SUBJECT CODE & NAME : HS8151& Communicative English
YEAR / SEM : I / I
COURSE CODE : C101

Course Outcomes (COs)

C101.1	Comprehend the passages through asking and answering questions.
C101.2	Participate effectively in informal conversation, general reading and free writing
C101.3	Write cohesively and coherently and flawlessly avoiding grammatical errors, using a wide vocabulary range, organizing their ideas logically on a topic.
C101.4	Read different genres of texts, understand implied meanings and critically analyse and evaluate them for ideas as well as for method of presentation.
C101.5	Write effectively and persuasively and produce different types of writing such as narration, description, exposition and argument as well as creative, critical, analytical and evaluative writing.

SUBJECT CODE & NAME : MA8151& Engineering Mathematics - I
YEAR / SEM : I/ I
COURSE CODE : C102

.**Course Outcomes (COs)**

SL.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C102.1	Evaluate integrals both by using Riemann sums and by using the Fundamental Theorem of Calculus.
2	C102.2	Apply integration to compute multiple integrals, area, volume, integrals in polar coordinates, in addition to change of order and change of variables
3	C102.3	Evaluate integrals using techniques of integration, such as substitution, partial fractions and integration by parts.
4	C102.4	Determine convergence/divergence of improper integrals and evaluate convergent improper integrals.
5	C102.5	Apply various techniques in solving differential equations.

SUBJECT CODE & NAME : PH8151 & Engineering Physics
YEAR / SEM : I/ I
COURSE CODE : C103

Course Outcomes (COs)

SL.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C103.1	Gain knowledge on the basics of properties of matter and its applications
2	C103.2	Acquire knowledge on the concepts of waves and optical devices and their applications in fibre optics.
3	C103.3	Adequate knowledge on the concepts of thermal properties of materials and their applications in expansion joints and heat exchangers
4	C103.4	Knowledge on advanced physics concepts of quantum theory and its applications in tunneling microscopes,
5	C103.5	Understand the basics of crystals, their structures and different crystal growth techniques

SUBJECT CODE & NAME : CY8151- Engineering Chemistry
YEAR / SEM : I/ I
COURSE CODE : C104

Course Outcomes (COs)

SL.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C104.1	Understand the requirements boiler feed water, related problems and interpretation of water treatment techniques
2	C104.2	Study of adsorption of molecules on catalysts and kinetics of surface reactions provide knowledge on the various engineering applications
3	C104.3	Learn of the basic concepts of phase rule and its applications to various systems and appreciate the purpose and significance of alloys
4	C104.4	Gain of knowledge on types of fuels, calorific value calculations, manufacture of solid, liquid and gaseous fuels
5	C104.5	Understand the principles and demonstration of energy storage devices

SUBJECT CODE & NAME : GE8151 Problem Solving and Python Programming
YEAR / SEM : I/ I
COURSE CODE : C105

Course Outcomes (COs)

SL.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C105.1	Develop algorithmic solutions to simple computational problems.
2	C105.2	Demonstrate programs using simple Python statements and expressions.
3	C105.3	Explain control flow and functions concept in Python for solving problems.
4	C105.4	Use Python data structures – lists, tuples & dictionaries for representing compound data.
5	C105.5	Explain files, exception, modules and packages in Python for solving problems.

SUBJECT CODE & NAME : GE8152 & Engineering Graphics
YEAR / SEM : I/ I
COURSE CODE : C106

. **Course Outcomes (COs)**

SL.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C106.1	Know the fundamentals and standards of Engineering graphics
2	C106.2	Perform freehand sketching of basic geometrical constructions and multiple views of objects.
3	C106.3	Project orthographic projections of lines and plane surfaces.
4	C106.4	Draw projections and solids and development of surfaces.
5	C106.5	Visualize and to project isometric and perspective sections of simple solids.

SUBJECT CODE & NAME : GE8161& Problem Solving and Python Programming Laboratory
YEAR / SEM : I/ I
COURSE CODE : C107

Course Outcomes (COs)

SL.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C107.1	Develop solutions to simple computational problems using Python programs.
2	C107.2	Solve problems using conditionals and loops in Python.
3	C107.3	Develop Python programs by defining functions and calling them.
4	C107.4	Use Python lists, tuples and dictionaries for representing compound data.
5	C107.5	Develop Python programs using files.

SUBJECT CODE & NAME : BS8161 Physics and Chemistry Laboratory
YEAR / SEM : I/ I
COURSE CODE : C108

. Course Outcomes (COs)

SL.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C108.1	Apply Principles of Optics and sound to evaluate engineering properties of material.
2	C108.2	Determine the Young's Modulus, Thermal conductivity & Specific resistance of the materials.
3	C108.3	Acquire practical skills in the determination of water quality parameters through volumetric and instrumental analysis
4	C108.4	Gain of practical skills in the determination of composition of metal through volumetric and instrumental analysis
5	C108.5	Acquire practical skills in the determination of qualitative and quantitative analysis of acids through volumetric and instrumental analysis

SUBJECT CODE & NAME : HS8251& Technical English
YEAR / SEM : I/ II
COURSE CODE : C109

Course Outcomes (COs)

SL.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C109.1	Read short technical articles from technical journals
2	C109.2	Describe a process and interpreting charts and graphs.
3	C109.3	Develop technical presentations by using sequence words.
4	C109.4	Write job application letter, Resume preparation.
5	C109.5	Participate in Group Discussion, writing reports and minutes of meeting.

SUBJECT CODE & NAME : MA8251 & Engineering Mathematics - II
YEAR / SEM : I/ II
COURSE CODE : C110

Course Outcomes (COs)

SL.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C110.1	Eigen values and eigenvectors, diagonalization of a matrix, Symmetric matrices, Positive definite matrices and similar matrices.
2	C110.2	Gradient, divergence and curl of a vector point function and related identities
3	C110.3	Evaluation of line, surface and volume integrals using Gauss, Stokes and Green's theorems and their verification.
4	C110.4	Analytic functions, conformal mapping and complex integration
5	C110.5	Laplace transform and inverse transform of simple functions, properties, various related theorems and application to differential equations with constant coefficients.

SUBJECT CODE & NAME : PH8253 & Physics for Electronics Engineering
YEAR / SEM : I/ II
COURSE CODE : C111

Course Outcomes (COs)

SL.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C111.1	Gain knowledge on classical and quantum electron theories, and energy band structures
2	C111.2	Acquire knowledge on basics of semiconductor physics and its applications in various devices,
3	C111.3	Get knowledge on magnetic and dielectric properties of materials,•
4	C111.4	Understanding on the functioning of optical materials for optoelectronics,
5	C111.5	Understand the basics of quantum structures and their applications in spintronics and carbon electronics.

SUBJECT CODE & NAME : BE8252 & Basic Civil and Mechanical Engineering
YEAR / SEM : I/ II
COURSE CODE : C112

Course Outcomes (COs)

SL.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C112.1	Understand about knowledge in civil and mechanical engineering.
2	C112.2	Understand about building materials used in construction industry and surveying.
3	C112.3	Understand about sub structure and super structure elements, dam, bridges and its components.
4	C112.4	Demonstrate working principles of petrol and diesel engine.
5	C112.5	Explain the components of refrigeration and Air conditioning cycle.

SUBJECT CODE & NAME : EE8251& Circuit Theory
YEAR / SEM : I/ II
COURSE CODE : C113

Course Outcomes (COs)

SL.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C113.1	Introduce electric circuits and its analysis
2	C113.2	Impart knowledge on solving circuits using network theorems
3	C113.3	Educate on obtaining the transient response of circuits
4	C113.4	Phase diagrams and analysis of three phase circuits
5	C113.5	Introduce the phenomenon of resonance in coupled circuits

SUBJECT CODE & NAME : GE8291 & Environmental Science and Engineering
YEAR / SEM : I/ II
COURSE CODE : C114

Course Outcomes (COs)

SL.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C114.1	Acquire knowledge on the nature and facts about environment, ecosystem and biodiversity
2	C114.2	Finding and implementing scientific, technological, economic and political solutions to environmental problems, pollution control and to serious environmental disasters
3	C114.3	Infer availability of natural resources, and waste management dynamic processes and understand the features of the earth's interior and surface
4	C114.4	Appreciate the importance of environment by assessing its impact on the human world; envision the surrounding environment, its functions and its value
5	C114.5	Public awareness of population explosion, HIV/AIDS and its environmental impacts at infant stage and understanding the importance of family planning,women and child welfare, value education.

SUBJECT CODE & NAME : GE8261 & Engineering Practices Laboratory
YEAR / SEM : I/ II
COURSE CODE : C115

Course Outcomes (COs)

SL.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C115.1	Understanding to fabricate carpentry components and pipe connections including plumbing works.
2	C115.2	Understand to use welding equipments to join the structures and Gaining ability to Make the models using sheet metal works
3	C115.3	Understanding the basic home electrical works and appliances.
4	C115.4	Gaining ability to Measure the electrical quantities
5	C115.5	Gaining ability to solder the components.

SUBJECT CODE & NAME : EE8261& Electric Circuits Laboratory
YEAR / SEM : I/ II
COURSE CODE : C116

Course Outcomes (COs)

SL.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C116.1	Ability to simulation and verifying Kirchhoff's laws
2	C116.2	Analysis and simulation of various theorems with its circuit
3	C116.3	Determine the response R-C & RLC circuit
4	C116.4	Design and simulation of series and parallel resonance circuit
5	C116.5	Understanding the experimental and simulation setup of three phase circuit