering	20	20	30	30	-	-	100	2	1	-	3	Face to Face	MCQ	2 Hrs
3.	11242203	DC	Estimating Costing & Contracting	20	20	30	30	-	-	100	2	1	-	3	Face to Face	PP	2 Hrs
4.	11242204	DC	Foundation Engineering	20	20	30	30	-	-	100	2	1	-	3	Face to Face	MCQ	2 Hrs
5.	11242205	DC	Structural Design & Drawing (RCC)	20	20	30	30	-	-	100	3	-	-	3	Face to Face	PP	2 Hrs
6.	11242206	DLC	Highway Engineering Lab	-	-	-	-	70	30	100	-	-	2	1	Experimental	AO	-
7.	11242207	DLC	Geotechnical Engineering Lab	-	-	-	-	70	30	100	-	-	2	1	Experimental	AO	-
8.	11242208	DLC	Strength of Materials Lab	-	-	-	-	70	30	100	-	-	2	1	Experimental	AO	-
9.	11242209	SP	Semester Proficiency [§]	-	-	-	-	50	-	50	-	-	2	1	Face to Face	SO	-
10.	11242210	PBL	Macro Project-II [#]	-	-	-	-	70	30	100	-	-	2	1	Experiential	SO	-
11.	11242211	PC	Professional Certification	-	-	-	-	50	-	50	-	-	2	1	Blended	SO	-
12.	NECXXXXX	NEC	Novel Engaging Course (Activity Based Learning)	-	-	-	-	-	50	50	-	1	-	1	Interactive	SO	-
13.	SIP2XXXX	SIP	Skill Internship Program (Institute Level)	-	-	-	-	42	18	60	-	-	-	2**	Experiential	SO	-
Total				100	100	150	150	422	188	1110	11	05	12	24	-	-	-
14.	11242212	MAC	Project Management, Economics & Financing	20	20	30	30	-	-	100	2	-	-	GRADE	Blended	MCQ	1.5 Hrs
15.	11242213	MWS	Mandatory Workshop on Computer Vision at Department Level (Duration: Two Days)	-	-	-	-	-	-	-	-	-	-	GRADE	Interactive	MCQ	-
16.	11242214	MWS	Mandatory Workshop on Life Skills at Department Level (Duration: Two Days)	-	-	-	-	-	-	-	-	-	-	GRADE	Interactive	MCQ	-

Summer Semester of six-eight weeks duration will be conducted for makeup of previous semester examination.

Additional Course for Honours or Minor Degree: Permitted to opt for maximum two additional courses for the award of Honours or Minor Degree

[§]Semester Proficiency- includes the weightage towards ability/ skill/ competency /knowledge level /expertise attained etc. in the semester courses

MCQ: Multiple Choice Question AO: Assignment + Oral PP: Pen Paper SO: Submission + Oral OB: Open Book

[#] Macro Project-II will be presented and evaluated through an interdisciplinary project evaluation committee.

^{**} These credits will be transferred from Skill Internship Program (Institute Level).

PC	BSC	ESC	DC	DE	SPC	OC	DLC	NEC	SP	SIP	SLP	PDC	PBL	MAC	MWS
1	0	0	5	0	0	0	3	1	1	1	0	0	1	1	2

Mode of Learning							Mode of Examination							Total Credits
Theory		NEC		Lab			Theory			Lab		NEC		
Face to Face	Online	Interactive	Face to Face	Blended	Experiential	Experimental	PP	AO	MCQ	OB	SO	AO	SO	
15		1	1	1	3	3	6		9		5	3	1	
62.5%		4.17%	4.17%	4.17%	12.5%	12.5%	25%		37.5%		20.83%	12.5%	4.17%	
														Credits %



Scheme of Evaluation

B. Tech. V Semester (Civil Engineering)

(for batch admitted in academic session 2024-25)

S. No.	Course Code	Category Code	Course Name	Maximum Marks Allotted								Total Marks	Contact Hours per week			Total Credits	Mode of Learning	Mode of Major Evaluation	Duration of Major Evaluation
				Theory Block				Practical Block		MOOCs			L	T	P				
				Continuous Evaluation			Major Evaluation	Continuous Evaluation Lab Work & Sessional	Major Evaluation	Assignment	Exam								
				Minor Evaluation I	Minor Evaluation II	Quiz/Assignment													
1.	11243101	DC	Waste Water Engineering	20	20	30	30	-	-	-	-	100	2	1	-	3	Face to Face	MCQ	2 Hrs
2.	11243102	DC	Structural Design & Drawing (Steel)	20	20	30	30	-	-	-	-	100	2	1	-	3	Face to Face	PP	2 Hrs
3.	11243103	DC	Data Science	20	20	30	30	-	-	-	-	100	2	1	-	3	Face to Face	MCQ	2 Hrs
4.	112431XX	DE	Departmental Elective* (DE-1)	-	-	-	-	-	-	25	75	100	3	-	-	3	Online	MCQ	3 Hrs
5.	112431XX	SPC	Specialization Course (SPC-1)	20	20	30	30	-	-	-	-	100	2	1	-	3	Face to Face	PP	2 Hrs
6.	11243104	DLC	Environmental Lab	-	-	-	-	70	30	-	-	100	-	-	2	1	Experimental	AO	-
7.	11243105	DLC	Data Science Lab	-	-	-	-	70	30	-	-	100	-	-	2	1	Experimental	AO	-
8.	11243106	SP	Semester Proficiency [§]	-	-	-	-	50	-	-	-	50	-	-	2	1	Face to Face	SO	-
9.	11243107	PBL	Cornerstone Project	-	-	-	-	70	30	-	-	100	-	-	4	2	Experiential	SO	-
Total				80	80	120	120	260	90	25	75	850	11	04	10	20	-	-	-
10.	11243108	MAC	Supply Chain Management	20	20	30	30	-	-	-	-	100	2	-	-	GRADE	Blended	MCQ	1.5 Hrs
11.	11243109	MWS	Mandatory Workshop on Blockchain at Department Level (Duration: Two Days)	-	-	-	-	-	-	-	-	-	-	-	-	GRADE	Interactive	MCQ	-

Additional Course for Honours or Minor Degree: Permitted to opt for maximum two additional courses for the award of Honours or Minor Degree

[§]Semester Proficiency– includes the weightage towards ability/ skill/ competency /knowledge level /expertise attained etc. in the semester courses

MCQ: Multiple Choice Question **AO:** Assignment + Oral **PP:** Pen Paper **SO:** Submission + Oral **OB:** Open Book

* Course run through SWAYAM/NPTEL/ MOOC Learning Based Platform

HSMC	BSC	ESC	DC	DE	SPC	OC	DLC	NEC	SP	SIP	SLP	PDC	PBL	MAC	MWS
0	0	0	3	1	1	0	2	0	1	0	0	0	1	1	1

Mode of Learning					Mode of Examination						Total Credits
Theory		Lab			Theory			Lab			
Face to Face	Online	Face to Face	Experiential	Experimental	PP	AO	MCQ	OB	SO	AO	
12	3	1	2	2	6		9		3	2	20
60%	15%	5%	10%	10%	30%		45%		15%	10%	Credits %



Scheme of Evaluation

B. Tech. VI Semester (Civil Engineering)

(for batch admitted in academic session 2024-25)

S. No.	Course Code	Category Code	Course Name	Maximum Marks Allotted								Total Marks	Contact Hours per week			Total Credits	Mode of Learning	Mode of Major Evaluation	Duration of Major Evaluation
				Theory Block				Practical Block		MOOCs			L	T	P				
				Continuous Evaluation			Major Evaluation	Continuous Evaluation	Major Evaluation	Assignment	Exam								
				Minor Evaluation I	Minor Evaluation II	Quiz/ Assignment													
1.	11243201	DC	Engineering Hydrology & Irrigation	20	20	30	30	-	-	-	-	100	2	1	-	3	Face to Face	MCQ	2 Hrs
2.	11243202	DC	Artificial Intelligence & Machine Learning	20	20	30	30	-	-	-	-	100	2	1	-	3	Face to Face	MCQ	2 Hrs
3.	112432XX	DE	Departmental Elective* (DE-2)	-	-	-	-	-	-	25	75	100	3	-	-	3	Online	MCQ	3 Hrs
4.	112432XX	OC	Open Category Course (OC-1)	20	20	30	30	-	-	-	-	100	2	1	-	3	Face to Face	PP	2 Hrs
5.	112432XX	SPC	Specialization Course (SPC-2)	20	20	30	30	-	-	-	-	100	3	-	-	3	Face to Face	PP	2 Hrs
6.	11243203	DLC	Civil Engineering Drawing Lab	-	-	-	-	70	30	-	-	100	-	-	2	1	Experimental	SO	-
7.	11243204	DLC	Artificial Intelligence & Machine Learning Lab	-	-	-	-	70	30	-	-	100	-	-	2	1	Experimental	AO	-
8.	11243205	SP	Semester Proficiency [§]	-	-	-	-	50	-	-	-	50	-	-	2	1	Face to Face	SO	-
9.	11243206	PBL	Capstone Project	-	-	-	-	70	30	-	-	100	-	-	4	2	Experiential	SO	-
Total				80	80	120	120	260	90	25	75	850	12	03	10	20	-	-	-
10.	11243207	MAC	Disaster Management	20	20	30	30	-	-	-	-	100	2	-	-	GRADE	Blended	MCQ	1.5 Hrs
11.	11243208	MWS	Mandatory Workshop on Intellectual Property Rights at Department Level (Duration: Two Days)	-	-	-	-	-	-	-	-	-	-	-	-	GRADE	Interactive	MCQ	-

Skill Enhancement Program/Research Internship/On Job Training for Four weeks duration (Optional)

Summer Semester of six-eight weeks duration will be conducted for makeup of previous semester examination.

Additional Course for Honours or Minor Degree: Permitted to opt for maximum two additional courses for the award of Honours or Minor Degree

[§]Semester Proficiency– includes the weightage towards ability/ skill/ competency /knowledge level /expertise attained etc. in the semester courses

MCQ: Multiple Choice Question **AO:** Assignment + Oral **PP:** Pen Paper **SO:** Submission + Oral **OB:** Open Book

* Course run through SWAYAM/NPTEL/ MOOC Learning Based Platform.

HSMC	BSC	ESC	DC	DE	SPC	OC	DLC	NEC	SP	SIP	SLP	PDC	PBL	MAC	MWS
0	0	0	2	1	1	1	2	0	1	0	0	0	1	1	1

Mode of Learning					Mode of Examination						Total Credits
Theory		Lab			Theory			Lab			
Face to Face	Online	Face to Face	Experiential	Experimental	PP	AO	MCQ	OB	SO	AO	
12	3	1	2	2	6		9		4	1	20
60%	15%	5%	10%	10%	30%		45%		20%	5%	Credits %



Scheme of Evaluation

B. Tech. VII Semester (Civil Engineering)

(for batch admitted in academic session 2024-25)

S. No.	Course Code	Category Code	Course Name	Maximum Marks Allotted								Total Marks	Contact Hours per week			Total Credits	Mode of Learning	Mode of Major Evaluation	Duration of Major Evaluation
				Theory Block				Practical Block		MOOCs			L	T	P				
				Continuous Evaluation			Major Evaluation	Continuous Evaluation Lab Work & Sessional	Major Evaluation	Assignment	Exam								
				Minor Evaluation I	Minor Evaluation II	Quiz/Assignment													
1.	112441XX	DE	Departmental Elective (DE-3)	20	20	30	30	-	-	-	-	100	3	-	-	3	Face to Face	PP	2 Hrs
2.	112441XX	DE	Departmental Elective* (DE-4)	-	-	-	-	-	-	25	75	100	3	-	-	3	Online	MCQ	3 Hrs
3.	112441XX	OC	Open Category Course (OC-2)	20	20	30	30	-	-	-	-	100	2	1	-	3	Face to Face	PP	2 Hrs
4.	112441XX	SPC	Specialization Course (SPC-3)	20	20	30	30	-	-	-	-	100	2	1	-	3	Face to Face	MCQ	2 Hrs
5.	11244101	SP	Semester Proficiency [§]	-	-	-	-	50	-	-	-	50	-	-	2	1	Face to Face	SO	-
6.	11244102	DLC	Creative Problem Solving	-	-	-	-	70	30	-	-	100	-	-	2	1	Experiential	SO	-
Total				60	60	90	90	120	30	25	75	550	10	02	04	14	-	-	-
7.	11244103	MWS	Mandatory Workshop on Advanced Intellectual Property Rights at Department Level (Duration: Two Days)											GRADE	Interactive	MCQ	-		

Additional Course for Honours or Minor Degree: Permitted to opt for maximum two additional courses for the award of Honours or Minor Degree

[§]Semester Proficiency– includes the weightage towards ability/ skill/ competency /knowledge level /expertise attained etc. in the semester courses.

MCQ: Multiple Choice Question **AO:** Assignment + Oral **PP:** Pen Paper **SO:** Submission + Oral **OB:** Open Book

* Course run through SWAYAM/NPTEL/ MOOC Learning Based Platform.

HSMC	BSC	ESC	DC	DE	SPC	OC	DLC	NEC	SP	SIP	SLP	PDC	PBL	MAC	MWS
0	0	0	0	2	1	1	1	0	1	0	0	0	0	0	1

Mode of Learning					Mode of Examination				Total Credits	
Theory		Lab			Theory			Lab		
Face to Face	Online	Face to Face	Experiential	Experimental	PP	AO	MCQ	OB		SO
9	3	1	1		6		6		2	
64.28%	21.42%	7.14%	7.14%		42.85%		42.85%		14.3%	
										Credits %



Scheme of Evaluation

B. Tech. VIII Semester (Civil Engineering)

(for batch admitted in academic session 2024-25)

S. No.	Course Code	Category Code	Course Name	Maximum Marks Allotted								Total Marks	Contact Hours per week			Total Credits	Mode of Learning	Mode of Major Evaluation	Duration of Major Evaluation
				Theory Block				Practical Block		MOOCs			L	T	P				
				Continuous Evaluation			Major Evaluation	Continuous Evaluation	Major Evaluation	Assignment	Exam								
				Minor Evaluation I	Minor Evaluation II	Quiz/Assignment													
1.	112442XX	DE	Departmental Elective* (DE-5)	-	-	-	-	-	-	25	75	100	3	-	-	3	Online	MCQ	3 Hrs
2.	112442XX	OC	Open Category Course* (OC-3)	-	-	-	-	-	-	25	75	100	3	-	-	3	Online	MCQ	3 Hrs
3.	11244201	PBL	Industry Internship/ Research Internship/ Innovation & Start-up	-	-	-	-	280	120	-	-	400	-	-	20	10	Experiential	SO	-
4.	11244202	PDC	Professional Development ^{##}	-	-	-	-	-	50	-	-	50	-	-	4	2	Interactive	SO	-
Total				-	-	-	-	280	170	50	150	650	06	-	24	18	-	-	-
Summer Semester of six-eight weeks duration will be conducted to complete any backlog courses.																			
Additional Course for Honours or Minor Degree: Permitted to opt for maximum two additional courses for the award of Honours or Minor Degree																			

MCQ: Multiple Choice Question **AO:** Assignment + Oral **PP:** Pen Paper **SO:** Submission + Oral **OB:** Open Book

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^{##} Evaluation will be based on participation/laurels brought by the students to the institution in national/state level technical and other events during the complete tenure of the UG programme (participation in professional chapter activities, club activities, cultural events, sports, personality development activities, collaborative events, MOOCs, technical events, institute/department committees, etc.)

HSMC	BSC	ESC	DC	DE	SPC	OC	DLC	NEC	SP	SIP	SLP	PDC	PBL	MAC	MWS
0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0

Mode of Learning					Mode of Examination				Total Credits	
Theory		Lab			Theory			Lab		
Face to Face	Online	Interactive	Experiential	Experimental	PP	AO	MCQ	OB		SO
	6	2	10				6		12	18
	33.33%	11.11%	55.56%				33.33%		66.67%	Credits %



DEPARTMENT OF CIVIL ENGINEERING

Specialization in Structures					
Description		This module will help in providing in-depth knowledge of advanced topics like design of bridge, tall buildings etc. so that students can demonstrate their expertise in designing structural projects and also ensure development of safe, resilient, and Efficient structures.			
Courses and Credits required		3 courses and 9 credits			
Course Category	Course ID	Course Title	Contact Hours per week		
			L	T	P
SPC-1 (Core)		Advanced Structural Analysis	3	0	0
SPC-2 (Core)		Advanced Reinforced Concrete Design	3	0	0
SPC-3	Elective-1	Advanced Structural Design (Steel)	3	0	0
	Elective-2	Structural Dynamics	3	0	0

Specialization in Construction Management					
Description		This module will help in providing in-depth knowledge of various aspects of construction management like project scheduling, resource allocation, advanced equipment's etc. This specialization will help students to pursue careers as construction project managers.			
Courses and Credits required		3 courses and 9 credits			
Course Category	Course ID	Course Title	Contact Hours per week		
			L	T	P
SPC-1 (Core)		Contract Management	3	0	0
SPC-2 (Core)		Basic Scheduling Techniques	3	0	0
SPC-3	Elective-1	Infrastructure & Finance	3	0	0
	Elective-2	Building Services & Maintenance	3	0	0

Specialization in Environmental Engineering					
Description		This module will help in providing interdisciplinary knowledge and skills so that students can address environmental challenges, comply with environmental standards and contribute positively to society.			
Courses and Credits required		3 courses and 9 credits			
Course Category	Course ID	Course Title	Contact Hours per week		
			L	T	P
SPC-1 (Core)		Solid Waste Management	3	0	0
SPC-2 (Core)		Air Pollution & Control	3	0	0
SPC-3	Elective-1	Environmental Impact Assessment	3	0	0
	Elective-2	Industrial Waste Management	3	0	0



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DEPARTMENT OF CIVIL ENGINEERING

<i>Departmental Elective Courses</i>
1. Hydraulic Structure
2. Railway Airport & Tunnel Engineering
3. Traffic Engineering & Design
4. Engineering Geology
5. Pavement Management System
6. Applied Stress Analysis
7. Green Buildings
8. Advanced Surveying
9. Bridge Engineering
10. Groundwater Development
11. River Hydraulics
12. Design of Earthquake Resistant Structures
13. Remote Sensing & GIS Applications in Civil Engineering
14. Ground Improvement Techniques
15. Rock Engineering
16. Building Information Modelling
17. Seismic Hazard Analysis
18. Watershed Management
19. Hydropower Engineering
20. Rehabilitation of Structures
21. Ecology and Stream Pollution
22. Finite Element Methods
23. Strategic Management in Construction
24. Energy Efficient Buildings



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25. Design of Bridges
26. Sustainable Construction & Practices
27. Lean Construction
28. Photogrammetry and UAV
29. Geodesy and GNSS
<i>Open Category Courses</i>
1. Maintenance Management
2. Integrated Waste Management System
3. Air Pollution & Noise Pollution
4. Sustainable Materials & Green Buildings
5. Safety & Quality Management
6. Ecology and Stream Pollution
7. Environmental Impact Assessment
8. Greenfield Projects
9. Engineering Economics and Project Appraisal
10. Entrepreneurship for Engineers