COLLEGE OF ENGINEERING (AUTONOMOUS)

Gokul Shirgaon, 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



COLLEGE OF ENGINEERING (AUTONOMOUS), KOLHAPUR



gt		ning and Evaluation	Te	achi	ng		Evaluation	,	ne -	
ulu	Code		5	cnen	ie	.,		N	Iarks	
Curriculum Component	Course	Course	L	Т	P	Credit	Component	Max		n for sing
BS	UCVC 0301	Engineering Mathematics III	3	1	0	4	ISE-II ISE-II MSE	10 10 30	20	40
BS	UCVC 0302	Mechanics of Solid	3	0	0	3	ESE ISE-I ISE-II MSE	50 10 10 30	20	40
ES	UCVC 0303	Engineering Hydraulics-I	3	0	0	3	ESE ISE-I ISE-II MSE	50 10 10 30	20	40
PC	UCVC 0304	Engineering Surveying	3	0	0	3	ESE ISE-I ISE-II MSE ESE	50 10 10 30 50	20 20 20	40
PC	UCVC 0305	Transportation Infrastructure Engineering	3	0	0	3	ISE-II ISE-II MSE ESE	10 10 30 50	20	40
PC	UCVC 0306	Building Construction & Services	3	0	0	3	ISE-I ISE-II MSE	10 10 30	20	40
BS	UCVC 0307	Mechanics of solid	0	0	2	1	ESE ISE ESE (OE)	50 25 25	-	0
PC	UCVC 0308	Engineering Hydraulics Lab	0	0	2	1	ISE ESE (POE)	25 25	10	
ES	UCVC 0309	Engineering Surveying Lab	0	0	2	1	ISE ESE (POE)	25 25	10 10	
AC	UCVA 0301	Environmental Studies (Audit Course)	2	0	0	0	ESE	100	4	10
Total	Contact	Hrs.: 27 Total	20	1	06	22	600+150+	Audit	Cour	se

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	Teacl	hing and Evaluation	sche	me f	or Se	cond	1 Year Semest	er –IV		-
um ent	o			achi chen			Evaluation	n Schem	1e	
[cu]	Course	Course				Ħ		Marks		
Curriculum Component	్రి ర		L	Т	P	Credit	Component	Max		n for sing
							ISE-I	10		
ES	UCVC	Structural	3	1	0	4	ISE-II	10	20	40
E.5	0401	Analysis	3	1	0	+	MSE	30		40
X.							ESE	50	20	
							ISE-I	10		2
ES	UCVC	Engineering	3	0	0	3	ISE-II	10	20	
ES	0402	Hydraulics-II	3			3	MSE	30		40
							ESE	50	20	
•						W.	ISE-I	10		
DC	UCVC	Water Treatment			_	2	ISE-II	10	20	40
PC	0403	and Supply Systems	3	0	0	3	MSE	30		40
		bystems					ESE	50	20	
						2	ISE-I	10	20	40
DC	UCVC 0404	Advance					ISE-II	10		
PC		Surveying	3	0	0	3	MSE	30		40
							ESE	50	20	
							ISE-I	10		
DC	UCVC	Highway			0	4	ISE-II	10	20	40
PC	0405	Engineering	3	1			MSE	30		40
							ESE	50	20	
PC	UCVC	Highway	0	0	2	1	ISE	25	1	10
PC	0406	Materials Testing	0	0	2	1	ESE (OE)	25]	10
DC	UCVC	Water Treatment				,	ISE	25]	10
PC	0407	and Supply Systems Lab	0	0	2	1	ESE (POE)	25	1	10
	UCVC	Basic Computer					ISE	25	1	10
ES	0408	Aided Drawing Lab	0	0	2	1	ESE (POE)	25]	10
PC	UCVC 0409	Advance Surveying Lab	0	0	2	1	ESE	100		10
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	4	10
Total	Contact	Hrs.: 29 Total	17	2	10	22	500+250+	Audit	Cour	se

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	Teachi	ng and Eva	luation s	chen	ne fo	r Se	cond	l Year Semes	ter –V		_
um	٥					ching eme	-	Evaluat	ion Sc	heme	Ř
cul	Course	Cour	Course				it		Marks		
Curriculum Component	_ට ව			L	Т	P	Credit	Component	Max	X = Olivarions	for sing
							ISE-I	10			
PC	UCVC	Design of S	Steel	3	1	0	4	ISE-II	10	20	
rc	0501	Structures	3	3	1	0	+	MSE	30		40
								ESE	50	20	
								ISE-I	10		
PC	UCVC	Theory of		3	1		4	ISE-II	10	20	40
PC	0502	Structures	3	3	1	0		MSE	30		40
							-	ESE	50	20	
								ISE-I	10		
DO.	UCVC	Geotechnic	cal		_			ISE-II	10	20	10
PC	0503	Engineering-I	ıg-I	3	0	0	3	MSE	30		40
								ESE	50	20	
DC	UCVC	Geotechnic	cal	0			1	ISE	25	1	0
PC	0504	Engineerin	Engineering-I Lab		0	2	1	ESE (POE)	50	2	0
	UCVC	Computer						ISE	25	1	0
PC	0505	Drawing at		0	0	2	1	ESE(OE)	25		0
			Drafting Lab					ISE	50		
PC	UCVC 0506	Studio Lab	Studio Lab	0	0	4	2				0
								ESE(OE)	25	1	0
PW	UCVC 0507	Professiona Practices-I		0	0	2	1	ISE	50	1	0
			4					ISE-I	10		
DE	HOVE	Duo anom E	laatirra I	2	_	0	2	ISE-II	10	20	
PE	UCVE 05**	Program E	lective I	3	0	0	3	MSE	30		40
	00							ESE	50	20	
	1							ISE-I	10		
0.0	UCVO			_				ISE-II	10	20	
OE	05**	Open Elect	tive-l	3	0	0	3	MSE	30		40
								ESE	50	20	
AC	UCVA 0501	Building Planning & Design (Audit Course)		3	0	0	0	ISE	10	0	40
Total C	ontact	Hrs. : 30	Total	18	2	10	22	500+250+	Audit	Cou	rse
			Jule 8 's Call					230.200		- Ju	

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Teaching and Evaluation scheme for Third Year Semester-VI Teaching Teaching Teaching											
um ent	Code	9			hing eme		Evalua	ation Sc	heme		
cul	e C	Course				it		Marks			
Curriculum Component	Course	Cours			P	Credit	Component	Max	Min for Passing		
		D : 6					ISE-I	10			
PC	UCVC	Design of Concrete	3	1	0	1	ISE-II	10	20	40	
PC	0601	Structures	3	1	0	4	MSE	30		40	
		Structures					ESE	50	20]	
							ISE-I	10			
	UCVC	Concrete			0	_	ISE-II	10	20		
PC	0602	Technology	3	0		3	MSE	30		40	
		recimology				IS.	ESE	50	20	1	
							ISE-I	10			
	UCVC	Geotechnical					ISE-II	10	20		
PC	P('	Engineering -II	3	0	0	3	MSE	30	20	40	
							ESE	50	20	-	
	UCVC	Steel Structure					ISE	50		20	
PC	0604	Design Lab	0	0	4	2	ESE (OE)	25		.0	
				-			ISE	25		.0	
PC	UCVC 0605	Concrete Technology Lab	0	0	2	1		25			
							ESE (POE) 25 ISE 25			10	
PC	UCVC 0606	Geotechnical Engineering-II Lab	0	0	2	1			10		
	UCVC	Professional					ESE (OE)	25		.0	
PW	0607	Professional Practices-III	0	0	2	1	ISE	50	2	20	
		-					ISE-I	10			
PE	UCVE	Program Elective –	3	0	0	3	ISE-II	10	20	40	
1 12	06**	II	J				MSE	30		10	
							ESE	50	20		
PE	UCVE 06**	Program Elective – II Lab	0	0	2	1	ISE	25	1	.0	
							ISE-I	10			
0.5	UCVO		_			_	ISE-II	10	20	4.0	
OE	06**	Open Elective-II	3	0	0	3	MSE	30	1 20	40	
							ESE	50	20		
AC	UCVA 0601	Industrial Management & Economics (Audit Course)	2	0	0	0	ISE	100	4	-0	
Total	Contact	Hrs. : 30 Total	17	1	12	22	500+250	+Audit	Cour	rse	

COLLEGE OF ENGINEERING (AUTONOMOUS), KOLHAPUR



	Tead	ching and Evaluation	Schei	me fo	or Fi	nal Y	ear Semeste	r–VII		=
in in	Code		Teac	hin	g Sch	ieme	Evalua	tion Sc	heme	,
ult. one	ပိ	Course				Ţ.		N	Iarks	
Curriculum Component	Course	Course	L	Т	P	Credit	Component	Max	Name of the Party	for sing
PC	UCVC 0701	Quantity Survey	3	0	0	3	ISE-II ISE-II MSE ESE	10 10 30 50	20	40
HS	UCVC 0702	Construction Project & Management	3	0	0	3	ISE-II ISE-II MSE ESE	10 10 30 50	20	40
PC	UCVC 0703	Structural Dynamics and Earthquake Engineering	3	0	0	3	ISE-II ISE-II MSE	10 10 30	20	40
PC	UCVC 0704	Irrigation and Hydraulic Structure	2	0	0	2	ESE ISE-II ISE-II MSE ESE	50 20 10 10 20 30 40		40
PC	UCVC 0705	Estimation & Valuation Lab	0	0	2	1	ISE ESE (POE)	50 25 25		0
HS	UCVC 0706	Construction Project & Management Lab	0	0	2	1	ISE ESE (OE)	25 25	1	0
PC	UCVC 0707	Concrete Structure Design Lab	0	0	4	2	ISE ESE (OE)	25 25		0
PW	UCVC 0708	Project Phase-I	Ö	0	4	2	ISE	100	4	0
PE	UCVE 07**	Program Elective-III	3	0	0	3	ISE-I ISE-II MSE ESE	10 10 30 50	20 40	
AC	UCVA 0701	Advance Construction Practices (Audit Course)	3	0	0	0	ISE	100	V-0.26	0
Total	Contac	t Hrs. : 29 Total	17	0	12	20	500+250	+Audit	Cou	rse

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COLLEGE OF ENGINEERING (AUTONOMOUS), KOLHAPUR



	Teaching and Evaluation Scheme for Final Year Semester-VIII									
in a	Code		Tea	chin	g Scl	neme	Evaluation Scheme			
cult	ပိ	Course				t .		Marks		
Curriculum Component	Course	Course	L	LT		Credit	Component	Max		i for sing
PW	UCVC 0801	Internship		0	4	2	ISE	100	4	-0
PW	UCVC	Project Phase-II	0	0	8	4	ISE	100	4	-0
T VV	0802	Project Phase-II	U	U		4	ESE (OE)	100	4	-0
							ISE-I	10		
PE	UCVE	Program Elective-IV*	3	0	0	3	ISE-II	10	20	40
1.5	08**						MSE	30		
							ESE	50	20	
							ISE-I	10		
PE	UCVE	Program Flective V*	3	0	0	3	ISE-II	10	20	40
115	08**	Program Elective-V*	3	U	U	3	MSE	30		40
							ESE	50	20	
Total	Conta	6	0	12	12	20	00+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.



COLLEGE OF ENGINEERING (AUTONOMOUS), KOLHAPUR



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			
			EN ELECTIVE-2 Year Semester – VI)			
1	OE	UCVO0601	Remote Sensing and GIS, GPS			
2	OE	UCVO0602	Watershed Management			



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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	2					

	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						



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	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					

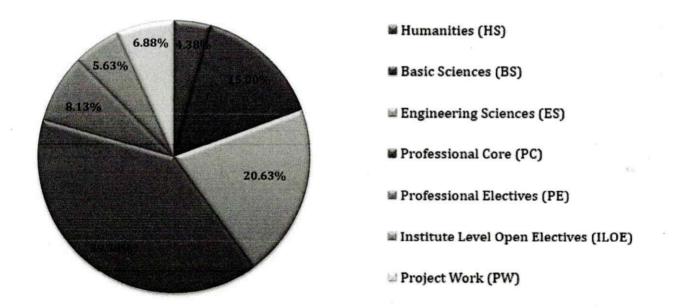
PROGRAM ELECTIVE-V										
Sr. No.	Curriculum Component	Course Code	Course Names							
1	PE	UCVE0806	Adv. Structural Design							
2	PE	UCVE0807	Structural Design and Drawing of Foundation and Retaining Wall							
3	PE	UCVE0808	Design of Bridges							
4	PE	UCVE0809	Design And Drawing of Marine Structure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

COLLEGE OF ENGINEERING (AUTONOMOUS), KOLHAPUR



CREDIT DISTRIBUTION PROPOSED BY DEPARTMENT												
Sr No	Q4	Semester/Credits								Credits	TE	
	Stream	I	II	III	IV	V	VI	VII	VIII	rec	AICTE	
		20	20	22	22	22	22	20	12	0		
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)				_k 1	1	1	2	6	10	15	
8	Mandatory Audit Course	UHV	ED	EVS	-							
Total											159	

^{*(}Construction project & Management under) HS



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