New Prince Shri Bhavani
College of Engineering and Technology
Tambaram-Velachery Main Road, Santhosapuram, Chennai-600 073
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Department of Science and Humanities

Course Outcome

Regulation 2021
Year Of Study 2021-22

Subject Code :	**HS3151**	**Semester :**	**I**	**Course Code :**	**C101**
Subject Name :	**PROFESSIONAL ENGLISH I**				
CO1	Write Essays,E-Mails, and Letters efficient way.				
CO2	Analyze the Events, Reports, Articles and Blogs through Comprehension.				
CO3	Analyze the Process and Products through Technical Texts				
CO4	Write Recommendations and Transcoding from Non - Verbal to Verbal.				
CO5	Analyze the Vocabulary of various forms.				

Subject Code :	**MA3151**	**Semester :**	**I**	**Course Code :**	**C102**
Subject Name :	**MATRICES AND CALCULUS**				
CO1	Apply Cayley- Hamilton theorem and orthogonal transformation for different process of matrices.				
CO2	Analyze the types of functions and differentiation rules for real life engineering problems.				
CO3	Apply the concepts of partial derivatives and total derivatives in Taylor's series, Jacobians and maxima and minima of functions.				
CO4	Apply the rule of integration in various functions.				
CO5	Evaluate the double and triple integrals for finding area and volume of different plane surfaces.				

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Subject Code :	**PH3151**	**Semester:**	I	**Course Code:**	**C103**
Subject Name:	**ENGINEERING PHYSICS**				
CO1	Explain the basic concepts of mechanics.				
CO2	Describe wave equations of electromagnetic waves with its applications.				
CO3	Explain the concept of oscillations, LASERs and Fibre optics				
CO4	Comprehend the importance of quantum mechanics.				
CO5	Apply quantum mechanical principle towards the formation of energy bands..				

Subject Code :	**CY3151**	**Semester :**	**I**	**Course Code :**	**C104**
Subject Name :	**ENGINEERING CHEMISTRY**				
CO1	Summarize the methods to produce soft water for industrial use and potable water at cheaper cost				
CO2	Apply basic concepts of nanoscience and nanotechnology in designing the synthesis of nanomaterials for engineering and technology applications				
CO3	Apply the knowledge of phase rule and composites for material selection requirements				
CO4	Describe the various types of fuels and the manufacture of solid, liquid and gaseous fuel to meet environmental sustainability				
CO5	Explain the principles and generation of energy in nuclear reactor, wind energy and solar energy and batteries				

Subject Code :	GE3151	Semester:	I	Course Code:	C105
Subject Name:	PROBLEM SOLVING AND PYTHON PROGRAMMING				

CO1	Solve simple computational problems using Notations.
CO2	Write Python Programs using statements and Expressions
CO3	Apply Control flow and Functional concepts in a user defined problems.
CO4	Apply Python Data Structures Compound Data. List, Tuples and Dictionaries for Compound Data.
CO5	Describe File handling and Exceptional Handling in Python for Solving Problems.

Subject Code :	GE3152	Semester:	I	Course Code:	C106
Subject Name:	HERITAGE OF TAMILS				

CO1	Summarize about languages, literatures and scripts.
CO2	Explain middle stone, modern sculptures, panchalogaidols and musical instruments.
CO3	Explain about the folk gods, arts and heroic sports.
CO4	Summarize the political theories of tamils.
CO5	Summarize Indian national movement contribution of Tamils to Indian culture.

Subject Code :	GE3171	Semester :	I	Course Code :	C107
Subject Name :	PROBLEM SOLVING AND PYTHON PROGRAMMING LABORATORY				

CO1	Write a python programs for simple computational problems.
CO2	Write python programs with conditionals and loops.
CO3	Write a python programs step-wise by defining function and calling them.
CO4	Write a python programs using lists, tuples, and dictionaries for representing compound data.
CO5	Write a python program for read and write data from to files in python.

Subject Code :	BS3171	Semester:	I	Course Code:	C108
Subject Name:	PHYSICS AND CHEMISTRY LABORATORY				

CO1	Calculate the Young's modulus by non-uniform bending, simple harmonic oscillators by Torsion Pendulum.
CO2	Calculate the thickness of a thin wire by air wedge and velocity of sound, compressibilityof liquid using ultra sonic interferometer.
CO3	Calculate the wavelength, acceptance angle and numerical aperture using laser.
CO4	Estimate the amount of Hardness, chloride,alkalinity in water samples.
CO5	Estimate the amount of acid, iron content present in a given solution by using pH, conductivity and potentiometric titration.

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Subject Code :	GE3172	Semester:	I	Course Code:	C109
Subject Name:	ENGLISH LABORATORY				

CO1	Analyze general information as well as complex academic situations.
CO2	Describe their personal experiences,events,documentaries and interviews in both temporary and permanent situations.
CO3	Describe products and processes and explain their purposes clearly and accurately.
CO4	Apply speaking skills in formal and informal communicative contexts.
CO5	Analyze or use their opinions effectively in both formal and informal discussion.

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Course Outcome

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Subject Code :	**HS3251**	**Semester :**	**II**	**Course Code :**	**C110**
Subject Name :	**PROFESSIONAL ENGLISH II**				
CO1	Write essays and emails in different forms effectively.				
CO2	Write letters and responses to complaints for the causal relations.				
CO3	Analyze the news reports, excerpts and case studies.				
CO4	Write the reports of events and transcoding.				
CO5	Write job application with resume in the context of job search.				

Subject Code :	**MA3251**	**Semester :**	**II**	**Course Code :**	**C102**
Subject Name :	**STATISTICS AND NUMERICAL METHODS**				
CO1	Analyze the concepts of sampling, mean and variance using various tests.				
CO2	Analyze the concepts of design of experiments using ANOVA.				
CO3	Solve the algebraic and numerical equations using numerical techniques.				
CO4	Evaluate the numerical differentiation and integration using different methods.				
CO5	Solve the first order differential equations using various methods.				

Subject Code :	PH3256	**Semester:**	II	**Course Code:**	**C112**
Subject Name:	**PHYSICS FOR INFORMATION SCIENCE**				
CO1	Explain the significance of electron theories and energy band structures.				
CO2	Apply the basics of semiconductor physics and its applications in various devices.				
CO3	Comprehend the different magnetic properties of materials and their applications in data storage.				
CO4	Summarize the functioning of optical materials for opto-electronic devices.				
CO5	Describe the basics of quantum structures and their applications in nano electronics.				

Subject Code :	**PH3254**	**Semester:**	**II**	**Course Code:**	**C113**
Subject Name:	**PHYSICS FOR ELECTRONICS ENGINEERING**				
CO1	Summarize the basics of crystallography and its importance.				
CO2	Explain the electrical and magnetic properties of materials.				
CO3	Apply the basics of semiconductor physics in device applications.				
CO4	Comprehend the different properties of optical materials and the functioning of opto-electronic devices.				
CO5	Describe the basics of quantum structures and their applications in nano devices				

Subject Code :	PH3202	Semester :	II	Course Code :	C115
Subject Name :	PHYSICS FOR ELECTRICAL ENGINEERING				
CO1	Explain the basics of dielectric and insulation materials.				
CO2	Describe the electrical and magnetic properties of materials and their applications.				
CO3	Apply the concepts of semiconductor physics in device applications.				
CO4	Comprehend the different properties of optical materials and functioning of opto-electronic devices.				
CO5	Describe the basics of quantum structures and their applications in nano devices.				

Subject Code :	GE3252	Semester :	II	Course Code :	C116
Subject Name :	TAMILS AND TECHNOLOGY				
CO1	Summarize the ancient history and technology of Tamil.				
CO2	Explain the lifestyle and architectural techniques of the sangam period.				
CO3	Explain the business practices and currency exchange of ancient Tamil people.				
CO4	Summarize the Agriculturen and Irrigation Technology in sangam period.				
CO5	Explain the computer applications in Tamil technological development.				

Subject Code :	**CS3251**	**Semester:**	II	**Course Code:**	**C117**
Subject Name:	**PROGRAMING IN C**				

CO1	Describe the basic construct and syntax of C programming.
CO2	Write Programs using arrays and strings.
CO3	Write Programs using function and pointers.
CO4	Apply the concept of union and structure for user defined problems
CO5	Describe the file handling in C.

Subject Code :	**GE3251**	**Semester :**	**II**	**Course Code :**	**C118**
Subject Name :	**ENGINEERING GRAPHICS**				

CO1	Draw the various curves used in engineering practices.
CO2	Draw the projections of straight lines which are inclined to both the planes.
CO3	Draw the projections of solids inclined to one plane and parallel to other plane.
CO4	Draw the projections of sectioned solids and draw the development of lateral surfaces of a solid.
CO5	Draw the isometric projections and perspective projections of simple solids.

Subject Code :	**BE3251**	**Semester:**	II	**Course Code:**	**C119**
Subject Name:	**BASICS OF ELECTRICAL AND ELECTRONICS ENGINEERING**				
CO1	Solve Electric Circuits using Basic Electric Laws				
CO2	Explain the construction ,working principles and applications of Electrical Machines				
CO3	Describe the construction ,working principles, characteristics and applications of Analog Devices				
CO4	Design the Digital Logic Circuits using Karnaugh Map				
CO5	Comprehend the Construction and Operating Principles of Measuring Instruments				

Subject Code :	**BE3254**	**Semester :**	**II**	**Course Code :**	**C120**
Subject Name :	**BASIC ELECTRICAL AND INSTRUMENTATION ENGINEERING**				
CO1	Explain the Construction, types and working of transformers				
CO2	Explain the Construction, types and working of Dc Machines				
CO3	Explain the Construction, types and working of AC Rotating Machines				
CO4	Describe the functional elements and working of measuring instruments				
CO5	Describe the basics of power systems and protection schemes				

Subject Code :	**EC3251**	**Semester:**	**II**	**Course Code:**	**C121**
Subject Name:	**CIRCUIT ANALYSIS**				
CO1	Analyze the Different methods of circuit analysis using Duality and Topology.				
CO2	Solve the DC and AC by using Network Theorems.				
CO3	Analyze the Resonance and coupled Circuit				
CO4	Analyze the Transient Resonance of the RLC circuit.				
CO5	Summarize the COUPLED CIRCUITS AND TOPOLOGY				

Subject Code :	**BE3255**	**Semester :**	**II**	**Course Code :**	**C122**
Subject Name :	**BASIC CIVIL AND MECHANICAL ENGINEERING**				
CO1	Summarize profession of Civil and Mechanical Engineering				
CO2	Describe the principles of surveying and elucidate the applications of materials in Civil Engineering.				
CO3	Explain the elements of construction and categorize the various forms of structures.				
CO4	Explain the constituents and operational principles of diverse power plants and engines.				
CO5	Explain the operational principles of refrigeration and air conditioning systems				

Subject Code :	**EE3251**	**Semester:**	II	**Course Code:**	**C123**
Subject Name:	**ELECTRIC CIRCUIT ANALYSIS**				
CO1	Analyze D.C and A.C Circuits using basic circuit laws.				
CO2	Solve D.C and A.C Circuits using Network Theorems and Network reduction techniques.				
CO3	Analyze the transient response of RL, RC and RLC Circuits using Laplace transform.				
CO4	Describe the behavior of resonance and coupled circuits.				
CO5	Analyze three phase balanced and unbalanced circuits with star and delta connected load.				

Subject Code :	**GE3272**	**Semester:**	II	**Course Code:**	**C124**
Subject Name:	**COMMUNICATION LABORATORY / FOREIGN LANGUAGE**				
CO1	Apply various group discussion skills to take part in effective discussions in a professional context.				
CO2	Analyze concepts and problems and make effective presentations explaining them clearly				
CO3	Write essays, emails, reports and letters efficient way				
CO4	Write the short articles and instructions				
CO5	Write a job application, cover letter and recommendations.				

Subject Code :	GE3271	Semester :	II	Course Code :	C125
Subject Name :	ENGINEERING PRACTICES LABORATORY				

CO1	Summarize the plumbing and carpentry of residential and industrial building
CO2	Design of different joints using welding work
CO3	Demonstrate of foundry operations & fitting models
CO4	Design of residential house wiring , lamp wiring and energy meter calibration
CO5	Study of electronic equipments ,Assembling and testing of PCB components

Subject Code :	CS3271	Semester:	II	Course Code:	C126
Subject Name:	PROGRAMMING IN C LABORATORY				

CO1	Write Programs using basic constructs.
CO2	Write Programs using arrays and strings.
CO3	Write Programs using function and recursive function.
CO4	Write Programs using union and structure for user defined problems
CO5	Write Programs using file handling methodologies in C.

Subject Code :	EC3271	Semester :	II	Course Code :	C127
Subject Name :	CIRCUITS ANALYSIS LABORATORY				
CO1	Evaluate output current and voltage for electric circuits using Thevenin's and Norton's Theorems.				
CO2	Evaluate output current and voltage for electric circuits using fundamental electrical laws with experimental set up.				
CO3	Evaluate output current voltage and power n for electric circuits using Reciprocity and Maximum transfer Theorems.				
CO4	Analyze Frequency response of series & parallel resonance circuits using experimental methods.				
CO5	Analyze the Transient of RL and RC circuits				

Subject Code :	EE3271	Semester:	II	Course Code:	C128
Subject Name:	ELECTRIC CIRCUITS LABORATORY				
CO1	Evaluate output current and voltage for electric circuits using Thevenin's and Norton's Theorems.				
CO2	Evaluate output current and voltage for electric circuits using fundamental electrical laws with experimental set up.				
CO3	Evaluate output current voltage and power n for electric circuits using Reciprocity and Maximum transfer Theorems.				
CO4	Analyze Frequency response of series & parallel resonance circuits using experimental methods.				
CO5	Analyze the Transient of RL and RC circuits				