

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
Programme Outcomes and Course Outcomes for
All Programmes offered by the Institution-Regulation 2025

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Faculty In-charge

Hod/EEE

Directors Academics

Principle

Course Code & Title:

As per NPRCET Regulation 2025, the lists of courses are given in the following table.

Table-List of Courses with Course Code:

S. No	Course code (NBA)	Course Code (NPRCET)	Title of the course
1st Semester			
1	C101	25HS101	Technical communication
2	C102	25MA101	Engineering Mathematics
3	C103	25PH101	Engineering Physics
4	C104	25CH101	Engineering Chemistry
5	C105	25BE101	Fundamentals of Computing
6	C106	25EE101	Introduction to Electrical Engineering
7	C107	25HS102	Hertage of Tamils/□□□□□□□□□□
8	C108	25BS111	Physics and Chemistry Laboratory
9	C109	25HS111	English Laboratory-I
10	C110	25BE111	Basic Computing and Problem Solveing Laboratory
2nd Semester			
11	C111	25HS201	Professional Communication
12	C112	25MA202	Transforms and Numerical Methods
13	C113	25PH201	Physics Of Materials
14	C114	25BS201	Environmental Sciences and Sustainability
15	C115	25BE202	Python Programming(IC)
16	C116	25BE203	Basics of Civil and Mechanical Engineering
17	C117	25HS202	Tamils and Technology/□□□□□□□□□□□□□□□□□□□□□□
18	C118	25BE112	Engineering Graphics
19	C119	25BE211	Engineering Practices Laboratory
20	C120	25HS211	English Laboratory-II

**COURSE OUTCOMES WITH K – LEVEL
(REGULATION – 2025)**

Course Outcomes with K–Level mapping for all courses

SEMESTER I

Course Code & Title: C101 & 25HS101 TECHNICAL COMMUNICATION		
	CO Statements	Bloom's Taxonomy Level
The students should be able to		
C101.1	Demonstrate proficiency in basic language skills.	K3
C101.2	Apply grammatical structures correctly	K3
C101.3	Improve vocabulary and word usage.	K4
C101.4	Develop reading comprehension skills.	K2
C101.5	Write coherent and structured texts.	K3

Course Code & Title: C102 & 25MA101 ENGINEERING MATHEMATICS		
	CO Statements	Bloom's Taxonomy Level
The students should be able to		
C102.1	Implement the concepts of mathematical modeling based on linear functions in Engineering.	K3
C102.2	Formulate the real-world problems as a quadratic function model.	K3
C102.3	Apply integral calculus and multiple integral tools in solving various application Problems.	K3
C102.4	Apply the concept of mathematical modeling of exponential functions in Engineering.	K3
C102.5	Develop the identification of multivariable functions in the physical dynamical problems.	K4



Course Code & Title: C103 & 23PH101 ENGINEERING PHYSICS		
	CO Statements	Bloom's Taxonomy Level
The students should be able to		
C103.1	Apply the work-energy theorem to analyze and optimize mechanical system performance.	K3
C103.2	Analyze free and forced mechanical oscillations in vibrational energy systems.	K2
C103.3	Analyze the propagation of energy in mechanical systems through transverse and longitudinal waves.	K2
C103.4	Analyze the exchange of energy and work between the system Using thermodynamic principles.	K3
C103.5	Apply the concept of Elasticity and entropy to understand the mechanical properties of materials.	K2

Course Code & Title: C104 & 23CY101 ENGINEERING CHEMISTRY		
	CO Statements	Bloom's Taxonomy Level
The students should be able to		
C104.1	Summarize the water related problems in boilers and their treatment techniques.	K3
C104.2	Apply the concept Electrochemical Reactions and applications	K3
C104.3	Apply the conditions for the formation of different types of Chemical bonds and predict the minimum energy required for a reaction to occur.	K3
C104.4	Discuss the types, properties and applications of polymers	K4
C104.5	Analyze whether the given matter is a solid, liquid, gas, or plasma and interpret the arrangement of atoms.	K4

Course Code &Title: C105 & 25BE101- FUNDAMENTALS OF COMPUTING		
	CO Statements	Bloom's Taxonomy Level
The students should be able to		
C105.1	Understand how computers use codes and combinations to represent information.	K2
C105.2	Learn how computers handle data transfer and communicate with input/output devices	K2
C105.3	Solve simple problems by writing and using assembly language programs.	K2
C105.4	Understand the basic working of operating systems and system software.	K2
C105.5	Apply software development methods to real-world problems.	K3

Course Code &Title: C106 & 25EE101 INTRODUCTION TO ELECTRICAL ENGINEERING		
	CO Statements	Bloom's Taxonomy Level
The students should be able to		
C106.1	Explain the basic concepts and laws governing DC and AC electrical circuits.	K2
C106.2	Apply circuit laws to analyze and solve simple DC and AC circuit problems.	K3
C106.3	Demonstrate understanding of magnetic circuits and their applications in electrical systems.	K2
C106.4	Compare different types of power generation systems and illustrate the structure of power distribution.	K4
C106.5	Identify types of domestic wiring, wiring accessories, earthing, fuses, and safety devices.	K2

Course Code & Title: C107 & 25HS102 HERITAGE OF TAMILS		
	CO Statements	Bloom's Taxonomy Level
The students should be able to		
C107.1	Understand the significance of Tamil as a classical language	K1
C107.2	Relate the art and culture in Tamil language	K2
C107.3	Explain the importance of music, dance and martial arts that were derived from Tamil Culture	K2
C107.4	Understand the poetic mode or theme of classical language	K2
C107.5	Relate the contribution of Tamils to Nation building	K3

Course Code & Title: C108 & 25BS111 PHYSICS AND CHEMISTRY LABORATORY		
	CO Statements – PHYSICS LABORATORY	Bloom's Taxonomy Level
The students should be able to		
C108.1	Apprehend the concepts of interference, diffraction of light and recognize the resonance concept of waves.	K2
C108.2	Apply the principles of operations of optical fibers, semiconductor using simple circuits and interaction of electromagnetic waves and crystalline solids.	K3
C108.3	Measure the elastic moduli and moment of inertia of given materials with the help of suggested procedures.	K3
C108.4	Experiment the relationship between the light and matter & properties of liquids.	K4
C108.5	Estimate the velocity of sound and compressibility of liquid.	K2

Course Code &Title: C108 & 25BS111 PHYSICS AND CHEMISTRY LABORATORY		
	CO Statements - CHEMISTRY LABORATORY	Bloom's Taxonomy Level
The students should be able to		
C108.1	Analyse the quality of water samples with respect to their acidity, alkalinity, hardness and DO.	K4
C108.2	Determine the amount of metal ions through volumetric and spectroscopic techniques.	K3
C108.3	Analyse and determine the composition of alloys.	K4
C108.4	Learn simple method of synthesis of nanoparticles	K2
C108.5	Quantitatively analyse the impurities in solution by electroanalytical methods.	K4

Course Code &Title: C109 & 25HS111 ENGLISH LABORATORY I		
	CO Statements	Bloom's Taxonomy Level
The students should be able to		
C109.1	Demonstrate improved listening comprehension skills.	K3
C109.2	Practice correct pronunciation, stress, rhythm and intonation	K4
C109.3	Engage in oral communication tasks	K3
C109.4	Deliver short Oral Presentation	K6
C109.5	Use Language lab tools, software and digital resources	K3

Course Code & Title: C110 & 25BE111 - Basic Computing and Problem Solving Laboratory

	CO Statements	Bloom's Taxonomy Level
The students should be able to		
C110.1	Understand how computers use codes and combinations to represent information.	K2
C110.2	Learn how computers handle data transfer and communicate with input/output devices.	K2
C110.3	Solve simple problems by writing and using assembly language programs.	K3
C110.4	Understand the basic working of operating systems and system software.	K2
C110.5	Apply software development methods to real-world problems.	K3

SEMESTER II

Course Code & Title: C111 & 25HS201- PROFESSIONAL COMMUNICATION

	CO Statements	Bloom's Taxonomy Level
The students should be able to		
C111.1	Interpret and analyze academic, technical and professional texts using suitable reading strategies.	K4
C111.2	Apply appropriate grammatical structures and discourse markers for accurate and coherent communication.	K3
C111.3	prepare professional documents such as emails, memos, minutes, agendas, business letters, brochures and manuals.	K2
C111.4	Use an enhanced range of vocabulary, collocations and word-formation techniques in professional contexts.	K3
C111.5	Compose structured essays, summaries, reviews, job applications and resumes using effective writing techniques.	K3

Course Code &Title: C112 & 25MA202 TRANSFORMS AND NUMERICAL METHODS		
	CO Statements	Bloom's Taxonomy Level
The students should be able to		
C112.1	Apply Laplace transform and inverse transform of simple functions, properties, various related theorems and application to differential equations with constant coefficients.	K3
C112.2	Understand general periodic functions and apply in problems of Fourier series, which are sums of sines and cosines.	K2
C112.3	Use the Fourier transform as the tool to connect the time domain and frequency domain in signal processing.	K3
C112.4	Understand the basic concepts and Techniques of solving algebraic and transcendental equations.	K2
C112.5	Solve the ordinary differential equations with initial conditions by using certain techniques with engineering applications.	k4

Course Code &Title: C113 & 25PH201 PHYSICS OF MATERIALS		
	CO Statements	Bloom's Taxonomy Level
The students should be able to		
C113.1	Apply the free electron theory to conducting materials and study the electron behavior.	K3
C113.2	Analyse semiconductor behavior, carrier transport mechanisms and basic device operation.	K4
C113.3	Apply the magnetic and super conducting behaviors of materials through modern engineering applications.	K3
C113.4	Apply the electromagnetic transmission and reception phenomena in smartphone communication.	K3
C113.5	Apply the various synthesis methods to evaluate the nano materials for the applications in advanced technologies such as energy devices and electric vehicles.	K3

Course Code &Title: C114 & 25BS201 - ENVIRONMENTAL SCIENCES AND SUSTAINABILITY		
	CO Statements	Bloom's Taxonomy Level
The students should be able to		
C114.1	To recognize and understand the functions of environment, ecosystems and biodiversity and their conservation	K1
C114.2	To identify the causes, effects of environmental pollution and natural disasters and contribute to the preventive measures and waste management in the society.	K2
C114.3	To identify the causes, effects of natural disasters and contribute to the preventive measures in the society.	K3
C114.4	To identify and apply the understanding of renewable and non-renewable resources and contribute to the sustainable measures to preserve them for future generations.	K2
C114.5	To demonstrate the knowledge of sustainability practices and identify green materials, energy cycles and the role of sustainable urbanization.	K3

Course Code &Title: C115 & 25BE202 PYTHON PROGRAMMING(IC)		
	CO Statements	Bloom's Taxonomy Level
The students should be able to		
C115.1	Understand Python data types, expressions, statements, and operators to describe the structure and execution of basic programs.	K2
C115.2	Explain and use conditional statements, loops, functions, recursion, and string operations to build modular Python programs.	K2
C115.3	Understand Python data structures such as lists, tuples, and dictionaries to organize and manage data.	K2
C115.4	Apply file handling operations and Python libraries such as NumPy, Pandas, and Matplotlib to analyze and visualize data.	K3
C115.5	Apply exception-handling techniques using built-in and user-defined exceptions to develop reliable Python applications.	K3

Course Code & Title: C116 & 25BE203 -BASICS OF CIVIL AND MECHANICAL ENGINEERING		
	CO Statements	Bloom's Taxonomy Level
The students should be able to		
C116.1	Understand the fundamental concepts, scope, and societal relevance of civil engineering and its major sub-disciplines.	K2
C116.2	Identify and describe basic surveying methods and commonly used building materials with their properties and applications.	K3
C116.3	Illustrate the components of buildings, types of foundations, and essential infrastructure systems used in civil engineering works.	K3
C116.4	Explain the working principles and applications of various power plants and internal combustion engines used in industry and automobiles.	K3
C116.5	Describe the principles and components of refrigeration, air-conditioning, and basic HVAC systems.	K3

Course Code & Title: C117 & 25HS202-TAMILS AND TECHNOLOGY		
	CO Statements	Bloom's Taxonomy Level
The students should be able to		
C117.1	Understand the significance of Tamil as a classical language	K1
C117.2	Relate the art and culture in Tamil language	K2
C117.3	Explain the importance of music, dance and martial arts that were derived from Tamil Culture	K2
C117.4	Understand the poetic mode or theme of classical language	K2
C117.5	Relate the contribution of Tamils to Nation building	K3

Course Code &Title: C118 & 25BE112 ENGINEERING GRAPHICS		
	CO Statements	Bloom's Taxonomy Level
The students should be able to		
C118.1	Apply the engineering drawing concepts as per industrial standards.	K3
C118.2	Illustrate the projection of points and lines.	K3
C118.3	Apply principles of projection drawings to project planes and simple solids	K3
C118.4	Create the sectional drawing of solids and develop the surfaces.	K3
C118.5	Construct the orthographic projection from isometric view and vice versa	K3

Course Code &Title: C119 & 25BE211- ENGINEERING PRACTICES LABORATORY		
	CO Statements	Bloom's Taxonomy Level
The students should be able to		
C119.1	Use basic workshop tools safely to perform fitting, carpentry, plumbing, and wiring tasks.	K3
C119.2	Perform simple house wiring, troubleshoot common electrical faults, and identify electrical components.	K3
C119.3	Demonstrate basic machining operations such as turning, drilling, and shaping.	K3
C119.4	Build simple electronic circuits using breadboards, devices, and measuring instruments.	K3
C119.5	Apply basic engineering practices to create small mechanical/electrical assemblies and solve real-time practical problems.	K3

Course Code & Title: C120 & 25HS211- ENGLISH LABORATORY-II		
	CO Statements	Bloom's Taxonomy Level
The students should be able to		
C120.1	Introduce themselves clearly and participate in discussions on familiar topics such as social media and tourist destinations.	K2
C120.2	Perform effective role plays, telephonic conversations, and small-talk interactions using appropriate language and tone.	K3
C120.3	Retell incidents and make structured oral presentations with clarity and coherence.	K3
C120.4	Write job applications and reports relevant to workplace needs.	K3
C120.5	Demonstrate listening skills by taking accurate notes from discussions.	K4