



GUJARAT TECHNOLOGICAL UNIVERSITY

Bachelor of Engineering
Subject code : 3180601
Semester – VIII
Subject Name: Internship/Major Project

Type of course: Project work, seminar and internship in industry

Prerequisite: Civil and Infrastructure engineering courses (Basic science, Engineering Science and core courses) and Effective Technical Communication.

Rationale: Industrial training or Project work is an effective way to transfer the theoretical knowledge gained within the classroom to the real field application. It will provide a platform for the students to get a close glimpse about the functioning of the industry and how real-life challenges are solved in the domain of Civil and Infrastructure Engineering giving them practical exposure. Thus, the Industrial training or Project work will equip them with skill-sets which is essential from the perspective of employability as well.

Teaching and Examination Scheme:

Teaching Scheme			Credits C	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
				ESE (E)	PA (M)	ESE (V)	PA (I)	
0	0	24	12	0	0	100	100	200

Content:

Final semester of Civil and Infrastructure Engineering is dedicated to Major project work or Industrial Training

Industrial Training:

Minimum twelve weeks in an Industry to get exposure to the practical aspects of the Civil and Infrastructure Engineering. In addition, the student may also work on a specified task or project which may be assigned to him/her by industry mentor or faculty. The outcome of the Industrial Training should be presented in the form of a report.

Objectives of Industrial Training:

- To expose students to the industrial environment
- To create competent professionals for the industry.
- To provide possible opportunities to learn, understand and sharpen the real time technical / managerial skills required at the job
- To work on a problem assigned by a mentor at industry, prepare action plan and complete within time limit
- Exposure to the current technological developments relevant to the subject area of training.
- Learn to apply the Technical knowledge in real field/industrial situations
- To learn, create/prepare report for Project/Framework/research as used in industry with productive (Data in a concise form) and efficient way (with action resolution).



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- To explore possibilities of patent or research paper publications
- Expose students to the engineer's responsibilities and ethics.
- To become familiarize with various materials, processes, products and their applications along with relevant aspects of quality control.
- Understand the social, economic and administrative considerations that influence the working environment of industrial organizations
- Understand the psychology of the workers and their habits, attitudes and approach to problem solving
- To strengthen industry-institute linkage and increase employability of the students

During Industrial Training or at Major Project work at institute, Students may be encouraged to take up projects which are aimed at providing solutions to societal problems, reduce drudgery and improving efficiency in rural work, green technologies, utilization of rural and urban waste, sanitation and public health, utilizing non-conventional energy sources, technologies for cost minimization and technologies ready to be implemented in the Institute.

Training Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	Will develop professional skills and ethics based on industrial problems and effectively plan to execute the work within definite time frame and present report.	30%
CO-2	Design efficient technical solutions to industrial problems	40%
CO-3	Will find solutions related to project and finance management.	30%

OR

Major project work:

The deliverables expected from the students are:

- Report the State-of-the-art review pertaining to the project and identify the gap in the literature.
- Define the problem statement clearly.
- Identify the possible approach for the solution and fix the methodology to be used.
- Carry out analysis (data collection, experiments, simulations).
- Report the results and validate them.
- Report the practical difficulties and limitation of the methodology used, if any.
- Compare the results with alternate study.
- Report the usefulness/novelty of the project work.
- Future scope of the project work and conclusion.
- Prepare project report and present the work before department project committee.



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- Intermediate and final seminar in presence of department project committee for review of the work done
- To explore possibilities of patent or research paper publications

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	Undertake problem identification and formulation. Derive feasibility, viability and sustainability of suitable solution.	40%
CO-2	Design engineering solutions to complex problems utilising a systematic approach and team work	30%
CO-3	Communicate with engineers and the community at large in written and oral forms	15%
CO-4	Develop project management skills	15%

Reference:

- AICTE Model curriculum
- AICTE Internship Policy:

<https://www.aicte-india.org/sites/default/files/AICTE%20Internship%20Policy.pdf>