



DEPARTMENT OF FIRST YEAR

Course outcomes

Course Name: Applied Mathematics I

Class: First Semester BE

Course Code: BESI-1

CBS-2015

CO1 - Students will be able to obtain nth derivatives, evaluate indeterminate forms, curvature and expand a function using Taylor's and Maclaurain's theorems.

CO2 - Students will be able to understand concept of partial derivatives and to evaluate engineering problems using partial derivatives.

CO3 - Students will be able to understand methods of finding inverses of matrix, rank of matrix and concept of consistency of linear equation.

CO4 - Students will be able to evaluate first order linear differential equation, exact differential equation and higher order differential equation with constant coefficient and to apply it to solve engineering problems.

CO5 - Students will be able to understand fundamentals of complex number.

Course Name: Engineering Physics

Class: First Semester BE

Course Code: BESI-2T

CBS-2015

CO1 - Identify basic concepts in drawing, acquire skill to draw real life engineering objects by using the Engineering drawing and its application.

CO2 - Understand different engineering curves, its types and able to draw applied problems.

CO3 - Prepare and draw neat projections of points, straight lines.

CO4 - Develop and draw different projections planes and solids.

CO5 - Develop the ability to visualize and draw orthographic projection & isometric projections of engineering models.

CO6 - Develop the ability to demonstrates ideas and design concepts using drafting.

Course Name: Engineering Chemistry

Class: First Semester BE

Course Code: BESI-3T

CBS-2015

CO1 - Gain basic knowledge of Chemistry that underlies the practice of modern technology.

CO2 - Understand the concepts of water technology, corrosion, green chemistry, battery technology and cement

CO3 - Apply engineering principles and techniques in industry.

CO4 - Analyze the techniques for engineering practice.



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Affiliated to RTM Nagpur University, Nagpur and NAAC Accredited.
Shradha Park, B-37/39-1, Hingna-Wad Link Road, Nagpur-440016, Phone Nos.:07104-234501
E-mail: ghrietrn@raisoni.net Website: http://ghrietrn.raisoni.net



CO5 - Evaluate the methods and materials for better and safe use.

CO6 - Create the basis for problem solving thinking and practice for betterment of human life.

Course Name: Basic Electrical Engineering

Class: First Semester BE

Course Code: BESI- 4T

CBS-2015

CO1 - Acknowledge the principles of operation and the main features of electric circuit and their applications.

CO2 - Understand the basic concepts of Magnetic circuit analysis.

CO3 - Analyze the basic parameters which are required to design Single Phase A.C Circuits

CO4 - Learn construction, operation and applications of Transformer.

Course Name: Basics of Civil Engineering

Class: First Semester BE

Course Code: BESI-5T

CBS-2015

CO1 - To make students learn and know about the general concepts of civil engineering

CO2 - To make students understand about the surveying and transportation engineering.

CO3 - Student should know about environment and natural resource management and water resources engineering.

CO4 -Instrumentation in Civil Engineering Structures and Sustainable Development.

Course Name: Engineering Graphics

Class: First Semester BE

Course Code: BESI-6T

CBS-2015

CO1 - Identify basic concepts in drawing, acquire skill to draw real life engineering objects by using the Engineering drawing and its application.

CO2 - Understand different engineering curves, its types and able to draw applied problems.

CO3 - Prepare and draw neat projections of points, straight lines.

CO4 - Develop and draw different projections planes and solids.

CO5 - Develop the ability to visualize and draw orthographic projection & isometric projections of engineering models.

CO6 - Develop the ability to demonstrates ideas and design concepts using drafting.



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Shradha Park, B-37/39-1, Hingna-Wad Link Road, Nagpur-440016, Phone Nos.:07104-234501
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Course Name: Applied Mathematics – II

Class: Second Semester BE

Course Code: BESII-1

CBS-2015

CO1-Students will be able to solve problem using integral calculus and learn to use the techniques of integration in several contexts.

CO2-Students will be able to use multiple integral to formulate various engineering problems.

CO3-Students will be able to understand the concept of vector differential calculus and vector integral calculus and apply it to evaluate various engineering problems.

CO4-Students will be able to understand fitting of various curves by method of least square, regression and correlation

CO5-Students will be able to obtain numerical solution of technical problem using finite differences.

Course Name: Advanced Physics

Class: Second Semester BE

Course Code: BESII-2T

CBS-2015

CO1 - Identify and understand the kinds of experimental results which are incompatible with classical physics and which required the development of a fundamental quantum theory of matter and light.

CO2 - Understand the role of uncertainty in quantum physics and interpret the wave packet and wave function, apply it to information about physical properties of particle and solve Schrodinger's equation

CO3 - To apply the knowledge of characteristics cubic unit cells and recognize various crystal planes and solve the problems of X ray diffraction

CO4 - Understand semiconductor materials on the basis of band theory.

CO5 - To apply semiconductor fundamental on semiconductor devices and also demonstrate a clear understanding function of basic circuit components.

Course Name: Materials Chemistry

Class: Second Semester BE

Course Code: BESII-3T

CBS-2015

CO1 - Students are able to recall the basic knowledge of materials chemistry.

CO2 - Demonstrate an understanding of Materials Chemistry.

CO3 - Students are able to apply engineering principles and techniques to make use of renewable energy, metals, polymers, fuels etc.

CO4 - Students are able to analyze the techniques for engineering practice.

CO5 - Determine and apply selection criteria for engineering materials

CO6 - Design economical new methods for use of materials.



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Course Name:Engineering Mechanics

Class: Second Semester BE

Course Code: BESII-4T

CBS-2015

CO1- To make students learn and know about the general concepts of Engineering mechanics.

CO2-To make students understand about the free body diagram and Friction.

CO3-Student should know about moment of Inertia and principles of virtual work.

CO4-To make students understand about the Work energy method and linear impulse momentum

Course Name:Advanced Electrical Engineering

Class: Second Semester BE

Course Code: BESII-5

CBS-2015

CO1- Understand different types of power systems and its operation.

CO2- Learn different types of protective devices provided for protection.

CO3- Learn the detailed features of dc machines including construction and operation.

CO4-Know different types to calculate electricity bills according to the requirement.

CO5 -Know the importance of modern systems of Illumination.

CO6 - Understand the EMF equations, torque equations, characteristics, starting methods of different electrical AC motor.

Course Name: Ethical Science

Class: Second Semester BE

Course Code: BESII-8

CBS-2015

CO1- Students will be able to understand the concept of culture and civilization.

CO2-Students will be able to understand the meaning and scope of industrial psychology and industrial sociology

CO3-Students will be able to discuss professional ethics

CO4-Student will able to understand role of bureaucracy in modern society

CO5 - Student will able to understand meaning of industrial democracy