

Subject Code	Subject Name	CO
BT-101	Engineering Chemistry	1.1.1.1
		1.1.1.2
		1.1.1.3
		1.1.1.4
		1.1.1.5
BT-102	Mathematics-I	1.1.2.1
		1.1.2.2
		1.1.2.3
		1.1.2.4
		1.1.2.5
BT-103	English for Communication	1.1.3.1
		1.1.3.2
		1.1.3.3
BT-104	Basic Electrical & Electronics Engineering	1.1.4.1
		1.1.4.2
		1.1.4.3
		1.1.4.4
		1.1.4.5
BT-105	Engineering Graphics	1.1.5.1
		1.1.5.2
		1.1.5.3
		1.1.5.4
		1.1.5.5
BT-106	Manufacturing Practices	1.1.6.1
		1.1.6.2
		1.1.6.3
		1.1.6.4
		1.1.6.5
BT-107	Internship-I (60 Hrs Duration) at the Institute level	1.1.7.1
		1.1.7.2
		1.1.7.3
		1.1.7.4
		1.1.7.5

BT-108	Swachh Bharat Summer Internship Unnat Bharat Abhiyan (100Hrs)/ Rural Outreach	1.1.8.1
		1.1.8.2
		1.1.8.3
		1.1.8.4
		1.1.8.5
BT-201	Engineering Physics	1.2.1.1
		1.2.1.2
		1.2.1.3
		1.2.1.4
		1.2.1.5
BT-202	Mathematics-II	1.2.2.1
		1.2.2.2
		1.2.2.3
BT-203	Basic Mechanical Engineering	1.2.3.1
		1.2.3.2
		1.2.3.3
		1.2.3.4
		1.2.3.5
BT-204	Basic Civil Engineering & Mechanics	1.2.4.1
		1.2.4.2
		1.2.4.3
		1.2.4.4
		1.2.4.5
BT-205	Basic Computer Engineering	1.2.5.1
		1.2.5.2
		1.2.4.3
		1.2.4.4
		1.2.4.5
BT-206	Language Lab & Seminars	1.2.6.1
		1.2.6.2
		1.2.6.3
		1.2.6.4

I

1.2.6.5

CSE (2022-23)

CO Description
Differentiate hard and soft water; solve the related numerical problems on water purification and its significance in industry and daily life.
Select the lubricant for various purposes based on the type of Machines.
Equipped with basic knowledge of polymer , methods of polymerization and various industrial applications of polymers
Draw the Phase diagrams of one & two component systems and causes, consequences and methods to minimize corrosion to improve industrial designs.
Identify the structure of unknown/new compounds with the help of spectroscopy and understand periodic properties such as ionization potential, oxidation states and electro negativity
To introduce the fallouts of Rolle's Theorem that is fundamental to application of analysis to Engineering
To introduce the idea of applying differential and integral calculus to notions of curvature and to improper integrals. Apart from some applications it gives a basic introduction on Beta and Gamma
To develop the tool of power series and Fourier series for learning advanced Engineering Mathematics.
To familiarize the student with functions of several variables that is essential in most branches of
To develop the essential tool of matrices and linear algebra in a comprehensive manner.
Effective use of verbal and non-verbal communication for enhanced soft skill beside enhanced reading comprehension as well
Write the different kinds of letters, reports and technical writing.
Apply basic rules of grammar in both written as well as oral communication.
To introduce the concept of Basics of DC electrical Network including network theorems.
To introduce the concept of Basics of AC electrical Network(single phase & 3 phase)..
To study of law of Electromagnetism, introduction of transformer.
To study of various electrical Machines.
To study Basic Concept Digital Electronics.
Draw various types of scales, and curves.
Draw orthographic projections of points & lines
Draw orthographic projections of Planes & Solids
Draw sections and development of solids including cylinders, cones, prisms and pyramids.
Draw isometric views of Planes and Solids, Drawing using AUTOCAD.
Use hand and power tools for different manufacturing processes
Operate machine tools while preparing any component
Select the appropriate tools required for specific operation.
Comprehend the safety measures required to be taken while using the tools.
Prepare Foundry, Fitting, Carpentry, Welding and smithy Job.
Demonstrate the application of knowledge and skill sets acquired from the course and workplace in the assigned job function/s
Solve real life challenges in the workplace by analysing work environment and conditions, and selecting appropriate skill sets acquired from the course
Exhibit critical thinking and problem solving skills by analysing underlying issue/s to challenges
Demonstrate appreciation and respect for diverse groups of professionals by engaging harmoniously with different company stakeholders
Exhibit professional ethics by displaying positive disposition during internship

This course is to sensitize students about the socio-cultural aspects of the rural areas parochial to their
Students are expected to observe, investigate and learn about the following aspects of the rural region: i. Demographics, Literacy, Geographical parameters of the Village; ii. Schemes of government of India and State of Madhya Pradesh in operation in the villages.
To enhance critical thinking by making them participate in social activities and imbibe human values
Rural Swachh Bharat Abhiyan is to promote cleanliness and develop healthy habits in people in villages.
Unnat Bharat Abhiyan: To build an understanding of the development agenda within institutes of Higher Education and an institutional capacity and training relevant to national needs, especially those of rural
The Coursework is designed to provide students the opportunity to learn key concepts of Wave nature of particles and the Schrodinger equation.
Student will able to understand the knowledge of Wave optics i.e. interference and diffraction.
To introduce the idea of solids like semiconductors (P type and N Type semiconductors), Diodes and Hall effect. STudents will also be able to understand the basic concept of superconductivity.
To develop the understanding of Lasers, fiber optics and their applications in field of engineering sciences.
To provide you to basic understanding of Electrostatics in vacuum.
To introduce effective mathematical tools for the solutions of ordinary and partial differential equations that model physical processes.
To introduce the tools of differentiation and integration of functions of complex variable those are used in various techniques dealing engineering problems.
To acquaint the student with mathematical tools available in vector calculus needed various field of science and engineering.
Understand the properties of material, stress strain. Properties of alloys and cast iron.
Understand the concept measurement and machine tools their operations and their applications.
Understand the concept of fluid flow , properties of fluid, Bernoulli's equation, Pascal's law.
To Understand the concept of heat and temperature, law of thermodynamics, boilers and their mountings and accessories, basic Refrigeration cycles and its applications.
To Understand the working of different cycles and 4 strokes, 2 stroke engines and their applications.
Students will acquire the basic knowledge in different fields of civil engineering and materials used in
Gain the ability to use modern survey equipment to measure angles and distances.
Students will understand the basic of contour lines and map
Students will have the ability to identify, formulate and solve engineering problems related to Engineering Mechanics: Statics
Students will be able to analyse beam for shear force and bending moment.
Able to understand the basic applications of computers in various fields, describe operating system, its role and functionalities and to apply concepts of MS word, MS power point, MS Excelefficiently.
Discuss and apply simple algorithms for arithmetic and logical problems.
Translate the algorithms to programs applyingobject-oriented concepts in C++ programming language.
Understand basics of computer networks, OSI layers and protocols, E commerce applications, impact of securitythreats and attacks on networking systems and also security measures
Understand the different method for representing and processing data and to get awareness about the impact of cloud computing, its various type of services.
learners to develop good listening skills.
Encourages learner to talk freely and lose their shyness when talking in front of the people
To develop the overall personality of the students by the practical activities
Helps in confidence building, motivation to be more presentable and help in removing the stage fright

Develops speaking, writing, reading, listening and presentation skills.