DEPARTMENT OF INFORMATION TECHNOLOGY
REGULATION-2025

COURSE OUTCOMES

SEMESTER-I

Course Name: MA25C01 / Applied Calculus

CO1	Explain the meaning of derivative, integral, and their geometric and physical interpretations.
CO2	Apply differentiation and integration techniques to compute maxima, minima, and area.
CO3	Analyze the behavior of single and multivariable functions using derivatives and partial derivatives.
CO4	Utilize modern computational software and online platforms to deepen understanding, perform complex calculations, and visualize mathematical concepts.

Course Name: EN25C01 / English Essentials – I

CO1	Comprehend spoken English, take and draft notes.
CO2	Apply vocabulary, with appropriate ways to enhance drafting and communication.
CO3	Analyze texts in different contexts using appropriate reading strategies.
CO4	Communicate thoughts and ideas in both planned and unplanned situations.
CO5	Continuously improving English communication skills relevantto engineering and scientific work.

Course Name: UC25H01 / தமிழர் மரபு

CO1	Discuss the Tamil Language and Literature
CO2	Discuss about the paintings modern Art Sculpture
CO3	Illustrate the folk martial arts
CO4	Understand the Sangam age through Tamil Literature
CO5	Discuss the contribution of Tamil Literature in Indian Civilization

Course Name: PH25C01 / Applied Physics – I

CO1	Explain the physics concepts in various applications.
CO2	Apply the principles of wave optics and laser physics in practical systems.
CO3	Analyse the behaviour of materials under different conditions.
CO4	Conduct experiments in groups and interpret the data.

Course Name: CY25C01 / Applied Chemistry – I

CO1	Understand the importance of chemistry applications with underlying mechanisms.
CO2	Apply the chemistry concepts in widely used devices.
CO3	Analyse the effect of various chemical parameters on performance of engineering systems.
CO4	Perform experimentations as a group and interpret the results.
CO5	Communicate findings through case studies and reports

Course Name: CS25C01 / Computer Programming: C

CO1	Explain the potential usage of 'C' in engineering applications
CO2	To apply the concepts of 'C' in solving engineering problems and formulate new projects.
CO3	To interpret the data and effectively communicate in groups.
CO4	Adapt new programming concepts and technologies in the profession.

Course Name: CS25C03 / Essentials of Computing

CO1	Describe the basic components and functioning of computers, number systems, and data representation.
CO2	Apply computational thinking and problem-solving techniques to design simple algorithms for real- world problems
CO3	Design and represent solutions using flowcharts, pseudocode, and basic visual programming tools.
CO4	Demonstrate the ability to independently learn new computing tools and practices essential for life- long learning

Course Name: ME25C04 / Makerspace

CO1	Demonstrate proper use and handling of basic hand and power tools.
CO2	Carry out electrical wiring installations and repairs, applying safety measures in domestic applications.
CO3	Develop solid innovative models through software.
CO4	Adapt and follow safety protocols in the work environment.

Course Name: UC25A01 / Life Skills for Engineers – I

CO1	Understand personality traits and emotional intelligence, in interpersonal interactions.
CO2	To work and execute as a team through successful implementation of set goals.
CO3	Develop and implement best practices in day-to-day life, in terms of planning and execution.

Course Name: UC25A02 / Physical Education - I

CO1	Understand and explain the importance of physical activity for mental and physical health.
CO2	Apply basic principles of exercise science in the routine life.
CO3	Develop teamwork, discipline, and leadership through sports and group activities and collaborate effectively.
CO4	Demonstrate independent learning in health, nutrition, and fitness-related topics.

SEMESTER-II

THEORY

Course Name: MA25C02 / Linear Algebra

CO1	Explain the fundamental concepts of Linear Algebra.
CO2	Compute and interpret eigenvalues and eigenvectors.
CO3	Apply inner product concepts and perform orthogonalization.
CO4	Compute least squares solutions of linear system of equations.
CO5	Use MATLAB to implement and validate key linear algebra concepts

Course Name: UC25H02 / தமிழர்களும் மதொழில்நுட்பமும் / Tamils and Technology

CO1	**Understand** the traditional technologies and crafts practiced by ancient Tamils, including weaving and ceramic production.
CO2	**Analyze** architectural and construction techniques from the Sangam period to the colonial era, appreciating their cultural significance.
CO3	**Evaluate** the development of manufacturing technologies, such as metallurgy and shipbuilding, and their impact on Tamil society.
CO4	**Assess** agricultural and irrigation practices, understanding their role in the sustenance and advancement of Tamil communities.
CO5	**Explore** the progression of scientific Tamil and the integration of Tamil in computing and digital platforms

Course Name: PH3256 / Physics for Information Science

CO1	Describe and interpret traditional Tamil technological practices such as weaving methods, ceramic production, and graffiti art from the Sangam period.
CO2	Analyze Tamil architectural evolution—from Sangam-era house designs to Chola temples and colonial structures—and understand their cultural context.
CO3	Explain the development of manufacturing technologies in ancient Tamil society, including shipbuilding, metallurgy, minting, and bead craft.
CO4	Evaluate traditional agricultural and irrigation systems, including Chola-era water management and maritime practices, and their impact on Tamil society.
CO5	Understand the emergence and significance of scientific Tamil and its digitization: Tamil terminology, digital archives, and Tamil computing tools.

Course Name: EE25C01 / Basic Electrical and Electronics Engineering

CO1	Understand and explain basic electrical and electronic concepts.
CO2	Apply and analyse electrical circuits in real-time applications.
CO3	Identify and utilise key electronic devices used in engineering applications

Course Name: PH25C03/ Applied Physics (CSIE) – II

CO1	Explain the concepts of physics in computer science stream.
CO2	Apply appropriate techniques in physics to solve engineering problems.
CO3	Analyse physical systems and interpret data from the virtual studies in the core branches in computer science and engineering.

Course Name: IT25201 / Foundations of Data Science Using Python

CO1	Develop simple programs in Python with built-in data structures.
CO2	Apply NumPy and Pandas libraries to organize and manipulate data efficiently.
CO3	Design and analyze solutions involving APIs, databases, and real-world datasets
CO4	Enhance life-long learning skills to explore new data science tools and libraries beyond the classroom

Course Name: IT25202 / Digital Principles and System Design

CO1	Identify number systems and basic logic gates.
CO2	Apply Boolean algebra and Karnaugh maps to simplify and implement combinational logic circuits
CO3	Design and analyze digital systems with sequential components using HDL and hardware tools
CO4	Explore modern tools and resources to keeplearningabout digital system design
CO5	Design applications using sequential and random access file processing

Course Name: EN25C02 / English Essentials – II

CO1	Understandtheimportance of communication and drafting skills in engineering and technology.
CO2	Apply listening strategies to comprehend spoken English in various contexts.
CO3	Participate actively in group discussionsby analysing critically from different views.
CO4	Create written reports coherently for various purposes.
CO5	Adapt communication styles to global,multicultural environments.

Course Name: ME25C05 / Re-Engineering for Innovation

CO1	Understand the product development lifecycle, including stages such as concept generation, design, prototyping, and testing.
CO2	Apply reverse engineering techniques to analyze and document existing products.
CO3	Collaborate in teams to fabricate prototypes using appropriate tools.
CO4	Engage in independent learning and continuously adapt to emerging technologies in product design

Course Name: UC25A03 / Life Skills for Engineers – II

CO1	Explain the importance of leadership and management skills in life.
CO2	Apply and demonstrate creative thinking techniques to generate innovative solutions.
CO3	Exhibit effective collaboration and communication skills through teamwork, active listening, and conflict resolution strategies.
CO4	Integrate scientific temperament and logical reasoning into c problem solving in engineering and real-world contexts.

Course Name: UC25A04 / Physical Education - II

CO1	Understand and explain the importance of physical activity for mental and physical health.
CO2	Apply safety principles and methods during sports activities.
CO3	Developteamwork,discipline, and leadership through sportsandactivities and collaborate effectively.
CO4	Demonstrate the advanced technical skills and strategic understanding in the game of their interest.