Group A(Physics Group)

Year:2022-23

First Semester Group-A Contact Hrs. : 24	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
Course Code			L	T	P	Internal		External	
BTPHXX-18	Basic Science Course	Physics	3	1	0	40	60	100	4
BTPHXX-18	Basic Science Course	Physics (Lab)	0	0	3	30	20	50	1.5
BTAMXX-18	Basic Science Course	Maths-I	3*	1	0	40	60	100	4
BTEE101-18	Engineering Science Course	Basic Electrical Engineering	3	1	0	40	60	100	4
BTEE102-18	Engineering Science Course	Basic Electrical Engineering (Lab)	0	0	2	30	20	50	1
BTME101-18	Engineering Science Courses	Engineering Graphics & Design	1	0	4	60	40	100	3
BMPD101-18		Mentoring and Professional Development	0		0	2		Satisfactory / Un-Satisfactory	Non-Credit
TOTAL	**10**	**3**	**11**		**220**	**280**		**500**	**17.5**

SEM 1

COURSE OUTCOMES(SEM -1) CIVIL ENGINEERING

COURSE NAME (MECHANICS OF SOLID) Physics-1 (Theory) Year- 2022-23

COURSE OUTCOMES AFTER COMPLETION OF COURSE,STUDENTS WILL BE ABLE TO:-	
BTPH101-18	Understand the vector mechanics for a classical system.
BTPH101-18	Identify various types of forces in nature, frames of references, and conservation laws.
BTPH101-18	Know the simple harmonic, damped, and forced simple harmonic oscillator for a mechanical system.
BTPH101-18	Analyze the planar rigid body dynamics for a mechanical system.
BTPH101-18	Apply the knowledge obtained in this course to the related problems.

COURSE OUTCOMES (SEM -1)

COURSE NAME (MECHANICS OF SOLID Physics-1 (LAB) Year- Year- 2022-23

COURSE OUTCOMES AFTER COMPLETION OF COURSE,STUDENTS WILL BE ABLE TO:-	
BTPH111-18	Able to understand the concepts learned in the mechanics of solids.
BTPH111-18	Learning the skills needed to verify some of the concepts of theory courses.
BTPH111-18	Trained in carrying out precise measurements and handling sensitive equipme
BTPH111-18	Able to understand the principles of error analysis and develop skills in experimental design
BTPH111-18	Able to document a technical report which communicates scientific information in a clear and concise manner

COURSE OUTCOMES (SEM -1)

COURSE NAME (CALCULUS AND LINEAR ALGEBRA) (Maths) Year- 2022-23

COURSE OUTCOMES AFTER COMPLETION OF COURSE,STUDENTS WILL BE ABLE TO:-	
BTAM101-18	The fallouts of Rolle's Theorem that is fundamental to application of analysis to Engineering problems.
BTAM101-18	To apply differential and integral calculus to evaluate definite, improper integrals and its applications.
BTAM101-18	The convergence of sequence and series and to apply different tests of convergence
BTAM101-18	To deal with functions of several variables that are essential in most branches of engineering.

BTAM101-18	The essential tool of matrices and linear algebra in a comprehensive manner.

COURSE OUTCOMES(SEM -1)

COURSE NAME (BASIC ELECTRICAL ENGINEERING) **Year- 2022-23**

COURSE OUTCOMES AFTER COMPLETION OF COURSE,STUDENTS WILL BE ABLE TO:-	
BTEE101-18	Have the knowledge of DC circuits, AC Circuits, basic magnetic circuits, working principles of electrical machines, and components of low voltage electrical installations
BTEE101-18	Be able to analyze of DC circuits, AC Circuits
BTEE101-18	Understand the basic magnetic circuits and apply it to the working of electrical machines
BTEE101-18	Be introduced to types of wiring, batteries, and LT switchgear.

COURSE OUTCOMES(SEM -1)

COURSE NAME (BASIC ELECTRICAL ENGINEERING LAB) **Year- Year- 2021-22**

COURSE OUTCOMES AFTER COMPLETION OF COURSE,STUDENTS WILL BE ABLE TO:-	
BTEE102-18	The ability to use common electrical measuring instruments and understand the fundamentals of electrical engineering.
BTEE102-18	The ability to make electrical connections, and measure power, power factor using appropriate equipments
BTEE102-18	Have the knowledge of electrical machines, components and their ratings.
BTEE102-18	Understand the operation of transformers and electrical machines.

COURSE OUTCOMES (SEM 1) COMMON FOR GROUP(A & B) **Year- 2022-23**

COURSE NAME(MENTORING AND PROFESSIONAL DEVELOPMENTG (THEORY +LAB)

The STUDENTS WILL LEARN:-	
BMPD101-18	Introduction to engineering design and its place in society
BMPD101-18	Exposure to the visual aspects of engineering design
BMPD101-18	Exposure to engineering graphics standards
BMPD101-18	Exposure to solid modeling
BMPD101-18	Exposure to computer-aided geometric design
BMPD101-18	Exposure to creating working drawings
BMPD101-18	Exposure to engineering communication

Branch-Computer science and engineering

COURSE OUTCOMES (SEM -1)

COURSE NAME (SEMICONDUCTOR PHYSICS)(THEORY) **Year- 2022-23**

COURSE OUTCOMES AFTER COMPLETION OF COURSE,STUDENTS WILL BE ABLE TO:-	
BTPH104-18	Understand and explain the fundamental principles and properties of electronic materials and semiconductors
BTPH104-18	Understand and describe the interaction of light with semiconductors in terms of fermi golden rule
BTPH104-18	Understand and describe the impact of solid-state device capabilities and limitations on electronic circuit performance.
BTPH104-18	Understand the design, fabrication, and characterization techniques of Engineered semiconductor materials
BTPH104-18	Develop the basic tools with which they can study and test the newly developed devices and other semiconductor applications.

COURSE OUTCOMES (SEM -1)

COURSE NAME (SEMICONDUCTOR PHYSICS)(LAB) **Year- 2022-23**

COURSE OUTCOMES AFTER COMPLETION OF COURSE,STUDENTS WILL BE ABLE TO:-	
BTPH114-18	Able to verify some of the theoretical concepts learnt in the theory courses.
BTPH114-18	Trained in carrying out precise measurements and handling sensitive equipment.
BTPH114-18	Introduced to the methods used for estimating and dealing with experimental uncertainties and systematic "errors."
BTPH114-18	Learn to draw conclusions from data and develop skills in experimental design
BTPH114-18	Write a technical report which communicates scientific information in a clear and concise manner

COURSE OUTCOMES (SEM -1)

COURSE NAME (MATHEMATICS PAPER-1) **Year- 2022-23**

COURSE OUTCOMES AFTER COMPLETION OF COURSE,STUDENTS WILL BE ABLE TO:-

BTAM104-18	To apply differential and integral calculus to notions of curvature and to improper integrals.
BTAM104-18	Apart from various applications, they will have a basic understanding of Beta and Gamma functions.
BTAM104-18	The essential tools of matrices and linear algebra including linear transformations, eigen values, diagonalization and orthogonalization.

COURSE OUTCOMES(SEM 1)

COURSE NAME :- BASIC ELECTRONIC ENGINEERING(THEORY) Year- 2022-23

The STUDENTS WILL LEARN:-	
BTEE101-18	Have the knowledge of DC circuits, AC Circuits, basic magnetic circuits, working principles of electrical machines, and components of low voltage electrical installations
BTEE101-18	Be able to analyze of DC circuits, AC Circuits
BTEE101-18	Understand the basic magnetic circuits and apply it to the working of electrical machine
BTEE101-18	Be introduced to types of wiring, batteries, and LT switchgear.

COURSE OUTCOMES(SEM 1)

COURSE NAME (BASIC ELECTRONIC ENGINEERING) (LAB) Year: 2022-23

The STUDENTS WILL LEARN:-	
BTEE102-18	The ability to use common electrical measuring instruments and understand the fundamentals of electrical engineering.
BTEE102-18	The ability to make electrical connections, and measure power, power factor using appropriate equipments.
BTEE102-18	Have the knowledge of electrical machines, components and their ratings.
BTEE102-18	Understand the operation of transformers and electrical machines.

COURSE OUTCOMES (SEM -1) Year- 2022-23

COURSE NAME (ENGINEERING GRAPHICS AND DESIGN)(THEORY+ LAB)

All phases of manufacturing or construction require the conversion of new ideas and design concepts into the basic line language of graphics. Therefore, there are many areas (civil, mechanical, electrical, architectural and industrial) in which the skills of the CAD technicians play major roles in the design

and development of new products or construction. Students prepare for actual work situations through practical training in a new state-of-the-art computer designed CAD laboratory using engineering software. This course is designed toaddress:	
BTME101-18	to prepare you to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
BTME101-18	to prepare you to communicate effectively
BTME101-18	to prepare you to use the techniques, skills, and modern engineering tools necessary for engineering practice

Group B(Chemistry Group)

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution	Total Marks		Credits
			L	T	P	Internal		External	
BTCH101-18	Basic Science Course	Chemistry-I	3	1	0	40	60	100	4
BTCH102-18	Basic Science Course	Chemistry-I (Lab)	0	0	3	30	20	50	1.5
BTAMXX-18	Basic Science Course	Maths-I	3*	1	0	40	60	100	4
BTPS101-18	Engineering Science Course	Programming for Problem Solving	3	0	0	40	60	100	3
BTPS102-18	Engineering Science Course	Programming for Problem Solving (Lab)	0	0	4	30	20	50	2
BTMP101-18	Engineering Science Courses	Workshop / Manufacturing Practices	1	0	4	60	40	100	3
BTHU101-18	Humanities and Social Sciences including Managem	English	2	0	0	40	60	100	2

	ent courses								
BTHU102-18	Humanities and Social Sciences including Management courses	English (Lab)	0	0	2	30	20	50	1
BMPD101-18	Mentoring and Professional Development	0	0			2	Satisfactory / Un-Satisfactory		Non-Credit
TOTAL	**12**	**2**	**15**	**290**	**360**	**650**	**20.5**		

Branch(ECE/ME)

COURSE OUTCOMES (SEM -1)

COURSE NAME (CHEMISTRY-1)(THEORY) **Year-2022-23**

The concepts developed in this course will aid in quantification of several concepts in chemistry that have been introduced at the 10+2 levels in schools. Technology is being increasingly based on the electronic, atomic and molecular level modifications. Quantum theory is more than 100 years old and to understand phenomena at nanometer levels, one has to base the description of all chemical processes at molecular levels. The course will enable the student to:	
BTCH-101-18	Analys microscopic chemistry in terms of atomic and molecular orbitals and intermolecular forces.
BTCH101-18	Rationalise bulk properties and processes using thermodynamic considerations
BTCH101-18	Distinguish the ranges of the electromagnetic spectrum used for exciting different molecular energy levels in various spectroscopic techniques
BTCH101-18	Rationalise periodic properties such as ionization potential, electronegativity, oxidation states and electronegativity.
BTCH101-18	List major chemical reactions that are used in the synthesis of molecules.

COURSE OUTCOMES (SEM -1)

COURSE NAME (CHEMISTRY-1)(LAB) **Year- 2022-23**

The chemistry laboratory course will consist of experiments illustrating the principles of chemistry relevant to the study of science and engineering. The students will learn to:	
BTCH102-18	Estimate rate constants of reactants/products function of time

BTCH102-18	Measure molecular/system properties such as surface tension, viscosity, conductance of solutions, redox potentials, chloride content of water, etc
BTCH102-18	Synthesize a small drug molecule and analyse a salt sample

COURSE OUTCOMES (SEM -1) **Year-2022-23**

COURSE NAME (PROGRAMMING FOR PROBLEM SOLVING)(THEORY)

The STUDENTS WILL LEARN:-	
BTPS101-18	To formulate simple algorithms for arithmetic and logical problems.
BTPS101-18	To translate the algorithms to programs (in C language).
BTPS101-18	To test and execute the programs and correct syntax and logical errors.
BTPS101-18	To implement conditional branching, iteration and recursion
BTPS101-18	To decompose a problem into functions and synthesize a complete program using divide and conquer approach.
BTPS101-18	To use arrays, pointers and structures to formulate algorithms and programs
BTPS101-18	To apply programming to solve matrix addition and multiplication problems and searching and sorting problems.
BTPS101-18	To apply programming to solve simple numerical method problems, namely rot finding of function, differentiation of function and simple integration.

COURSE OUTCOMES (SEM -1) **Year- 2022-23**

COURSE NAME (PROGRAMMING FOR PROBLEM SOLVING)(LAB)

The STUDENTS WILL LEARN:-	
BTPS102-18	To formulate the algorithms for simple problem
BTPS102-18	To translate given algorithms to a working and correct program
BTPS102-18	To be able to correct syntax errors as reported by the compilers
BTPS102-18	To be able to identify and correct logical errors encountered at run time
BTPS102-18	To be able to write iterative as well as recursive program
BTPS102-18	To be able to represent data in arrays, strings and structures and manipulate them through a program
BTPS102-18	To be able to declare pointers of different types and use them in defining self referential structures
BTPS102-18	To be able to create, read and write to and from simple text files.

COURSE OUTCOMES (SEM -1)

COURSE NAME (Communicative English) (Theory) **Year- 2022-23**

The STUDENTS WILL LEARN:-	
BTHU101-18	Become independent users of English language.
BTHU101-18	Understand spoken and written English language of varied complexity on most including some abstract topics; particularly the language of their chosen technical field.
BTHU101-18	Show awareness of appropriate format and a capacity for explaining their views in a rational manner.
BTHU101-18	Converse fluently, without strain with international speakers of English in an accent and lexis that is widely understood across the globe.
BTHU101-18	Produce on their own texts which are clear and coherent.

COURSE OUTCOMES (SEM -1)

COURSE NAME (Communicative English) (Lab) **Year- 2022-23**

The STUDENTS WILL LEARN:-	
BTHU101-18	Become familiar with the standard spoken English.
BTHU101-18	Develop a high degree of understanding of spoken material as used in academic and professional environment.
BTHU101-18	Be able to produce long turns without much hesitation in an accent that is understood all around.
BTHU101-18	Have ready access to a large lexis and conventional expressions to speak fluently on a variety of topics.
BTHU101-18	Have a knack for structured conversation or talk to make his transitions clear and natural to his listeners.

COURSE OUTCOMES (SEM -1) **Year- 2022-23**

COURSE NAME (WORKSHOP AND MANUFACTURING PRACTICE)(THEORY+LAB)

The STUDENTS WILL LEARN:-	
BTMP101-18	Upon completion of this course, the students will gain knowledge of the different manufacturing processes which are commonly employed in the industry, to fabricate components using different materials.
BTMP101-18	Upon completion of this laboratory course, students will be able to fabricate components with their own hands. .

BTMP101-18	They will also get practical knowledge of the dimensional accuracies and dimensional tolerances possible with different manufacturing processes
BTMP101-18	By assembling different components, they will be able to produce small devices of their interest.

SEM 2

Group A(Physics Group)

Second Semester **Group-B** **Contact Hrs.: 24**

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L	T	P	Internal	External		
BTPHXX-18	Basic Science Course	Physics	3	1	0	40	60	100	4
BTPHXX-18	Basic Science Course	Physics (Lab)	0	0	3	30	20	50	1.5
BTAMXX-18	Basic Science Course	Maths-II	3*	1	0	40	60	100	4
BTEE101-18	Engineering Science Course	Basic Electrical Engineering	3	1	0	40	60	100	4
BTEE102-18	Engineering Science Course	Basic Electrical Engineering (Lab)	0	0	2	30	20	50	1
BTME101-18	Engineering Science Courses	Engineering Graphics & Design	1	0	4	60	40	100	3
BMPD201-18		Mentoring and Professional Development	0	0	2	Satisfactory / Un-Satisfactory			Non-Credit
TOTAL			**10**	**3**	**11**	**220**	**280**	**500**	**17.5**

Branch: Mechanical Engineering

COURSE OUTCOMES(SEM 2)

COURSE NAME (ELECTROMAGNETISM) Physics-1 (THEORY) **Year: 2022-23**

The STUDENTS WILL LEARN:-	
BTPH103-18	Specify the constitutive relationships for fields and understand their important.
BTPH103-18	Describe the static and dynamic electric and magnetic fields for technologically important structures.
BTPHU03-18	Measure the voltage induced by time varying magnetic flux

BTPH103-18	acquire the knowledge of Maxwell equation and electromagnetic field theory and propagation and reception of electro-magnetic wave systems.
BTPH103-18	have a solid foundation in engineering fundamentals required to solve problems and also to pursue higher studies.

COURSE OUTCOMES(SEM 2) **Year- 2022-23**

COURSE NAME (ELECTROMAGNETISM) Physics (LAB)

The STUDENTS WILL LEARN:-	
BTPH113-18	Able to verify some of the theoretical concepts learnt in the theory courses.
BTPH113-18	Trained in carrying out precise measurements and handling sensitive equipment
BTPH113-18	understand the methods used for estimating and dealing with experimental uncertainties and systematic "errors."
BTPH113-18	Learn to draw conclusions from data and develop skills in experimental design.
BTPH113-18	Write a technical report which communicates scientific information in a clear and concise manner.

COURSE OUTCOMES(SEM 2) **Year- 2022-23**

COURSE NAME (MATHS-2) Ordinary Differential Equations

The STUDENTS WILL LEARN:-	
BTAM-18	The effective mathematical tools for the solutions of differential equations that model physical processes.
BTAM-18	The tools of differentiation and integration of functions of a complex variable that are used in various techniques dealing engineering problems.

COURSE OUTCOMES(SEM 2) **Year- 2022-23**

COURSE NAME(MENTORING AND PROFESSIONAL DEVELOPMENTG (THEORY +LAB)

The STUDENTS WILL LEARN:-	
BMPD101-18	Introduction to engineering design and its place in society
BMPD101-18	Exposure to the visual aspects of engineering design
BMPD101-18	Exposure to engineering graphics standards
BMPD101-18	Exposure to solid modeling
BMPD101-18	Exposure to computer-aided geometric design
BMPD101-18	Exposure to creating working drawings
BMPD101-18	Exposure to engineering communication

COURSE OUTCOMES(SEM 2) **Year- 2022-23**

COURSE NAME(ENGINEERING GRAPHICS AND DESIGN) (THEORY +LAB)

All phases of manufacturing or construction require the conversion of new ideas and design concepts into the basic line language of graphics. Therefore, there are many areas (civil, mechanical, electrical, architectural and industrial) in which the skills of the CAD technicians play major roles in the design and development of new products or construction. Students prepare for actual work situations through practical training in a new state-of-the-art computer designed CAD laboratory using engineering software. This course is designed toaddress:	
BTME101-18	to prepare you to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
BTME101-18	to prepare you to communicate effectively
BTME101-18	to prepare you to use the techniques, skills, and modern engineering tools necessary for engineering practice

Branch: Electronics and communication Engineering

Sem:2

COURSE OUTCOMES(SEM 2) **Year- 2022-23**

COURSE NAME: Semiconductor and optoelectronics Physics(THEORY)

The STUDENTS WILL LEARN:-	
BTPH105-18	Understand and explain the fundamental principles and properties of electronic materials and semiconductors.
BTPH105-18	Understand and describe the interaction of light with semiconductors in terms of fermi golden rule.
BTPH105-18	Understand and describe the impact of solid-state device capabilities and limitations on electronic circuit performance
BTPH105-18	Understand the design, fabrication, characterization techniques, and measurements of Engineered semiconductor materials
BTPH105-18	Learn the basics of the optoelectronic devices, LEDs, semiconductor lasers, and photo detectors

COURSE OUTCOMES(SEM 2) **Year- 2022-23**

COURSE NAME: Semiconductor and optoelectronics Physics(LAB)

The STUDENTS WILL LEARN:-	
BTPH115-18	Able to verify some of the theoretical concepts learnt in the theory courses.
BTPH115-18	Trained in carrying out precise measurements and handling sensitive equipment
BTPH115-18	Introduced to the methods used for estimating and dealing with experimental uncertainties and systematic "errors."
BTPH115-18	Learn to draw conclusions from data and develop skills in experimental design.
BTPH115-18	Write a technical report which communicates scientific information in a clear and concise manner.

COURSE OUTCOMES(SEM 2) **Year- 2022-23**

COURSE NAME (MATHS-2) Ordinary Differential Equations

The STUDENTS WILL LEARN:-	
BTAM103-18	The effective mathematical tools for the solutions of differential equations that model physical processes.
BTAM103-18	The tools of differentiation and integration of functions of a complex variable that are used in various techniques dealing engineering problems.

COURSE OUTCOMES(SEM 2) **Year- 2022-23**

COURSE NAME(MENTORING AND PROFESSIONAL DEVELOPMENTG (THEORY +LAB)

The STUDENTS WILL LEARN:-	
BTME101-18	Introduction to engineering design and its place in society
BTME101-18	Exposure to the visual aspects of engineering design
BTME101-18	Exposure to engineering graphics standards
BTME101-18	Exposure to solid modeling
BTME101-18	Exposure to computer-aided geometric design
BTME101-18	Exposure to creating working drawings
BTME101-18	Exposure to engineering communication

COURSE OUTCOMES(SEM 2) **Year- 2022-23**

COURSE NAME(ENGINEERING GRAPHICS AND DESIGN) (THEORY +LAB)

All phases of manufacturing or construction require the conversion of new ideas and design concepts into the basic line language of graphics. Therefore, there are many areas (civil, mechanical, electrical,

architectural and industrial) in which the skills of the CAD technicians play major roles in the design and development of new products or construction. Students prepare for actual work situations through practical training in a new state-of-the-art computer designed CAD laboratory using engineering software. This course is designed toaddress:	
BTME101-18	to prepare you to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
BTME101-18	to prepare you to communicate effectively
BTME101-18	to prepare you to use the techniques, skills, and modern engineering tools necessary for engineering practice

GROUP B(CHEMISTRY GROUP)

SEM 2

Second Semester **Group-A** **Contact Hrs. : 29**

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L	T	P	Internal	External		
BTCH101-18	Basic Science Course	Chemistry-I	3	1	0	40	60	100	4
BTCH102-18	Basic Science Course	Chemistry-I (Lab)	0	0	3	30	20	50	1.5
BTAMXX-18	Basic Science Course	Maths-II	3*	1	0	40	60	100	4
BTPS101-18	Engineering Science Course	Programming for Problem Solving	3	0	0	40	60	100	3
BTPS102-18	Engineering Science Course	Programming for Problem Solving (Lab)	0	0	4	30	20	50	2
BTMP101-18	Engineering Science Courses	Workshop / Manufacturing Practices	1	0	4	60	40	100	3
BTHU101-18	Humanities and Social Sciences including Management courses	English	2	0	0	40	60	100	2
BTHU102-18	Humanities and Social Sciences including Management courses	English (Lab)	0	0	2	30	20	50	1
BMPD201-18		Mentoring and Professional Development	0	0	2	Satisfactory / Un-Satisfactory			Non-Credit
	TOTAL		**12**	**2**	**15**	**290**	**360**	**650**	**20.5**

COURSE OUTCOMES (SEM -2) **BRANCH: CSE/CE**

COURSE NAME (CHEMISTRY-1)(THEORY) **Year- Year- 2022-23**

The concepts developed in this course will aid in quantification of several concepts in chemistry that have been introduced at the 10+2 levels in schools. Technology is being increasingly based on the electronic, atomic and molecular level modifications. Quantum theory is more than 100 years old and to understand phenomena at nanometer levels, one has to base the description of all chemical processes at molecular levels. The course will enable the student to:	
BTCH-101-18	Analys microscopic chemistry in terms of atomic and molecular orbitals and intermolecular forces.
BTCH101-18	Rationalise bulk properties and processes using thermodynamic considerations
BTCH101-18	Distinguish the ranges of the electromagnetic spectrum used for exciting different molecular energy levels in various spectroscopic techniques
BTCH101-18	Rationalise periodic properties such as ionization potential, electronegativity, oxidation states and electronegativity.
BTCH101-18	List major chemical reactions that are used in the synthesis of molecules.

COURSE OUTCOMES (SEM -2) **BRANCH: CSE/CE**

COURSE NAME (CHEMISTRY-1)(LAB) **Year- 2022-23**

The chemistry laboratory course will consist of experiments illustrating the principles of chemistry relevant to the study of science and engineering. The students will learn to:	
BTCH102-18	Estimate rate constants of reactions from concentration of reactants/products function of time
BTCH102-18	Measure molecular/system properties such as surface tension, viscosity, conductance of solutions, redox potentials, chloride content of water, etc
BTCH102-18	Synthesize a small drug molecule and analyse a salt sample

COURSE OUTCOMES (SEM -2) **BRANCH: CSE/CE** **Year- 2022-23**

COURSE NAME (PROGRAMMING FOR PROBLEM SOLVING)(THEORY)

The STUDENTS WILL LEARN:-	
BTPS101-18	To formulate simple algorithms for arithmetic and logical problems.
BTPS101-18	To translate the algorithms to programs (in C language).
BTPS101-18	To test and execute the programs and correct syntax and logical errors.
BTPS101-18	To implement conditional branching, iteration and recursion
BTPS101-18	To decompose a problem into functions and synthesize a complete program using divide and conquer approach.
BTPS101-18	To use arrays, pointers and structures to formulate algorithms and programs
BTPS101-18	To apply programming to solve matrix addition and multiplication problems and searching and sorting problems.
BTPS101-18	To apply programming to solve simple numerical method problems, namely rot finding of function, differentiation of function and simple integration.

COURSE OUTCOMES (SEM -2) **BRANCH: CSE/CE** **Year-2022-23**

COURSE NAME (PROGRAMMING FOR PROBLEM SOLVING)(LAB)

The STUDENTS WILL LEARN:-	
BTPS102-18	To formulate the algorithms for simple problem
BTPS102-18	To translate given algorithms to a working and correct program
BTPS102-18	To be able to correct syntax errors as reported by the compilers
BTPS102-18	To be able to identify and correct logical errors encountered at run time
BTPS102-18	To be able to write iterative as well as recursive program
BTPS102-18	To be able to represent data in arrays, strings and structures and manipulate them through a program
BTPS102-18	To be able to declare pointers of different types and use them in defining self referential structures
BTPS102-18	To be able to create, read and write to and from simple text files.

COURSE OUTCOMES (SEM -2) **BRANCH: CSE/CE**

COURSE NAME (Communicative English) (Theory) **Year- 2022-23**

The STUDENTS WILL LEARN:-	
BTHU101-18	Become independent users of English language.
BTHU101-18	Understand spoken and written English language of varied complexity on most including some abstract topics; particularly the language of their chosen technical field.
BTHU101-18	Show awareness of appropriate format and a capacity for explaining their views in a rational manner.
BTHU101-18	Converse fluently, without strain with international speakers of English in an accent and lexis that is widely understood across the globe.
BTHU101-18	Produce on their own texts which are clear and coherent.

COURSE OUTCOMES (SEM -2) **BRANCH: CSE/CE**

COURSE NAME (Communicative English) (Lab) **Year- 2022-23**

The STUDENTS WILL LEARN:-	
BTHU102-18	Become familiar with the standard spoken English.
BTHU102-18	Develop a high degree of understanding of spoken material as used in

	academic and professional environment.
BTHU102-18	Be able to produce long turns without much hesitation in an accent that is understood all around.
BTHU102-18	Have ready access to a large lexis and conventional expressions to speak fluently on a variety of topics.
BTHU102-18	Have a knack for structured conversation or talk to make his transitions clear and natural to his listeners.

COURSE OUTCOMES (SEM 2) BRANCH: CSE/CE Year- 2022-23

COURSE NAME (WORKSHOP AND MANUFACTURING PRACTICE)(THEORY+LAB)

The STUDENTS WILL LEARN:-	
BTMP101-18	Upon completion of this course, the students will gain knowledge of the different manufacturing processes which are commonly employed in the industry, to fabricate components using different materials.
BTMP101-18	Upon completion of this laboratory course, students will be able to fabricate components with their own hands. .
BTMP101-18	They will also get practical knowledge of the dimensional accuracies and dimensional tolerances possible with different manufacturing processes
BTMP101-18	By assembling different components, they will be able to produce small devices of their interest.

COURSE OUTCOMES(SEM 2) Year- 2022-23

COURSE NAME(MENTORING AND PROFESSIONAL DEVELOPMENTG (THEORY +LAB)

The STUDENTS WILL LEARN:-	
BMPD101-18	Introduction to engineering design and its place in society
BMPD101-18	Exposure to the visual aspects of engineering design
BMPD101-18	Exposure to engineering graphics standards
BMPD101-18	Exposure to solid modeling
BMPD101-18	Exposure to computer-aided geometric design
BMPD101-18	Exposure to creating working drawings
BMPD101-18	Exposure to engineering communication