CS 121 (R22): MATHEMATICS-II

COURSE OUTCOMES:

CO1	**Using variable separable method and using other methods solving the higher order differential equation.**
CO2	**Reducing the given differential equations and solving for the required solutions**
CO3	**Student should be known about first order partial differential equations and its solutions obtained by using different methods**
CO4	**Student should able to understand about vectors, vector differentiation methods**
CO5	**Student should able to find vector integration by using different methods and also applications of vectors in various fields**

CS 122 (R22): ENGINEERING CHEMISTRY

COURSE OUTCOMES:

CO1	**Develop innovative methods to produce soft water for industrial use and potable water at cheaper cost**
CO2	**Substitute metals with conducting polymers and also produce cheaper biodegradable polymers to reduce environmental pollution. Design economically and new methods of synthesis nano materials.**
CO3	**Identify electronic components that can provide protection and specify a minimum set of protections needed - Compute stored energy in a battery pack - List the manufacturing steps of different types of lithium-ion cells and possible failure modes and apply their knowledge for protection of different metals from corrosion**
CO4	**Ability to understand, explain and select instrumental techniques for analysis**
CO5	**Develop the technique involved in the manufacturing process of cement Apply the knowledge about the properties of chemical fuels for the generation of power Apply the knowledge of various polymeric material, their synthesis and applications and synthesize medicinal compounds and the physical chemical properties of drugs using drug design software**

CS 123 (R22): PROFESSIONAL COMMUNICATION SKILLS

COURSE OUTCOMES:

CO1	**Identify the context,topic,and piece of specific information from social or transactional dialogues spoken by native speakers of English(L3)**
CO2	**Formulate sentence using proper grammatical structures and correct word forms(L3)**
CO3	**Speak clearly on a specific topic using suitable discourse markers in informal discussions**
CO4	**Write summaries based on global comprehension of reading test(L3)**
CO5	**Produce a coherent paragraphs interpreting a figure/graph/chart/table(L4)**

CS 124 (R22): DIGITAL ELECTRONICS

COURSE OUTCOMES:

CO1	**Understand and apply different number systems,codes,Boolean algebra and logic gates to analyze and design digital circuits**
CO2	**Simplify Boolean functions using various methods.**
CO3	**Understand and design combinational logic circuits and sequential logic circuits**
CO4	**Design and analyze registors,counters and memories**
CO5	**Unterstand and analyze programmable logic devices**

CS 125 (R22): PYTHON PROGRAMMING

COURSE OUTCOMES:

CO1	**Understand the basic build in blocs in python programming laungauge to construct different applications.**
CO2	**Apply the necessary data structures to solve a given problem**
CO3	**Extract and import packages for developing different solutions for real time problems.**
CO4	**Implement the problems in terms of real – world objects using concepts of oops.**

CS 126 (R22): ENVIRONMENTAL SCIENCE

COURSE OUTCOMES:

CO1	**Gain knowledge about environment and importance of environmental studies in the life. They have to know about the resources, its importance and environmental impacts of human activities on natural resources.**
CO2	**Students will learn about the ecosystem functioning and importance of biodiversity and its conservation.**
CO3	**Gain knowledge about the environmental pollutions control,management of waste and pollution related aspects**
CO4	**Aware students about social issues and natural calamities,constitusional tools provisions for human welfare.**
CO5	**Students will learn about increase in pollution growth and its impact on environment and study of ecosystem through field visit.**

CS 161 (R22): ENGINEERING CHEMISTRY LABORATORY

COURSE OUTCOMES:

CO1	**Explain various methods of volumetric analysis i.e. Redox, Iodometric, complexometric , Neutralization etc. and use of conductivity meter for measurement of conductance of water sample**
CO2	**Apply the use of internal and external indicators and their comparison for redox titrations and mechanisms of iodometric titrations and use of double indicator method in a single titration**
CO3	**Estimate the % values of moisture, volatile matter, ash and carbon of fuel by Proximate analysis and instrument handling**
CO4	**Analyse the properties of lubricants viz. Flash & fire point, viscosity, cloud & pour point and their significance.**
CO5	**Produce a coherent paragraph interpreting a figure/graph/chart/table (L4) Explain synthetic technique of drug like Aspirin, Paracetamol etc.**

CS 162 (R22): COMMUNICATION SKILLS LAB

COURSE OUTCOMES:

CO1	**dentify the sounds of English and use of stress and intonation in connected speech**
CO2	**Able to listen carefully to communicate effectively in cross- cultural contexts**
CO3	**Capable to make the students communicate in Daily life situations**
CO4	**Capable to read for content/ main idea.**
CO5	**Able to communicate confidently in oral presentations**

CS 163 (R22): PYTHON PROGRAMMING LAB

COURSE OUTCOMES:

CO1	**mplement python programming constructs to build small to large scale applications.**
CO2	**Implement the problems in terms of real -world objects using OOPs technology.**
CO3	**Evaluate and handle the errors during runtime involved in a program**
CO4	**Extract and import packages for developing different solutions for real time problems**

AM 121 (R22): MATHEMATICS-II

COURSE OUTCOMES:

CO1	**Using variable separable method and using other methods solving the higher order differential equation.**
CO2	**Reducing the given differential equations and solving for the required solutions**
CO3	**Student should be known about first order partial differential equations and its solutions obtained by using different methods**
CO4	**Student should able to understand about vectors, vector differentiation methods**
CO5	**Student should able to find vector integration by using different methods and also applications of vectors in various fields**

AM 122 (R22): ENGINEERING CHEMISTRY

COURSE OUTCOMES:

CO1	**Develop innovative methods to produce soft water for industrial use and potable water at cheaper cost**
CO2	**Substitute metals with conducting polymers and also produce cheaper biodegradable polymers to reduce environmental pollution. Design economically and new methods of synthesis nano materials.**
CO3	**Identify electronic components that can provide protection and specify a minimum set of protections needed - Compute stored energy in a battery pack - List the manufacturing steps of different types of lithium-ion cells and possible failure modes and apply their knowledge for protection of different metals from corrosion**
CO4	**Ability to understand, explain and select instrumental techniques for analysis**
CO5	**Develop the technique involved in the manufacturing process of cement Apply the knowledge about the properties of chemical fuels for the generation of power Apply the knowledge of various polymeric material, their synthesis and applications and synthesize medicinal compounds and the physical chemical properties of drugs using drug design software**

AM 123 (R22): PROFESSIONAL COMMUNICATION SKILLS

COURSE OUTCOMES:

CO1	**Identify the context,topic,and piece of specific information from social or transactional dialogues spoken by native speakers of English(L3)**
CO2	**Formulate sentence using proper grammatical structures and correct word forms(L3)**
CO3	**Speak clearly on a specific topic using suitable discourse markers in informal discussions**
CO4	**Write summaries based on global comprehension of reading test(L3)**
CO5	**Produce a coherent paragraphs interpreting a figure/graph/chart/table(L4)**

AM 124 (R22): DIGITAL ELECTRONICS

COURSE OUTCOMES:

CO1	**Understand and apply different number systems,codes,Boolean algebra and logic gates to analyze and design digital circuits**
CO2	**Simplify Boolean functions using various methods.**
CO3	**Understand and design combinational logic circuits and sequential logic circuits**
CO4	**Design and analyze registors,counters and memories**
CO5	**Unterstand and analyze programmable logic devices**

AM 125 (R22): PYTHON PROGRAMMING

COURSE OUTCOMES:

CO1	**Understand the basic build in blocs in python programming laungauge to construct different applications.**
CO2	**Apply the necessary data structures to solve a given problem**
CO3	**Extract and import packages for developing different solutions for real time problems.**
CO4	**Implement the problems in terms of real – world objects using concepts of oops.**

AM 126 (R22): ENVIRONMENTAL SCIENCE

COURSE OUTCOMES:

CO1	**Gain knowledge about environment and importance of environmental studies in the life. They have to know about the resources, its importance and environmental impacts of human activities on natural resources.**
CO2	**Students will learn about the ecosystem functioning and importance of biodiversity and its conservation.**
CO3	**Gain knowledge about the environmental pollutions control,management of waste and pollution related aspects**
CO4	**Aware students about social issues and natural calamities,constitusional tools provisions for human welfare.**
CO5	**Students will learn about increase in pollution growth and its impact on environment and study of ecosystem through field visit.**

AM 161 (R22): ENGINEERING CHEMISTRY LABORATORY

COURSE OUTCOMES:

CO1	**Explain various methods of volumetric analysis i.e. Redox, Iodometric, complexometric , Neutralization etc. and use of conductivity meter for measurement of conductance of water sample**
CO2	**Apply the use of internal and external indicators and their comparison for redox titrations and mechanisms of iodometric titrations and use of double indicator method in a single titration**
CO3	**Estimate the % values of moisture, volatile matter, ash and carbon of fuel by Proximate analysis and instrument handling**
CO4	**Analyse the properties of lubricants viz. Flash & fire point, viscosity, cloud & pour point and their significance.**
CO5	**Produce a coherent paragraph interpreting a figure/graph/chart/table (L4) Explain synthetic technique of drug like Aspirin, Paracetamol etc.**

AM 162 (R22): COMMUNICATION SKILLS LAB

COURSE OUTCOMES:

CO1	**dentify the sounds of English and use of stress and intonation in connected speech**
CO2	**Able to listen carefully to communicate effectively in cross- cultural contexts**
CO3	**Capable to make the students communicate in Daily life situations**
CO4	**Capable to read for content/ main idea.**
CO5	**Able to communicate confidently in oral presentations**

AM 163 (R22): PYTHON PROGRAMMING LAB

COURSE OUTCOMES:

CO1	**mplement python programming constructs to build small to large scale applications.**
CO2	**Implement the problems in terms of real -world objects using OOPs technology.**
CO3	**Evaluate and handle the errors during runtime involved in a program**
CO4	**Extract and import packages for developing different solutions for real time problems**

EC 121 (R22): MATHEMATICS-II

COURSE OUTCOMES:

CO1	**Using variable separable method and using other methods solving the higher order differential equation.**
CO2	**Reducing the given differential equations and solving for the required solutions.**
CO3	**Student should be known about first order partial differential equations and its solutions obtained by using different methods.**
CO4	**Student should be able to understand about vectors,vector differentiation methods.**
CO5	**Student should able to find vector integration by using different methods and also applications of vectors in various fields.**

EC 122 (R22): ENGINEERING PHYSICS

COURSE OUTCOMES:

CO1	**Distinguish the phenomena of light light – interference ,diffraction, and determination of the wavelength of given light using these phenomena.**
CO2	**Apply the concepts of light in opticalfiber and lasers in communication system.use of fibers in communication system.Major applications of fibers and lasers in medical field.**
CO3	**Classify the magnetic materials and apply the magnetic,dielectric materials for given engineering applications.**
CO4	**Classify the semiconductors and study the properties of semiconductors.Hall effect.**
CO5	**Calculate the energy of quantum particle at different energy levels, de Broglie's hypothesis,schrodinger's wave function and its applications,study of the properties of superconductors.BCS Theory of superconductivity**

EC 123 (R22): ELECTRONIC DEVICES AND CIRCUITS

COURSE OUTCOMES:

CO1	**Demonstrate understanding of the characteristic behavior of various electronic devices such as Diodes, Transistors etc.**
CO2	**Apply the acquired knowledge in the analysis of various diode and transistors circuits**
CO3	**Compare and contrast the characteristics if BJT and FET in various configuration.**
CO4	**Evaluate the performance parameters of various diode circuits and transistors circuits**
CO5	**Design and analyse amplifier circuits and relate the knowledge of BJT and FET behavior in the design of various biasing and amplifier circuits.**

EC 124 (R22): ENGINEERING GRAPHICS

COURSE OUTCOMES:

CO1	**To understand how to construct and analysze different tyes of curves used in engineering design and manufacturing to study conic sections,cycloids,helixes,spirals,and involutes.**
CO2	**To analyze their drawing skills through regular practice of the different techniques taught in the course, including freehand sketching,orthographic and isometric projections**
CO3	**Applying of their drawing skills through regular practice of different techniques taught in the course,orthographic projections, section view and dimentioning**
CO4	**To understand various topics such as projections of lines in different planes,true length and true inclination of lines,and projection of planes in different planes,true length and true size of planes, and the concept of auxiliary planes.**
CO5	**To evaluate various topics such as sectioning of solids,different types of sections,and application of sectioning of engineering design and manufacturing.understand and learn how to use computer-aided designs software to create 2D models of solid objects with sections.**

EC 125 (R22): PYTHON PROGRAMMING

COURSE OUTCOMES:

CO1	**Understand the basic build in blocs in python programming laungauge to construct different applications.**
CO2	**Apply the necessary data structures to solve a given problem**
CO3	**Extract and import packages for developing different solutions for real time problems.**
CO4	**Implement the problems in terms of real – world objects using concepts of oops.**

EC 161 (R22): ENGINEERING PHYSICS LABORATORY

COURSE OUTCOMES:

CO1	**Examine the physical properties of light using interference and diffraction.**
CO2	**Calculate the numerical aperture and acceptance angle of optical fiber**
CO3	**Analyze the characteristics of semiconducting material**
CO4	**Demonstrate the magnetizing behavior of magnetic materials**
CO5	**Calculate the dielectric constant of a material**

EC 162 (R22): ELECTRONIC DEVICES AND CIRCUITS LAB

COURSE OUTCOMES:

CO1	**Demonstrate the characteristic behaviour of PN junction diode, Zener diode and special purpose semiconductor diodes**
CO2	**Examine the characteristics of BJT and FET in various configurations.**
CO3	**Examine the characteristics of MOSFET in various configurations**
CO4	**Evaluate and compare the significant parameters obtained from the characteristics of BJT and FET, and MOSFET**
CO5	**Design various BJT biasing circuits to identify the appropriate circuit for faithful amplification**

EC 163 (R22): PYTHON PROGRAMMING LAB

COURSE OUTCOMES:

CO1	**Implement python programming constructs to build small to large scale applications.**
CO2	**Implement the problems in terms of real -world objects using OOPs technology**
CO3	**Evaluate and handle the errors during runtime involved in a program**
CO4	**Extract and import packages for developing different solutions for real time problems.**