COURSE TITLE	**MINOR PROJECT**
COURSE CODE	**01CH1706**
COURSE CREDITS	**3**

Objective:

1 This course will impart knowledge on the applied part of various chemical engineering principles for solving a chemical engineering domain specific problem

Course Outcomes: After completion of this course, student will be able to:

1 Identify and define chemical engineering problems (Bloom's Level: Understand / Apply)

2 Analyze and apply chemical engineering concepts (Bloom's Level: Apply / Analyze)

3 Demonstrate independent project management and teamwork skills (Bloom's Level: Apply / Evaluate)

4 Communicate technical findings clearly and critically.(Bloom's Level: Evaluate)

Pre-requisite of course: Knowledge of chemical engineering concept and principles and good hands-on on experimental methods.

Teaching and Examination Scheme

Theory Hours	Tutorial Hours	Practical Hours	ESE	IA	CSE	Viva	Term Work
0	0	6	0	0	0	100	100

Contents : Unit	Topics	Contact Hours
Total Hours		

Suggested List of Experiments:

Contents : Unit	Topics	Contact Hours
1	**MINOR PROJECT** Any one of the five of the following: 1. Research Work Student-led investigation under faculty supervision on recent chemical engineering challenges or innovations.., 2. Industry Defined Problems (IDP) Problem statement provided by industry partners. Students propose and validate feasible solutions., 3. User Defined Problems (UDP): Problems selected by students from areas of interest including labs, society, or academics., 4. Internship-Based Projects: Students convert internship experiences into a project by identifying, analyzing, and solving an on-site challenge., 5. Social Impact Problems: Projects that apply chemical engineering principles to improve society, environment, or public health.	76
Total Hours		**76**

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Textbook :

1 Project management for business, Nicholas,J.M, & Steyn, H., Routledge.,, Engg. and Technology, 2010

References:

1 Chemical engineering design project: a case study approach, Chemical engineering design project: a case study approach, Ray, M. S, CRC Press, 2020

Suggested Theory Distribution:

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery					
Remember / Knowledge	**Understand**	**Apply**	**Analyze**	**Evaluate**	**Higher order Thinking / Creative**
10.00	20.00	25.00	25.00	10.00	10.00

Instructional Method:

1 The course delivery method will depend upon the requirement of content and need of students. The teacher in addition to conventional teaching method by blackboard, may also use any of tools such as demonstration, role play, Quiz, brainstorming, MOOCs etc

2 The internal evaluation will be done on the basis of continuous evaluation of students in the laboratory and class-room.

3 Practical examination will be conducted at the end of semester for evaluation of performance of students in laboratory.

4 Students will use supplementary resources such as online videos, NPTEL videos, ecourses, Virtual Laboratory

Supplementary Resources:

1 https://www.coursera.org/learn/introduction-experimental-design-basics

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