

Module Code& Title	: PRW201 Project Work
Programme	: Diploma in Civil, Electrical, Mechanical, ECE, CSN, Surveying Engg.
Credit	: 12
Module Tutor	: All Tutors
Module Coordinator	: As appointed by Programme leader

General Objectives

This module intends to expose students to the processes of conceptualization of engineering problems through proper planning, designing, resources mobilization, execution and result verification. It will enable the students to integrate and consolidate the conceptual knowledge and skills acquired in class room learning process in executing the real work and develop interpersonal and managerial skills.

Learning Outcomes

On completion of the module, students will be able to:

- Identify Engineering problems.
- Relate theoretical concept into practice.
- Design simple engineering works.
- Prepare estimate and Bill of quantities.
- Apply proper planning procedures in carrying out the works.
- Develop confidence to work in groups or independently.
- Develop managerial and leadership qualities.
- Demonstrate report writing and presentation skills.

Learning Objectives

- Critically review the philosophy and principles underpinning PBL to work on real life problems.
- Lead, collaborate and work in a multi-cultural multi-disciplinary team environment
- Apply proper planning procedure in solving problems creatively.
- Disseminate research skills.
- Design small scale engineering discrete works/prototypes.
- Relate theoretical concept into practice through findings.

Learning and Teaching Approach

The learning and teaching approaches used for planning and execution of project works:

1. Planning and Approval

The planning and approval procedures of the project topics are as follow:

- In the beginning of third semester, the programme leader will invite project topics from students and faculty of the programme as well as from others. The project topic to be submitted by 15th August. The proposed topics will be compiled by the Module Coordinator of the programme.
- The students have to make proposal presentation to the programme committee within 30th August. The relevant topics will be approved by the committee.
- The students will work out the detailed cost involved in the project and same will be verified by the respective project Instructor and Mentors(s) and submit the same to the Head/ Programme leader by 25th of September.
- The Head/Programme leader shall present final project topics with financial implications to the College Management Committee (CMC) for the budget approval in first week of October.
- The final detail material estimates of the approved project shall be submitted to procurement section by first week of November. The materials shall be procured within January.

2. Implementation and Monitoring

- The project shall commence from the beginning of 4th semester.
- Students will submit the final work plan outlining the activities of the project to the project Instructor and Mentor latest by first week of 4th semester.
- Students shall maintain a project log book to record the update of project progress. The verification and validation of the entries in the log book shall be made by the respective Instructor and Mentors during contact hours.
- The students shall have two hours contact period with respective Instructor and Mentor to validate the project progress. The entries in the log book are checked and signed by their respective Instructor and Mentors.
- The project coordinator shall plan for Mid-Term Review exactly after a week of their Phase Test. The review shall be done by the programme committee.

3. Report submission and Presentation

- Students shall submit a draft report to the respective instructor and mentors within 20th May adhering to the format circulated from the office of DRIL.
- It is recommended to implement Problem Based Learning approaches for entire project work processes.
- The respective Instructor and Mentors shall provide feedbacks on the report within 25th May.
- The final review will be conducted after the end of Spring Semester Examination during which students will present their project findings/output. The final report should be submitted by respective project groups to the project coordinator, who will process for evaluation of the report.

- Total of three hard copies shall be submitted to the project coordinator for each project works. A soft copy should be submitted to the Departmental LRC for future reference.
- Students carrying out research-based project must produce a research paper adhering to the Instructor and Mentorlines of conference paper writing and submit to the Instructor and Mentors.
- Students carrying out construction/practical based project must observe standard safety practices during the project work.

4. Roles and Responsibilities:

Instructors

- Minimized lecture sessions in order to facilitate student-centred learning (PBL process)
- Encourage students to explore challenges in learning
- Play the role of supervisor/guide.
- Listen to students attentively to their challenges and also fund that are taking place in the team.
- Ask questions that triggers students thinking
- Challenge students to think critically thereby enabling students to link theoretical knowledge with real life problems.
- Evaluate and validate resources required by the students.
- Facilitate a platform for students to debate over major issues and provide reflections on their learning.

Mentors

- Act as link between students and instructors
- Encourage equal participation from all the stakeholders
- Be logical in composing the team
- Make the team to set clear action plan
- Ensure all the teams to be on the same boat.
- Ensure timely feedback from tutor/student.
- Ensure that all logistics are put in place.

Support Staff:

- Where applicable, e.g., Laboratory Technicians/Assistants if the use of laboratory is required. Administrative staff for logistic arrangements etc.

Pre-requisite: Respective programme modules

Subject Matter

Summary of schedule of activities:

Part A: Orientation/information disseminations (Week 1)

- Awareness
- Motivation
- Interdisciplinarity

Part B: Group formations/allocation of responsibilities (Week 1)

- Report writing
- Evaluation process

Part C: Topic selection (Week 2)

- Brain storming
- Problem identification

Part D: Demonstration/Site visit based on selected topics (Week 2 & 3)

- Observations
- Review the status
- Feasibility analysis of the topic/ Amendment of topic if required
- Work distribution

Part E: Proposal presentations to the department (Week 4)

- Methodology
- Time line/work plan/Amendment
- Learning outcome
- Finalizations

Part F: Literature review / Feasibility study (Week 5 & 6)

- Understanding background concept
- Review of earlier work

Part G: Course work implementation (Week 6)

- Design, simulate/fabrication/prototyping/modelling/analyzing

Part H: Progress presentations/reporting (Week 8)

- Evaluation of students' ongoing work
- Feedback on contents/ presentation/ reporting

Part I: Finalization of course work (Week 13)

- Preparation and finalization
- Final report including prototype / model/simulation
- Conference paper
- Evaluation of students' project report/prototype/model by panel members.

Assign planning, design and physical work or an engineering problem or project defined by the department or the college based on the requirement of the college. The final report must be submitted as per the format set by the College.

Assessment Approach

The evaluation criteria for project work are set into two parts. Out of a total of 100 marks, 75 marks are allotted for Continuous Assessment and 25 marks for semester end evaluation.

Area to be evaluated		Marks
Continuous Assessment		75
1	Regular Work [By project Instructor and Mentor (s)]	60
	i Actual work involvement	10
	ii Team spirit and work culture	5
	iii Conceptual understanding	5
	iv Analysis and interpretation capability	10
	v Literature review	5
	vi Planning and execution/compliance in carrying out Instructor and Mentors instruction	5
	vii Time management	5
	viii Technical writing skills	10
	ix Conference paper writing style/ Observation of Safety practices	5
2	Mid Term Review	15
	i Control/Execution of work plan	5
	ii Team work	5
	iii Progress of the work	5
Semester End		25
3	Report Evaluation	10
	i Theme of the project/ originality of the idea	2
	ii Reliability/ practicality	1.5
	iii Format and presentation/ description style	1
	iv Abstract/Introduction	0.5
	v Reason for specific mode of implementation	1.5
	vi Information content	2
	vii Conclusion/ Analysis and finding	1.5
4	Final Review/Presentation	15

	i	Introduction	2
	ii	Content and presentation techniques	4
	iii	Language and confidence	3
	iv	Response to the questions	6
	Total Marks		100

Evaluation Team and Methodology:

- Peer feedback and supervisors' evaluation.
- Presentation and panel members evaluation.
- Report evaluation by relevant department(s).

Project proposal presentation should comprise of 10 minutes of presentation with 10 minutes of question/answer session. The flexibility in time frame shall be considered by committee based on student numbers. The committee may ask any member to present.

The proposal shall adhere to following key points:

- Back ground of the project
- Aim and Objectives of the project
- Scope of project
- Methodology
- Expected result/outcome
- Work plan

If the topics or scopes of project are not within the expected domain of the level of award (diploma), they may be asked to resubmit their presentation after a week. The Instructor and Mentor(s) shall assess the regular works of the members for 60 marks as per the marking scheme on individual student. Mid-Term review shall be assessed on the basis of oral presentation and question/answer session. Final project presentation consists of 15 minutes of oral presentation with 15 minutes of question/answer session. The final report and presentation shall be explicit to mark the end of project.

Final deliverables and Dissemination Events:

- Proposal presentations,
- mid-term review,
- presentations,
- final report,
- posters,
- conference papers, and
- prototypes where applicable.

Reading List:

All literature/ drawings/ manuals/ scientific journals/ conference papers related to the project topic.

Date: October, 2020.
