

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI.**



**Scheme of Teaching and Examinations and Syllabus**  
**M.Tech Production Management (MPM)**  
**(Effective from Academic year 2020 - 21)**

<b>VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI</b> <b>Scheme of Teaching and Examinations – 2020 - 21</b> <b>M.Tech Production Management (MPM)</b> <b>Choice Based Credit System (CBCS) and Outcome Based Education(OBE)</b>											
<b>I SEMESTER</b>											
Sl. No	Course	Course Code	Course Title	Teaching Hours per Week			Examination			Credits	
				Theory	Practical	Skill Development Activities	Duration in hours	CIE Marks	SEE Marks		Total Marks
				L	P	SDA					
1	PCC	20MPM11	Mathematical Methods in Engg.	03	--	02	03	40	60	100	4
2	PCC	20MPM12	Theory Of Metal Cutting	03	--	02	03	40	60	100	4
3	PCC	20MPM13	Lean Manufacturing Systems	03	--	02	03	40	60	100	4
4	PCC	20MPM14	Computer Integrated Manufacturing & Automation	03	--	02	03	40	60	100	4
5	PCC	20MPM15	Non-Traditional Machining Processes	03	--	02	03	40	60	100	4
6	PCC	20MPML16	Laboratory – I	--	04	--	03	40	60	100	2
7	PCC	20RMI17	Research Methodology and IPR	01	--	02	03	40	60	100	2
<b>TOTAL</b>				<b>17</b>	<b>04</b>	<b>12</b>	<b>21</b>	<b>280</b>	<b>420</b>	<b>700</b>	<b>24</b>
<b>Note: PCC: Professional core.</b>											
<b>Skill development activities:</b> Students and course instructor/s to involve either individually or in groups to interact together to enhance the learning and application skills. The students should interact with industry (small, medium and large), understand their problems or foresee what can be undertaken for study in the form of research/ testing / projects, and for creative and innovative methods to solve the identified problem. The students shall (1) Gain confidence in modelling of systems and algorithms. (2) Work on different software/s (tools) to Simulate, analyse and authenticate the output to interpret and conclude. Operate the simulated system under changed parameter conditions to study the system with respect to thermal study, transient and steady state operations, etc. (3) Handle advanced instruments to enhance technical talent. (4) Involve in case studies and field visits/ field work. (5) Accustom with the use of standards/codes etc., to narrow the gap between academia and industry. All activities should enhance student's abilities to employment and/or self-employment opportunities, management skills, Statistical analysis, fiscal expertise, etc.											
<b>Internship:</b> All the students have to undergo mandatory internship of 6 weeks during the vacation of I and II semesters and /or II and III semesters. A University examination shall be conducted during III semester and the prescribed internship credit shall be counted for the same semester. Internship shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not take-up/complete the internship shall be declared as fail in internship course and have to complete the same during the subsequent University examination after satisfying the internship requirements.											
<b>Note:</b> (i) Four credit courses are designed for 50 hours Teaching – Learning process. (ii) Three credit courses are designed for 40 hours Teaching – Learning process. (iii) Two credit courses are designed for 25 hours Teaching – Learning process.											

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II SEMESTER											
Sl. No	Course	Course Code	Course Title	Teaching Hours /Week			Examination				Credits
				Theory	Practical/ Seminar	Skill Development Activities	Duration in hours	CIE Marks	SEE MARKS	Total Marks	
				L	P	SDA					
1	PCC	20MPM21	Theory Of Metal Forming	03	--	02	03	40	60	100	4
2	PCC	20MPM22	Operations Management	03	--	02	03	40	60	100	4
3	PCC	20MPM23	Non - Destructive Testing	03	--	02	03	40	60	100	4
4	PEC	20MPM24X	Professional elective 1	04	--	--	03	40	60	100	4
5	PEC	20MPM25X	Professional elective 2	04	--	--	03	40	60	100	4
6	PCC	20MPML26	Laboratory - II	--	04	--	03	40	60	100	2
7	PCC	20MPM27	Technical Seminar	--	02	--	--	10	--	100	2
<b>TOTAL</b>				<b>17</b>	<b>06</b>	<b>06</b>	<b>18</b>	<b>340</b>	<b>360</b>	<b>700</b>	<b>24</b>
<b>Note: PCC: Professional core, PEC: Professional Elective.</b>											
<b>Professional Elective 1</b>						<b>Professional Elective 2</b>					
<b>Course Code under 20MPM24X</b>		<b>Course title</b>				<b>Course Code under 20MPM25X</b>		<b>Course title</b>			
20MPM241		Quantitative Techniques In Decision				20MPM251		Supply Chain Management			
20MPM242		Quality And Reliability Engineering				20MPM252		Human Resource Management			
20MPM243		Tool Engineering				20MPM253		Advanced Joining Processes			
20MPM244		Finite Element Analysis				20MPM254		Product life cycle Management			
<b>Note:</b>											
<p><b>1. Technical Seminar:</b> CIE marks shall be awarded by a committee comprising of HoD as Chairman, Guide/co-guide, if any, and a senior faculty of the department. Participation in the seminar by all postgraduate students of the programme shall be mandatory.</p> <p>The CIE marks awarded for Technical Seminar, shall be based on the evaluation of Seminar Report, Presentation skill and performance in Question and Answer session in the ratio 50:25:25.</p> <p><b>2. Internship:</b> All the students shall have to undergo mandatory internship of 6 weeks during the vacation of I and II semesters and /or II and III semesters. A University examination shall be conducted during III semester and the prescribed internship credit shall be counted in the same semester. Internship shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not take-up/complete the internship shall be declared as fail in internship course and have to complete the same during the subsequent University examination after satisfying the internship requirements.</p>											

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**III SEMESTER**

Sl. No	Course	Course Code	Course Title	Teaching Hours /Week			Examination				Credits
				Theory	Practical/ Mini-Project/ Internship	Skill Development activities	Duration in hours	CIE Marks	Total Marks	Total Marks	
				L	P	SDA					
1	PCC	20MPM31	Total Quality Management	03	--	02	03	40	60	100	4
2	PEC	20MPM32X	Professional elective 3	03	--	--	03	40	60	100	3
3	PEC	20MPM33X	Professional elective 4	03	--	--	03	40	60	100	3
4	Project	20MPM34	Project Work phase -1	--	02	--	--	100	--	100	2
5	PCC	20MPM35	Mini-Project	--	02	--	--	100	--	100	2
6	Internship	20MPMI36	Internship	(Completed during the intervening vacation of I and II semesters and /or II and III semesters.)			03	40	60	100	6
<b>TOTAL</b>				<b>09</b>	<b>04</b>	<b>02</b>	<b>12</b>	<b>360</b>	<b>240</b>	<b>600</b>	<b>20</b>

**Note: PCC: Professional core, PEC: Professional Elective.**

Professional elective 3		Professional elective 4	
Course Code under	Course title	Course Code under	Course title
20MPM321	Rapid Prototyping	20MPM331	Simulation And Modeling Of Manufacturing Systems
20MPM322	Advanced Fluid Power Systems	20MPM332	Advanced Foundry Technology
20MPM323	Surface Treatment And Finishing	20MPM333	Project Management
20MPM324	Value Engineering	20MPM334	Computer Application in Design

**Note:**

**1. Project Work Phase-1:** Students in consultation with the guide/co-guide if any, shall pursue literature survey and complete the preliminary requirements of selected Project work. Each student shall prepare relevant introductory project document, and present a seminar.

CIE marks shall be awarded by a committee comprising of HoD as Chairman, Guide/co-guide if any, and a senior faculty of the department. The CIE marks awarded for project work phase -1, shall be based on the evaluation of Project Report, Project Presentation skill and performance in Question and Answer session in the ratio 50:25:25.

SEE (University examination) shall be as per the University norms.

**2. Internship:** Those, who have not pursued /completed the internship shall be declared as fail in internship course and have to complete the same during subsequent University examinations after satisfying the internship requirements. Internship SEE (University examination) shall be as per the University norms.



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<b>IV SEMESTER</b>										
Sl. No	Course	Course Code	Course Title	Teaching Hours /Week		Examination				Credits
				Theory	Practical/Field work	Duration in hours	CIE Marks	SEE Marks Viva voce	Total Marks	
				L	P					
1	Project	20MPM41	Project work phase -2	--	04	03	40	60	100	20
<b>TOTAL</b>				--	<b>04</b>	<b>03</b>	<b>40</b>	<b>60</b>	<b>100</b>	<b>20</b>

**Note:****1. Project Work Phase-2:**

CIE marks shall be awarded by a committee comprising of HoD as Chairman, Guide/co-guide, if any, and a Senior faculty of the department. The CIE marks awarded for project work phase -2, shall be based on the evaluation of Project Report subjected to plagiarism check, Project Presentation skill and performance in Question and Answer session in the ratio 50:25:25.

SEE shall be at the end of IV semester. Project work evaluation and Viva-Voce examination (SEE), after satisfying the plagiarism check, shall be as per the University norms.

