

**Detailed Program**  
**Bachelor of Technology (B.Tech.)**  
**(Computer Science Engineering)**

**Semester-II**  
**(2020-21)**

DOC202002260010



**RNB GLOBAL UNIVERSITY**  
RNB Global City, Ganganagar Road,  
Bikaner, Rajasthan 334601

## **OVERVIEW**

RNB Global University follows Semester System. Accordingly, each academic year is divided into two semesters, **Odd (July-December)** and **Even (January-June)**. Besides this, the university follows a system of continuous evaluation along with regular updating in course curricula and teaching pedagogy.

The curriculum for B. Tech (CSE) Program along with examination pattern is as follows:

### **Course Scheme**

#### **Semester -II**

<b>S. No.</b>	<b>Course Code</b>	<b>Course Name</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>
1.	19001800	Applied Mathematics-II	3	1	0	4
2.	19001900	Applied Physics-II	3	0	0	3
3.	19002000	Applied Physics Lab-II	0	0	2	1
4.	19002100	Engineering Graphics	3	0	0	3
5.	19002500	Engineering Graphics lab	0	0	2	1
6.	19000400	Applied Chemistry	3	1	0	4
7.	19000500	Applied Chemistry Lab	0	0	4	2
8.	19002400	Basic Mechanical Engineering	3	0	0	3
9.	99001900	Environmental Studies	3	1	0	4
10.	19001100	Ability & Skill Enhancement - II	2	0	0	2
11.	99002800	Workshops & Seminars	-	-	-	1
12.	99002700	Human Values & Social Service/NCC/NSS	-	-	-	1
<b>Total</b>			<b>20</b>	<b>3</b>	<b>8</b>	<b>29</b>

### **EVALUATION SCHEME- THEORY**

The evaluation of the theory paper of B.Tech would be based on Internal and External Assessments. Internal Assessment would consist of 50% of the marks (50 marks) and external assessment (in form of End Term Exam) would consist of remaining 50% marks (50 marks). Detailed scheme of Internal and External Assessments as follows:

### **Internal Assessment**

The distribution of Internal Assessment Marks is as follows

Type	Details	Marks
Mid Term	Two Mid-term Sessional of 15 marks each (15+15)	30
Marks obtained in various Tests, Assignments, Presentations, Quiz, Tutorials, etc.	Average of marks obtained	15
Attendance	75%+ : 5 marks	5
<b>TOTAL</b>	<b>50</b>	

### **External Assessment**

Type	Marks
Theory	50

### **EVALUATION SCHEME -PRACTICAL**

The evaluation of the practical paper of B.Tech would be based on Internal and External Assessments. Internal Assessment would consist of 50% of the marks (50 marks) and external assessment (in form of End Term Exam) would consist of remaining 50% marks (50 marks). Detailed scheme of Internal and External Assessment is as follows:

### **Internal Assessment**

Type	Details	Marks
Marks obtained in various manuals, practical file, participation, any model prepared, output of practical	Average of marks obtained	45
Attendance	75%+ : 5 marks	5
<b>TOTAL</b>	<b>50</b>	

## **External Assessment**

Type	Marks
Practical	50

## **EVALUATION SCHEME- NSS/NCC AND CLUB ACTIVITIES**

1. NSS/NCC /Similar activities prescribed by University will be completed from Semester I –Semester VI. It will be evaluated internally by the respective institute. The credit for this will be given at the end of each Semester.
2. The students have to join club/clubs with the active participation in different activities of club. The students would be continuously assessed from Semester I – Semester VI and credits and marks would be given at the end of each Semester.

## **CURRICULUM**

**Course Name: Applied Mathematics- II**

**Course Code: 19001800**

### **Objectives**

- The objective of the paper is to facilitate the student with the basics of Applied Mathematics that are required for an engineering student.
- To impart analytical ability in solving mathematical problems as applied to the respective branches of Engineering.
- To introduce students the theory and concepts of differential equations, linear algebra, Laplace transformations and Fourier series which will equip them with adequate knowledge of mathematics to formulate and solve problems analytically.

### **Course Outline:**

#### **Unit I: Ordinary Differential Equations and Applications**

Exact differential equations, equations reducible to exact differential equations; Applications of differential equations of first order & first degree to simple electric circuits, Newton's law of cooling, heat flow and orthogonal trajectories, linear differential equations of second and higher order. Complete solution, complementary function and particular integral, method of variation of parameters to find particular integral, Cauchy's and Legendre's linear equations,

simultaneous linear equations with constant coefficients. Applications of linear differential equations to simple pendulum, oscillatory electric circuits;

### **Unit II: Laplace Transform**

Definition, existence theorem (statement only), Laplace transform of derivatives, integrals and periodic functions; Unit step (Heaviside) & impulse (Dirac – Delta) functions. Inverse Laplace Transform. Convolution – theorem. Applications to solution of simple linear and simultaneous differential equations with constant coefficients and application to integral equations;

### **Unit III: Partial Differential Equations & its applications**

Formation of partial differential equations, Lagrange's linear partial differential equation, first order non-linear partial differential equation, Charpit's method; Method of separation of variables and its applications to wave equation, one dimensional heat equation and two-dimensional heat flow (steady state solutions only).

### **Unit IV: Matrices & its Applications**

Rank of a matrix, elementary transformations, elementary matrices, inverse using elementary transformations, normal form of a matrix, linear dependence and independence of vectors, consistency of linear system of equations, linear and orthogonal transformations, eigen values and eigenvectors, properties of eigen values, Cayley - Hamilton theorem and its applications, diagonalization of matrices, similar matrices, quadratic forms.

### **Suggested Readings:**

1. E. kresyzig," Advance Engineering Mathematics", Wiley publications
2. Michael Greenberg, "Advance Engineering mathematics", Pearson.
3. R.K. Jain and S.R.K. Iyengar,"Advanced Engineering Mathematics "Narosa Publications
4. B. S. Grewal,"Higher Engineering Mathematics" Khanna Publications.
5. S. Ponnusamy, "Foundation of Complex Analysis" Narosa Publication
6. G.B. Thomas and R. N. Finny " Calculus and Analytic Geometry" Addison Wesley/ Narosa
7. Wylie R, " Advance Engineering mathematics" , McGraw-Hill
8. M. Spiegel, "Schaum's Outline on Laplace Transform, Tata McGraw-Hill

**Course Name: Applied Physics-II**

**Course Code: 19001900**

### **Objectives**

- The objective of the paper is to facilitate the student with the basics of Applied Physics

aspects that are required for his understanding of basic physics.

### **Course Outline:**

#### **Unit I: Fiber Optics and Holography**

Spatial and temporal coherence, Coherence length, Coherence time and 'Q' factor for light  
Fundamental ideas about optical fiber, Propagation mechanism, Acceptance angle and cone,  
Numerical aperture, Single and Multi-Mode Fibers, Dispersion and Attenuation. Holography:  
Basic Principle of Holography, Construction and reconstruction of Image on hologram and  
applications of holography.

#### **UnitII: Elements of Material Science**

Bonding in Solids: Covalent bonding and Metallic bonding; Classification of Solids as Insulators,  
Semiconductors and Conductors; Semiconductors: Conductivity in Semiconductors,  
Determination of Energy gap of Semiconductor. X-Ray diffraction and Bragg's Law; Hall Effect:  
Theory, Hall Coefficient and applications.

#### **UnitIII: Superconductors**

Temperature dependence of resistivity in superconducting materials, Effect of magnetic field  
(Meissner effect), Temperature dependence of critical field, London equations, Josephson  
theory, persistent currents, Type I and Type II superconductors, BCS theory (Qualitative), High  
temperature superconductors and Applications of Super-conductors;

#### **Unit IV: Atomic & Nuclear Physics**

Bohr's atomic model and energy level diagram, Sommerfeld relativistic atomic model, general  
properties of nucleus, Mass defect and packing fraction, nuclear binding energy, Semi-empirical  
mass formula.

#### **Unit V: Nuclear Radiation Detectors**

Characteristics of gas filled detectors: general considerations, Constructions, Working and  
properties of: Ionization chamber, proportional counter, G. M. Counter and Scintillation  
Counter.

### **Suggested Readings:**

1. Arthur Beiser 'Concepts of Modern Physics', [McGraw-Hill], 6th Edition 2009.
2. S.Vasudeva, 'Modern Engineering Physics', S. Chand, 6th Edition, 2013.
3. Richard Wolfson 'Essential University Physics' Pearson, 1st edition, 2009.
4. H.K. Malik & A. K. Singh 'Engineering Physics' [McGraw-Hill], 1st Edition, 2009.
5. C. Kittle, 'Mechanics', Berkeley Physics Course, Vol.- I. Latest Edition.
6. Irving Kaplan 'Nuclear Physics' Latest Edition.

7. John R. Taylor, Chris D. Zafirator and Michael A. Dubson, 'Modern Physics For Scientists and Engineers', PHI, 2nd Edition.
8. D.J. Griffith, 'Introduction to Electrodynamics', Prentice Hall, Latest Edition.

**Course Name: Applied Physics-II Lab**

**Course Code: 19002000**

**Course Outline**

**List of Experiments**

1. To determine the wavelength of monochromatic light by Newton's ring.
2. To find the wavelength of various colours of white light with the help of a plane transmission diffraction grating.
3. To determine the specific resistance of a given wire using Carey Foster's bridge.
4. To find the wavelength of sodium light by Michelson interferometer.
5. To find the resolving power of a telescope.
6. To convert a Galvanometer in to an ammeter of given range and calibrate it.
7. To convert a Galvanometer in to a voltmeter of given range and calibrate it.
8. To determine the dispersive power of material of a Prism for Violet Red and yellow colours of Mercury light with the help of a spectrometer.
9. To study the Charge & Discharge of a condenser and hence determine time constant (Both current and voltage graphs are to be plotted).
10. To find the value of Planck's constant by using a solar cell / photo electric cell.

**Course Name: Engineering Graphics**

**Course Code: 19002100**

**Objectives**

- 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 to address:

- 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
- to prepare you to communicate effectively.
- to prepare you to use the techniques, skills, and modern engineering tools necessary for engineering practice
- To familiarize with the construction of geometrical figures
- To familiarize with the projection of 1D, 2D and 3D elements
- To familiarize with the sectioning of solids and development of surfaces
- To familiarize with the Preparation and interpretation of building drawing

## **Course Outline**

### **Unit I: Fundamentals drawing standard**

BIS, dimensioning, lettering, type of lines, scaling- conventions. Geometrical constructions dividing a given straight line into any number of equal parts, bisecting a given angle, drawing a regular polygon given one side, special methods of constructing a pentagon and hexagon – conic sections – ellipse – parabola – hyperbola - cycloid – trochoid;

### **Unit II: Orthographic projection**

Introduction to orthographic projection, drawing orthographic views of objects from their isometric views - Orthographic projections of points lying in four quadrants, Orthographic projection of lines parallel and inclined to one or both planes Orthographic projection of planes inclined to one or both planes.

### **Unit III: Projections of simple solids**

Axis perpendicular to HP, axis perpendicular to VP and axis inclined to one or both planes. Sectioning of solids Section planes perpendicular to one plane and parallel or inclined to other plane.

### **Unit IV: Intersection of surfaces**

Intersection of cylinder & cylinder, intersection of cylinder & cone, and intersection of prisms; Development of surfaces Development of prisms, pyramids and cylindrical & conical surfaces; Isometric and perspective projection Isometric projection and isometric views of different planes and simple solids, introduction to perspective projection; Computer aided drafting Introduction to computer aided drafting package to make 2-D drawings.



## **Course Name: Engineering Graphics Lab**

**Course Code:19002500**

### **Course Outline**

#### **List of Practical's**

1. One Sheet on Lettering, Types of Lines, Symbols used
2. One Sheet on Conic Sections like- Ellipse, Parabola , Hyperbola and Cycloid.
3. Two Sheet on Simple Scale, Diagonal Scale and Scale of Chord.
4. One Sheet on Orthographic Projections of Points.
5. One Sheets on Orthographic Projections of Lines.
6. One Sheet on Orthographic Projections of Planes.
7. Two Sheets on Projections of Simple Solids.
8. One Sheet on Sectioning of Solids.
9. One Sheet on Intersection of Surfaces.
10. One Sheet on development of Surfaces.

## **Course Name: Applied Chemistry**

**Course Code: 19000400**

### **Objectives**

- The objective of the paper is to facilitate the student with the basics of Applied Chemistry aspects that are required for his understanding of basic chemistry.

### **Course Outline:**

#### **Unit I: Lubrication and Lubricants Functions of lubricant, Mechanism of lubrication**

Thick film, thin film and extreme pressure lubrication, classification of lubricants, Properties of lubricants (flash point, fire point, viscosity index (Numericals), Cloud and pour point, saponification value (Numericals), acid value (Numericals), iodine value (Numericals), consistency, drop point). Synthetic lubricant and Additives for lubricants.

#### **Unit II: The Phase Rule Phase Equilibrium: Definition of various terms**

Phases, components and degrees of freedom of a system, criteria of phase equilibrium; Gibbs Phase Rule and its thermodynamic derivation; Derivation of Clausius – Clapeyron equation and

its importance in phase equilibria. Phase diagrams of one-component systems (water and sulphur) and two component systems involving eutectics (Lead-Silver system its application in Pattinson's process), System having congruent melting points (Zinc-magnesium system) and System having incongruent melting points (Na-K system). Applications of phase rule: Freeze drying, safety plugs, solders and freezing mixtures.

### **Unit III: Water Introduction and specifications of water**

Hardness and its determination by EDTA method (Numericals), Alkalinity and its determination (Numericals), Boiler feed water, boiler problems– scale, sludge, priming & foaming: causes & prevention, Boiler problems– caustic embrittlement & boiler corrosion: causes & prevention, Desalination by Reverse Osmosis and Electrodialysis, Disinfection by break-point chlorination. Water Softening by Internal Treatment: carbonate & phosphate conditioning, colloidal conditioning & calgon treatment Water Softening by External Treatment: Lime-Soda Process (Numericals) Zeolite & Ion-Exchange Process.

### **Unit IV: Corrosion & Its Control Causes, effects & consequences**

Chemical or Dry corrosion & its mechanism (Pilling-Bedworth Rule) Electrochemical or Wet Corrosion & Its mechanism, Rusting of Iron Passivity, Galvanic series, Galvanic Corrosion, Soil Corrosion Pitting Corrosion, Concentration Cell or Differential Aeration Corrosion, Stress Corrosion. Factors Influencing Corrosion: Nature of metal and nature of corroding environment; Protective measures: Galvanization, Tinning Cathodic Protection, Sacrificial Anodic protection, Prevention of Corrosion by Material selection & Design.

### **Unit V: Polymers and Polymerization**

Organic polymers and its classification, Mechanism of polymerization: free radical, cationic, anionic and coordination polymerization, effect of structure on properties of polymers, preparation, properties and technical applications of thermo-plastic (PVC, PVA), thermosets (PF, UF), and elastomers (SBR, GR-N), Inorganic polymer: silicones, introduction to polymeric composites.

### **Suggested Readings:**

1. Engineering Chemistry: by P. C. Jain & Monika Jain
2. A Text Book of Engineering Chemistry: by ShashiChawla
3. J. C. Kuriakose and J. Rajaram, "Chemistry in Engineering and Technology", Tata Mcraw-Hill Publications Co. Ltd., New Delhi
4. V.R. Gowrikar, N.V. Viswanathan and JaydevSreedhar, "Polymer Science", New Age International Pvt. Ltd., New Delhi

## **Course Name: Applied Chemistry Lab**

**Course Code: 19000500**

### **Course Outline**

#### **List of Experiments**

1. Determination of the total hardness of the water by EDTA method.
2. Determine of temporary and permanent hardness of water by EDTA method.
3. Determine of Calcium and Magnesium hardness of water using EDTA solution.
4. Determination of alkalinity of water sample.
5. Determination of Dissolve Oxygen (D.O.) in the given water sample.
6. To find the Melting and Eutectic point for a two component system by cooling curve method.
7. Determination of viscosity of lubricant by Redwood Viscometer (No.1 & No.2).
8. Determination of flash point and fire point of oil by Pensky-Marten's flash point apparatus.
9. To find out Saponification Number of an Oil.
10. Determination of acid value of an oil
11. Determination of iodine value of an oil
12. Estimation of total iron in a iron alloy.
13. Preparation of copper pigment. And Preparation of Phenol-Formaldehyde resin.
14. Preparation of Aspirin

#### **Suggested Readings**

1. Practical Engineering Chemistry by K. Mukkanti, et.al, B.S. Publications, Hyderabad.
2. Inorganic quantitative analysis, Vogel.
3. Text Book of engineering chemistry by R. N. Goyal and Harrmendra Goel, Ane Books Private Ltd.,
4. A text book on experiments and calculation Engg. S.S. Dara.
5. Instrumental methods of chemical analysis, Chatwal, Anand, Himalaya Publications

## **Course Name Basic Mechanical Engineering**

**Course Code: 19002400**

## **Objectives**

- To familiarize with the basic machine elements
- To familiarize with the Sources of Energy and Power Generation
- To familiarize with the various manufacturing processes
- The basic machine elements
- The Sources of Energy and Power Generation
- The various manufacturing processes

## **Course Outline:**

### **Unit I: Engineering Materials**

Materials and Civilization, their socio economic impact; Classification of engineering material, composition of cast iron and carbon steels , wrought iron and their mechanical properties, stress-strain diagram, Alloy steels: stainless steel, tool steel. Alloys of Non Ferrous Metals: Common uses of various non-ferrous metals (Copper, Zinc, Tin, Magnesium, Lead, Aluminum etc.) & alloys and its composition such as Cu-alloys: Brass, Bronze, Al-alloys.

### **Unit II: Fluids**

Fluid and continuum, Physical properties of fluids, Rheology of fluids, Types of fluid flows: Continuum & free molecular flows. Steady and unsteady, uniform and non- uniform, laminar and turbulent flows, rotational and irrotational flows, compressible and incompressible flows, subsonic, sonic and supersonic flows, sub-critical, critical and supercritical flows, one, two and three dimensional flows, streamlines, continuity equation, Bernauli's equation for incompressible fluids. Working principle of fluid coupling, pumps, compressors, turbines;

### **Unit III: Simple Stress, Bending & Torsion**

Normal and shear stresses, One Dimensional Loading, members of varying cross section, bars in series, Elastic constants, Modulus of Elasticity, Strain energy.

Bending (Flexural) Stresses: theory of pure bending, neutral surface and neutral axis, Bending Equation, stresses in beams of different cross sections.

Torsion: Torsion Equation, combined bending & torsion of solid & hollow shafts.

### **Unit IV: Friction & IC Engine Static and Kinetic friction**

Laws of dry friction, co-efficient of friction, angle of friction, angle of repose, cone of friction, Belt drive- derivation of equation; Internal Combustion Engines: Classification of I.C. Engines and their parts, working principle and comparison between 2 Stroke and 4 stroke engine , difference between SI and CI engines. Pv and T-s diagrams of Otto and Diesel cycles.

**Practical Learning-**

1. To Study the working of 2 Stroke diesel/ petrol Engine.
2. To Study the Working of 4 Stroke diesel/ Petrol Engine.
3. To Study the working of Fluid Couplings.
4. To Study the working of Pumps.
5. To Study the working of Turbines

**Suggested Readings:**

1. Engg Mechanics by A.K.Tayal (Umesh Publications).
2. Engg Mechanics by Basudeb Bhattacharya (Oxford university Press)
3. Engg Mechanics by Irving H. Shames (Pearson publications).
4. Engg Mechanics by U.C.Jindal (Galgotia Publications).
5. Engg Mechanics by Beer &Johnston(TMh).
6. Engg Mechanics by K.L.Kumar (TMh).
7. Engg Mechanics by Sadhu Singh (Khanna Publishers).

**Course Name: Environmental Studies****Course Code: 99001900****Objectives**

- To gain knowledge about environment and its conservation along with sustainable development.
- To define and use correctly the common terms of environmental science.
- To explain what makes up the environment, how it functions, and how humans are part of it.
- To apply the concepts and principles of environmental science to propose solutions to specific environmental problems.
- To analysis environmental writings and predictions and their impact on subsequent developments in human relationship with the environment.
- To evaluate the adequacy of conclusions about environmental phenomena.

**Course Outline:****Unit I: The Multidisciplinary Nature of Environmental Studies:**

Definition, scope and importance need for public awareness. Natural Resources Renewable and Non-renewable Resources: Natural resources and associated problems. (a) Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people. (b) Water resources: Use and over-utilization of

surface and ground water, floods, drought, conflicts over water, dams-benefits and problems. (c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies. (d) Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, Case studies. (e) Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources. Case studies, (f) Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification. Role of an individual in conservation of natural resources, Equitable use of resources for sustainable lifestyles;

### **Unit II: Ecosystems**

Concept of an ecosystem, Structure and function of an ecosystem, Producers, consumers and decomposers, Energy flow in the ecosystem, Ecological succession, Food chains, food webs and ecological pyramids. Introduction, types, characteristic features, structure and function of the following ecosystem: (a) Forest ecosystem (b) Grassland ecosystem (c) Desert ecosystem (d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).

### **Unit III: Biodiversity and Its Conservation**

Introduction, definition: genetic, species and ecosystem diversity, Biogeographical classification of India, Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and option values. Biodiversity at global, National and local levels, India as a mega-diversity nation, Hot-spots of biodiversity; Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts. Endangered and endemic species of India, Conservation of biodiversity: in-situ and ex-situ conservation of biodiversity.

### **Unit IV: Environmental Pollution**

Definition, Causes, effects and control measures of (a) Air pollution (b) Water pollution (c) Soil pollution (d) Marine pollution (e) Noise pollution (f) Thermal pollution (g) Nuclear hazards. Solid waste management: Causes, effects and control measures of urban and industrial wastes. Role of an individual in prevention of pollution, Pollution case studies; Disaster management: Floods, earthquake, cyclone and landslides.

### **Unit V: Social Issues and the Environment**

From unsustainable to sustainable development, Urban problems related to energy. Water conservation, rain water harvesting, watershed management. Resettlement and rehabilitation of people; its problems and concerns, Case studies, Environmental ethics: Issues and possible solutions. Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, Case studies, Waste land reclamation. Consumerism and waste products, Environment Protection Act, Air (Prevention and Control of Pollution) Act, Water (Prevention and Control of Pollution) Act, Wildlife Protection Act, Forest Conservation Act. Issues involved

in enforcement of environmental legislation, Public awareness.

### **Unit VI: Human Population and the Environment**

Population growth, variation among nations, Population explosion—Family Welfare Programme, Environment and human health, Human rights, Value education, HIV/AIDS, Women and Child Welfare, Role of Information Technology in environment and human health, Case Studies, Field Work. Visit to a local area to document environmental assets - river/forest/grassland/hill/mountain. Visit to a local polluted sites - Urban/Rural/Industrial/Agricultural. Study of common plants, insects, birds. Study of simple ecosystems—pond, river, hill slopes, etc.

### **Suggested Readings**

1. Environmental Geography, H.M. Saxena, Rawat Pub.
2. A Textbook Of Environment, K.M. Agrawal; P.K. Sikdar; S.C. Deb, McMillanPub.
3. A Textbook of Environmental Studies, D K Asthana&MeeraAsthana, S. Chand Pub.
4. Environmental Studies, V. K. Ahluwalia, The Energy and Resources Institute, Pub, (2012).
5. Environmental Chemistry, A.K. Dey, New Age Pub.
6. Environmental Biology, K.C. Agarwal, Nidi Pub. Ltd. Bikaner

## **Course Name: Ability and Skill Enhancement - II**

### **Course Code: 19001100**

#### **Objectives**

- To improve the communication skills of the students with respect to pronunciation. The classes are interactive and activity based.

#### **Course Outline - Final Assessment - Debate/Group Discussion**

##### **Unit I: Phonetics**

Phonetic symbols and the International Phonetic Alphabets (IPA), The Description and Classification of Vowels (Monophthongs& Diphthong) Consonants, Phonetic Transcription & Phonology, Syllable, Stress & Intonations, and Reading aloud, recording audio clips.

##### **Unit II: Vocabulary Building**

Idioms and Phrases, Words Often Confused, One word Substitution, Word Formation: Prefix & Suffix.

### **Unit III: Ethics & Etiquettes**

What are ethics, what are values, difference between ethics and morals, Business ethics, workplace ethics, what are virtues for e.g. civic virtues, etc. Human ethics and values- 5 core human values are: right conduct, living in peace, speaking the truth, loving and care, and helping others. Etiquette awareness, Importance of First Impression, Personal Appearance & Professional presence, Personal Branding, Dressing Etiquette, Dining Etiquette.

### **Unit IV: Reading & Writing Skills**

Reading Comprehension, News Reading, Picture Description, Paragraph Writing, News Writing.

### **Unit V -Listening & Speaking Skills**

Public Speaking, Debate, Inspirational Movie Screening, Skit Performance.

**Note:** The review of syllabus happens of periodic basis for the benefit of students and in case there is change in curriculum due to review, students would be intimated in writing.

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