



JSPM UNIVERSITY PUNE

Recognized by UGC u/s 2 (f) of UGC Act 1956 and enacted by the
State Government of Maharashtra - JSPM University Act, 2022 (Mah.IV of 2023)

JSPM University Pune
Faculty of Science and Technology
School of Civil and Environmental Sciences



NEP aligned Curriculum Structure

for

B.Tech (Civil Engineering)

(Effective from AY: 2025-26)



JSPM University Pune

FACULTY OF SCIENCE & TECHNOLOGY

SCHOOL OF CIVIL AND ENVIRONMENTAL SCIENCES

SECOND YEAR BACHELOR OF TECHNOLOGY (REGULAR)
(CIVIL ENGINEERING)

COURSE STRUCTURE
(NEP 2020 Aligned)

W. E. F

2024-2025

RELEASE DATE

01/07/2025

REVISION NO.

1.0 (NEP)

SEMESTER III (LEVEL 5)

COURSE			TEACHING SCHEME				EXAMINATION SCHEME AND MARKS										C R E D I T S	
TYPE	CODE	COURSE NAME	Hours / Week				THEORY (Equal Weightage for CIE and ESE)				PRACTICAL (Equal Weightage for CIE and ESE)		ORAL (Equal Weightage for CIE and ESE)		T O T A L			
			L	T	P	EL	CONTINUOUS INSEMESTER EVALUATION (100 Marks)			END SEMESTER EXAMINATI ON (100 / 50 Marks)	CONTINU US INSEMEST ER EVALUATI ON (50 Marks)	END SEMESTER EXAMINATI ON (50 Marks)	CONTINU OUS INSEMEST ER EVALUATI ON (50 Marks)	END SEMESTER EXAMINATI ON (50 Marks)				
							T1 (30 Marks)	T2 (30 Marks)	Assign- ments (40 Marks)									
BSC	230GMAB07_03	Ordinary Differential Equations and Multivariate Calculus	2	1	-	-	30	30	40	100	-	-	-	-	100	3		
PCC	230GCEB04_03	Building Technology	2	-	-	2	30	30	40	100	-	-	-	-	100	2.5		
PCC	231GCEB05_03	Strength of Materials	2	-	-	-	30	30	40	50	-	-	-	-	50	2		
PCC	231GCEB06_03	Surveying	2	-	-	-	30	30	40	50	-	-	-	-	50	2		
IOC	-	Interdisciplinary Open Course- I	2	-	-	-	30	30	40	100	-	-	-	-	100	2		
MMC	-	Multidisciplinary Minor Course- I	1	-	2	-	-	-	-	-	50	50	50	50	100	2		
VEC (HSMC)	230USYB02_03	Professional Laws, Ethics, Values and Harmony	2	-	-	-	30	30	40	50	-	-	-	-	50	2		
LC	230GCEB07_03	Building Technology Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1		
LC	230GCEB08_03	Strength of Materials Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1		
LC	230GCEB09_03	Surveying Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1		
LLC	230HFSB80_03	Health and Nutrition	1	-	-	2	-	-	-	-	-	-	50	50	50	1.5		
TOTAL			13	1	10	4											750	20

L-Lecture

Format No.: JSPMUni/ACAD/001

T-Tutorial

Rev. No.:1.0

P-Practical Session (Laboratory)

Rev. Date:01/07/2025


EL-Experiential Learning


Page 1 of 2

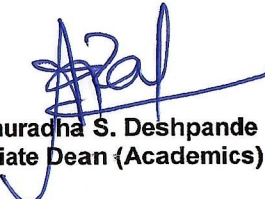
Sem.	Interdisciplinary Open Course (IOC)			
III (IOC-I)	Course Code	230VBCE04_03	230HFGM25_03	250GBTB01_03
	Course Name	Basics of Accounting	Intellectual Property	Bioengineering
V (IOC-II)	Course Code	230VBCB14_05	230HFSB15_05	250ULBB01_05
	Course Name	E-Commerce	Introduction to Microscopy Techniques	Fundamentals of Business Law
VII (IOC-III)	Course Code	230VBBB25_07	240VBBB06_07	230GCSB151_07
	Course Name	Economics for Management	Introduction to Digital Marketing	Artificial Intelligence for Everyone

Sem.	Multidisciplinary Minor Course (MMC)			
III (MMC-I)	Course Code	230GMTB01_03	230GCSB116_03	240GFRB53_03
	Course Name	Sensors and Actuators	Data Science and Analytics	Industrial Fire Safety
IV (MMC-II)	Course Code	230GETB34_04	240GCSB112_04	240GSFB51_04
	Course Name	Internet of Things and Applications	Foundations of Artificial Neural Network	Food Safety and Hygiene
V (MMC-III)	Course Code	230GETB09_05	230GCSB114_05	240GSFB53_05
	Course Name	Wireless Sensor Network	Python Scripting	Import and Export Management
VI (MMC-IV)	Course Code	230GETB36_06	230GCSB123_06	230GMEB52_06
	Course Name	Microcontroller and Applications	Mobile Application Development	3-D Printing
VII (MMC-V)	Course Code	230GETB41_07	230GCSB131_07	250GMEB51_07
	Course Name	Introduction to Embedded Systems	Basics of AIML	Fundamentals of HVAC
VII (MMC-VI)	Course Code	230GETB40_07	230GCSB23_07	230GMEB54_07
	Course Name	Electronic Instrumentation	Fundamentals of Data Science	Hydraulics and Pneumatics


Mr. Manjunath V. Changali
 Programme Coordinator, BTech-Civil


Dr. Aniket D. Patil
 Director (IC), School of Civil and Environmental
 Sciences


Dr. R. S. Deshpande
 Dean, Faculty of Science and Technology


Dr. Anuradha S. Deshpande
 Associate Dean (Academics)




Prof. B.B. Ahuja
 Vice Chancellor, JSPM University Pune

COURSE		TEACHING SCHEME	EXAMINATION SCHEME AND MARKS														
TYPE	CODE	COURSE NAME	Hours / Week				THEORY (Equal Weightage for CIE and ESE)			PRACTICAL (Equal Weightage for CIE and ESE)		ORAL (Equal Weightage for CIE and ESE)		TOTAL	CREDITS		
			L	T	P	E	CONTINUOUS INSEMESTER EVALUATION (100 Marks)			END SEMESTER EXAMINATION (100 / 50 Marks)	CONTINUOUS INSEMESTER EVALUATION (50 Marks)	END SEMESTER EXAMINATION (50 Marks)	CONTINUOUS INSEMESTER EVALUATION (50 Marks)			END SEMESTER EXAMINATION (50 Marks)	
							T1 (30 Marks)	T2 (30 Marks)	Assignments (40 Marks)								
BSC	230GMAB08_04	Vector Calculus and Partial Differential Equations	2	1	-	-	30	30	40	100	-	-	-	-	100	3	
PCC	230GCEB10_04	Concrete Technology	2	-	-	2	25			75	-	-	-	-	100	2.5	
PCC	230GCEB11_04	Analysis of Structures	2	1	-	2	30	30	40	100	-	-	-	-	100	3.5	
MMC	-	Multidisciplinary Minor Course- II	1	-	2	-	-	-	-	-	50	50	50	50	100	2	
SEC	230GCEB12_04	Introduction to Building Information Modelling	2	-	2	-	-	-	-	-	50	50	50	50	100	3	
EEC (HSMC)	230GCEB03_04	Environmental Policy and Legislations	2	-	-	-	30	30	40	50	-	-	-	-	50	2	
AEC (HSMC)	230UENB02_04	Communicative Proficiency Skills	1	-	2	-	30	30	40	50	-	-	-	-	50	2	
LC	230GCEB13_04	Concrete Technology Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1	
LC	230GCEB14_04	Computerized Building Drawing	-	-	2	-	-	-	-	-	50	50	-	-	50	1	
IITP/ FP/ CEP	230GCEB15_04	Internship / Field Project / Community Engagement Programme	4 to 6 weeks				-	-	-	-	-	-	-	50	50	50	2
TOTAL			12	2	10	4									750	22	
MLC#	-	Audit Course- I	1	-	-	-	-	-	-	50	-	-	-	-	50	1	



Note: A Diploma will be awarded if a student exits after second year.

For "Exit" at the end of "Second Year" the student must complete a total of 8 additional credits

a) An internship / OJT of 8 - 10 weeks (4 credits) over and above semester 4 internship of minimum 4 weeks

b) Additional one Course of 4 credits (Course offered will be Vocational Skill Course (VSC) or Skill Enhancement Course (SEC) or a mini project)

Sem	Mandatory Learning Course (MLC ^o)- Audit Course	
IV (Audit Course-I)	Course Code	230GCEB49_04
	Course Name	Road Safety Management
V (Audit Course-II)	Course Code	240GCEB09_05
	Course Name	Environmental Audit
VI (Audit Course -III)	Course Code	240GCEB19_06
	Course Name	Mechanical, Electrical and Plumbing Engineering
VII (Audit Course-III)	Course Code	230UPOB02_07
	Course Name	Introduction to Indian Constitution

Sem.	Multidisciplinary Minor Course (MMC)			
III (MMC-I)	Course Code	230GMTB01_03	230GCSB116_03	240GFRB53_03
	Course Name	Sensors and Actuators	Data Science and Analytics	Industrial Fire Safety
IV (MMC- II)	Course Code	230GETB34_04	240GCSB112_04	240GSFB51_04
	Course Name	Internet of Things and Applications	Foundations of Artificial Neural Network	Food Safety and Hygiene
V (MMC- III)	Course Code	230GETB09_05	230GCSB114_05	240GSFB53_05
	Course Name	Wireless Sensor Network	Python Scripting	Import and Export Management
VI (MMC- IV)	Course Code	230GETB36_06	230GCSB123_06	230GMEB52_06
	Course Name	Microcontroller and Applications	Mobile Application Development	3-D Printing
VII (MMC- V)	Course Code	230GETB41_07	230GCSB131_07	250GMEB51_07
	Course Name	Introduction to Embedded Systems	Basics of AIML	Fundamentals of HVAC
VII (MMC- VI)	Course Code	230GETB40_07	230GCSB23_07	230GMEB54_07
	Course Name	Electronic Instrumentation	Fundamentals of Data Science	Hydraulics and Pneumatics


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SEMESTER III (LEVEL 5)

COURSE			TEACHING SCHEME				EXAMINATION SCHEME AND MARKS									TOTAL	CREDITS
TYPE	CODE	COURSE NAME	Hours / Week				THEORY (Equal Weightage for CIE and ESE)				PRACTICAL (Equal Weightage for CIE and ESE)		ORAL (Equal Weightage for CIE and ESE)				
			L	T	P	EL	CONTINUOUS INSEMESTER EVALUATION (100 Marks)			END SEMESTER EXAMINATION (100 / 50 Marks)	CONTINUOUS INSEMESTER EVALUATION (50 Marks)	END SEMESTER EXAMINATION (50 Marks)	CONTINUOUS INSEMESTER EVALUATION (50 Marks)	END SEMESTER EXAMINATION (50 Marks)			
							T1 (30 Marks)	T2 (30 Marks)	Assignments (40 Marks)								
BSC	230GMAL01_03	Linear Algebra and Univariate Calculus	3	1	-	-	30	30	40	100	-	-	-	-	100	4	
PCC	230GCEB04_03	Building Technology	2	-	-	2	30	30	40	100	-	-	-	-	100	2.5	
PCC	231GCEB05_03	Strength of Materials	2	-	-	-	30	30	40	50	-	-	-	-	50	2	
PCC	231GCEB06_03	Surveying	2	-	-	-	30	30	40	50	-	-	-	-	50	2	
IOC	-	Interdisciplinary Open Course- I	2	-	-	-	30	30	40	100	-	-	-	-	100	2	
MMC	-	Multidisciplinary Minor Course- I	1	-	2	-	-	-	-	-	50	50	50	50	100	2	
VSC	230IDCB01_03	Design Thinking and Creativity	1	-	-	2	-	-	-	-	-	-	50	50	50	1.5	
AEC (HSMC)	230UENB01_03	Effective Communication Skills	1	-	2	-	30	30	40	50	-	-	-	-	50	2	
LC	230GCEB07_03	Building Technology Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1	
LC	230GCEB08_03	Strength of Materials Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1	
LC	230GCEB09_03	Surveying Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1	
TOTAL			14	1	10	4										750	21

L-Lecture

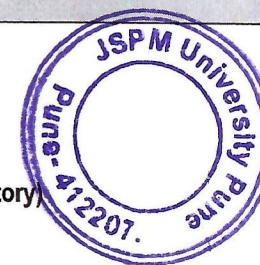
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T-Tutorial

Rev. No.:1.0

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Rev. Date:01/07/2025

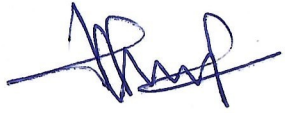



EL-Experiential Learning

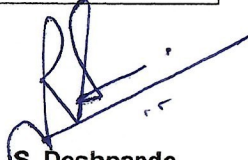
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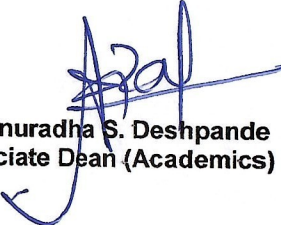
Sem.	Interdisciplinary Open Course (IOC)			
III (IOC-I)	Course Code	230VBCB04_03	230HFGM25_03	250GBTB01_03
	Course Name	Basics of Accounting	Intellectual Property	Bioengineering
V (IOC-II)	Course Code	230VBCB14_05	230HFSB15_05	250ULBB01_05
	Course Name	E-Commerce	Introduction to Microscopy Techniques	Fundamentals of Business Law
VII (IOC-III)	Course Code	230VBBB25_07	240VBBB06_07	230GCSB151_07
	Course Name	Economics for Management	Introduction to Digital Marketing	Artificial Intelligence for Everyone

Sem.	Multidisciplinary Minor Course (MMC)			
III (MMC-I)	Course Code	230GMTB01_03	230GCSB116_03	240GFRB53_03
	Course Name	Sensors and Actuators	Data Science and Analytics	Industrial Fire Safety
IV (MMC-II)	Course Code	230GETB34_04	240GCSB112_04	240GSFB51_04
	Course Name	Internet of Things and Applications	Foundations of Artificial Neural Network	Food Safety and Hygiene
V (MMC-III)	Course Code	230GETB09_05	230GCSB114_05	240GSFB53_05
	Course Name	Wireless Sensor Network	Python Scripting	Import and Export Management
VI (MMC-IV)	Course Code	230GETB36_06	230GCSB123_06	230GMEB52_06
	Course Name	Microcontroller and Applications	Mobile Application Development	3-D Printing
VII (MMC-V)	Course Code	230GETB41_07	230GCSB131_07	250GMEB51_07
	Course Name	Introduction to Embedded Systems	Basics of AIML	Fundamentals of HVAC
VII (MMC-VI)	Course Code	230GETB40_07	230GCSB23_07	230GMEB54_07
	Course Name	Electronic Instrumentation	Fundamentals of Data Science	Hydraulics and Pneumatics



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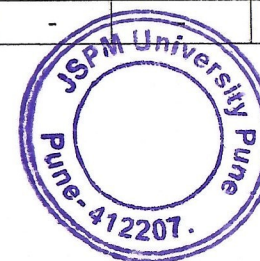
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SEMESTER IV (LEVEL 5)

COURSE			TEACHING SCHEME				EXAMINATION SCHEME AND MARKS								TOTAL	CREDITS	
TYPE	CODE	COURSE NAME	Hours / Week				THEORY (Equal Weightage for CIE and ESE)			PRACTICAL (Equal Weightage for CIE and ESE)		ORAL (Equal Weightage for CIE and ESE)					
			L	T	P	E L	CONTINUOUS INSEMESTER EVALUATION (100 Marks)			END SEMESTE R EXAMINAT ION (100 / 50 Marks)	CONTINUOU S INSEMESTE R EVALUATIO N (50 Marks)	END SEMESTER EXAMINATI ON (50 Marks)	CONTINUOU S INSEMEST ER EVALUATI ON (50 Marks)	END SEMESTER EXAMINATI ON (50 Marks)			
							T1 (30 Marks)	T2 (30 Marks)	Assign- ments (40 Marks)								
BSC	230GMAL02_04	Multivariate Calculus and Differential Equations	3	1	-	-	30	30	40	100	-	-	-	-	100	4	
PCC	230GCEB10_04	Concrete Technology	2	-	-	2	25			75	-	-	-	-	100	2.5	
PCC	230GCEB11_04	Analysis of Structures	2	1	-	2	30	30	40	100	-	-	-	-	100	3.5	
MMC	-	Multidisciplinary Minor Course- II	1	-	2	-	-	-	-	-	50	50	50	50	100	2	
SEC	230GCEB12_04	Introduction to Building Information Modelling	2	-	2	-	-	-	-	-	50	50	50	50	100	3	
EEC (HSMC)	230GCEB03_04	Environmental Policy and Legislations	2	-	-	-	30	30	40	50	-	-	-	-	50	2	
AEC (HSMC)	230UENB02_04	Communicative Proficiency Skills	1	-	2	-	30	30	40	50	-	-	-	-	50	2	
LC	230GCEB13_04	Concrete Technology Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1	
LC	230GCEB14_04	Computerized Building Drawing	-	-	2	-	-	-	-	-	50	50	-	-	50	1	
IITP/ FP/ CEP	230GCEB15_04	Internship / Field Project / Community Engagement Programme	4 to 6 weeks				-	-	-	-	-	-	-	50	50	50	2
TOTAL			12	2	10	4									750	23	
MLC#	-	Audit Course- I	1	-	-	-	-	-	-	50	-	-	-	-	50	1	



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b) Additional one Course of 4 credits (Course offered will be Vocational Skill Course (VSC) or Skill Enhancement Course (SEC) or a mini project).

Sem	Mandatory Learning Course (MLC ^{II})- Audit Course	
IV (Audit Course-I)	Course Code	230GCEB49_04
	Course Name	Road Safety Management
V (Audit Course-II)	Course Code	240GCEB09_05
	Course Name	Environmental Audit
VI (Audit Course -III)	Course Code	240GCEB19_06
	Course Name	Mechanical, Electrical and Plumbing Engineering
VII (Audit Course-III)	Course Code	230UPOB02_07
	Course Name	Introduction to Indian Constitution

Sem.	Multidisciplinary Minor Course (MMC)			
III (MMC-I)	Course Code	230GMTB01_03	230GCSB116_03	240GFRB53_03
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