**Purpose**

The Major Project experience is the culminating academic endeavor of students who earn a degree in their Undergraduate Programs. The project provides students with the opportunity to explore a problem or issue of particular personal or professional interest and to address that problem or issue through focused study and applied research under the direction of a faculty member. The project demonstrates the student's ability to synthesize and apply the knowledge and skills acquired in his/her academic program to real-world issues and problems. This final project affirms students' ability to think critically and creatively, to solve practical problems, to make reasoned and ethical decisions, and to communicate effectively.

**Instructional Objectives**

At the end of the course, student will be able to

1. Provide students with the opportunity to apply the knowledge and skills acquired in their courses to a specific problem or issue.  
2. Allow students to extend their academic experience into areas of personal interest, working with new ideas, issues, organizations, and individuals.  
3. Encourage students to think critically and creatively about academic, professional, or social issues and to further develop their analytical and ethical leadership skills necessary to address and help solve these issues.  
4. Provide students with the opportunity to refine research skills and demonstrate their proficiency in written and/or oral communication skills.  
5. Take on the challenges of teamwork, prepare a presentation in a professional manner, and document all aspects of design work.

**Session Description of Topics**

1. The Major project is a major component of our engineering curriculum: it is the culmination of the program of study enabling the students to showcase the knowledge and the skills they have acquired during the previous four years, design a product/service of significance, and solve an open-ended problem in engineering.  
2. Each student must register to the project course related to his or her program.  
3. Major Project course consists of one semester and would be allowed to register only during the final year of study.  
4. The Major Project may be initiated during the pre-final semester but will be assessed and credits transferred only during the last semester of study, upon completion of all other degree requirements. Generally the undergraduate major project is a team based one.  
5. Each team in the major project course will consist of maximum of 5 students.  
6. Each project will be assigned a faculty, who will act as the supervisor.  
7. The project shall be driven by realistic constraints like that related to economic, environmental, social, political, ethical, health & safety, manufacturability and sustainability.
8. Each group must document and implement a management structure. Group leadership roles must be clearly identified including who has responsibility for monitoring project deliverables and group coordination.

9. A group project may be interdisciplinary, with students enrolled in different engineering degrees, or in Engineering plus other faculties such as Management, Medical and Health Sciences, Science and Humanities.

10. Each student team is expected to maintain a log book that would normally be used to serve as a record of the way in which the project progressed during the course of the session.

11. Salient points discussed at meetings with the supervisor (i.e., suggestions for further meetings, changes to experimental procedures) should be recorded by the student in order to provide a basis for subsequent work.

12. The logbook may be formally assessed;

13. The contribution of each individual team member will be clearly identified and the weightage of this component will be explicitly considered while assessing the work done.

14. A project report is to be submitted on the topic which will be evaluated during the final review.

15. Assessment components will be as spelt out in the regulations.

16. The department will announce a marking scheme for awarding marks for the different sections of the report.

17. The project report must possess substantial technical depth and require the students to exercise analytical, evaluation and design skills at the appropriate level.

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<tr>
<th>Course nature</th>
<th>Project – 100 % Internal continuous Assessment</th>
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<tbody>
<tr>
<td>Assessment Method (Weightage 100%)</td>
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<tr>
<td>In-semester</td>
<td>Assessment tool</td>
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<tr>
<td>Weightage</td>
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<tr>
<td>End semester examination</td>
<td>Assessment Tool</td>
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Total contact hours -