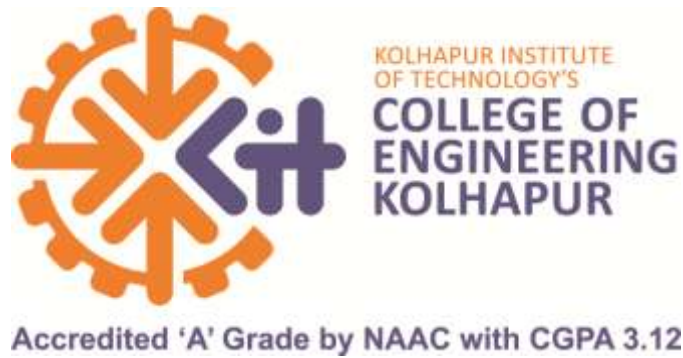


# **Kolhapur Institute of Technology's College of Engineering, Kolhapur**



## **Curriculum Structure**

**for**

**Production Engineering**  
(Under Graduate Programme)

**Academic Year 2018-2019**



**Second Year B. Tech. Program in Production Engineering Semester-III**

Course Code	Course Name	Hr/Week			Credits	Evaluation Scheme			
		L	T	P		Component	Marks		
							Max	Min for Passing	
UPRD0301	Engineering Mathematics-III	3	1	-	4	ISE-I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UPRD0302	Foundry Technology	3	-	-	3	ISE-I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UPRD0303	Machine Tools & Processes	3	1	-	4	ISE-I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UPRD0304	Thermal Engineering	3	-	-	3	ISE-I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UPRD0305	Industrial Electronics & Electrical Drives	3	-	-	3	ISE-I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UPRD0361	#Professional Skill Development	2	-	-	-		100	40	
UPRD0331	Foundry Technology –Lab	-	-	2	1	ISE	25	10	
						ESE (O.E.)	25	10	
UPRD0332	Thermal Engineering Lab	-	-	2	1	ISE	25	10	
UPRD0333	Computer Aided Machine Drawing (CAMD)-Lab	-	-	2	1	ISE	25	10	
						ESE (P.O.E.)	25	10	
UPRD0334	Workshop Practice -II	-	-	2	1	ISE	25	10	
UPRD0341	Mini Project	-	-	2	1	ISE	25	10	
						ESE (P.O.E.)	25	10	
<b>Total</b>		<b>17</b>	<b>2</b>	<b>10</b>	<b>22</b>	<b>Total Credit: 22</b>			
<b>Total Contact Hours/Week:</b>		<b>29Hrs.</b>				<b>Total Contact Hrs/Week: 29 Hrs.</b>			

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



**Second Year B. Tech. Program in Production Engineering Semester-IV**

Course Code	Course Name	Hr/Week			Credits	Evaluation Scheme			
		L	T	P		Component	Marks		
							Max	Min for Passing	
UPRD0401	Industrial Hydraulic & Pneumatics	3	-	-	3	ISE-I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UPRD0402	Strength of Materials	3	-	-	3	ISE-I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UPRD0403	Metal Joining Technology	3	-	-	3	ISE-I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UPRD0404	Metallurgy	3	1	-	4	ISE-I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UPRD0405	Theory of Machines	3	1	-	4	ISE-I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UPRD0461	#Environmental Studies	2	-	-	-	ESE	100		40
UPRD0431	Industrial Hydraulic & Pneumatics –Lab	-	-	2	1	ISE	25		10
						ESE (P.O.E.)	25		10
UPRD0432	Metal Joining Technology- Lab	-	-	2	1	ISE	25		10
UPRD0433	Meta-Lab	-	-	2	1	ISE	25		10
UPRD0434	Theory of Machines-Lab	-	-	2	1	ISE	25		10
						ESE (P.O.E.)	25		10
UPRD0435	Workshop Practice – III- Lab	-	-	2	1	ISE	25		10
						ESE (P.O.E.)	25		10
<b>Total</b>		<b>17</b>	<b>2</b>	<b>10</b>	<b>22</b>	<b>Total Credit: 22</b>			
<b>Total Contact Hours/Week:</b>		<b>29</b>				<b>Total Contact Hrs/Week: 29 Hrs.</b>			

**Kolhapur Institute of Technology's College of Engineering, Kolhapur**

Teaching and Evaluation scheme for



**Third Year B. Tech. Program in Production Engineering Semester-V**

Course Code	Course Name	Hr/Week			Credits	Evaluation Scheme			
		L	T	P		Component	Marks		
							Max	Min for Passing	
UPRD0501	Metal Cutting Technology	3	-	-	3	ISE-I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UPRD0502	Mechanical Measurement & Metrology	4	-	-	4	ISE-I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UPRD0503	Metal Forming & Plastic Technology	3	-	-	3	ISE-I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UPRD05##	Professional Elective-I	2	1	-	3	ISE-I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UPRD0504	Machine Design	3	1	-	4	ISE-I	10		40
						MSE	30		
						ISE-II	10		
						ESE	50	20	
UPRD0561	<sup>#</sup> Rapid Prototyping	2	-	-	-	-	100	40	
UPRD0531	Mechanical Measurement & Metrology-Lab	-	-	2	1	ISE	25	10	
						ESE (O.E.)	25	10	
UPRD0532	Metal Forming & Plastic Technology –Lab	-	-	2	1	ISE	50	20	
UPRD0533	Metal Cutting Technology	-	-	2	1	ISE	50	20	
UPRD0534	Computer Aided Solid Modeling-Lab	-	-	2	1	ISE	25	10	
						ESE (P.O.E.)	25	10	
UPRD0535	CAM Lab-I	-	-	2	1	ISE	25	10	
						ESE	25	10	
<b>Total</b>		<b>17</b>	<b>2</b>	<b>10</b>	<b>22</b>	<b>Total Credit: 22</b>			
<b>Total Contact Hours/Week:</b>		<b>29</b>				<b>Total Contact Hrs/Week: 29 Hrs.</b>			

<b>Professional Elective I</b>	
<b>Course Code</b>	<b>Course Name</b>
UPRD0521	Numerical Methods
UPRD0522	Ergonomics & WS
UPRD0523	Total Quality Management
UPRD0524	Entrepreneurship Development -I
UPRD0525	Composite Materials and Technology
UPRD0526	Control Engineering
UPRD0527	Computer Graphics
UPRD0528	Human Behavior at Work

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



**Third Year B. Tech. Program in Production Engineering Semester-VI**

Course Code	Course Name	Hr/Week			Credits	Evaluation Scheme			
		L	T	P		Component	Marks		
							Max	Min for Passing	
UPRD0601	Mechatronic Systems	3	-	-	3	ISE-I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UPRD0602	Industrial Mgt & Psychology	3	1	-	4	ISE-I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UPRD0603	Design of Jigs, Fixtures and Dies	3	1	-	4	ISE-I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UPRD06##	Professional Elective-II	3	-	-	3	ISE-I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UPRD06##	Open Elective – I	3	-	-	3	ISE-I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UPRD0661	#Internet of Things	2	-	-	-	ESE	100	40	
UPRD0631	Mechatronic Systems-Lab	-	-	2	1	ISE	25	10	
						ESE (P.O.E.)	25	10	
UPRD0632	Design of Jigs, Fixtures and Dies-Lab	-	-	2	1	ISE	25	10	
						ESE (O.E.)	25	10	
UPRD0633	CAM- Lab II	-	-	2	1	ISE	25	10	
						ESE (P.O.E.)	25	10	
UPRD0634	Industrial Mgt & Psychology - Lab	-	-	2	1	ISE	25	10	
UPRD0641	Seminar*	-	-	2	1	ISE	25	10	
<b>Total</b>		<b>17</b>	<b>2</b>	<b>10</b>	<b>22</b>	<b>Total Credit: 22</b>			
<b>Total Contact Hours/Week:</b>		<b>29</b>				<b>Total Contact Hrs/Week: 29 Hrs.</b>			

\*Note: For Seminar a group of nine students shall be considered for workload purpose.

√ It is mandatory to undergo two weeks Industrial Training after semester VI

<b>Professional Elective II</b>	
<b>Course Code</b>	<b>Course Name</b>
UPRD0621	Plant layout & Material Handling
UPRD0622	Industrial Engineering
UPRD0623	Energy Engineering
UPRD0624	Entrepreneurship Development -II
UPRD0625	Reliability Engineering
UPRD0626	Lean Manufacturing
UPRD0627	Marketing Management

<b>Open Elective I</b>		<b>Offered by Department</b>
<b>Course Code</b>	<b>Course Name</b>	
UPRD0681	Safety Engineering	Production Engineering
UPRD0682	Quality Management	Production Engineering
UPRD0683	Entrepreneurship Development	Production Engineering

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



**Final Year B. Tech. Program in Production Engineering Semester-VII**

Course Code	Course Name	Hr/Week			Credits	Evaluation Scheme			
		L	T	P		Component	Marks		
							Max	Min for Passing	
UPRD0701	Finite Element Analysis	2	-	-	2	ISE-I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UPRD0702	Production & Operations Management	3	1	-	4	ISE-I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UPRD0703	Process Engineering and Technology	3	-	-	3	ISE-I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UPRD0761	#Quality Mgt	2	-	-	-	ESE	100	40	
UPRD07##	Professional Elective-III	3	-	-	3	ISE-I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UPRD07##	Open Elective-II	3		-	3	ISE-I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UPRD0731	Finite Element Analysis-Lab	-	-	2	1	ISE	25	10	
						ESE (P.O.E.)	25	10	
UPRD0732	Process Engineering and Technology-Lab	-	-	2	1	ISE	25	10	
						ESE (O.E.)	25	10	
UPRD07##	Professional Elective-III-Lab	-	-	2	1	ISE	50	20	
UPRD07##	Open Elective-II-Lab			2	1	ISE	25	10	
UPRD0751	Major Project Phase-I	-	-	2*	1	ISE	25	10	
						ESE (O.E.)	25	10	
<b>Total</b>		<b>16</b>	<b>1</b>	<b>10</b>	<b>20</b>	<b>Total Credit: 20</b>			
<b>Total Contact Hours/Week:</b>		<b>27</b>				<b>Total Contact Hrs/Week: 27 Hrs.</b>			



<b>Open Elective II</b>		<b>Offered by Department</b>
<b>Course Code</b>	<b>Course Name</b>	
UPRD0781	Mechanical Measurement & Control	Production Engineering
UPRD0782	Product Design and Development	Production Engineering
UPRD0783	Maintenance Engineering	Production Engineering
UPRD0784	Project Management	Production Engineering

<b>Open Elective II-Lab</b>		<b>Offered by Department</b>
<b>Course Code</b>	<b>Course Name</b>	
UPRD0740	Mechanical Measurement & Control Lab	Production Engineering
UPRD0741	Product Design and Development Lab	Production Engineering
UPRD0742	Maintenance Engineering Lab	Production Engineering
UPRD0743	Project Management Lab	Production Engineering

<b>Professional Elective III</b>	
<b>Course Code</b>	<b>Course Name</b>
UPRD0721	Refrigeration & Air Conditioning
UPRD0722	Automotive Technology ( Automotive Electronics)
UPRD0723	Computer Integrated Manufacturing Systems
UPRD0724	Industrial Automation & Robotics
UPRD0725	Industrial Product Development
UPRD0726	Machine Tool Design

<b>Professional Elective III- Lab</b>	
<b>Course Code</b>	<b>Course Name</b>
UPRD0733	Refrigeration & Air Conditioning Lab
UPRD0734	Automotive Technology ( Automotive Electronics) Lab
UPRD0735	Computer Integrated Manufacturing System Lab
UPRD0736	Industrial Automation & Robotics Lab
UPRD0737	Industrial Product Development Lab
UPRD0738	Machine Tool Design Lab

**Final Year B. Tech. Program in Production Engineering Semester-VIII**

Course Code	Course Name	Hr/Week			Credits	Evaluation Scheme			
		L	T	P		Component	Marks		
							Max	Min for Passing	
UPRD0801	Costing & Cost Control	3	-	-	3	ISE-I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UPRD0802	Operation Research	3	-	-	3	ISE-I	10	20	40
						MSE	30		
						ISE-II	10		
						ESE	50		
UPRD0851	Major Project Phase II and Internship	-	-	12	6	ISE-I	75	30	
						ISE-II	75	30	
						ESE (O.E.)	150	60	
<b>Total</b>		<b>6</b>	<b>-</b>	<b>12</b>	<b>12</b>	<b>Total Credit: 12</b>			
<b>Total Contact Hours/Week:</b>		<b>18</b>				<b>Total Contact Hrs/Week: 18 Hrs.</b>			

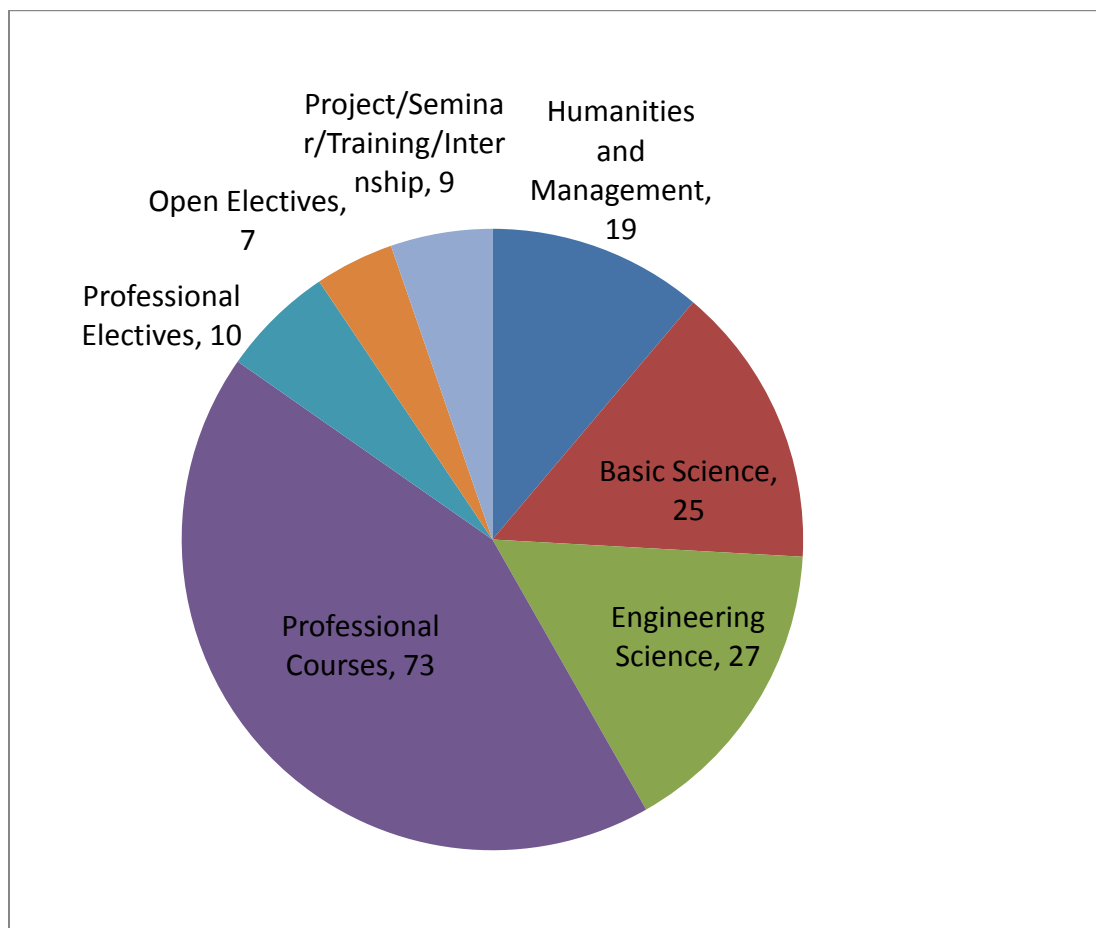
Audit Courses	
Course Code	Course Name
UPRD0321	Profession Skill Development
UPRD0421	Environmental Studies
UPRD0521	Rapid Manufacturing
UPRD0621	Internet of Things
UPRD0721	Quality Management

**Abbreviations:** L: Lectures, T: Tutorial, P: Practical, ISE: In Semester Exam, MSE: Mid Semester Exam, ESE: End Semester Examination, P.O.E.: Practical and Oral Exam. O.E: Oral Examination  
# Audit Course.

## Kolhapur Institute of Technology's College of Engineering, Kolhapur Proposed Program Credit Distribution



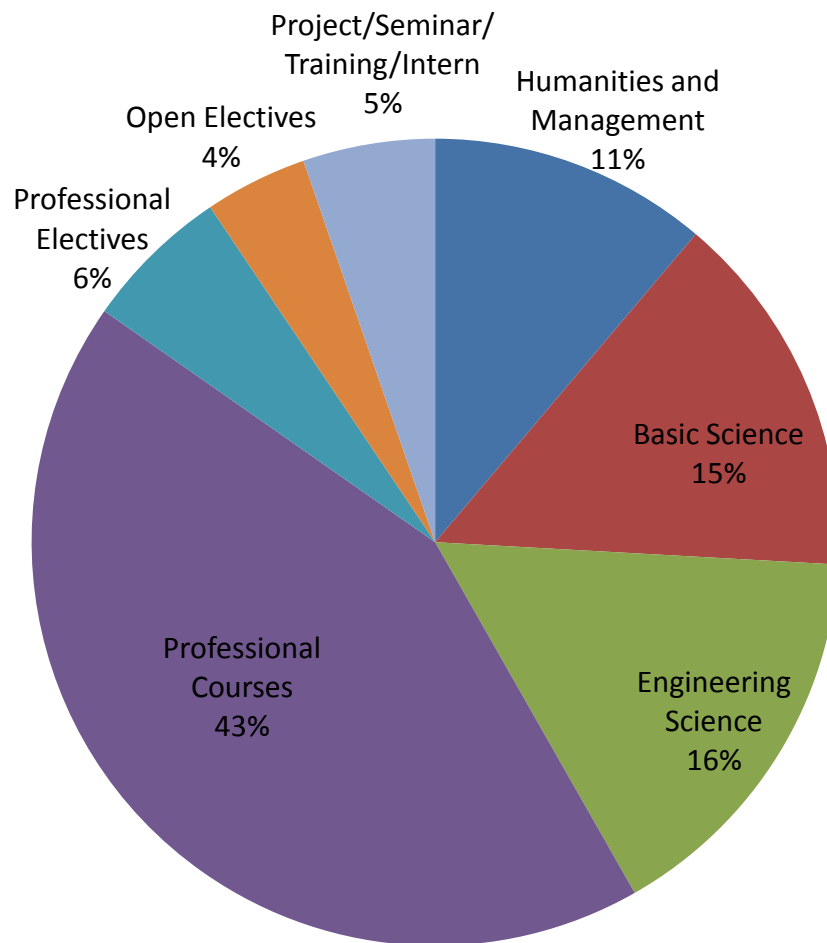
Curriculum Component	Credits	As per AICTE Norms
Humanities and Management	19	12
Basic Science	25	25
Engineering Science	27	24
Professional Courses	73	48
Professional Electives	10	18
Open Electives	7	18
Project/Seminar/Training/Internship	9	15
<b>Total</b>	<b>170</b>	<b>160</b>



**Kolhapur Institute of Technology's College of Engineering, Kolhapur  
Proposed Program Credit Distribution Percent wise**



<b>Curriculum Component</b>	<b>Percentage</b>	<b>As per AICTE Norms</b>
Humanities and Management	11	8
Basic Science	15	16
Engineering Science	16	15
Professional Courses	43	30
Professional Electives	6	11
Open Electives	4	11
Project/Seminar/Training/Internship	5	9
<b>Total</b>	<b>100</b>	<b>100</b>



**PRODUCTION ENGINEERING**