



**AJ INSTITUTE OF ENGINEERING & TECHNOLOGY**

A Unit of Laxmi Memorial Education Trust

(Approved by AICTE, New Delhi, Affiliated to Visvesvaraya Technological University, Belgaivi)

**Department of Mechanical Engineering**


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**Ref. No: AJIET/ME/ MP /2022-2023**

**Date: 03/10/2022**

### **CIRCULAR**

Students of 6<sup>th</sup> semester are required to form major project batches. Students must form a project group with minimum of two members and maximum of four members. By 12<sup>th</sup> Oct 2022, the major project list should be delivered to the project coordinator. After the major project batch list have been finalized, the major project guide allotment will be done.

  
Major Project Coordinator

  
Principal  
A.J. Institute of Engineering & Technology  
Mangaluru - 575 006

  
HOD

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**  
**Scheme of Teaching and Examination 2018 – 19**  
**Outcome Based Education(OBE) and Choice Based Credit System (CBCS)**  
**(Effective from the academic year 2018 – 19)**

**VII SEMESTER**

Sl. No	Course and Course code		Course Title	Teaching Department	Teaching Hours /Week			Examination			Credits	
					Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks		Total Marks
					L	T	P					
1	PCC	18ME71	Control Engineering		3	+	+	03	40	60	100	3
2	PCC	18ME72	Computer Aided Design and Manufacturing		3	+	+	03	40	60	100	3
3	PEC	18ME73X	Professional Elective - 2		3	+	+	03	40	60	100	3
4	PEC	18ME74X	Professional Elective - 3		3	+	+	03	40	60	100	3
5	OEC	18ME75X	Open Elective -B		3	+	+	03	40	60	100	3
6	PCC	18MEL76	Computer Integrated Manufacturing Lab		--	2	2	03	40	60	100	2
	PCC	18MEL77	Design Lab		--	2	2	03	40	60	100	2
7	Project	18MEP78	Project Work Phase - 1		--	--	2	--	100	--	100	1
8	Interaship	--	Internship	(If not completed during the vacation of VI and VII semesters, it shall be carried out during the vacation of VII and VIII semesters )								
<b>TOTAL</b>					<b>15</b>	<b>04</b>	<b>06</b>	<b>18</b>	<b>340</b>	<b>360</b>	<b>700</b>	<b>20</b>

**Professional Elective - 2**

Course code under 18XX73X	Course Title	Course code under 18XX73X	Course Title
18ME731	Design for Manufacture	18ME734	Total Quality Management
18ME732	Automation and Robotics	18ME735	Operations Research
18ME733	Computational Fluid Dynamics		

**Professional Electives - 3**

Course code under 18XX74X	Course Title	Course code under 18XX74X	Course Title
18ME741	Additive Manufacturing	18ME744	Mechatronics
18ME742	Emerging Sustainable Building Cooling Technologies	18ME745	Project Management
18ME743	Theory of Plasticity		

**Open Elective -B**

Students can select any one of the open electives offered by other Departments except those that are offered by the parent Department (Please refer to the list of open electives under 18XX75X).

Selection of an open elective shall not be allowed if,

- The candidate has studied the same course during the previous semesters of the programme.
- The syllabus content of open elective is similar to that of the Departmental core courses or professional electives.
- A similar course, under any category, is prescribed in the higher semesters of the programme.

Registration to electives shall be documented under the guidance of Programme Coordinator/ Advisor/Mentor.

**Project work:**

Based on the ability/abilities of the student/s and recommendations of the mentor, a single discipline or a multidisciplinary project can be assigned to an individual student or to a group having not more than 4 students. In extraordinary cases, like the funded projects requiring students from different disciplines, the project student strength can be 5 or 6.

**CIE procedure for Project Work Phase - 1:**

(i) **Single discipline:** The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the Guide.

The CIE marks awarded for the project work phase -1, shall be based on the evaluation of the project work phase -1 Report (covering Literature Survey, Problem identification, Objectives and Methodology), project presentation skill and question and answer session in the ratio 50:25:25. The marks awarded for the Project report shall be the same for all the batch mates.

(ii) **Interdisciplinary:** Continuous Internal Evaluation shall be group wise at the college level with the participation of all guides of the college. Participation of external guide/s, if any, is desirable.

The CIE marks awarded for the project work phase -1, shall be based on the evaluation of project work phase -1 Report (covering Literature Survey, Problem identification, Objectives and Methodology), project presentation skill and question and answer session in the ratio 50:25:25. The marks awarded for the project report shall be the same for all the batch mates.

**Internship:** All the students admitted to III year of BE/B. Tech shall have to undergo mandatory internship of 4 weeks during the vacation of VI and VII semesters and /or VII and VIII semesters. A University examination shall be conducted during VIII semester and the prescribed credit shall be included in VIII 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 fail and shall have to complete during subsequent University examination after satisfying the Internship requirements.

Principal

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**VIII SEMESTER**

Sl. No	Course and Course code		Course Title	Teaching Department	Teaching Hours /Week			Examination			Credits	
					Theory Lecture	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks		Total Marks
					L	T	P					
1	PCC	18ME81	Energy Engineering		3	--	--	03	40	60	100	3
2	PEC	18ME82X	Professional Elective - 4		3	--	--	03	40	60	100	3
3	Project	18MEP83	Project Work Phase - 2		--	--	2	03	40	60	100	8
4	Seminar	18MES84	Technical Seminar		--	--	2	03	100	--	100	1
5	Internship	18XXI85	Internship	Completed during the vacation/s of VI and VII semesters and /or VII and VIII semesters )				03	40	60	100	3
<b>TOTAL</b>					<b>06</b>	<b>--</b>	<b>04</b>	<b>15</b>	<b>260</b>	<b>240</b>	<b>500</b>	<b>18</b>

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

**Professional Electives - 4**

Course code under 18XX82X	Course Title	Course code under 18XX82X	Course Title
18ME821	CNC Machine Tools	18ME824	Automobile Engineering
18ME822	Tribology	18ME825	Tool Design
18ME823	Non-Destructive Testing and Evaluation	18ME826	Fracture Mechanics

**Project Work**

**CIE procedure for Project Work Phase - 2:**

(i) **Single discipline:** The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the Guide.

The CIE marks awarded for the project work phase -2, shall be based on the evaluation of project work phase -2 Report, project presentation skill and question and answer session in the ratio 50:25:25. The marks awarded for the project report shall be the same for all the batch mates.

(ii) **Interdisciplinary:** Continuous Internal Evaluation shall be group wise at the college level with the participation of all guides of the college. Participation of external guide/s, if any, is desirable.

The CIE marks awarded for the project work phase -2, shall be based on the evaluation of project work phase -2 Report, project presentation skill and question and answer session in the ratio 50:25:25. The marks awarded for the project report shall be the same for all the batch mates.

**SEE for Project Work Phase - 2:**

(i) **Single discipline:** Contribution to the project and the performance of each group member shall be assessed individually in semester end examination (SEE) conducted at the department.

(ii) **Interdisciplinary:** Contribution to the project and the performance of each group member shall be assessed individually in semester end examination (SEE) conducted separately at the departments to which the student/s belongs to.

**Internship:** Those, who have not pursued /completed the internship, shall be declared as fail and have to complete during subsequent University examination after satisfying the internship requirements.

**AICTE activity Points:** In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.

Activity points of the students who have earned the prescribed AICTE activity Points shall be sent the University along with the CIE marks of 8th semester. In case of students who have not satisfied the AICTE activity Points at the end of eighth semester, the column under activity Points shall be marked NSAP (Not Satisfied Activity Points).

Principal

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