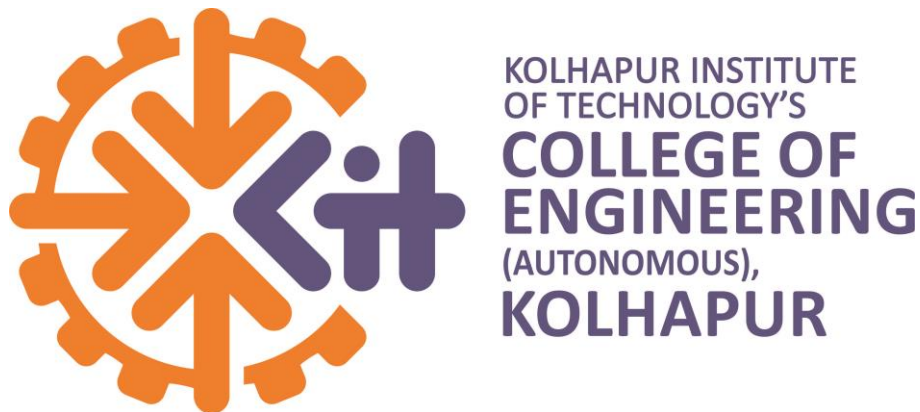


Kolhapur Institute of Technology's

# **COLLEGE OF ENGINEERING (AUTONOMOUS),**

Gokul Shirgaon, Kolhapur



## **Curriculum Structure**

**For**

### **B.Tech. Civil Engineering**

### **Under Graduate Programme**

Teaching and Evaluation scheme for **Second Year Semester – III**

Sr. No	Curriculum Component	Course Code	Course	Teaching Scheme				Evaluation Scheme			
				L	T	P	Credit	Component	Marks		
									Max	Min for Passing	
1	BS	UCVL 0301	Engineering Mathematics III	3	1	0	4	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
2	ES	UCVL 0302	Solid Mechanics	3	0	0	3	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
3	ES	UCVL 0303	Engineering Hydraulics	3	1	0	4	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
4	PC	UCVL 0304	Engineering Surveying	3	0	0	3	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
5	PC	UCVL 0305	Building Sciences & Services	3	0	0	3	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
6	ES	UCVL 0331	Solid Mechanics Lab	0	0	2	1	ISE	25	10	
								ESE OE	25	10	
7	ES	UCVL 0332	Engineering Hydraulics Lab	0	0	2	1	ISE	25	10	
								ESE POE	50	20	
8	PC	UCVL 0333	Engineering Surveying	0	0	4	2	ISE	25	10	
								ESE POE	50	20	
9	PC	UCVL 0334	Building Sciences & Services Lab	0	0	2	1	ISE	50	20	
10		UCVL 0361	Environmental Studies (Audit Course)	2	0	0	0	ESE	100	40	
			Total	17	2	10	22	Total Contact Hrs			29

**Teaching and Evaluation scheme for Second Year Semester – IV**

Sr. No	Curriculum Component	Course Code	Course	Teaching Scheme				Evaluation Scheme			
				L	T	P	Credit	Component	Marks		
									Max	Min for Passing	
1	PC	UCVL 0401	Structural Analysis	3	1	0	4	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
2	PC	UCVL 0402	Concrete Technology	3	0	0	3	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
3	PC	UCVL 0403	Environment Engineering -I	3	0	0	3	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
4	PC	UCVL 0404	Advance Surveying	3	0	0	3	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
5	PC	UCVL 0405	Hydrology & Water Resources Engineering	3	1	0	4	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
6	PC	UCVL 0431	Concrete Technology Lab	0	0	2	1	ISE	25	10	
								ESE OE	25	10	
7	PC	UCVL 0432	Environment Engineering -I Lab	0	0	2	1	ISE	50	20	
								ESE POE	50	20	
8	PC	UCVL 0433	Computer Aided Drawing LAB	0	0	4	2	ISE	25	10	
								ESE POE	50	20	
9	PC	UCVL 0434	Advance Surveying	0	0	2	1	ISE	25	10	
10		UCVL 0461	Building Planning and Design (Audit Course)	3	0	0	0	ESE	100	40	
			Total	18	2	10	22	Total Contact Hrs			30

Teaching and Evaluation scheme for **Third Year Semester – V**

Sr. No	Curriculum Component	Course Code	Course	Teaching Scheme				Evaluation Scheme			
				L	T	P	Credit	Component	Marks		
									Max	Min for Passing	
1	PC	UCVL 0501	Design of Steel Structure	3	1	0	4	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
2	PC	UCVL 0502	Theory of Structure	3	1	0	4	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
3	PC	UCVL 0503	Geotechnical Engineering-I	3	0	0	3	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
4	PC	UCVL 0504	Irrigation & Hydraulic Structures	3	0	0	3	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
5	PC	UCVL 0505	Environmental Engineering-II	3	0	0	3	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
6	PC	UCVL 0531	Geotechnical Engineering-1 Lab	0	0	2	1	ISE	25	10	
								ESE POE	50	20	
7	PC	UCVL 0532	Irrigation & Hydraulic Structures Lab	0	0	2	1	ISE	25	10	
								ESE OE	25	10	
8	PC	UCVL 0534	Environmental Engineering-2 Lab	0	0	2	1	ISE	50	20	
9	PW	UCVL 0541	Mini Project (Practical Case Studies)*	0	0	4	2	ISE	25	10	
								ESE OE	50	20	
10		UCVL 0561	Engineering Geology (Audit Course)	2	0	0	0	ESE	100	40	
			Total	17	2	10	22	Total Contact Hrs			29

Teaching and Evaluation scheme for **Third Year Semester – VI**

Sr. No	Curriculum Component	Course Code	Course	Teaching Scheme				Evaluation Scheme			
				L	T	P	Credit	Component	Marks		
									Max	Min for Passing	
1	PC	UCVL 0601	Design of Concrete Structure-I	4	1	0	5	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
2	PC	UCVL 0602	Transportation Engineering- I	3	0	0	3	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
3	PC	UCVL 0603	Geotechnical engineering-II	3	0	0	3	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
4	PE	UCVL 06**	Professional Elective 1*	3	0	0	3	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
5	OE	UOEL 06**	Open Elective -1	3	0	0	3	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
6	PC	UCVL 0631	Steel Structure Design Lab	0	0	4	2	ISE	25	10	
								ESE OE	50	20	
7	PC	UCVL 0632	Transportation Engineering- I Lab	0	0	2	1	ISE	25	10	
								ESE OE	50	20	
8	PC	UCVL 0633	Geotechnical engineering-II Lab	0	0	2	1	ISE	25	10	
								ESE OE	25	10	
9	PW	UCVL 0641	Seminar	0	0	2	1	ISE	50	20	
10		UCVL 0661	Industrial Management & Economics (Audit Course)	2	0	0	0	ESE	100	40	
			Total	18	1	10	22	Total Contact Hrs			29

**Teaching and Evaluation scheme for Final Year Semester – VII**

Sr. No	Curriculum Component	Course Code	Course	Teaching Scheme				Evaluation Scheme			
				L	T	P	Credit	Component	Marks		
									Max	Min for Passing	
1	PC	UCVL 0701	Quantity Survey and Valuation	3	1	0	4	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
2	PC	UCVL 0702	Construction Project & Management	3	1	0	4	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
3	PC	UCVL 0703	Structural Dynamics and Earthquake Engineering	3	0	0	3	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
4	OE	UOEL 07**	Open Elective -2	3	0	0	3	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
5	PC	UCVL 0731	Quantity Survey and Valuation lab	0	0	4	2	ISE	50	20	
								ESE OE	50	20	
6	PC	UCVL 0732	Construction Project & Management Lab	0	0	2	1	ISE	25	10	
								ESE OE	50	20	
7	PC	UCVL 0733	Concrete Structure Design Lab	0	0	4	2	ISE	25	10	
								ESE OE	50	20	
8	PW	UCVL 0751	Project Phase-I	0	0	2	1	ISE	100	40	
9		UCVL 0761	Transportation Engineering- II (Audit Course)	3	0	0		ESE	100	40	
			Total	15	2	12	20	Total Contact Hrs			29

Teaching and Evaluation scheme for **Final Year Semester – VIII**

Sr. No	Curriculum Component	Course Code	Course	Teaching Scheme				Evaluation Scheme			
				L	T	P	Credit	Component	Marks		
									Max	Min for Passing	
1	PE	UCVL 08**	Professional Elective 2*	3	0	0	3	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
2	PE	UCVL 08**	Professional Elective 3*	3	0	0	3	ISE-I	10		40
								ISE-II	10		
								MSE	30		
								ESE	50	20	
6	PW	UCVL 0851	Internship & Project Phase II	0	0	12	6	ISE-1	75	30	
								ISE-2	75	30	
								ESE OE	150	60	
			Total	6	0	12	12	Total Contact Hrs			18

**Special Note:**

1. The students have to undergo internship at field (Site Work, Office Work, Research etc.) after Semester VII
2. The duration of internship shall be minimum of 6 weeks to maximum of 8 weeks
3. The assessment of internship shall be done during Semester VII (In Project Phase II, ISE-I). for assessment of internship, students are required to present their work and submit the report.

**Load Calculation for Project Phase-I and Phase-II (As Per AICTE Guidelines):**

1. Phase-I : Minimum load is 1 Hr./Week for one group of Four to Five Students.
2. Phase-II : Minimum load is 2 Hrs./Week for one group of Four to Five Students.



**LIST OF OPEN ELECTIVES**

**Offered By  
CIVIL ENGINEERING DEPARTMENT**

**OPEN ELECTIVE-1  
(Third Year Semester – VI)**

<b>Sr. No.</b>	<b>Curriculum Component</b>	<b>Course Code</b>	<b>Course Names</b>
1	OE	UOEL0606	Buildings and Occupants
2	OE	UOEL0607	Non-Destructive Testing
3	OE	UOEL0608	Environmental Impact Assessment

**OPEN ELECTIVE-2  
(Final Year Semester – VII)**

1	OE	UOEL0706	Remote Sensing and GIS, GPS
2	OE	UOEL0707	Watershed Management



## LIST OF PROFESSIONAL ELECTIVES

<b>Sr No</b>	<b>Course Code</b>	<b>Professional Elective 1 (Third Year Semester – VI)</b>
1	UCVL0621	Water Power Engineering
2	UCVL0622	Transportation And Smart City Planning
3	UCVL0623	GIS And Geo-Informatics
4	UCVL0624	Legal Aspects In Construction Engineering
5	UCVL0625	Advanced Waste Water Management
6	UCVL0626	Advanced Construction Practices
7	UCVL0627	Human Resource Development

<b>Sr No</b>	<b>Course Code</b>	<b>Professional Elective 2 (Final Year Semester – VIII)</b>
1	UCVL0821	Structural Design And Drawing Of Foundation And Retaining Wall
2	UCVL0822	Adv. Structural Design
3	UCVL0823	Design Of Bridges
4	UCVL0824	Structural Health Monitoring And Retrofitting
5	UCVL0825	Advanced Traffic Analysis And Design
6	UCVL0826	GEODESY, Remote Sensing & GNSS
7	UCVL0827	Advanced Design of Concrete Structures

<b>Sr No</b>	<b>Course Code</b>	<b>Professional Elective 3 (Final Year Semester – VIII)</b>
1	UCVL0871	Design And Drawing Of Marine Structure
2	UCVL0872	Advanced Structural Analysis
3	UCVL0873	Introduction of Finite Elements Methods
4	UCVL0874	Soil Conservation and Watershed Management
5	UCVL0875	Disaster Management
6	UCVL0876	Adv. Hydrology
7	UCVL0877	Environmental Geo-technology
8	UCVL0878	Industrial Waste Treatment