

**BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI**  
**Hyderabad Campus**  
**FIRST SEMESTER 2022-2023**  
**Course Handout Part II**

**Date: 23-08-2022**

In addition to part -I (General Handout for all courses appended to the time table) this portion gives further specific details regarding the course.

Course No: DE G522  
Course Title: Design Projects  
Instructor-in-Charge: **Dr. K. Ram Chandra Murthy**

**Course Description :** Practice in engineering design through projects emphasizing creative solutions to engineering design problem. Illustrative case studies of design will be taken up. The course will be conducted through selected group/individual projects.

**Scope & Objective:**

This course is intended at providing hands-on experience to the students through Design, Fabrication and Testing of a mechanical component, to produce creative solutions to engineering design problems under direct supervision of Instructor. Students will also gain experience of working in a team.

**Working Methodology:**

Students will form project groups (two or three student per group) and propose engineering design problems with possible solutions. The problems can be of any verity, ranging from daily life operations to complicated engineering problems. The project groups will prepare the proposal and submit to the instructor in charge. Based on the required revision and approval, the design problems/ideas will be assigned. Students will submit weekly progress report to the instructor in prescribed format. There will be a mid-semester (model/poster) and end semester presentations (Demonstration/Poster presentation). Credit will be awarded through continuous evaluation process.

**Course Plan:**

S. No.	<i>Design project landmarks</i>	<i>Duration (Weeks)</i>
1	Selection of project& Submission of proposal	1
2	Design of product / component	1
3	Computer Aided Drafting	1
4	Verification and approval of drawing from Instructor	
5	Final Job drawing (in the form of assembly and disassembly in drawing sheet)	1
6	Material selection	1
7	Material and parts requirements planning	
8	Verification of material requirements with Workshop	2
9	Opening of Work order	
10	Opening of Indent (if applicable)	
11	Fabrication work	4
12	Testing of product / component	1

13	Preparation of Final report	1
14	Final evaluation and project demonstration	
Total		13 Weeks

**Evaluation Scheme:**

<i>Component</i>	<i>Weightage</i>	<i>Date &amp; Time</i>	<i>Remarks</i>
Weekly progress	40	At an interval of 7 days from first day of commencement of session.	Students are required to interact with the Instructor and submit progress report in the prescribed Proforma.
Mid semester Project presentation and evaluation	20	To be announced	
End semester Project presentation and evaluation	40	To be announced	

**Note:** Final grade of a student will depend on both individual and design team performances. This means your grade depends not only on how well you are individually in a team, but also on how well your team members do. It is advised, therefore, to conduct periodic internal reviews of the team's performance and to help any members that for any reason are lagging behind. Your instructor will also help you in this process.

**Chamber consultation hour:** To be announced.

**Notices:** Notices if any will be displayed in Mechanical Engineering Notice Board only.

**Academic Honesty and Integrity Policy:** Academic honesty and integrity are to be maintained by all the students throughout the semester and no type of academic dishonesty is acceptable.

**Instructor-in-Charge**  
**DE G522**