GUJARAT TECHNOLOGICAL UNIVERSITY

Program Name: Master of Engineering
Level: PG
Branch: ALL
Subject Code: ME03000021
Subject Name: Dissertation Phase - I

w. e. f. Academic Year:	2024-25
Semester:	3
Category of the Course:	Core Course

- **Course Outcome**

CO No.	Course Outcome	RBT Level(s)
CO-1	Identify and articulate a relevant research problem through comprehensive literature review	Remembering, Understanding
CO-2	Formulate clear research objectives and define the scope of investigation	Understanding, Applying
CO-3	Analyze existing methodologies and perform comparative evaluation of current solutions	Analyzing, Evaluating
CO-4	Design a research hypothesis and select appropriate tools, algorithms, or platforms	Creating, Applying
CO-5	Document the preliminary research work and communicate findings effectively	Applying, Evaluating

- **Teaching and Examination Scheme:**

Teaching Scheme			Total Credit	Examination Marks				
				Theory		Tutorial / Practical		Total Marks
L	T	P		ESE (E)	PA / CA (M)	PA/CA (I)	ESE (V)	
0	0	30	15	0	0	0	150	150

1. Objective

Dissertation Phase – I is designed to initiate postgraduate students into independent research and advanced engineering problem-solving. It emphasizes literature review, problem formulation, methodology development, and preliminary experimentation or simulation.

2. Scope of Work

Students are expected to:

- Identify a relevant and research-worthy problem in their domain.
- Conduct a comprehensive literature survey using journals, patents, standards, and databases.
- Formulate clear research objectives and hypotheses.
- Design methodology and select appropriate tools (simulation, modeling, and experimental setup).
- Begin preliminary implementation, simulation, or data collection.
- Document progress in a structured format.

3. Suggested Timeline

Week Range	Milestone
Weeks 1–2	Topic finalization and guide allocation
Weeks 3–5	Literature review and problem definition
Weeks 6–8	Methodology design and tool selection
Weeks 9–12	Preliminary simulation/experimentation
Weeks 13–15	Drafting interim report and viva preparation

4. Documentation Requirements

Students must submit a bound interim report as per GTU format.

5. Evaluation Criteria

Component	Marks	Evaluation Mode
Literature Review & Problem Framing	30	Viva + Report Review
Methodology and Technical Depth	40	Viva + Presentation
Preliminary Work and Progress	40	Demonstration/Simulation
Report Quality and Documentation	20	Report Evaluation
Presentation and Communication	20	Viva
Total	150	

6. Roles and Responsibilities

- **Student**: Maintain regular interaction with guide, adhere to timeline, and ensure originality.

- **Guide**: Provide technical mentorship, approve milestones, and monitor progress.
- **Departmental Committee**: Conduct mid-semester reviews and final viva.

7. Additional Notes

- Plagiarism above 20% (as per Turnitin or equivalent) will lead to rejection.
- Students must maintain a logbook signed weekly by the guide.
- Topics must align with current research trends, industry relevance, or societal impact.

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