

**GOVERNMENT COLLEGE OF ENGINEERING, JALGAON**

**Department of Civil Engineering**

**Scheme for Semester I B. Tech. (Civil Engineering) with effect from academic year 2023-24 (As per NEP 2020)**

Course Code	Name of the Course	Component as per	Teaching Scheme				Evaluation Scheme					Credit	
			L	T	P	Total	Theory			Practical			Total
							MSE	ISA	ESE	ICA	ESE		
SH100AN	Induction Program [Includes Universal Human Values (UHV)]	Audit course of three weeks duration as per AICTE model	...	...	...	...	...	...	...	50	...	50	AU
SH101N	Engineering Mathematics I	BSC	3	1	...	4	30	10	60	...	...	100	4
SH152N	Engineering Physics	BSC	3	...	...	3	30	10	60	...	...	100	3
EE101N	Basic Electrical Engineering	ESC	3	...	...	3	30	10	60	...	...	100	3
CO101N	Fundamental of Computer Science and Engineering	ESC	3	...	...	3	30	10	60	...	...	100	3
ME101N	Mechanical Workshop Practices	VSEC	...	...	4	4	...	...	...	50	...	50	2
SH153N	Engineering Physics Lab	BSC	...	...	2	2	...	...	...	50	...	50	1
EE102N	Basic Electrical Engineering Lab	ESC	...	...	2	2	...	...	...	50	...	50	1
CO102N	Fundamental of Computer Science and Engineering Lab	ESC	...	...	2	2	...	...	...	50	...	50	1
IK103N	Essence of Indian Traditional Knowledge	IKS	2	...	...	2	30	10	60	...	...	100	2
LL101N	LLC I NSS and Sports	LCC	...	...	4	4	...	...	...	50	...	50	2
Total			<b>14</b>	<b>1</b>	<b>14</b>	<b>29</b>	<b>150</b>	<b>50</b>	<b>300</b>	<b>300</b>	<b>...</b>	<b>800</b>	<b>22</b>

**L : Lecture**

**T: Tutorial**

**P: Practical**

**MSE: Mid Semester Examination**

**ISA :Internal Sessional Assessment**

**ESE: End Semester Examination**

**ICA : Internal Continuous Assessment**

<b>GOVERNMENT COLLEGE OF ENGINEERING, JALGAON</b>													
<b>Department of Civil Engineering</b>													
<b>Scheme for Semester II B. Tech. (Civil Engineering) with effect from academic year 2023-24 (As per NEP 2020)</b>													
Course Code	Name of the Course	Component as per	Teaching Scheme				Evaluation Scheme					Credit	
			L	T	P	Total	Theory			Practical			Total
							MSE	ISA	ESE	ICA	ESE		
SH151N	Engineering Mathematics II	BSC	3	1	...	4	30	10	60	...	...	100	4
SH102N	Engineering Chemistry	BSC	3	...	...	3	30	10	60	...	...	100	3
ME151N	Engineering Graphics	ESC	3	...	...	3	30	10	60	...	...	100	3
CE151N	Engineering Mechanics	PCC	3	...	...	3	30	10	60	...	...	100	3
ME152N	Engineering Exploration Workshop	VSEC	...	...	4	4	...	...	...	50	...	50	2
SH103N	Engineering Chemistry Lab	BSC	...	...	2	2	...	...	...	50	...	50	1
ME153N	Engineering Graphics Lab	ESC	...	...	2	2	...	...	...	50	...	50	1
CE152N	Engineering Mechanics Lab	PCC	...	...	2	2	...	...	...	50	...	50	1
LL102N	LLC- II Yoga and Nutrition	LCC	...	...	4	4	...	...	...	50	...	50	2
SH100N	Ability Enhancement Course (English) I	AEC	1	...	2	3	...	...	...	50	...	50	2
Total			<b>13</b>	<b>1</b>	<b>16</b>	<b>30</b>	<b>120</b>	<b>40</b>	<b>240</b>	<b>300</b>	<b>0</b>	<b>700</b>	<b>22</b>
<b>L : Lecture</b>		<b>T: Tutorial</b>		<b>P: Practical</b>			<b>MSE: Mid Semester Examination</b>						
<b>ISA :Internal Sessional Assessment</b>		<b>ESE: End Semester Examination</b>			<b>ICA : Internal Continuous Assessment</b>								
Exit Option for UG Certificate: 8 credits in work based Vocational Courses or Internship/apprenticeship offered during summer Vacation (As per exit policy approved by Board of Studies (Civil Engineering) in its meeting held on 06 July, 2023.)													
Note: Students securing CGPA 7.0 and above upto semester-II can opt for Double minor by registering additional courses [Semester-III onwards] and earning these additional 18 credits . Students need to submit written application through respective HoD to Academic and Examination Cell. This double minor track should be different than multidisciplinary minor track opted by students from semester-III as per Multi Disciplinary Minor (MDM) courses. For example: If Civil Engineering student opted for Civil Engineering track for MDM, then he/she should register for additional credits other than Mechanical and Civil Engineering courses for double minor. Students opting for double minor can not opt for either Honors or Honors with research degree.													

<b>GOVERNMENT COLLEGE OF ENGINEERING, JALGAON</b>													
<b>Department of Civil Engineering</b>													
<b>Scheme for Semester III B. Tech. (Civil Engineering) with effect from academic year 2023-24 (As per NEP 2020)</b>													
Course Code	Name of the Course	Component as per	Teaching Scheme				Evaluation Scheme					Credit	
			L	T	P	Total	Theory			Practical			Total
							MSE	ISA	ESE	ICA	ESE		
CE201N	Open Elective - I	OE	3	1	...	4	30	10	60	...	...	100	4
CE202N	MDM I	MDM	2	...	...	2	30	10	60	...	...	100	2
CE203N	Concrete Technology	PCC	3	...	...	3	30	10	60	...	...	100	3
CE204N	Building Planning and Construction	PCC	3	...	...	3	30	10	60	...	...	100	3
CE205N	Strength of Materials	PCC	2	--		2	30	10	60			100	2
CE206N	Concrete Technology Lab	PCC	...	...	2	2	...	...	...	30	20	50	1
CE207N	Building Planning and Construction Lab	PCC	...	...	2	2	...	...	...	30	20	50	1
CE208N	Community Based Mini Project	CEP	1	...	2	3	...	...	...	30	20	50	2
SH209N	Environmental Science	VEC	2	...	...	2	30	20	--	...	...	50	2
SH207N	<i>Project &amp; Finance Management</i>	<i>EEMC</i>	2	...	--	2	30	10	60	--	--	100	2
<b>Total</b>			<b>18</b>	<b>1</b>	<b>6</b>	<b>25</b>	<b>210</b>	<b>80</b>	<b>360</b>	<b>90</b>	<b>60</b>	<b>800</b>	<b>22</b>
<b>L : Lecture</b>		<b>T: Tutorial</b>		<b>P: Practical</b>			<b>MSE: Mid Semester Examination</b>						
<b>ISA :Internal Sessional Assessment</b>		<b>ESE: End Semester Examination</b>					<b>ICA : Internal Contineous Accessment</b>						
<b>List of Open Elective -I</b>													
X- Building materials and construction													
Y- Geographic Information System Science and Application													

GOVERNMENT COLLEGE OF ENGINEERING, JALGAON													
Department of Civil Engineering													
Scheme for Semester IV B. Tech. (Civil Engineering) with effect from academic year 2023-24 (As per NEP 2020)													
Course Code	Name of the Course	Component as per	Teaching Scheme				Evaluation Scheme					Credit	
			L	T	P	Total	Theory			Practical			Total
							MSE	ISA	ESE	ICA	ESE		
CE251NX	Open Elective - II	OE	2	...	...	2	30	10	60	...	...	100	2
CE252N	Fluid Mechanics	PCC	3	...	...	3	30	10	60	...	...	100	3
CE253N	Surveying	PCC	3	...	...	3	30	10	60	...	...	100	3
CE254N	Theory of Structure I	PCC	2	...	...	2	30	10	60	...	...	100	2
CE255N	MDM II	MDM	2			2	30	10	60	...	...	100	2
SH211N	मराठी लेखन कौशल्य (Writing Skill)	AEC	2	...	...	2	30	20	...	--	...	50	2
CE256N	Surveying Lab	PCC	...	...	2	2	...	...	...	30	20	50	1
CE257N	Fluid Mechanics Lab	PCC	...	...	2	2	...	...	...	30	20	50	1
CE258N	Testing of Materials Lab	VSEC	1	...	2	3	...	...	...	30	20	50	2
SH210 N	Universal Human Values - II	VEC	2	...	...	2	30	20	--	...	...	50	2
SH208N	Entrepreneurship Development	EEMC	2	...	...	2	30	10	60	...	...	100	2
<b>Total</b>			<b>19</b>	<b>0</b>	<b>6</b>	<b>25</b>	<b>240</b>	<b>100</b>	<b>360</b>	<b>90</b>	<b>60</b>	<b>850</b>	<b>22</b>
* Students are permitted to earn credits of this course for any other Modern Indian Language (other than English) through MOOC courses, as per credit transfer policy of the instit													
<b>L : Lecture</b>		<b>T: Tutorial</b>		<b>P: Practical</b>			<b>MSE: Mid Semester Examination</b>						
<b>ISA :Internal Sessional Assessment</b>		<b>ESE: End Semester Examination</b>			<b>ICA : Internal Contineous Accessment</b>								
<b>List of Open Elective -II</b>													
X- Green Building													
Y-Hydrology													
Exit Option for UG Diploma: 8 credits in Skill based Vocational Courses/Internship/apprentiship/MiniProject offered during summer vacation after Second Year (As per exit policy approved by Board of Studies (Civil Engineering) in its meeting held on 06 July, 2023).													
Note: Students having CGPA more than 8.0, can register for additional 18 credits departmental honours courses from semester-V to earn the credits which will lead to honours degree in that major program with MDM													

<b>GOVERNMENT COLLEGE OF ENGINEERING, JALGAON</b>														
<b>Department of Civil Engineering</b>														
<b>Scheme for Semester V B. Tech. (Civil Engineering) with effect from academic year 2023-24 (As per NEP 2020)</b>														
Course Code	Name of the Course	Component as per	Teaching Scheme				Evaluation Scheme					Credit		
			L	T	P	Total	Theory			Practical			Total	
							MSE	ISA	ESE	ICA	ESE			
CE301N	Hydrology and Irrigation Engg	PC	3	...	...	3	30	10	60	...	...	100	3	
CE302N	Theory of Structure II	PC	3	--	...	3	30	10	60	...	...	100	3	
CE303N	Design of RCC structure	PC	3	...	...	3	30	10	60	...	...	100	3	
CE304N	Program Elective course - I	PE	3	...	...	3	30	10	60	...	...	100	3	
CE305N	MDM III	MDM	3	1		4	30	10	60	...	...	100	4	
CE306N	Open Elective-III	OE	2	...	...	2	30	10	60	...	...	100	2	
CE307N	Hydrology and Irrigation Engg Lab	PC	...	...	2	2	...	...	...	30	20	50	1	
CE308N	Software Engineering Lab I	PC	--	...	2	3	...	...	...	30	20	50	1	
CE309N	Design of RCC structure Lab	PC	...	...	2	2	...	...	...	30	20	50	1	
CE310N	Program Elective course - I Lab	PE	...	...	2	2	...	...	...	30	20	50	1	
			<b>17</b>	<b>1</b>	<b>8</b>	<b>27</b>	<b>180</b>	<b>60</b>	<b>360</b>	<b>120</b>	<b>80</b>	<b>800</b>	<b>22</b>	
CE 311N	Advanced Concrete Technology	DHC I	3	...	-	3	30	10	60				3	
CE 312N	Groundwater Hydrology	DHCII	3	...	-	3	30	10	60				3	
<b>List of Open Elective -III</b>			<b>List of Program Elective-I</b>											
X. Environmental Impact Assessment			A. Environmental Engineering I											
Y. Industrial Pollution and Control			B. Sustainable Construction and Green Manufacturing											
DHC: Departmental Honours Course			C. Surveying II											
<b>L : Lecture</b>			<b>T: Tutorial</b>				<b>P: Practical</b>				<b>MSE: Mid Semester Examination</b>			
<b>ISA :Internal Sessional Assessment</b>			<b>ESE: End Semester Examination</b>				<b>ICA : Internal Contineous Accessment</b>							

<b>GOVERNMENT COLLEGE OF ENGINEERING, JALGAON</b>													
<b>Department of Civil Engineering</b>													
<b>Scheme for Semester VI B. Tech. (Civil Engineering) with effect from academic year 2023-24 (As per NEP 2020)</b>													
Course Code	Name of the Course	Component as per	Teaching Scheme				Evaluation Scheme					Credit	
			L	T	P	Total	Theory			Practical			Total
							MSE	ISA	ESE	ICA	ESE		
CE351N	Geotechnical Engg	PC	3	...	...	3	30	10	60	...	...	100	3
CE352N	Highway Engineering	PC	2	...	...	2	30	10	60	...	...	100	2
CE353N	Design of Steel Structure	PC	3	...	...	3	30	10	60	...	...	100	3
CE354N	Program Elective course -- II	PE	3	...	...	3	30	10	60	...	...	100	3
CE355N	Program Elective course -- III	PE	3	...	...	3	30	10	60	...	...	100	3
CE356N	MDM IV	MDM	2	...	...	2	30	10	60	...	...	100	2
CE357N	Geotechnical Engg Lab	PC	...	...	2	2	...	...	...	30	20	50	1
CE358N	Design of Steel Structure lab	PC	...	...	2	2	...	...	...	30	20	50	1
CE359N	Software Engg Lab II	VSEC	1	...	2	3	...	...	...	30	20	50	2
CE360N	Program Elective course -- II Lab	PE	...	...	2	2	...	...	...	30	20	50	1
CE361N	Program Elective course -- III Lab	PE	...	...	2	2	...	...	...	30	20	50	1
Total			<b>17</b>	<b>0</b>	<b>10</b>	<b>27</b>	<b>180</b>	<b>60</b>	<b>360</b>	<b>150</b>	<b>100</b>	<b>850</b>	<b>22</b>
CE 362N Theory of Elasticity and Plasticity		DHCIII	3	...	...	3	30	10	60	...	...	100	3
CE 363N Finite Element Analysis		DHCIV	3	...	...	3	30	10	60	...	...	100	3
CE 364N Engineering Hydrology and Hydrologic Systems		DHCV	3	...	...	3	30	10	60	...	...	100	3
CE 365N Land and Water Management		DHCVI	3	...	...	3	30	10	60	...	...	100	3
<b>List of Program Elective-II</b>			<b>List of Program Elective-III</b>										
A. Estimation, Contract and Valuation			A.Environmental Engineering II										
B.Design of Fiber Reinforced Concrete			B. Design of Pre Stressed Concrete Structures										
C.Bridge Engineering			C. Building Systems and Services										
<b>L : Lecture</b>		<b>T: Tutorial</b>		<b>P: Practical</b>				<b>MSE: Mid Semester Examination</b>					
<b>ISA :Internal Sessional Assessment</b>				<b>ESE: End Semester Examination</b>					<b>ICA : Internal Contineous Accessment</b>				
<b>Exit Option for B.Voc.: 8 credits in Skill based Vocational Courses/Internship/apprentiship/MiniProject offered during summer vacation after Third Year (</b>													

<b>GOVERNMENT COLLEGE OF ENGINEERING, JALGAON</b>													
<b>Department of Civil Engineering</b>													
<b>Scheme for Semester VII B. Tech. (Civil Engineering) with effect from academic year 2023-24 (As per NEP 2020)</b>													
Course Code	Name of the Course	Component as per	Teaching Scheme				Evaluation Scheme					Credit	
			L	T	P	Total	Theory			Practical			Total
							MSE	ISA	ESE	ICA	ESE		
CE401N	MOOCs course 8 week/Online Mode (Hazardous Waste Man	PC	2	...	...	2	30	10	60	...	...	100	2
CE402N	MOOCs course 8 week/Online Mode (Advanced R.C.C Des	PC	2	...	...	2	30	10	60	...	...	100	2
CE403N	Program Elective course-IV MOOCs course 8 week/Online	PE	2	...	...	2	30	10	60	...	...	100	2
CE404N	MOOCs course 8 week/Online Mode MDM V	MDM	2	...	...	2	30	10	60	...	...	100	2
CE405N	Internship / On job Training	INT		...	4	4		...	...	50	50	100	12
<b>Total</b>			<b>8</b>	<b>0</b>	<b>4</b>	<b>12</b>	<b>120</b>	<b>40</b>	<b>240</b>	<b>50</b>	<b>50</b>	<b>500</b>	<b>20</b>
CE 406N	Theory of Plates and Shells	DHCVII	3	...	...	3	30	10	60	...	...	100	3
CE 407N	Rehabilitation and Retrofitting of structure	DHCVIII	3	...	...	3	30	10	60	...	...	100	3
CE 408N	Advanced Fluid Mechanics	DHCIX	3	...	...	3	30	10	60	...	...	100	3
CE 409N	Channel and River Hydraulic	DHCX	3	...	...	3	30	10	60	...	...	100	3
<b>A Program Internship of one semester is to be completed by the students. One semester means 12 weeks minimum (Engagement hours of student for internship should be 18-20 hours)</b>													
	<b>List of Program Elective-IV</b>												
	A.Construction Project Management												
	B.Rural Water Supply and Sanitation												
	C.Intelligent Transportation system												
<b>L : Lecture</b>		<b>T: Tutorial</b>		<b>P: Practical</b>			<b>MSE: Mid Semester Examination</b>						
<b>ISA :Internal Sessional Assessment</b>			<b>ESE: End Semester Examination</b>				<b>ICA : Internal Contineous Accessment</b>						
Note: Mentor faculty/Course Teacher shall be allotted for each online course for smooth evaluation and completion of the course. Mentor faculty/course Teacher need to enrol the course alongwith students													

<b>GOVERNMENT COLLEGE OF ENGINEERING, JALGAON</b>													
<b>Department of Civil Engineering</b>													
<b>Scheme for Semester VIII B. Tech. (Civil Engineering) with effect from academic year 2023-24 (As per NEP 2020)</b>													
Course Code	Name of the Course	Component as per	Teaching Scheme				Evaluation Scheme					Credit	
			L	T	P	Total	Theory			Practical			Total
							MSE	ISA	ESE	ICA	ESE		
CE451N	Dams and Hydraulic Structure	PC	3	...	...	3	30	10	60	...	...	100	3
CE452N	Program Elective course - V	PE	3	...	...	3	30	10	60	...	...	100	3
CE453N	Program Elective course- VI	PE	3	...	...	3	30	10	60	...	...	100	3
CE454N	MDM VI	MDM	2	...	...	2	30	10	60	...	...	100	2
CE455N	Dams and Hydraulic Structure Lab	PC	...	...	2	2	...	...	...	30	20	50	1
SH456N	Research Methodology and IPR	RM	3	1	...	4	30	10	60	30	20	150	4
CE457N	Project	PC	...	...	8	8	...	...	...	50	100	150	4
<b>Total</b>			<b>14</b>	<b>1</b>	<b>10</b>	<b>25</b>	<b>150</b>	<b>50</b>	<b>300</b>	<b>110</b>	<b>140</b>	<b>750</b>	<b>20</b>
CE 459N	Design of Earthquake Resistance structure	DHCXI	3	...	...	3	30	10	60	...	...	100	3
CE 460N	Hydraulic Structures	DHCXII	3	...	...	3	30	10	60	...	...	100	3
	<b>List of Program Elective-V</b>												
	A. Foundation Engg												
	B.Advanced Design of Steel Structures												
	C.Ground Improvement Techniques												
	<b>List of Program Elective-VI</b>												
	A. Railway, Airport and Harbour												
	B.Air and Noise Pollution												
	C.Earthquake Resistant Structures												
<b>L : Lecture</b>		<b>T: Tutorial</b>					<b>P: Practical</b>					<b>MSE: Mid Semester Examination</b>	
<b>ISA :Internal Sessional Assessment</b>		<b>ESE: End Semester Examination</b>										<b>ICA : Internal Contineous Accessment</b>	
<b>Total Credits: 172 for BTech in Civil with MDM</b>													
<b>Total Credits: 172 + 18 = 190 for BTech in Civil with MDM and specialization minor [Double Minor]</b>													
<b>Total Credits: 172 + 18 = 190 for BTech in Civil with MDM and Honours in Structure/Water Resources</b>													
<b>Total Credits: 172 + 18 = 190 for BTech in Civil with MDM and Honours with Research</b>													