

Kolhapur Institute of Technology's College of Engineering, Kolhapur



Curriculum (Structure)

for

**S.Y.B.TECH
Mechanical Engineering Programme
(Under Graduate Programme)
From Academic Year 2018-2019**

Kolhapur Institute of Technology's College of Engineering, Kolhapur
Teaching and Evaluation scheme for
Second Year B. Tech. Programme in Mechanical Engineering Semester – III

Course Code	Course Name	Teaching Scheme (Hrs/Week)				Evaluation Scheme			
		L	T	P	C	Component	Marks		
							Max	Min passing	
UMCH0301	Engineering Mathematics- III	3	1	-	4	ISE- I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UMCH0302	Engineering Thermodynamics	3	-	-	3	ISE- I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UMCH0303	Fluid Mechanics	3	-	-	3	ISE- I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UMCH0304	Manufacturing Processes	3	-	-	3	ISE- I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UMCH0305	Machine Drawing and Computer Aided Drafting	3	1	-	4	ISE- I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UMCH361	Electrical Technology (Audit Course)	2	-	-	0	ESE	100		40
UMCH0330	Object oriented Programming Lab	-		2	1	ISE	25	10	
UMCH0331	Machine Drawing Lab	-		2	1	ISE	25	10	
						ESE(POE)	25	10	
UMCH0332	Thermal Engineering Lab	-		2	1	ISE	25	10	
						ESE(OE)	25	10	
UMCH0333	Fluid Mechanics Lab	-	-	2	1	ISE	25	10	
						ESE(POE)	25	10	
UMCH0334	Workshop Practice II	-	-	2	1	ISE	25	10	
	Total	17	2	10	22	Total : 800			
		Contact Hours/Week : 29 Hrs							

Note: **ESE:** End Semester Examination, **MSE:** Mid Semester Examination, **ISE:** In Semester Evaluation.

Kolhapur Institute of Technology's College of Engineering, Kolhapur
Teaching and Evaluation scheme for

Second Year B.Tech. Programme in Mechanical Engineering - Semester IV

Course Code	Course Name	Teaching Scheme (Hrs/Week)				Evaluation Scheme			
		L	T	P	C	Component	Marks		
							Max	Min for Passing	
UMCH0401	Analysis of Mechanical Elements	3	1	-	4	ISE- I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UMCH0402	Machine Tools	3	1	-	4	ISE- I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UMCH0403	Kinematics of Machines	3	-	-	3	ISE- I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UMCH0404	Turbo Machines	3	-	-	3	ISE- I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UMCH0405	Metallurgy	3	-	-	3	ISE- I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UMCH461	Environmental Studies (Audit Course)	2	-	-	0	ESE	100		40
UMCH0431	Workshop Practice III	-	-	2	1	ISE	25	10	
UMCH0432	Kinematics of Machines Lab	-	-	2	1	ESE (POE)	25	10	
UMCH0433	Turbo Machines Lab	-	-	2	1	ISE	25	10	
UMCH0434	Computer Graphics Lab	-	-	2	1	ISE	25	10	
UMCH0435	Metallurgy Lab	-	-	2	1	ESE(POE)	25	10	
		-	-	2	1	ISE	25	10	
		-	-	2	1	ESE(OE)	25	10	
	Total	17	2	10	22	Total: 800			
		Contact Hours/Week: 29 Hrs							

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Kolhapur Institute of Technology's College of Engineering, Kolhapur



Curriculum (Structure)

for

**T.Y.B.TECH
Mechanical Engineering Programme
(Under Graduate Programme)
From Academic Year 2019-2020**

Kolhapur Institute of Technology's College of Engineering, Kolhapur

Teaching and Evaluation scheme for

Third Year B.Tech. Programme in Mechanical Engineering - Semester V

Course Code	Course Name	Teaching Scheme (Hrs/Week)				Evaluation Scheme			
						Component	Marks		
							Max	Min For Passing	
UMCH0501	Metrology and Quality Control	3	-	-	3	ISE- I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UMCH0502	Heat Transfer	3	-	-	3	ISE- I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UMCH0503	Dynamics of Machines	3		-	3	ISE- I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UMCH0504	Design of Machine Elements	3	1	-	4	ISE- I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UMCH0505	Manufacturing Engineering	3	1	-	4	ISE- I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UMCH0561	Control Engineering (Audit Course)	3	-	-	0	ESE	100		40
UMCH0531	CAD/CAM Lab		-	2	1	ISE	25	10	
UMCH0532	Measurement Lab	-	-	2	1	ESE(POE)	25	10	
UMCH0533	Heat Transfer Lab	-	-	2	1	ISE	25	10	
UMCH0534	Dynamics of Machines Lab.	-	-	2	1	ESE(POE)	25	10	
UMCH0541	Metrology and Quality Control Lab.	-	-	2	1	ISE	25	10	
	Total	18	2	10	22	Total : 800			
		Contact Hours/Week: 30 Hrs							

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Kolhapur Institute of Technology's College of Engineering, Kolhapur
Teaching and Evaluation scheme for



Third Year B.Tech. Programme in Mechanical Engineering - Semester VI

Code	Course Name	Teaching Scheme (Hrs/Week)				Evaluation Scheme			
		L	T	P	C	Component	Marks		
							Max	Min For Passing	
UMCH0601	Machine Design	3	-	-	3	ISE- I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UMCH0602	Industrial Hydraulics and Pneumatics	3	-	-	3	ISE- I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UMCH0603	Internal Combustion Engines	3	-	-	3	ISE- I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UMCH0621*	Professional Elective – I	3	1	-	4	ISE- I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UOEL0671#	Open Elective- I	3		-	3	ISE- I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UMCH661	Process Engineering (Audit Course)	2	-	-	0	ESE	100		40
UMCH0631	Workshop Practice IV	-	-	2	1	ISE	50	20	
UMCH0632	Industrial Hydraulics and Pneumatics Lab			2	1	ESE(POE)	25	10	
UMCH0634	I C Engines Lab	-	-	2	1	ISE	25	10	
UMCH0635	Machine Design Lab	-	-	2	1	ESE(POE)	25	10	
UMCH0641	Industrial Training and Mini Project	-		4	2	ISE	25	10	
						ESE(OE)	25	10	
						ISE	50	20	
	Total	17	1	12	22	Total : 850			
		Contact ours/Week: 30 Hrs							

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Professional Elective I*	
Course Code	Course Name
UMCH0621	Safety and Maintenance Engineering
UMCH0622	Computational Fluid Dynamics
UMCH0623	Operations Management
UMCH0624	Industrial Product Design
UMCH0625	Industrial Automation and Robotics
UMCH0626	Applied Numerical Methods
UMCH0627	Advanced Automobile Design

Open Elective I #	
Course Code	Course Name
UOEL0671	Energy Conservation and Management
UOEL0672	Biomedical Engineering

Kolhapur Institute of Technology's College of Engineering, Kolhapur



Curriculum (Structure)

for

**FINAL YEAR B.TECH
Mechanical Engineering Programme
(Under Graduate Programme)
From Academic Year 2020-2021**

Kolhapur Institute of Technology's College of Engineering, Kolhapur
Teaching and Evaluation scheme for

Final Year B.Tech. Programme in Mechanical Engineering - Semester VII

Code	Course Name	Teaching Scheme (Hrs/Week)				Evaluation Scheme			
		L	T	P	C	Component	Marks		
							Max	Min For Passing	
UMCH0701	Industrial Engineering	3	-	-	3	ISE- I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UMCH0702	Mechatronics	3	-	-	3	ISE- I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UMCH0703	Refrigeration and Air Conditioning	3	-	-	3	ISE- I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UMCH0721**	Professional Elective II	3	-	-	3	ISE- I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UOEL0771##	Open Elective II	3	-	-	3	ISE- I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UMCH761	Industrial Management and Operations Research (Audit Course)	3	-	-	0	ESE	100		40
UMCH0731	Refrigeration and Air Conditioning Lab	-	-	2	1	ISE	25	10	
UMCH0732	Mechatronics Lab	-	-	2	1	ISE	25	10	
UMCH0733	Industrial Engineering Lab			2	1	ESE(POE)	25	10	
UMCH0734	Professional Elective II- Lab	-	-	2	1	ISE	25	10	
UMCH0751	Project-I and Seminar	-	-	2	1	ESE(OE)	25	10	
	Total	18	0	10	20				
		Contact Hours/Week 28 Hrs				Total: 825			

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Professional Elective II**	
Course Code	Course Name
UMCH0721	Finite Element Analysis
UMCH0722	Noise and Vibrations
UMCH0723	Automobile Engineering
UMCH0724	Advanced Foundry Technology
UMCH0725	Advanced Manufacturing Processes

Open Elective II ##	
Course Code	Course Name
UOEL0771	Product Lifecycle Management
UOEL0772	Enterprise Resource Planning

Professional Elective II-Lab	
Course Code	Course Name
UMCH0734	Finite Element Analysis Lab
UMCH0735	Noise and Vibrations Lab
UMCH0736	Automobile Engineering Lab
UMCH0737	Advanced Foundry Technology Lab
UMCH0738	Advanced Manufacturing Processes Lab

Kolhapur Institute of Technology's College of Engineering, Kolhapur
Teaching and Evaluation scheme for

Final Year B.Tech. Programme in Mechanical Engineering - Semester VIII

Code	Course Name	Teaching Scheme (Hrs/Week)				Evaluation Scheme			
		L	T	P	C	Scheme	Marks		
							Max	Min For Passing	
UMCH0801	Energy and Power Engineering	3	-	-	3	ISE- I	10		40
						ISE-II	10		
						MSE	30		
						ESE	50	20	
UMCH0802	Professional Elective III	3	-	-	3	ISE- I	10		40
						ISE-II	10		
						MSE	30		
						ESE	50	20	
UMCH0851	Project Phase II/ Internship	-	-	12	6	ISE I	75	30	
						ISE II	75	30	
						ESE(OE)	150	60	
	Online Certificate Course - I								
	Online Certificate Course - II								
	Total	6	-	12	12				
		Contact Hours/Week: 18 Hrs				Total : 500			

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Online Certificate Course based on Edx Coursera, Mooc will be offered as per suggestion by guide

Professional Elective III***	
Course Code	Course Name
UMCH0802	Design of Mechanical Systems
UMCH0803	Costing and Finance Management
UMCH0804	Marketing Management
UMCH0805	Total Quality Management
UMCH0806	Cryogenics
UMCH0807	Design of Thermal Systems
UMCH0808	Industry 4.0