



THIAGARAJAR COLLEGE OF ENGINEERING, MADURAI 625 015.
Department of Applied Mathematics and Computational Science

COURSE PLAN

Degree:
Semester:
Course Code:

Department:
Academic Year:
Staff In charge:

Programme:
Course Name:
Staff Dept. :

S. No.	Course outcomes	TPS/Blooms Level
CO1		
CO2		
CO3		
CO4		
CO5		
CO6..		

Course Plan:

Module No.	Module Name	CO No.	Duration (Hours)*	Content Delivery Method ¹ Resources and Tools	Active learning strategy ²	Assessment method ³
1	Introduction to the course – Syllabus and prerequisites	-	1	Discussion	Brain Storming	
2 Topic 1						
2.1	Sub topic 1	CO1	1	Lecture with Demonstrations		Quiz
2.2	Sub topic 2	CO2	2		-	
2.3	Sub topic 3 ...	CO1	1		TPS	Worksheet
3 Topic 2						
3.1	Sub topic 1	CO1	1	Flipped Classroom	Programming Exercises	Concept test
3.2	Sub topic 2	CO1	1		Peer Instruction	
3.3	Sub topic 3 ...	CO3	1			
3.4	Type conversions	CO3	1			
8.5	Practice problems		1	Problem Solving Worksheet	Coding session	Problem solving written test
	Total		nn			

* Duration shall be 1 or 2 hours only

Reference Books and web resources:

- 1.
- 2.

PLAN FOR ASSIGNMENTS

<i>Assignment</i>	<i>Assessment Tool</i>	<i>Assessment Period</i>	<i>Course Outcome</i>	<i>Topics</i>	<i>Max. Marks</i>
1	Assessment Tool1, Assessment Tool2, ...	-- to --	CO2,3,4 (50% ,25%,25%)	Topic 1, Topic 2...	40
2	Mini Project (30 marks) Poster presentation (10 marks)	August 2 nd week to September 3 rd week 2024	CO4,5,6 (40%,30%,30%)	Topic 1, Topic 2...	40

* Assignment marks should be based on the course syllabus assessment pattern (Second line is a sample)

Staff In charge

HoD/<Dept>

Content delivery method (Not limited to):

- Lecture with simulation
- Lecture with discussion
- Lecture with demonstrations
- Problem solving
- Peer teaching / group learning
- Case study / Seminar
- Blended learning with self developed e-lectures
- Role play
- Project based learning
- MOOC
- Tutorial
- Panel discussion
- Flipped Classroom

Active Learning strategies (Not limited to)

- Think-Pair- Share
- Brainstorming
- Peer Review
- Debates/ Group discussion
- Minute paper
- Problem-solving
- Interactive simulations/ virtual labs
- Field trips
- Game based learning
- Group Projects

Assessment tools with range of scores for assignment marks(Max. 80): (NOT limited to)

Sl. No.	Assessment Tool	Nature of Assessment
Knowledge / Concept Level (Marks: 10 - 30)		
i.	Review	Multiple Choice Questions, Fill Ups, Cross words etc conducted during course after completion of few modules.
ii.	Quiz	Questions from Technical concepts, debugging, design challenges etc.
iii.	Case Study – Analysis	Problem statement to be given to students along with a questionnaire. Students to interpret the details and submit their findings
iv.	Worksheets	Problem Solving - Students to solve the given problems in a team or individually
v.	Poster Presentation	Creation of the posters for a given task, relevant to the course
vi.	Model Making	Prototyping of a given task, relevant to the course
Communication Skills (Marks: 10 – 30)		
vii.	Seminar	Oral Presentation on topics relevant to the course
viii.	Video Presentations	Presentations of Videos or Video lectures or short film related to course
ix.	Field Visit	Students to visit an Industry or site relevant to their course for collection of data and to present the details as a report.
x.	Discussion Forum (Asynchronous)	Technical issues relevant to the course to be floated as a discussion in an online forum like Canvas, Wiki, Moodle etc. The students to be assessed based on their participation.
xi.	Group Discussion	Technical issues to be given to a group of students in class and assessment to be made based on the involvement of students in group
xii.	Comprehensive Viva	Conducted at the end of the semester, on one to one basis.
Professional Skills (Marks: 40 -50)		
xiii.	Mini Project	Hardware or a software project to be done as an individual or as a group.
xiv.	Online Coding Events	Code generation for set of tasks, relevant to the course
xv.	Journal Review	Technical paper review and presentation in the class by making literature study.

Sl. No.	Assessment Tool	Nature of Assessment
xvi.	Collaborative Work (Group Grid, Group Problem Solving, STAD, TAI, etc)	Group activity carried out in-class and outside class to be evaluated as an individual and as a team.
xvii.	Concept Test @ HOTS (GATE level questions)	Assessment of all the concepts related to the course to be conducted at the end of the semester (Open Book optional)
xviii.	Research Proposal/ Research problem identification	Preparation of a research proposal by referring to journals and presentation in class.
xix.	Data Collection and Interpretation	Data collection in real time or through questionnaire, interpretation of data and follow up measures submitted as a report.
xx.	Report on Software/hardware Implementation	Preparation of a hardware/software model for the concepts learnt in the class and report submission after conducting practical experiments.
xxi.	MOOC completion NPTEL/Coursera/ EdX	Completion of MOOC course and submission of certificates

Note:

1. The assessment plan is to be prepared by the faculty using the prescribed template and approved by HOD.
2. If more than one tool in each category is used or if a single tool is used more than once, then average marks may be considered.
3. Assignments shall be a combination of individual and group assessments.
4. Any other innovative assignments though not in the above list shall be used if approved by HOD
5. Same set of tools shall be used for interim assessment in the course plan