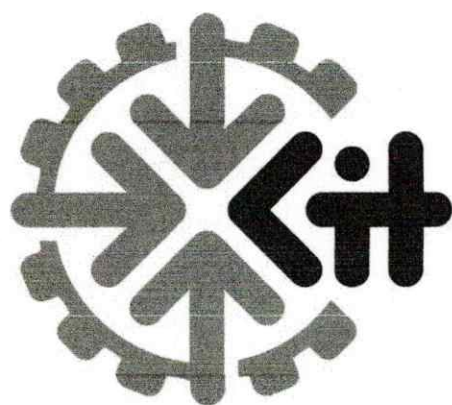


Kolhapur Institute of Technology's
COLLEGE OF ENGINEERING
(AUTONOMOUS)

Gokul Shirgaon, Kolhapur



KOLHAPUR INSTITUTE
OF TECHNOLOGY'S
**COLLEGE OF
ENGINEERING**
(AUTONOMOUS),
KOLHAPUR

Curriculum Structure

For

B. Tech Civil Engineering

Academic Year 2022-2023

Under Graduate Programme

Approved in BoS: 03.06.2022

Submitted and Approved in Academic Standing Committee



Teaching and Evaluation scheme for Second Year Semester –III										
Curriculum Component	Course Code	Course	Teaching Scheme			Credit	Evaluation Scheme			
			L	T	P		Component	Marks		
								Max	Min for Passing	
BS	UCVC 0301	Engineering Mathematics III	3	1	0	4	ISE-I	10	20	40
							ISE-II	10		
							MSE	30		
							ESE	50	20	
BS	UCVC 0302	Mechanics of Solid	3	0	0	3	ISE-I	10	20	40
							ISE-II	10		
							MSE	30		
							ESE	50	20	
ES	UCVC 0303	Engineering Hydraulics-I	3	0	0	3	ISE-I	10	20	40
							ISE-II	10		
							MSE	30		
							ESE	50	20	
PC	UCVC 0304	Engineering Surveying	3	0	0	3	ISE-I	10	20	40
							ISE-II	10		
							MSE	30		
							ESE	50	20	
PC	UCVC 0305	Transportation Infrastructure Engineering	3	0	0	3	ISE-I	10	20	40
							ISE-II	10		
							MSE	30		
							ESE	50	20	
PC	UCVC 0306	Building Construction & Services	3	0	0	3	ISE-I	10	20	40
							ISE-II	10		
							MSE	30		
							ESE	50	20	
BS	UCVC 0307	Mechanics of solid Lab	0	0	2	1	ISE	25	10	
							ESE (OE)	25	10	
PC	UCVC 0308	Engineering Hydraulics Lab	0	0	2	1	ISE	25	10	
							ESE (POE)	25	10	
ES	UCVC 0309	Engineering Surveying Lab	0	0	2	1	ISE	25	10	
							ESE (POE)	25	10	
AC	UCVA 0301	Environmental Studies (Audit Course)	2	0	0	0	ESE	100	40	
Total Contact Hrs.: 27			Total 20	1	06	22	600+150+Audit Course			



Teaching and Evaluation scheme for Second Year Semester –IV										
Curriculum Component	Course Code	Course	Teaching Scheme			Evaluation Scheme				
			L	T	P	Credit	Component	Marks		
								Max	Min for Passing	
ES	UCVC 0401	Structural Analysis	3	1	0	4	ISE-I	10	20	40
							ISE-II	10		
							MSE	30		
							ESE	50	20	
ES	UCVC 0402	Engineering Hydraulics-II	3	0	0	3	ISE-I	10	20	40
							ISE-II	10		
							MSE	30		
							ESE	50	20	
PC	UCVC 0403	Water Treatment and Supply Systems	3	0	0	3	ISE-I	10	20	40
							ISE-II	10		
							MSE	30		
							ESE	50	20	
PC	UCVC 0404	Advance Surveying	3	0	0	3	ISE-I	10	20	40
							ISE-II	10		
							MSE	30		
							ESE	50	20	
PC	UCVC 0405	Highway Engineering	3	1	0	4	ISE-I	10	20	40
							ISE-II	10		
							MSE	30		
							ESE	50	20	
PC	UCVC 0406	Highway Materials Testing Lab	0	0	2	1	ISE	25	10	
							ESE (OE)	25	10	
PC	UCVC 0407	Water Treatment and Supply Systems Lab	0	0	2	1	ISE	25	10	
							ESE (POE)	25	10	
ES	UCVC 0408	Basic Computer Aided Drawing Lab	0	0	2	1	ISE	25	10	
							ESE (POE)	25	10	
PC	UCVC 0409	Advance Surveying Lab	0	0	2	1	ESE	100	40	
PW	UCVC 0410	Professional Practices-I	0	0	2	1	ISE	50	20	
AC	UCVA 0401	Constitution of India (Audit Course)	2	0	0	0	ESE	100	40	
Total Contact Hrs.: 29			Total 17	2	10	22	500+250+Audit Course			

Teaching and Evaluation scheme for Second Year Semester -V										
Curriculum Component	Course Code	Course	Teaching Scheme				Evaluation Scheme			
			L	T	P	Credit	Component	Marks		
								Max	Min for Passing	
PC	UCVC 0501	Design of Steel Structures	3	1	0	4	ISE-I	10	20	40
							ISE-II	10		
							MSE	30	20	
							ESE	50		
PC	UCVC 0502	Theory of Structures	3	1	0	4	ISE-I	10	20	40
							ISE-II	10		
							MSE	30	20	
							ESE	50		
PC	UCVC 0503	Geotechnical Engineering-I	3	0	0	3	ISE-I	10	20	40
							ISE-II	10		
							MSE	30	20	
							ESE	50		
PC	UCVC 0504	Geotechnical Engineering-I Lab	0	0	2	1	ISE	25	10	
							ESE (POE)	50	20	
PC	UCVC 0505	Computer Aided Drawing and Drafting Lab	0	0	2	1	ISE	25	10	
							ESE(OE)	25	10	
PC	UCVC 0506	Studio Lab	0	0	4	2	ISE	50	20	
							ESE(OE)	25	10	
PW	UCVC 0507	Professional Practices-II	0	0	2	1	ISE	50	10	
PE	UCVE 05**	Program Elective I	3	0	0	3	ISE-I	10	20	40
							ISE-II	10		
							MSE	30	20	
							ESE	50		
OE	UCVO 05**	Open Elective-I	3	0	0	3	ISE-I	10	20	40
							ISE-II	10		
							MSE	30	20	
							ESE	50		
AC	UCVA 0501	Building Planning & Design (Audit Course)	3	0	0	0	ISE	100		40
Total Contact Hrs. : 30		Total	18	2	10	22	500+250+Audit Course			



Teaching and Evaluation scheme for Third Year Semester-VI										
Curriculum Component	Course Code	Course	Teaching Scheme				Evaluation Scheme			
			L	T	P	Credit	Component	Marks		
								Max	Min for Passing	
PC	UCVC 0601	Design of Concrete Structures	3	1	0	4	ISE-I	10	20	40
							ISE-II	10		
							MSE	30	20	
							ESE	50		
PC	UCVC 0602	Concrete Technology	3	0	0	3	ISE-I	10	20	40
							ISE-II	10		
							MSE	30	20	
							ESE	50		
PC	UCVC 0603	Geotechnical Engineering -II	3	0	0	3	ISE-I	10	20	40
							ISE-II	10		
							MSE	30	20	
							ESE	50		
PC	UCVC 0604	Steel Structure Design Lab	0	0	4	2	ISE	50	20	
							ESE (OE)	25	10	
PC	UCVC 0605	Concrete Technology Lab	0	0	2	1	ISE	25	10	
							ESE (POE)	25	10	
PC	UCVC 0606	Geotechnical Engineering-II Lab	0	0	2	1	ISE	25	10	
							ESE (OE)	25	10	
PW	UCVC 0607	Professional Practices-III	0	0	2	1	ISE	50	20	
PE	UCVE 06**	Program Elective – II	3	0	0	3	ISE-I	10	20	40
							ISE-II	10		
							MSE	30	20	
							ESE	50		
PE	UCVE 06**	Program Elective – II Lab	0	0	2	1	ISE	25	10	
OE	UCVO 06**	Open Elective-II	3	0	0	3	ISE-I	10	20	40
							ISE-II	10		
							MSE	30	20	
							ESE	50		
AC	UCVA 0601	Industrial Management & Economics (Audit Course)	2	0	0	0	ISE	100	40	
Total Contact Hrs. : 30			Total	17	1	12	22	500+250+Audit Course		

Teaching and Evaluation Scheme for **Final Year Semester-VII**

Curriculum Component	Course Code	Course	Teaching Scheme				Evaluation Scheme				
			L	T	P	Credit	Component	Marks			
								Max	Min for Passing		
PC	UCVC 0701	Quantity Survey	3	0	0	3	ISE-I	10	20	40	
							ISE-II	10			
							MSE	30			
							ESE	50	20		
HS	UCVC 0702	Construction Project & Management	3	0	0	3	ISE-I	10	20	40	
							ISE-II	10			
							MSE	30			
							ESE	50	20		
PC	UCVC 0703	Structural Dynamics and Earthquake Engineering	3	0	0	3	ISE-I	10	20	40	
							ISE-II	10			
							MSE	30			
							ESE	50	20		
PC	UCVC 0704	Irrigation and Hydraulic Structure	2	0	0	2	ISE-I	10	20	40	
							ISE-II	10			
							MSE	30			
							ESE	50	20		
PC	UCVC 0705	Estimation & Valuation Lab	0	0	2	1	ISE	25	10		
							ESE (POE)	25	10		
HS	UCVC 0706	Construction Project & Management Lab	0	0	2	1	ISE	25	10		
							ESE (OE)	25	10		
PC	UCVC 0707	Concrete Structure Design Lab	0	0	4	2	ISE	25	10		
							ESE (OE)	25	10		
PW	UCVC 0708	Project Phase-I	0	0	4	2	ISE	100	40		
PE	UCVE 07**	Program Elective-III	3	0	0	3	ISE-I	10	20	40	
							ISE-II	10			
							MSE	30			
							ESE	50	20		
AC	UCVA 0701	Advance Construction Practices (Audit Course)	3	0	0	0	ISE	100	40		
Total Contact Hrs. : 29			Total	17	0	12	20	500+250+Audit Course			

Teaching and Evaluation Scheme for Final Year Semester-VIII											
Curriculum Component	Course Code	Course		Teaching Scheme				Evaluation Scheme			
				L	T	P	Credit	Component	Marks		
									Max	Min for Passing	
PW	UCVC 0801	Internship	0	0	4	2	ISE	100	40		
PW	UCVC 0802	Project Phase-II	0	0	8	4	ISE	100	40		
							ESE (OE)	100	40		
PE	UCVE 08**	Program Elective-IV*	3	0	0	3	ISE-I	10	20	40	
							ISE-II	10			
							MSE	30	20		
							ESE	50			
PE	UCVE 08**	Program Elective-V*	3	0	0	3	ISE-I	10	20	40	
							ISE-II	10			
							MSE	30	20		
							ESE	50			
Total Contact hrs. : 18		Total	6	0	12	12	200+300				

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 – V)**

Sr. No.	Curriculum Component	Course Code	Course Names
1	OE	UCVO0501	Buildings and Occupants
2	OE	UCVO0502	Non-Destructive Testing
3	OE	UCVO0503	Environmental Impact Assessment

**OPEN ELECTIVE-2
 (Third Year Semester – VI)**

1	OE	UCVO0601	Remote Sensing and GIS, GPS
2	OE	UCVO0602	Watershed Management



LIST OF PROGRAM ELECTIVES

PROGRAM ELECTIVE-I

Sr. No.	Curriculum Component	Course Code	Course Names
1	PE	UCVE0501	Hydrology and Water Resource Engineering
2	PE	UCVE0502	Surface and Ground Water Engineering
3	PE	UCVE0503	Irrigation Water Management

PROGRAM ELECTIVE-II

Sr. No.	Curriculum Component	Course Code	Course Names
1	PE	UCVE0601	Municipal Wastewater Analysis and Treatment
2	PE	UCVE0602	Industrial Wastewater Treatment
3	PE	UCVE0603	Solid Waste Management

PROGRAM ELECTIVE-II LAB

Sr. No.	Curriculum Component	Course Code	Course Names
1	PE	UCVE0606	Municipal Wastewater Analysis and Treatment Lab
2	PE	UCVE0607	Industrial Wastewater Treatment Lab
3	PE	UCVE0608	Solid Waste Management Lab



PROGRAM ELECTIVE-III

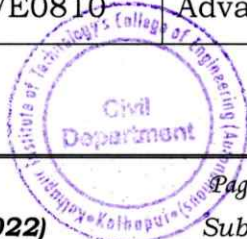
Sr. No.	Curriculum Component	Course Code	Course Names
1	PE	UCVE0701	Introduction of Finite Elements Methods
2	PE	UCVE0702	Advanced Structural Analysis
3	PE	UCVE0703	Structural Health Monitoring and Retrofitting
4	PE	UCVE0704	Human Resource Development
5	PE	UCVE0705	Legal Aspects in Construction Engineering

PROGRAM ELECTIVE-IV

Sr. No.	Curriculum Component	Course Code	Course Names
1	PE	UCVE0801	Transportation And Smart City Planning
2	PE	UCVE0802	Advanced Traffic Analysis and Design
3	PE	UCVE0803	GIS And Geo-Informatics
4	PE	UCVE0804	GEODESY, Remote Sensing & GNSS

PROGRAM ELECTIVE-V

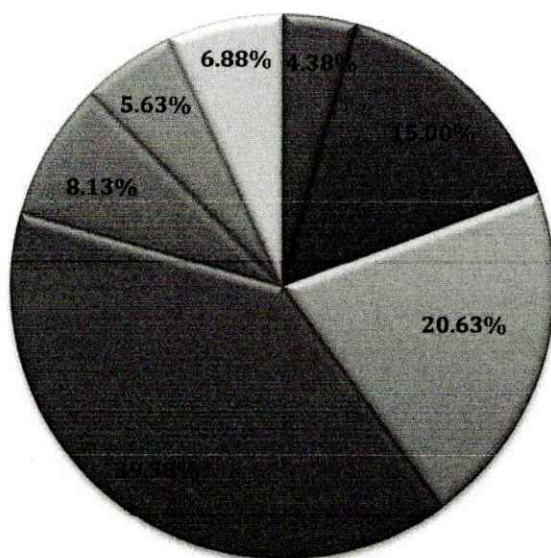
Sr. No.	Curriculum Component	Course Code	Course Names
1	PE	UCVE0806	Adv. Structural Design
2	PE	UCVE0807	Structural Design and Drawing of Foundation and Retaining Wall
3	PE	UCVE0808	Design of Bridges
4	PE	UCVE0809	Design And Drawing of Marine Structure
5	PE	UCVE0810	Advanced Design of Concrete Structures



CREDIT DISTRIBUTION PROPOSED BY DEPARTMENT

Sr No	Stream	Semester/Credits								Credits	AICTE Norms
		I	II	III	IV	V	VI	VII	VIII		
		20	20	22	22	22	22	20	12		
1	Humanities (HS)	3						4		7	12
2	Basic Sciences (BS)	8	8	8						25	24
3	Engineering Sciences (ES)	12	9	4	8					28	29
4	Professional Core (PC)			10	13	15	14	11		68	49
5	Professional Electives (PE)					3	4	3	6	13	18
6	Institute Level Open Electives (ILOE)					3	3			9	12
7	Project Work (PW)				1	1	1	2	6	10	15
8	Mandatory Audit Course	UHV	ED	EVS							
Total										160	159

*(Construction project & Management under) HS



- Humanities (HS)
- Basic Sciences (BS)
- Engineering Sciences (ES)
- Professional Core (PC)
- Professional Electives (PE)
- Institute Level Open Electives (ILOE)
- Project Work (PW)

Pie chart showing the Percentage distribution of credits




Prof. M. A. CHAVAN
 H.O.D., Civil Engg. Department
 Kolhapur Institute of Technology's
 College of Engineering (Autonomous)
 Kolhapur