Course title: Dissertation – I/ Minor Project

Course code: ENR 118	**No. of credits:** 6	**L-T-P:** 0-0-180	**Learning hours:** 180
Pre-requisite course code and title (if any): N.A.			
Department: Sustainable Engineering			
Course Coordinator: Prof. Naqui Anwer	**Course Instructor:**		
Contact details: naqui.anwer@terisas.ac.in			
Course type: Core	**Course offered in:** Semester 3 (During summer break before semester 3)		

Course description

The course offers thorough problem-based learning approach, guided by realistic and challenging industry requirements. The course includes a 6-8 weeks of on-job training on current industry-relevant problem through supervised self-learning approach. The students shall apply their classroom learnings for identification of problem, execute analysis based on available literature, data& reports and present the output.

Course objective

- To provide industrial exposure to student to the real time problems related to contemporary areas of power sector, RE industry, green energy projects, energy efficiency, energy audit & management and policy & regulations.
- Enable the students to work on short industry projects and come up with the solutions commensurate with the assigned problem to the students.
- To impart skills in preparing detailed report describing the project and results/findings.
- Identify gap in existing knowledge to help develop a specialization

Course contents

Module	Topic	L	T	P
1	• Problem identification on thematic area in consultation with the host industry/organization • Literature review • Preliminary interaction with industry experts • Define objective and relevant tasks to be performed • Define methods to be followed and tools to be used • Writing synopsis	0	0	60
2	• Consolidating objective and relevant tasks to be performed • Finalizing methods to be followed and tools to be used • Review of internal or external reports, articles, accumulated data, academic literatures on the specific problem • Perform survey-based research, if required • Analysis and interpretation of data/results • Preparing final report	0	0	120
	Total	**0**	**0**	**180**

Evaluation criteria

- Meeting timeline (10%) (Consisting of: joining report (2%), progress reports (2% each), feedback form (2%), and final thesis (2%). [during Module 1, 2]
- Test 1: Internship report (40%) [after Module 2]
- Test 2: Presentation and Viva (30%) [after Module 2]
- Response/feedback from the host organization/supervisor (20%) [after Module 2]
- Plagiarism is unacceptable and the institute has a very strict policy to deal with it. If a student engages in plagiarism, it could attract serious penal actions. All reported cases of plagiarism would be dealt as per the process mandated by Departmental Academic Integrity Panel (DAIP) and Institutional Academic Integrity Panel (IAIP).

- The students scoring less than or equal to 40% (or ≤ 40%) overall marks in the evaluation would be consideredto have failed in this course. Grading of the Summer Internship will be absolute in nature and would be done as per the following criteria:

>90	A+
>80≤90	A
>70≤80	B+
>60≤70	B
>50≤60	C+
>45≤50	C
>40≤45	D
≤40	F

Learning outcomes

- Develop an understanding of real time problems/challenges in contemporary areas of power sector, RE industry, green energy projects, energy efficiency, energy audit & management and policy & regulations [Test 1, 2]
- Realizing Standard Operating Procedure of industry for specific project domain [Test 1, 2]
- Effectively communicate the learning through project report and oral presentation [Test 1, 2]

Pedagogical approach

Self-learning; discussion with supervisors; interaction with experts;

Materials

Literature and reports related to the specific problem.

Additional information (if any)

A detailed guideline along with important dates and format will be notified by the department, in advance, with other relevant details.
If there is any change in evaluation criteria/policy, it will be updated in the guideline every year.
Report submission and schedule of presentation will be coordinated by Project/Programme coordinators.

Student responsibilities

Attendance; Discipline; Research Ethics etc.

External reviewers:

1. Dr. Anish Modi, Assistant Professor, IIT Bombay
2. Mr. Mudit Jain, Head (Research), Tata Cleantech Capital Limited
3. Mr. Alok Kumar Jindal, GM (RE), Tractebel Engineering Pvt. Ltd.