



A J INSTITUTE OF ENGINEERING AND TECHNOLOGY

NH-66, Kottara Chowki, Mangaluru -575006, Karnataka, INDIA

A Unit of Laxmi Memorial Education Trust®

(Approved by AICTE, New Delhi. Affiliated to Visveswaraya Technological University, Belagavi)

Accredited by NBA (BE: CV, CSE, ECE, ISE, ME)

Department of Mechanical Engineering

Ref. No: AJIET/ME/ MP /2023-2024

Date: 12/09/2023

CIRCULAR

Students of 6th 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 23rd Sept 2023, 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 | Internship | -- | 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) | | | | | | | | |
| TOTAL | | | | | 15 | 04 | 06 | 18 | 340 | 360 | 700 | 20 |

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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Scheme of Teaching and Examination 2018 – 19
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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 |
| TOTAL | | | | | 06 | -- | 04 | 15 | 260 | 240 | 500 | 18 |

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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