COURSE OUTCOMES

Regulation- 2017

HS8251 TECHNICAL ENGLISH

(Common to all branches)

COURSE OUTCOMES

The learner will be able to

CO1: Read, identify the transition in texts and comprehend scientific and technical contexts in an enhanced way.

CO2: Read and interpret data from graphical representations and charts in an effective way.

CO3: Write reports effectively using appropriate vocabulary and accurate spelling and grammar.

CO4: Draft job application letters with Resume and e-mails in a convincing manner.

CO5: Describe processes**,** participate in formal and informal conversations, Group Discussions and make technical presentations effectively.

MA8251 - ENGINEERING MATHEMATICS II

On the successful completion of the course, the students will be able to :

CO1 : Evaluate Eigen values and Eigen vectors and apply them in diagonalization of matrices.

CO2 : Acquire knowledge in the fundamentals and basic concepts in vector calculus.

CO3: Apply the concept of analyticity in complex functions and evaluate complex derivatives.

CO4: Recognize the nature of singularities, evaluate residues and contour integrals.

CO5: Understand the usage of Laplace transforms in mathematics and apply in relevant situations.

PH 8251 - MATERIALS SCIENCE

(Common to Mechanical and Production Engineering Branches)

Upon successful completion of this course, the students will

CO1: Hhave knowledge on the various phase diagrams and their applications

CO2: Acquire knowledge on Fe-Fe 3 C phase diagram, various microstructures and alloys

CO3: **G**et knowledge on mechanical properties of materials and their measurement

CO4: Gain knowledge on magnetic, dielectric and superconducting properties of materials

CO5: Understand the basics of ceramics, composites and nanomaterials.

PH 8252 – PHYSICS FOR INFORMATION SCIENCE

(Common to Computer Science and Engineering and Information Technology)

Upon successful completion of this course, the students will

CO1: gain knowledge on classical and quantum electron theories and energy band structures

CO2: acquire knowledge basics of semiconductor physics and its applications in various devices

CO3: get knowledge on magnetic properties of materials and their applications in data storage.

CO4: have the necessary understanding on the functioning of optical material for optoelectronics.

CO5: understand the basics of quantum structures and their applications in carbon electronics.

PH 8253 – PHYSICS FOR ELECTRONICS ENGINEERING

(Common to ECE, EEE, EIE & ICE)

Upon successful completion of this course, the students will

CO1: gain knowledge on classical and quantum electron theories and energy band structures

CO2: acquire knowledge basics of semiconductor physics and its applications in various devices

CO3: get knowledge on magnetic and dielectric properties of materials.

CO4: have the necessary understanding on the functioning of optical material for optoelectronics.

CO5: understand the basics of quantum structures and their applications in carbon electronics.

PH 8201 – PHYSICS FOR CIVIL ENGINEERING

(Common to Civil Engineering)

Upon successful completion of this course, the students will

CO1: **a**cquire knowledge on the thermal performance of buildings, principle of natural ventilation and artificial ventilation system and prevention and safety measurements.

CO2: **u**nderstand the basic concept of sound, acoustics properties of buildings and impact of noise in multistoreyed buildings.

CO3: get knowledge on advanced concept of various lighting and window design for buildings, and its application are used in various building.

CO4: evaluate the concepts on properties of materials and its performance of engineering materials and its applications.

CO5: **u**nderstand the hazards of building such as earthquake, flood, cyclone and fire hazards and its prevention and safety measurements.

BE8251 Basic Electrical and Electronics Engineering

Upon successful completion of this course, the students will

CO1 : Ability to analyse AC circuit and DC circuit by using laws and network reduction technique

CO2 : To understand the working principle of measuring instrument and to select appropriate instrument to measure the parameters

CO3 : To learn about construction, operation and characteristics of dc machine single phase motor and single phase transformer and to select appropriate electrical machine for particular application

CO 4: To understand about characteristics of different electronic components and its application

CO 5: To understand about digital gates and construct digital gates

BE8252 – BASIC CIVIL AND MECHANICAL ENGINEERING

On the successful completion of the course, the students will be able to :

CO1 : To provide an overview and impart basic knowledges of sub disciplines in civil and mechanical Engineering.

CO2 : To familarize the materials and measurements used in civil engineering.

CO3: To Provide exposure on the fundamental elements of building structures and provide idea on proper selection of building materials.

CO4: Inculcate with knowledge of Classification and working principle of Power plants, IC Engines and Boilers.

CO5: Acquire the knowledge on terminologies & working principle of Refrigeration & Air-Conditioning

BE8253 - BASIC ELECTRICAL, ELECTRONICS AND INSTRUMENTATION ENGINEERING

(Common to Mechanical and Production Engineering)

At the end of the course, the student will be able to

CO1 Understand electric circuits and Electric circuit laws

CO 2 Understand single and three phase circuits and wiring

CO 3 Understand Working principles of Electrical Machines

CO 4 Understand the concepts of various electronic devices

CO 5 Understand the concepts of transducers and measuring instruments and Choose appropriate instruments for electrical measurement for a specific application

BE8254 BASIC ELECTRICAL AND INSTRUMENTATION ENGINEERING

At the end of the course, the student will be able to

CO1 Understand and analyze the basics of AC circuits and power systems

CO2 Understand and analyze the concept of transformers

CO3 Understand and analyze the concept of DC machines

CO4 Understand and analyze the concept of AC machines

CO5 Understand the concepts of transducers and measuring instruments

BE8255 Basic Electrical, Electronics and Measurement Engineering

Upon successful completion of this course, the students will be able to

CO1 Understand the basic concept s of electric circuit analysis

CO2 Learn the basic concepts of both AC and DC MACHINES

CO3 Familiar about the working of different type of lamps and other electrical appliances.

CO4 Realize the basic electronic devices and its applications

CO5 Learn the importance of family welfare program, population explosion and Value education.

GE8292 - ENGINEERING MECHANICS

On completion of the course, the students will be able to

CO1: Understand the fundamental laws of mechanics and also able to construct and compute the free body diagram of a 2D and 3D force systems.
CO2: Compute the resultant force, moment and also able to interpret the loads and supports for various force system.
CO3: Determine the properties viz. centre of gravity, moment of inertia of composite planar and solid structures.
CO4: Understand the governing equations and apply the basic concepts of dynamics like Work-Energy principle, Momentum - impulse and collision of elastic and rigid bodies.
CO5: Analyze the types of friction between the rigid bodies of various systems and also able to comprehend the general plane motion.

BE8251 CIRCUIT THEORY

At the end of the course, the student will be able to

CO1	Understand and analyze the basic laws of electrical circuits
CO2	Understand and analyze various circuit theorems for AC and DC circuits
CO3	Understand and analyze the concept of transient response of circuits
CO4	Understand and analyze the concept of three phase circuits
CO5	Understand the concept of resonance and coupled circuits.

EC8251 CIRCUIT ANALYSIS

Students will be able to

CO1: analyze electrical circuits

CO2: apply circuit theorems in real time in AC and DC circuits

CO3: understand resonance and coupled circuits

CO4: transient based analyses for DC and sinusoidal source

CO5: analyze two port networks and their parameters

EC8252- ELECTRONIC DEVICES

Upon successful completion of this course, student will be able to:

CO 1 : Explain the theory, construction, operation and V-I characteristics of basic electronics devices.

CO 2 : Describe the equivalent circuits of transistors

CO 3 : Operate the basic electronic devices such as PN junction diode, Bipolar and Field effect Transistors, Power control devices, LED, LCD and other Opto-electronic devices

CO 4 : Use of basic electronics in display and power devices

CO 5 : Application of electronic devices will be explored by students

CS8251 – PROGRAMMING IN C

Upon successful completion of this course, student will be able to

CO1 : Develop simple applications in C using basic constructs

CO2: Design and implement applications using arrays and strings

CO3: Develop and implement applications in C using functions and pointers

CO4: Develop applications in C using structures

CO5: Design applications using sequential and random access file processing

IT8201 – INFORMATION TECHNOLOGY ESSENTIALS

On the successful completion of the course, the students will be able to :

CO1 : Design and deploy web-sites

CO2 : Design and deploy simple web-applications

CO3: Create simple database applications

CO4: Develop information system

CO5: Describe the basics of networking and mobile communications

EC8261 - CIRCUITS AND DEVICES LABORATORY

Upon successful completion of this course, student will be able to:

CO 1 : Analyze the characteristics of basic electronic devices.

CO 2 : Design RL and RC circuits.

CO 3 : Verify Thevinin & Norton theorem KVL & KCL, and Super Position Theorems.

CO 4 : Verify Reciprocity and Maximum Power Transfer Theorem.

CO 5 : Analyze the characteristics of Wave shaping circuits and Rectifier.

CS 8261 - C PROGRAMMING LABORATORY

CO1: Develop C programs for simple applications making use of basic constructs, arrays.

CO2: Develop C programs involving Strings & functions.

CO3: Develop C programs involving recursion & pointers.

CO4: Design applications using Structures.

CO5: Design applications using file Concepts.

EE 8261 ELECTRIC CIRCUITS LABORATORY

On completion of the course on Electric circuit laboratory, the students will be able to

CO1: Use laboratory equipment and techniques to measure electrical quantities using multi-meters, power supplies and oscilloscopes and apply basic circuit laws.

CO2: Understand DC and AC Network theorems and apply to them in laboratory measurements.

CO3: Analyze the transient response of series RL and RC electric circuits.

CO4: Simulate the frequency behavior of RLC electric circuits

CO5: Design and simulate the resonance circuits

BE 8261 -- BASIC ELECTRICAL, ELECTRONICS & INSTRUMENTATION ENGINEERING LAB

CO 1: To use Electrical machines in different types of application

CO 2 : To analyze basic electrical circuits using theorems & to measure various parameters

CO 3 : To design different types of rectifier circuit

CO 4 :To understand the use of measuring instruments for flow, temperature and displacement.

CO 5 : To use different metering equipment like voltmeter, ammeter and watt meter in both AC and DC networks.

GE8261- ENGINEERING PRACTICES LABORATORY

On completion of the course, the students will be able to

CO1: Elaborate on the components, gates, soldering practices.Calculate electrical parameters such as voltage, current, resistance and power.

CO2: Measure the electrical energy by single phase and three phase energy meters.

CO3: Prepare the carpentry and plumbing joints.

CO4: Perform different types of welding joints and sheet metal works

CO5: Perform different machining operations in lathe and drilling.

IT8211 - INFORMATION TECHNOLOGY ESSENTIALS LABORATORY

On the successful completion of the course, the students will be able to :

CO1 : Design interactive websites using basic HTML tags, different styles, links and with all basic control elements.

CO2 : Create client and server side programs using scripts and PHP

CO3: Design dynamic websites and handle multimedia components

CO4: Create application with PHP connected to database

CO5: Create Personal Information System and study the technologies associated with mobile Communication

CE8211- COMPUTER AIDED BUILDING DRAWING LAB

On the successful completion of the course, the students will be able to :

CO 1 Use the basic drafting tools and create civil engineering drawings and Improve the presentation of the drawing by using various drawing tools and commands.

CO 2 Draw Building with load bearing walls

CO 3 Draw the line plan, plan, elevation and sectional view of buildings and RCC framed structures

CO 4 Draw detailed schemes and working drawings up to 2-D single storey buildings with joinery details.

CO 5: Draw industrial buildings with sloped roof

Department of MBA

COURSE OUTCOMES

YEAR / SEM : I / I BA 7101 PRINCIPLES OF MANAGEMENT

CO1	Understand, analyze and communicate global, economic, legal, and ethical aspects of business.
CO2.	Demonstrate effective leadership and collaboration skills needed to make business-critical decisions, accomplish functional, organizational and professional goals.
CO3	Demonstrate written and oral communication and information literacy competencies that support the effectiveness of strategic planning, marketing and operational activities.
CO4	Evaluate and apply the effective use of technology to optimize business performance.
CO5	Business problems by synthesizing and evaluating information using qualitative and quantitative methods of reasoning and analysis.

YEAR / SEM : I / I BA7102 STATISTICS FOR MANAGEMENT

CO1	To understand the basics concepts of statistics
CO2	To explore the sampling techniques and estimation
CO3	To understand the parametric tests
CO4	To explore the non-parametric tests
CO5	To understand correlation and time series analysis
CO6	To facilitate objective solutions in business decision making under subjective conditions

YEAR / SEM : I / I **BA 7103 ECONOMIC ANALYSIS FOR BUSINESS**

CO1	To understand the basic concepts of Economics
CO2	To explore the consumer and supplier behavior
CO3	To acquire knowledge about the product market and factor market
CO4	To understand the performance of the macro economics
CO5	To explore the aggregate supply and role of money
CO6	To understand the micro macro economic environment of business.

YEAR / SEM : I / I **BA 7104 TOTAL QUALITY MANAGEMENT**

CO1	To apply quality philosophies and tools to facilitate continuous improvement and ensure customer delight
CO2	Identify the key aspects of the quality improvement cycle and to select and use appropriate tools and techniques
CO3	Evaluate the principles of quality management and to explain how these principles can be applied within quality management systems
CO4	Critically analyze the strategic issues in quality management, including current issues and developments, and to devise and evaluate quality implementation plans
CO5	Explain the regulation and the phases of a quality system certification process.

YEAR / SEM : I / I BA 7105 ORGANIZATIONAL BEHAVIOUR

CO1	To develop need, nature and framework of Organizational behavior
CO2	To understand human behavior and work behavior
CO3	To understand group behavior and interpersonal relationship
CO4	To determine the importance of leadership and power
CO5	To determine the dynamics of organizational behavior
CO6	A better understanding of human behavior, framework for managing individual and group performance in organization

YEAR / SEM : I / I BA 7106 ACCOUNTING FOR MANAGEMENT

CO 1	To understand the accounting concepts and conventions
CO 2	To know the preparation of company final accounts
CO 3	To know the tools used to measure the financial statements of businesses
CO 4	To understand the various approaches of cost and costing
CO 5	To posses the knowledge about computerized accounting
CO 6	Possess a managerial outlook at accounts

YEAR / SEM : I / I BA 7107 LEGAL ASPECTS OF BUSINESS

CO 1	To create knowledge of legal perspectives to smooth running of organization
CO 2	To create awareness about laws pertaining to contract, sale, agency and negotiable instruments
CO 3	To understand the acumen of Company Law
CO 4	To enrich legal knowledge pertaining to well-being of workers in an industry.
CO 5	To understand structure of sales tax in India
CO 6	To have insight into protection of consumers, rights and obligations of mind creators and internet users

YEAR / SEM : I / I BA 7108 WRITTEN COMMUNICATION

CO 1	**To** get into the habit of writing regularly
CO 2	To express themselves in different genres of writing from creative to critical to factual writing ,
CO 3	To take part in print and online media communication
CO 4	To read quite widely to acquire a style of writing,.
CO 5	To identify their areas of strengths and weaknesses in writing.

YEAR / SEM : I / II BA 7201 OPERATIONS MANAGEMENT

CO 1	To understand key concepts and issues of OM in both manufacturing and service organizations
CO 2	To gain some ability to recognize situations in a production system environment that suggests the use of certain quantitative methods to assist in decision making on operations management and strategy
CO 3	To apply analytical skills and problem-solving tools to the analysis of the operations problems
CO 4	To gain some ability to recognize situations in a production system environment that suggests the use of certain quantitative methods to assist in decision making on operations management and strategy
CO 5	To understand the managerial responsibility for Operations, even when production is a outsourced, or performed in regions far from corporate headquarters

YEAR / SEM : I / II BA 7202 FINANCIAL MANAGEMENT

CO1	To acquire the knowledge about foundation of finance
CO2	To know the evaluation of capital expenditure proposal
CO3	To understand the capital structure and leverages
CO4	To understand the knowledge about dividend policies
CO5	To understand the various sources of funds estimation
CO6	To Possess the techniques of managing finance in an organization

YEAR / SEM : I / II BA 7203 MARKETING MANAGEMENT

CO1	To understand the changing business environment
CO2	To identify the indicators of management thoughts and practices
CO3	To understand the fundamental premise underlying market driven strategies
CO4	To create an awareness of marketing management process
CO5	To acquire the knowledge of analytical skills in solving marketing related problems

YEAR / SEM : I / II BA 7204 HUMAN RESOURCE MANAGEMENT

CO1	To understand the perspective of human resources management
CO2	To explore the best fit of employees
CO3	To understand the training and executive development

CO4	To explore the sustaining employee interest
CO5	To understand the performance evaluation and control process
CO6	To gain knowledge and skills needed for success as a human resources professional

YEAR / SEM : I / II BA7205 INFORMATION MANAGEMENT

CO1	To understand the importance of information in business
CO2	To understand system analysis and design
CO3	To understand the database management system
CO4	To explore the security control and reporting
CO5	To understand the new IT initiatives
CO6	To gain knowledge on effective applications of information systems in business

YEAR / SEM : I / II BA7206 APPLIED OPERATION RESEARCH

CO1	To understand linear programming techniques
CO2	To explore the extension of linear programming techniques
CO3	To understand the integer programming
CO4	To explore the decision theory
CO5	To understand the queuing theory
CO6	To facilitate quantitative solutions in business decision making under conditions of certainty, risk and uncertainty.

YEAR / SEM : I / II **BA7207 BUSINESS RESEARCH METHODS**

CO1	To familiarise principles of business research
CO2	To create awareness about fundamentals of research
CO3	To have insight into framework of research and validation of instruments
CO4	To gain knowledge about data collection techniques and sampling
CO5	To understand simple and complex tools available for analysing data
CO6	To impart skills pertaining to writing research report