Syllabus and Course Outcome of Value Added Courses Offered

Course Content : Business Communication

Unit Content

Unit 1 Principles of Communication – Definition, Purposes, Types, Process, Models and Barriers

Unit 2 Verbal and Non Verbal Communication – Presentation Skills (Planning andPreparation/ Using Visual Aids/ Delivery), Individual and Team Presentations, PublicSpeaking, Listening and Feedback, Body Language

Unit 3 Written Communication – Stages of Writing, Composing Business Messages,Preparing Notes, Style, Punctuation, Using simple words, Proof Reading.

Unit 4 Report Writing – Report Planning, Types of Reports, Developing an outline, Nature ofHeadings, Ordering of Points, Logical Sequencing, Graphs, Charts, ExecutiveSummary, List of Illustration, Report Writing.

Unit 5 Internal Communication – Circulars, Notices, Memos, Agenda and Minutes

Unit 6 External Communication – Resume/CV, Using Facsimiles (Fax), Electronic Main, Handling Mail

Unit 7 Writing Business Letters – Formats, Styles Types – Request, Enquiry, Placing Order,Instruction, Action, Complaint, Adjustment, Sales, Reference, Good News & Bad News, Acknowledgement

Unit 8 Handling Business Information – Annual Report, House Magazine, Press Release,Press Report

Course Outcome	**Description: After the completion of the course the students will be able- - -**
CO1	1 Explain the purpose of business communication
CO2	2 Illustrate the stages of writing different documents relevant to business communication
CO3	3 Discuss different aspects of internal communication of a business organization

CO4	4 Develop different important concepts of external communication
CO5	5 Organize different ways of handling business information

Course Content : Stress Management by Yoga

Unit Content

Unit 1 Definitions of Eight parts of yog. (Ashtanga)

Unit 2 Yam and Niyam. Do`s and Don't's in life. i) Ahinsa, satya, astheya, bramhacharya and aparigraha ii) Shaucha, santosh, tapa, swadhyay, ishwarpranidhan

Unit 3 Asan and Pranayam i) Various yog poses and their benefits for mind & body ii)Regularization of breathing techniques and its effects - Types of pranayam

Course Outcome:

Course Outcome	**Description: After the completion of the course the students will be able- - -**
CO1	1. Develop healthy mind in a healthy body thus improving social health also
CO2	2. Improve efficiency

Course Content : Travel Agency & Tour Operation Management

Unit Content

Unit 1 Definition, History, types of Tours. Tour components-Pre-& additional Tour components. Advantages of selling tours. Travel Trade Network.

Unit 2 Travel Agency Business: Definition, Concept, Origin and Development, Significance, Organizational structure, Growth of Travel Agency & Tour Operation Business, Threats, Emergence of Thomas Cook & American Express, Emergence of Travel Intermediaries, Indian Travel Agents & Tour Operators.

Unit 3 Functions of Travel Agency and Tour Operators with differentiations and inter-relationship of TA/TO. Sources of income of TA/TO. Tourism Intermediaries (direct & indirect).

Unit 4 Different types of Tour operators, Different partners of tour operators, Brief study of ASTA, TAAI, IATO. Tour Package – Meaning, component and example of West Bengal, Golden Triangle of India. Itinerary Preparation: Meaning, Importance and Types of Itinerary - Resources and Steps for Itinerary Planning - Do's and Do Not's of Itinerary Preparation.

Unit 5 Setting up a TA/TO business, Sources of Funding, Comparative Study of Various Type of Organisation, Government Rule of Getting Approval: Approval and Accreditation by Govt of India Ministry of Tourism. IATA Rules, Regulations and Accreditation, Documentation, Skills and competencies for running a TA/TO, Modern day travel agents and tour operators. Use of IT in TA/TO Business, Case Study analysis: Major Travel Agencies & Tour Operators. Guide – function, approval; Problems of touts.

Unit 6 Tour Brochures & price quotations: Meaning, importance of brochure, key aspects & checklist of tour brochures. Customer service- needs & techniques. Handling a client - WATA guidelines; Relation with service suppliers; Travel agency appointments; International regulations. Frontier Formalities & Travel Documentations: Passport, VISA, Insurances, health certificate, customs and currency, Auxiliary services.

Course Outcome	**Description: After the completion of the course the students will be able- - -**

CO1	1 Demonstrate the relevant knowledge and skills on the operations and management of tour and travel segments of tourism industry including trends and contemporary issues in the travel industry.
CO2	2 Explain about the various factors influencing the tour operator industry including setting up of travel agencies and legal aspects in travel and tour operations.
CO3	3 Classify the personality, attitudes, values & knowledge and skills of tour operator's products which include travel, transfer and accommodation planning, brochure design, itinerary preparation.
CO4	4 Explain and make use of formalities and factors associated with new organizational set up & knowledge about the various activities of organisations involved in the active development of the travel and tour operations across the globe.

Course Content : Environmental Sciences

Unit Content

Unit 1 Basic ideas of environment, basic concepts, man, society & environment, their interrelationship. Mathematics of population growth and associated problems, Importance of population study in environmental engineering, definition of resource, types of resource, renewable, non-renewable, potentially renewable, effect of excessive use vis-à-vis population growth, Sustainable Development. Materials balance: Steady state conservation system, steady state system with non-conservative pollutants, step function. Environmental degradation: Natural environmental Hazards like Flood, earthquake, Landslide-causes, effects and control/management; Anthropogenic degradation like Acid

rain-cause, effects and control. Nature and scope of Environmental Science and Engineering.

Unit 2 Elements of ecology: System, open system, closed system, definition of ecology, species, population, community, definition of ecosystem- components types and function. Structure and function of the following ecosystem: Forest ecosystem, Grassland ecosystem, Desert ecosystem, Aquatic ecosystems, Mangrove ecosystem (special reference to Sundar ban); Food chain [definition and one example of each food chain], Food web. Biogeochemical Cycle- definition, significance, flow chart of different cycles with only elementary reaction [Oxygen, carbon, Nitrogen, Phosphate, Sulphur]. Biodiversity- types, importance, Endemic species, Biodiversity Hot-spot, Threats to biodiversity, Conservation of biodiversity.

Unit 3 Atmospheric Composition: Troposphere, Stratosphere, Mesosphere, Thermosphere, Tropopause and Mesopause. Energy balance: Conductive and Convective heat transfer, radiation heat transfer, simple global temperature model [Earth as a black body, earth as albedo], Problems. Greenhouse effects: Definition, impact of greenhouse gases on the global climate and consequently on sea water level, agriculture and marine food. Global warming and its consequence, Control of Global warming. Earth's heat budget. Lapse rate: Ambient lapse rate Adiabatic lapse rate, atmospheric stability, temperature inversion (radiation inversion). Atmospheric dispersion: Maximum mixing depth, ventilation coefficient, effective stack height, smokestack plumes and Gaussian plume model. Definition of pollutants and contaminants, Primary and secondary pollutants: emission standard, criteria pollutant. Sources and effect of different air pollutantsSuspended particulate matter, oxides of carbon, oxides of nitrogen, oxides of sulphur, particulate, PAN. Smog, Photochemical smog and London smog. Depletion Ozone layer: CFC, destruction of ozone layer by CFC, impact of other green-house gases, effect of ozone modification. Standards and control measures: Industrial, commercial and residential air quality standard, control measure (ESP. cyclone separator, bag house, catalytic converter, scrubber (ventury), Statement with brief reference.

Unit 4 Hydrosphere, Hydrological cycle and Natural water. Pollutants of water, their origin and effects: Oxygen demanding wastes, pathogens, nutrients, Salts, thermal application, heavy metals, pesticides, volatile organic compounds. River/Lake/ground water pollution: River: DO, 5-day BOD test, Seeded BOD test, BOD reaction rate constants, Effect of oxygen demanding wastes on river [deoxygenation, reaeration], COD, Oil, Greases, pH. Lake: Eutrophication [Definition, source and effect]. (1L)

Ground water: Aquifers, hydraulic gradient, ground water flow (Definition only) Standard and control: Waste water standard [BOD, COD, Oil, Grease], Water Treatment system [coagulation and flocculation, sedimentation and filtration, disinfection, hardness and alkalinity, softening] Waste water treatment system, primary and secondary treatments [Trickling filters, rotating biological contractor, Activated sludge, sludge treatment, oxidation ponds] tertiary treatment definition. Water pollution due to the toxic elements and their biochemical effects: Lead, Mercury, Cadmium, and Arsenic.

Unit 5 Lithosphere; Internal structure of earth, rock and soil. Solid Waste: Municipal, industrial, commercial, agricultural, domestic, pathological and hazardous solid wastes; Recovery and disposal method- Open dumping, Land filling, incineration, composting, recycling. Solid waste management and control (hazardous and biomedical waste).

Unit 6 Definition of noise, effect of noise pollution, noise classification [Transport noise, occupational noise, neighbourhood noise]. Definition of noise frequency, noise pressure, noise intensity, noise threshold limit value, equivalent noise level, L10 (18hr Index), n Ld.Noise pollution control.

Unit 7 Environmental impact assessment, Environmental Audit, Environmental laws and protection act of India, Different international environmental treaty/ agreement/ protocol.

Course Outcome	**Description: After the completion of the course the students will be able- - -**
CO1	1. To understand the natural environment and its relationships with human activities.
CO2	2. To apply the fundamental knowledge of science and engineering to assess environmental and health risk
CO3	3. To develop guidelines and procedures for health and safety issues obeying the environmental laws and regulations.
CO4	.

	4. Acquire skills for scientific problem-solving related to air, water, noise & land pollution.

Course Content :Constitution of India

Unit Content

Unit 1 Introduction: Constitution' meaning of the term,, Indian Constitution: Sources and constitutional history, Features: Citizenship, Preamble, Fundamental Rights and Duties, Directive Principles of State Policy

Unit 2 .Union Government and its Administration : Structure of the Indian Union: Federalism, Centre- State relationship, President: Role, power and position, PM and Council of ministers, Cabinet and Central Secretariat, Lok Sabha, Rajya Sabha

Unit 3.State Government and its Administration Governor: Role and Position, CM and Council of ministers, State Secretariat: Organization, Structure and Functions

Unit 4 Local Administration District's Administration head: Role and Importance, Municipalities: Introduction, Mayor and role of Elected Representative, CEO of Municipal Corporation, Panchayati raj: Introduction, PRI: Zila Panchayat, Elected officials and their roles, CEO Zila Pachayat: Position and role, Block level: Organizational Hierarchy (Different 4.departments), Village level: Role of Elected and Appointed officials, Importance of grass root democracy

Unit 5 Election Commission Election Commission: Role and Functioning, Chief Election Commissioner and Election Commissioners, State Election Commission: Role and Functioning, Institute and Bodies for the welfare of SC/ST/OBC and women.

Course Outcome	Description: After the completion of the course the students will be able- - -
CO1	1. Identify and explore the basic features and modalities about Indian constitution.
CO2	2. Differentiate and relate the functioning of Indian parliamentary system at the center and state level.
CO3	3. Differentiate different aspects of Indian Legal System and its related bodies.
CO4	4. Discover and apply different laws and regulations related to engineering practices.
CO5	5. Correlate role of engineers with different organizations and governance models

Course Content : Sanskrit for Technical Knowledge

Unit Content

Unit 1 Alphabets in Sanskrit, Past/Present/Future Tense, simple Sentences

Unit 2 Order, Introduction of roots, Technical information about Sanskrit Literature

Unit 3 Technical concepts of Engineering-Electrical, Mechanical, Architecture, Mathematics

Course Outcome	Description: After the completion of the course the students will be able- - -
CO1	1. Understanding basic Sanskrit language1. Understanding basic Sanskrit language
CO2	2. Ancient Sanskrit literature about science & technology can be understood
CO3	3. Being a logical language, it will help to develop logic in students

Course Content : Waste to Energy

Unit Content

Unit 1 Introduction to Energy from Waste: Classification of waste as fuel – Agro based, Forest residue, Industrial waste – MSW, Fuels derived from waste and their properties -- Calorific value and composition, General ideas of Conversion Devices – Incinerators, Gasifiers, digesters.

Unit 2 Biomass Pyrolysis: Pyrolysis – Types, slow fast – Manufacture of charcoal – Methods - Yields and application – Manufacture of pyrolytic oils and gases, biochemical conversion - anaerobic digestion, yields and applications. - Types of biogas Plants –Alcohol production from biomass - Bio diesel production.

Unit 3 Biomass Gasification: Gasifiers – Fixed bed system – Downdraft and updraft gasifiers – Fluidized bed gasifiers – Design, construction and operation – Gasifier burner arrangement for thermal heating – Gasifier engine arrangement and electrical power – Equilibrium and kinetic consideration in gasifier operation, Biomass Combustion: Biomass stoves – Improved chullahs, types, some exotic designs, Fixed bed combustors,

Types, inclined grate combustors, Fluidized bed combustors, Design, construction and operation of all the above biomass combustors.

Unit 4 Biogas plant technology and status - Bio energy system - Design and constructional features - Biomass resources and their classification - Biomass conversion processes - Thermo chemical conversion - Direct combustion - biomass gasification - pyrolysis and liquefaction - Urban waste to energy conversion - Biomass energy program in India.

Course Outcome	**Description: After the completion of the course the students will be able- - -**
CO1	1. Illustrate the processes through which energy can be generated from wastes.
CO2	2. Outline the overall energy balance equations for waste to energy conversion.
CO3	3. Solve technical problems related to waste to energy conversion.
CO4	4. Identify the areas where waste to energy application can be implemented.

Course Content : Energy Storage

Unit Content

Unit 1 Need of energy storage; Different modes of Energy Storage, Potential energy: Pumped hydro storage, Kinetic energy and Compressed gas system: Flywheel storage, Compressed air energy storage, Electrical and magnetic energy storag e: Capacitors, Electromagnets and Battery storage systems such as primary, secondary, Lithium, Solid-state and Molten solvent batteries Role of carbon Nano-tubes in electrodes;

Chemical Energy storage: Thermo- chemical, Photo-chemical, Bio-chemical, Electro-chemical, Fossil fuels and Synthetic fuels and Hydrogen storage.

Unit 2 Sensible heat storage (SHS) mediums; Stratified storage systems; Rock-bed storage systems; Thermal storage in buildings; Earth storage; Energy storage in aquifers. Design, working and case studies of SHS system for industries Phase change materials (PCMs); Selection criteria of PCMs; Stefan problem; Solar thermal LHTES systems; Energy conservation through LHTES systems; LHTES systems in refrigeration and Air-conditioning systems; Enthalpy formulation; Numerical heat transfer in melting and freezing process. Design working and case studies of PCM system for industries.

Unit 3 Some areas of application of energy storage: Food preservation; Waste heat recovery Solar energy storage; Greenhouse heating Power plant applications; Drying and heating for process industries.

Unit 4 Magnetic and Electric Energy Storage Systems: Superconducting magnet energy storage (SMES) systems; Capacitor and batteries: Comparison and application, Super capacitor: Electrochemical double layer capacitor (EDLC), Principle of working, Structure, Performance and application, Role of activated carbon and carbon nano-tube.

Course Outcome	**Description: After the completion of the course the students will be able- - -**
CO1	1. Discuss the scientific principles underpinning the operation of energy storage systems.
CO2	2. Solve the intermittency of renewable energy sources such as solar and wind by utilising problem solving skills in energy storage engineering and grid integration.
CO3	3. Use energy storage knowledge to develop and conduct projects.

CO4	4. Decide which energy storage technology can be used according to the availability of resources.

Course Content : Evolution of Statistical Thinking

Unit 1 Introduction: Pros and Cons of Naïve realism, Role of random factors in real-life scenarios, Comprehension and formulation of randomness and uncertainty inherent in life with the relevance of mathematics under these processes, the contribution of Jakob Bernoulli as a central point of reference.

Unit 2 Shortcomings of human intuition regarding uncertainty, Identification of underlying inner hidden probabilities of natural systems through available data, Origin of statistical inference theory, Integration of probabilistic and statistical thinking with daily life.

Unit 3 Development of principles on 'chance' and their applications in politics, business, medicine, economics, sports, leisure, and other indispensable areas of human affairs, Investigation of the way of making choices and the processes that lead to making mistaken judgments and poor decisions when confronted with the unavoidable uncertainty and randomness of life.

Unit 4 The hidden role of chance, The basic principles of probability, and how they are abused are explained with examples, The journey of probability theory that started with the gambler's ruin problem, Evolution of principles of combinatorics, Mathematical meaning of expectation, Zeno's paradox, the concept of limits, and beating the casino at roulette.
Adjustment of expectations in the light of past events, Mistakes in conditional probability from medical screening to the OJ Simpson trial, and the prosecutor's fallacy, An approach to the law of large numbers with examples, Applications of probability and statistics in financial markets, Relation between Risk and uncertainty.

Course Outcome	Description: After the completion of the course the students will be able- - -
CO1	1. Develop awareness regarding the inheritance of chance factors in different areas of life.
CO2	2. Learn the inspiring life and work of Stalwarts of Statistics,
CO3	3. Build ideas on basic principles of probability and how they may be abused,
CO4	4. Relate risk and uncertainty with real life problems.

Course Content : Emerging Topics in Statistics and Analytics

Unit Content

Unit 1 Recent approaches in Multivariate Statistical Modelling: Ideas for the identification of extreme elements in a residual for the GMANOVA model with examples, Compositional data analysis-Linear algebra, Visualization and interpretations.

Unit 2 Comparison of different clustering approaches for high dimensional presence-absence Data.

Unit 3 Recent advances on sampling methods and educational Statistics: Ideas of Statistical Evolution of Process Variables, Case Study On Writing Tools, usage in educational survey assessment. Bayesian latent variable model for analysis of emphatic accuracy.

Unit 4 Modern industrial application in Statistics. Areas of applications in public policy, social science, biology, medicine, business and
Industry.

Course Outcome	Description: After the completion of the course the students will be able- - -
CO1	1. Develop awareness regarding recent developments of statistics in different areas of real life situation.
CO2	2. Decide the potential research areas involving modern developments of statistics and related interdisciplinary areas.
CO3	3. Acquire knowledge of modern tools of statistics.

Course Content : Statistics & Probability with R

Unit Content

Unit 1 Construct and execute basic programs in R using elementary programming techniques, e.g. import/export of data from file or Internet, assign and manipulate data structures, create user-defined functions, loops, condition statements and debugging.

Unit 2 Understand R data types, data structures, in particular vectors and data frames. Matrices and Factors in R. If Else and Nested If Else in R. Loops with R.

Unit 3 Use R for statistical calculations. Understand R Markdown and Handle external tabular data from a .csv file. Extract values from vectors and data frames.

Unit 4 Graphically visualise data and results of statistical calculations. Perform operations on columns in a data frame. Append columns to a data frame. Create subsets of a data frame. Exploratory Data Analysis - Create simple scatterplots, histograms, and boxplots in R, ggplot2 package.

Unit 5 Use external R-packages in statistics and data mining. Elementary Statistics with R. Gene Expression data analysis

Course Outcome	**Description: After the completion of the course the students will be able- - -**
CO1	1 Understand the basics of the R environment.
CO2	2 Perform various operations on data in R.
CO3	3 Do descriptive statistical analysis in R.
CO4	4 Compute correlation and regression lines through R.

Course Content : Ethical Hacking

Unit Content

Unit 1 Introduction - Key issues plaguing the information security world, incident management process, and penetration testing

Unit 2 Footprinting - Various types of footprinting, footprinting tools, and Countermeasures

Unit 3 Network scanning techniques and scanning countermeasures. Enumeration techniques and enumeration countermeasures.

Unit 4 Attacks - System hacking methodology, steganography, steganalysis attacks, and covering tracks Different types of Trojans, Trojan analysis, and Trojan Countermeasures. Working of viruses, Virus analysis, computer worms, malware analysis procedure, and countermeasures, Packet sniffing techniques and how to defend against sniffing. Social Engineering techniques, identify theft, and social engineering countermeasures. DoS/DDoS attack techniques, botnets, DDoS attack tools, and DoS/DDoS countermeasures. Session hijacking techniques and countermeasures

Unit 5 Web Server Attacks - Different types of web server attacks, attack methodology, and Countermeasures. SQL injection attacks and injection detection tools. Various cloud computing concepts, threats, attacks, and security techniques and tools

Unit 6 Cryptography - Different types of cryptography ciphers, Public Key Infrastructure (PKI), cryptography attacks, and cryptanalysis tools
Unit 7 Penetration Testing - Various types of penetration testing, security audit, vulnerability assessment, and penetration testing roadmap.

Course Outcome	**Description: After the completion of the course the students will be able- - -**
CO1	1 To understand Legal aspects of penetration testing
CO2	2 To develop Practical hacking exercise

Course Content : German Certificate Course Session
Unit Content
Unit 1 To greet others and say goodbye, To introduce oneself and others, Asking age and be able to say the same, Numbers spellings 0 – 20, Countries and their nationalities and languages, Wh – questions, Sentence structure of affirmative sentence. Alphabets. Verbs and personal pronouns. Umlauts, Diphthongs. Persönliche Angaben (personal information). Videos / audios. Deutschland und die Nachbarnländer. To speak about Hobbies and Professions. Days of the week, months and seasons. Numbers from 20 onwards. The articles, Gender of Nouns. Verb conjugation of sein, haben, kommen, heißen, arbeiten, Singular and plural nouns, Sound of H,CH,SCH. Days of the week, months and seasons. Hobbies and leisure activities.Videos / audios - Freizeitaktivitäten in Deutschland

Unit 2 To describe a place or a city, To give direction of a place, To ask about direction of a place, Imperative sentences, Yes no questions, Long and short vowels, Directions. Different city names in Germany. Different types of transport. Videos/audios. Sehenswürdigkeiten
(sight seeing). Speak about food and drink. To go for a shopping. To speak about one's own eating habit. Akkusativ. Verbs with Akkusativ. Sound of sp and st. Mealtimings. Food and beverages. Videos/audios - Esskultur in Deutschland

Unit 3 To ask and tell time (official and unofficial). To speak about family members. To apologize for being late. To make an appointment (formal and informal). Describe ones daily routine. Common Adjectives. Possessive articles. Prepositions um, am, von, bis. Separable and inseparable verbs. Names of the family members. Videos /audios. Punctuality. To make a plan for something. Ordering food in a restaurant. To invite someone for a party. Accept or deny an invitation. Speak about food preferences. Modal verbs or auxiliary verbs. Ei,ie,eu,au,äu. Videos/ audios - Feste in Deutschland

Unit 4
Understanding instructions and giving the same. Formal and informal conversations. Speak about A day in the office. To describe the place you live in. To describe a room. Negation in a sentence. Preposition in Dativ. Dativ. To describe a room. House and household things. Colour names. Furniture of a house. Possessive article. Akkusativ. Long and short e. Things of an office Videos/ audios - Work culture in Germany

Unit 5 To describe a past event. To answer an official E mail. To speak about Jobs. Different types of clothes and accessories. How to buy clothes and shoes. Past tense, Participles of regular and irregular verbs, Welcher,welches,welche, Dieser, dieses, diese. Adjective endings. Sounds of S and Z.

Unit 6 To make a doctor's appointment. To speak about different ailment. Describing an accident. Planning a trip. To give suggestion. To book a room in a hotel. Describe weather. Imperative Sentences. Sound of f, v and w. Sounds of P and b, T and d, K and g. The body parts
And diseases and their remedies. The weather expressions. Videos/audios - Famous tourist destinations in Germany.

Course Outcome	**Description: After the completion of the course the students will be able- - -**
CO1	1 Develop beginner level reading, writing and speaking skills in German language

CO2	2 Provide a foundation for students to undertake intermediate and higher level course in German language
CO3	3 Develop intercultural competence and acquire fluency with German scripts.
CO4	4 Improve employability skills.

Course Content : Spanish Certificate Course Session

Unit Content

Unit 1 Introduction to the language with Verb SER (To be), Introducing self, Alphabet, Numbers

Frequent questions, Professions, Nouns, Adjectives, Articles, Nationalities. Questions & Answers to obtain personal information. Definite articles, Indefinite articles, Colors. Verb ESTAR (to be), Prepositions, Adverbs. Contrast and use of SER and ESTAR verbs, States of mood. Verb TENER (to have), HAY (there is/are), Possessive adjectives. Vocabulary related to house, family, animals, clothes, weather. Muy - Mucho (many - much), Time, Weather. Days of the week, months, seasons. Verbs ending in -AR, Direct Object. Verbs ending in -ER, Indirect Object. Verbs ending in -IR, Verb IR (irregular verb "to go"). Irregular verbs, Infinite verbs (future construction), Reflexive verbs. Present Continuous Tense, Comparatives, Superlatives. Verb GUSTAR ('to like'), Pronominal verbs, Expressing Opinions. Verbal periphrases, Direct and Indirect object, Possessive pronouns. Pronouns with prepositions, Ordinal numbers, Expressing obligation

Unit 2 Indefinite adjectives and pronouns, Giving advice, Speaking about plans. Gradation of adjectives, Introducing Superlative ending in -ISIMO. Adverbs in Comparative and Superlative form, Interrogative Pronouns. Verb + Indefinite, Collective nouns. Imperfect future of indicative, Irregular noun constructions. Imperative verb. Exclamatives: 'Qué' and 'Cuánto', Frequency adverbs, Vocabulary: travel. Imperfect past tense, Verb 'Soler', Relative adjectives, Imperative form of 'nosotros', Giving directions. Indefinite past tense, Periphrases, Relative adjectives with and without preposition, Media and communication. Emphatic adjectives and adverbs, Relative pronouns, Contrast of past tenses, Descriptions. Perfect past tense, Irregular participles,

Conjunctions: ‘Ya’; ‘aún’ ; ‘todavía’, Environment. Pluperfect tense, Future perfect tense, adverbs, hospitality. Imperfect vs. Indefinite past tenses, Shopping

Course Outcome	**Description: After the completion of the course the students will be able- - -**
CO1	1 Develop beginner level reading, writing and speaking skills in Spanish language
CO2	2 Provide a foundation for students to undertake intermediate and higher level course in Spanish language
CO3	3 Develop intercultural competence and acquire fluency with Spanish scripts.
CO4	4 Improve employability skills.

Course Content : Great Icons

Unit Content

Unit 1 Socio-economic and cultural life of India, with special reference to West Bengal, before and after the Renaissance in the nineteenth century

Unit 2 Life of Kadambini Ganguly - the first lady doctor from Bengal. The scenario of the gender bias in erstwhile Bengal

Unit 3 Life and works of Rabindranath Tagore. His contributions to literature, Swadeshi movement and in popularising science

Unit 4 Life of Dr. Mahendralal Sarkar. Establishment of Indian Association for Cultivation of Science. Contribution to Homoeopathy treatment. Superstitions in Bengali society, and the role of science and technology in advancement in the nineteenth century

Unit 5 Life and works of Acharya Jagadish Chandra Bose. Investigation of Radio Microwave. Invention of Crescograph to demonstrate stimuli of plants.

Unit 6 Life, struggle and Kazi Nazrul Islam. Literary contributions and role in the Indian Independence movement. Use of literature and journalism to create consciousness and spirit of rebellion among the masses.

Course Outcome	**Description: After the completion of the course the students will be able- - -**
CO1	1 Develop knowledge of socio-economic and cultural scenario of Bengal and the role of Renaissance to modernize the thoughts of Bengali society
CO2	2 Inspire the students for gender equality and gender sensitization through struggles of Kadambini Ganguly against the skewed gender bias of the nineteenth century
CO3	3 Develop scientific temper and inspire students to spread awareness against the malaise of superstitions
CO4	4 Create awareness about the role of literature and journalism in creating political and socio-economic consciousness among people
CO5	5 Instill fervour of patriotism and socialism among the students through the writings of Kazi Nazrul Islam