ST. ALOYSIUS' COLLEGE

AUTONOMOUS
JABALPUR- 482001
MADHYA PRADESH, INDIA

CRITERION-1
CURRICULAR ASPECTS

Key Indicator – 1.1

Curriculum Design and Development

Metric No.: 1.1.2

The programmes offered by the institution focus on Employability/ Entrepreneurship/ Skill Development and their course syllabi are adequately revised to incorporate contemporary requirements

Document Name

Topics Included in Programme Curriculum Focusing
on
Employability, Entrepreneurship and Skill Development

FACULTY OF SCIENCE	
CHEMISTRY	
EMPLOYABILITY	• Measurement of pH of different solutions of acids, and alkalies using a pH- meter (may use aerated drinks, fruit juices, shampoos and soaps) • Measurement of the pH of buffer solutions and comparisons of the values with theoretical values • Differential Calculus • Integral calculus • Elementary Differential equations • Permutation and Probability • Sample Preparation for Chromatography • Conductometry • pH metry • Spectrophotometery • Potentiometry
ENTREPRENEURSHIP	• Determination of acetic acid in commercial vinegar using NaOH • Determination of alkali content- antacid tablet using HCl • Estimation of calcium content in chalk as calcium oxalate by permagnatometry • Estimation of hardness of water by EDTA • Basic structure of a computer • Programme Development Process Algorithm, Flowchart, Decision-table, elements of high level • Programming languages. Input-output statements, conditional statements, control structure • Concept of data file, file operations like searching, storing, with reference to C/ C++ Programming

SKILL DEVELOPMENT	- Preparation of buffer solutions and determination of their pH and buffer capacity - Mathematics for Chemists - Computer for Chemists - Introduction to computer, Introduction to operating systems like DOS, Windows, Linus, and Ubuntu. Use - of Computer Programs - Chromatography - Polarography - Conductometry - Electro analytical techniques Voltammetry - Statistical Analysis .Emphasis should be placed on numerical problems. Significant figures. Accuracy and precision - Chromatography
MATHEMATICS	
EMPLOYABILITY	- Theorems on consistency and inconsistency of a system of linear equations - Solving linear equations up to three unknowns - Vector Integration - Gauss theorem (without proof) and problems based on it - Stoke theorem (without proof) and problems based on it - Taylor's theorem for functions of two variables - Jacobians - Maxima and Minima of functions of two variables - Extension Field and its theorem - Roots of Polynomials, Remainder theorem - Cauchy's Integral formula for the derivative of an analytic function - Inverse Laplace Transform - The Fourier Transform

	• Bivariate interpolation • Numerical differentiation • Logical Operators bit-manipulation operators Bitwise assignment operators, size of operators, Conditional operators • Extrapolation methods • Richardson's Extrapolation • Wavelet Series. Scaling Functions and Wavelets: Multi resolution analysis • Poisson's Summation formula • Orthogonal Wavelets
ENTREPRENEURSHIP	• Inventory • Transportation
SKILL DEVELOPMENT	• Echelon and Normal Form of Matrix • Characteristic Equations of a Matrix • Partial Differentiation • Reduction formulae • Rectification • Cyclic groups • Fundamental theorem of homomorphism • Truth Table • Properties of Boolean Algebra • Switching Circuits • Interpolation and Numerical Integration Matrix representation of a graph • Sequences and series of functions • Extension of the Cauchy's Theorem • Inverse Laplace Transform of Derivatives, Convolution theorem • Parseval's identity • Introduction, Common Programming Error

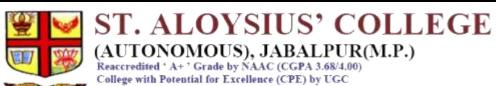|	
	• Program testing and debugging
	• Program Efficiency. File management in C: Introduction, defining a file, closing a file, input/output operation on files, error handling during I/O operation
	• Utilities problem
	• Chinese postman problem
	• Boundary value problems, Initial Value Problem
	• Finite difference methods
	• Fuzzy equivalence relation, Fuzzy compatibility relation
	• Transportation models
BIOTECHNOLOGY	
EMPLOYABILITY	• Principle and application of Light Microscopy, Centrifugation, Chromatography (Paper and Thin Layer), Colorimeter and spectrophotometer.
	• Polymerase Chain Reaction and qPCR, Labeling nucleic acids and blotting techniques (Southern, Northern, Western, Zooblot), DNA Sequencing, DNA Fingerprinting
	• Applications of recombinant DNA technologies- Agriculture, Medicine, health Bioprocess technology
	• Basic principles in bioprocess technology and media Formulation;
	• Sterilization; Thermal death kinetics
	• Batch and continuous sterilization systems; Primary and secondary metabolites; Extracellular enzymes
	• Biotechnologically important intracellular products; exopolymers
	• Isolation of genomic DNA from Bacteria
	• PCR amplification
	• Isolation of plasmid DNA
	• Restriction digestion of bacterial DNA
	• Preparation of media for plant culture

	• Surface sterilization
	• Embryo culture
	• Callus propagation
	• Protoplast isolation
ENTREPRENEURSHIP	• Microbial, Immunological Techniques and Vaccination: Microbial Techniques, Principle,
	• Working and applications of instruments –Laminar airflow, Autoclave, Hot air oven.
	• Immunological techniques: RIA, ELISA, Western blotting. Principles of Precipitation
	• Agglutination, Immunodiffusion, Immunoelectrophoretic Techniques and Applications
	• Enzyme detection, hybridization, PCR, Gene probe technology
	• Strategies for controlling pathogen transfer; Biopesticides in integrated pest management
	• Searching PubMed, Introduction to NCBI, NCBI databases
	• Multiple sequence alignment, Primer designing, Phylogenetic Analysis
	• Sequence information resource: Understanding and use of various web resources: EMBL, Genbank, Entrez, Unigene
	• Protein information resource (PIR)
	• Understanding and using: PDB, Swissport, TREMBL
	• Using various BLAST and interpretation of results
	• Blood film preparation and identification of cells
	• Lymphoid organs and their microscopic organization
	• Double diffusion assay
	• Immuno-electrophoresis
	• Radial Immuno diffusion
	• Dot ELISA
	• Blood smear identification of leucocytes by Giemsa stain

	• Separation of leucocytes by dextran method
	• Separation of mononuclear cells by Ficoll-Hypaque
	• Application of Software: Latex (Writing Paper, Thesis, Report, and Bibliography)
	• SPSS
SKILL DEVELOPMENT	• Techniques of enzyme isolation, purification, and enzyme assay, techniques used for the immobilization of enzymes,
	• Applications of immobilized enzymes in Biotechnology
	• Bioprocess control and monitoring variables such as temperature, agitation, pressure, pH
	• Microbial processes production, optimization, screening
	• Strain improvement, factors affecting downstream processing and recovery
	• Representative examples of ethanol, organic acids, antibiotics
	• Isolation of genomic DNA
	• Isolation of Plasmid DNA.
	• Visualization of DNA using EtBr
	• Electrophoresis of DNA-linear, circular, and supercoiled plasmid.
	• Isolation of DNA from Tissue/Blood/Microorganism
	• Plasmid restriction map.
	• Quantification of DNA using UV/VIS spectrophotometer
	• Effect of UV on microbial/plant cells
	• Computation of various measures of dispersion by using Excel
	• Student's 't' test, 'F' and ' chi' square test
	• Pubmed
	• BLAST
	• Database- NCBI
	• Preparation of single cell suspension from spleen and thymus
	• Cell counting and cell viability

	- Macrophage monolayer from PEC, and measurement of phagocytic activity - Trypsinization of monolayer and sub-culturing - MTT assay for cell viability and growth - Data Analysis: Data Preparation – Univariate analysis (frequency tables, bar charts, pie charts, percentages) - Bivariate analysis – Cross tabulations and Chi-square test including testing hypothesis of association - Ethics: concept, ethical principles in research, importance of ethics in research, Plagiarism: Concept, - Types, Importance, means to avoid Plagiarism and Plagiarism Checkers
PHYSICS	
EMPLOYABILITY	- Principles and construction of dynamo - A.C and D.C motor, construction and working of single-phase motor - Manufacturing of series lighting - Study of safety measures and tools - Solar panel maintenance - Basic knowledge - Study of switches, fuse, and power source
ENTREPRENEURSHIP	- General idea about construction, working principle, and measurement of Battery charger- circuit and different components - Filter circuit and voltage regulator- TL and 7 types filter circuits, IC voltage regulator - Emergency Torch- Miniature lamp type, Farmer Torch. - Oven and Tandoor-Oven, Tandoor maker, microwave oven. - Electric Toaster- Ordinary, sandwich. Popup and Automatic. - Coffee Maker- Coffee percolator, electric coffee Mug/Stirrer - Principles and construction of dynamo - A.C and D.C motor, construction and working of single-phase motor

	• Manufacturing of series lighting
	• Study about safety measure and tools
	• Solar panel maintenance - Basic knowledge
	• Study of switches, a fuse and a power source
SKILL DEVELOPMENT	• Fan repairing and its study
	• Mixer repair and its study
	• Geyser repair and its study
	• Cooler repair and its study
	• Invertor repairing and its study
	• Electrical iron repair and its study
	• Electric kettle repair and its study
	• Induction cooker repair and its study
	• Water purifier repair and its study
	• DSolve, Map, Part, With, Block, Module, Replace(/.), Conditional commands (Piecewise)
	• Use of the commands: Import and Export. Importing data into a notebook from a file with 'xls', 'txt', and 'dat' extensions. Import of images in 'jpeg' format
	• Exporting data from a notebook into a file with 'xls', 'txt', and 'dat' extension
	• Exporting of images in 'jpeg' format
	• Application of Kirchhoff's Voltage Law and Current Law to electrical meshes (Use of Simultaneous Equations/Matrices)
	• Charging and Discharging in an R-C Circuit
	• Study of Charging and Discharging in circuits with inductors, capacitors, and resistors
	• Nuclear Forces (Comparison of Yukawa Potential, Exponential Potential, Gaussian
	• Potential and Hard-Core Potential)

- Radioactive Decay and Half-Life

- Richardson Dushman equation

- Generation of Cornu's Spiral

- Plot of the intensity – distance curve for a straight edge, Fraunhoferdiffraction at a single slit, Fresnel diffraction at a single slit

- Fermi-Dirac Distribution of Metals,

- Specific Heat of Solids in the Debye Approximation

- Frequency Response of LCR circuits

- Random walk

- Simulation of the diffraction patterns for (1) a straight edge, (2) Fraunhofer diffraction at a single slit, (3) Fresnel diffraction at a single slit

- Simulation of Newton rings for reflected light

- Energy density/ distribution of energy of Free Electrons in Metals

- Numerical solution to the Diffusion/heat equation

- The Planck formula for blackbody radiation

- Phase Plot of a Chaotic non-linear circuit

- Study of the phase plots of a nonlinear simple pendulum

- Multimeter- Testing, Checking of components and measurement

- of Resistance. Inductance, Capictance, Diode, Transistor

- Voltage (AC/DC) current and checking of continuity of a given circuit

- Verification of Ohm's law

- Study of resistances in series, parallel, and series-parallel

- Study of voltage sources in series, parallel and series-parallel

- Determination of e.m.f. of a thermocouple

- Determination of efficiency of electrical cattle with variable voltages

ZOOLOGY	
EMPLOYABILITY	• Physiology of Digestion

	• Regulation and disorders with special reference to Gastrointestinal and constipation
	• Study of museum specimens and slides relevant to the invertebrates
	• Economic importance of Invertebrates/Insects
	• Fish culture wsr Mono and Poly/ Mixed/ Composite Fish culture
	• Fresh Water Prawn Culture and its prospects in India
	• Culture of Oysters
	• Water pollution, its effects on fisheries, and methods of its abatement
	• Common fish diseases and their control
	• Biochemical composition and nutritional value of fishes
	• Nutrigenomics and immune function in fishes
	• Aquaculture: history, definition, scope & importance
	• Inland Fisheries resources of MP- wsr Narmada
	• Riverine fisheries- Ecology and Fishes of Major River Systems wsr Ganga, Brahmaputra, East coast river system, Godavari and Cauvery River system
	• Cold water fisheries in India
	• Coastal fisheries in India
	• General ecological characteristics of reservoirs in India
	• Earthworm-digestive system, Nervous system, Reproductive system
ENTREPRENEURSHIP	• Prawn Culture
	• Aquarium fishes –Types and characteristics, Breeding of aquarium Fishes
	• Different types of crafts and gears in fisheries
	• Frog culture
	• Integrated fish culture
	• Paddy cum fish culture
	• Sewage-fed fish culture
	• Brackish water culture

	• Cage Culture • Pearl culture and Pearl industry
SKILL DEVELOPMENT	• Examination of pond water for the study of different kinds of microscopic non-chordate organisms • Setting and management of freshwater aquarium • Freshwater fish farm Engineering: Selection of site, soil chemistry of fish farm, designing the fish farm, Layout & construction of fish farm • Dissection (Demonstration Only -Through YouTube Video or Models or Charts)

BOTANY

EMPLOYABILITY	• Replica Plating • Motility testing of bacterial isolates • KOH mount preparation • Fluorescent Microscopy • Demonstration of Gel electro-phoresis • Preparation of herbal pesticides
ENTREPRENEURSHIP	• Preparation of Fermented pickles
SKILL DEVELOPMENT	• Isolation of genomic DNA from bacteria • Effect of oxidative stress on bacterial growth • Effect of Mutagens on bacterial growth • Generation of DNA Barcodes for medicinal plants • Microbiology at home: Study on Milk samples, packaged food, preserved food, Normal Flora • Isolation of microflora from nature: water bodies • Additives and food preservatives used in food processing • Antagonistic activity of fungi • Soap survey to check effectiveness w.r.t. bacteria • Isolation of genomic DNA from fungus • Isolation of microorganisms from dairy products

	• Isolation of *Trichoderma* from soil
	• Isolation of microbes from fermented products
	• Study of heavy metal toxicity on microbial diversity
	• Identification of embryonated chick eggs
COMPUTER SCIENCE	
EMPLOYABILITY	• Data Analytics
	• Data Storage and Analysis
	• Grid Computing, Volunteer Computing
	• Web analytics
	• Hadoop
	• Data format, analyzing data with Hadoop, scaling out, Hadoop streaming, Hadoop pipes
	• Design of Hadoop distributed file system (HDFS), HDFS concepts
	• Java interface, data flow, Hadoop I/O, data integrity, compression, serialization, Avro, file, based data structures
	• Security as a Service: benefits of security as a service, concerns with security as a service
	• Security service providers, IdMaaS, attributes of IdMaaS providers
	• Cloud Certifications and Audits: certifications, cloud audit framework, cloud auditing requirements
	• Application Security in the Cloud: Cloud application SDLC, cloud service reports by providers, application security in IaaS, PaaS and SaaS environments
	• Mobile Cloud Computing (MCC): Architecture of MCC, benefits of MCC, MCC challenges
ENTREPRENEURSHIP	• Servlet: Servlet API, Servlet interface, GenericServlet class, HttpServlet class
	• Life Cycle of a Servlet

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DST-FIST Supported & Star College Scheme by DBT.

- ServletRequest Interface, RequestDispatcher interface, ServletConfig Interface
- ServletContext Interface, cookies, hidden form field, HttpSession
- Data Access with Servlets: Connecting to a Database, Retrieving Data
- JSP Overview: JSP- Life Cycle: JSP Compilation, JSP Initialization, JSP Execution, JSP Cleanup
- JSP Syntax: The Scriptlet, JSP Declarations, JSP Expression, JSP Comments, JSP Directives, JSP Actions
- JSP Implicit Objects, Control Flow Statements, Decision-Making Statements, Loop Statements
- JSP Operators, JSP Literals, JSP Directives
- JSP- Client Request: The HttpServletRequest Object, HTTP Header Request Example
- JSP- Server Response: The HttpServletResponse Object, HTTP Header Response Example
- JSP Form Processing: GET method, POST method, Reading Form Data using JSP
- Cloud Computing and Business Value: key drivers for CC, CC and outsourcing
- Types of scalability, use of load balancers to enhance scalability, variable operating costs using CC, time-to-market benefits of CC, distribution over the internet, levels of business values from CC
- Cloud Types and Models: private cloud, public cloud, hybrid cloud
- Open Source Cloud Implementation and Administration: Eucalyptus& OpenStack cloud architectures, CSB (158) Recent Trends in Cloud Computing and Standards: conflicts of interest for public cloud and IT product providers
- BYOD and encryption exposures, cloud standards, cloud ratings
- Host Security in the Cloud: security for virtualization products, host security for SaaS, PaaS, IaaS

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	• Data Security in the Cloud: challenges with cloud data and data security
	• Data confidentiality and encryption, data availability, data integrity, CSGs
	• Cloud application requirements
	• SOA for cloud applications
	• Adoption and Use of Cloud by Small and Medium Businesses: place of adoption, benefits, adoption phases, vendor roles and responsibilities, selection phases, provider liability, provider capabilities
	• Success factors for CC Adoption process of public clouds by enterprises
	• Cloud migration techniques
	• Phases during the migration of an application to the cloud
	• IT Service Management for Cloud Computing: ITIL-based service management, service strategy, service design, service transition, service operations, continual service improvement
SKILL DEVELOPMENT	• Introduction of Java, Applet Class: Life Cycle of an Applet
	• The Applet Tag and their attributes, Passing Parameters to an Applet
	• Graphics in Applet. AWT: Event Handling: Event Handling Mechanism the Delegation Event Model
	• Event Classes, Sources of Events
	• Event Listener Interfaces
	• Java Database Connectivity (JDBC): Introduction, JDBC Driver, DB Connectivity steps, Connectivity with Oracle
	• MySQL and MS Access, Connection Interface, Statement Interface, ResultSet Interface
	• Hbase, data model and implementations, HBase clients, Hbase examples, praxis
	• Cassandra, Cassandra data model, Cassandra examples, Cassandra clients, Hadoop integration

	• Pig, Grunt, pig data model, Pig Latin, developing and testing Pig Latin scripts
	• Hive, data types and file formats, HiveQL data definition, HiveQL data manipulation, HiveQL queries, Case Study
FACULTY OF ARTS	
ENGLISH	
EMPLOYABILITY	• Creating Poetry: Problems in Writing Poetry
	• Parameters of poetry Imagination and other Contemporary Issues
	• Subjectivity, Objectivity Negativity
	• Resilience Language
	• Vocabulary and Other Essential Elements
ENTREPRENEURSHIP	• Status and role of English in the era of globalization
	• English for Business
	• Purpose and functions of English for Business Collocation
	• Editing and proof-reading Copy Editing
	• Communication in a Multicultural World
	• Impact of Globalization and Multicultural Communication
	• Cross-Cultural Communication Problems
SKILL DEVELOPMENT	• Applied Drama: Problems and Prospects
	• Difference between comedy
	• Tragedy and tragicomedy: Theme, plot, diction, characters, comic, elements, stage and costumes
	• Dialogue, action, conflict, and mood of the audience
	• Rising and falling action and climax
	• Basic Language Skills
	• Vocabulary Building: Suffix, Prefix, Synonyms, Antonyms, Homophones, Homonyms and One-word substitution
	• Basic Grammar: Noun, Pronoun, Adjective, Verb, Adverb, Prepositions, Articles, Time and Tense

	• Drafting C.V.
	• Organs of Speech
	• Delivering the Presentation
	• Developing Listening Skills: Hearing vs Listening's
	• Barriers to Listening
ECONOMICS	
EMPLOYABILITY	• Employment Oriented Schemes in Madhya Pradesh
	• Role of Self Help Groups and voluntary organizations
	• Profit- Meaning and Nature, Knight's Theory and Schumpeterian
	• Theory of Profit
	• Research Report
	• Provision of Urban Amenities in Rural Areas (PURA)
	• Mahatma Gandhi National Rural Employment Guarantee ACT 2005
	• Swarnjayanti Gram Swarojgar Yojna (SGSY)
	• Modernization of employment in organized private industry
	• Public sector and employment in the agricultural sector
	• Employment policy in Five Year Plans and its evaluation
	• Non-agricultural rural activities
ENTREPRENEURSHIP	• Start Up India
	• Make in India
	• Aatm Nirbhar Bharat
	• Mudra Yojana
	• MNREGA
	• Investment
	• Indian Institute of Entrepreneurship (IIE)
	• Meaning and Phases of Trade cycle
	• Economic status, private property, and participation of women in pre-industrial and industrial societies
	• Cottage and small-scale industries

SKILL DEVELOPMENT	- Data Collection- Primary and Secondary data - Index Number- Meaning, Characteristics, Importance, Uses, - Limitations and Problems - Probability- Definition and Concept - Introduction of Internet Banking and Retail Banking - Application of Minima and Maxima in Economics - Physical Quality of Life Index (PQLI) - Hypothesis: Meaning, Types and Utility, Testing of Hypothesis - Skill Productivity, Efficiency

HINDI

EMPLOYABILITY	- माध्यमगत स्थापत्य संरचना। - मीडिया स्वामित्व और प्रबंधन। - प्रबंधन नियंत्रण कौशल। - मीडिया ट्रेडमार्क प्रबंधन। - मीडिया संस्थानों की समस्याएं: राजनीतिक, आर्थिक, प्रशासनिक दबाव, यथार्थ और चुनौतियां। - राजभाषा हिंदी की संवैधानिक स्थिति। - विज्ञापन: अर्थ, परिभाषा एवं विशेषताएं। - विज्ञापन का उद्देश्य, आवश्यकता एवं महत्त्व । - विज्ञापन और व्यापार का संबंध । - विज्ञापन का इतिहास और विकास। - विज्ञापन के विविध माध्यम। - मुद्रण माध्यम समाचार पत्र, पत्रिकाएं।

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	• श्रव्य माध्यम रेडियो, एफ. एम. रेडियो, मुनादी।
	• दृश्य श्रव्य माध्यम टी.बी. इंटरनेट, मोबाइल, सोशल मीडिया, ई-विज्ञापन।
	• अन्य माध्यम होर्डिंग, पोस्टर, बैनर, पर्चे, स्टीकर, प्रदर्शनी आदि।
ENTREPRENEURSHIP	• सिनेमा निर्माण की प्रक्रिया: पटकथा एवं संवाद
	• सिने माध्यम की भाषा की प्रकृति एवं संरचना।
	• कहानी लेखन (STORY WRITING)
	• पटकथा लेखन की प्रक्रिया।
	• सिने संवाद लेखन।
	• फिल्म निर्देशन के प्रमुख तत्व।
	• अभिनय के आधारभूत सिद्धान्त एवं प्रकार।
	• गीत एवं संगीत नियोजन।
	• सृजन की सामूहिकता।
	• स्थल चयन एवं सेट निर्माण। रूप सज्जा।
	• छायांकन एवं एनिमेशन का संयोजन।
	• ध्वनि एवं प्रकाश नियोजन, डबिंग, सम्पादन ।
	• व्यावसायिक पत्र- अर्थ स्वरूप एवं विशेषताएँ ।
	• वाणिज्यिक पत्र- अर्थ स्वरूप एवं विशेषताएँ ।
	• पूछताछ सम्बन्धी पत्र शिकायती पत्र निविदा सूचना कोटेशन बिल प्रारूप।
	• प्रतिलिपि लेखन एवं विज्ञापन संरचना।
	• संक्षेपण और पल्लवन : अर्थ, स्वरूप एवं विशेषताएँ ।

	• संक्षेपण : अर्थ, स्वरूप, विशेषताएँ एवं प्रक्रिया।
	• पल्लवन : अर्थ, स्वरूप, विशेषताएँ एवं प्रक्रिया ।
	• प्रशासनिक एवं कार्यालयीन पत्रों का अनुवाद।
	• प्रबंधन और पूंजी नियोजन, जनसंचार माध्यमों का अर्थशास्त्र।
	• प्रबंधन विभाग, नीतियां और कियान्वयन, मीडिया-प्रबंधन कार्य एवं दायित्व।
	• विदेशी पूँजी निवेश और पत्रकारिता के बदलते मापदंड।
	• प्रायोजित कार्यक्रमों का गणित।
	• छात्र व्यावसायिक कर कटौती, माल और सेवाकर, आयकर, भविष्य निधि और बीमा।
	• सेवा रिकॉर्ड, वित्तीय और कानूनी रिकॉर्ड से संबंधित कार्यालय द्वारा संधारित किये जाने वाले विशेष रिकॉर्डस।
SKILL DEVELOPMENT	• बैठक का कार्यवृत्त।
	• समाचार लेखन।
	• हिंदी में उपलब्ध सॉफ्टवेयर एवं विभिन्न की-बोर्ड, देवनागरी लिपि के विविध फोण्ट्स, यूनिकोड, हिंदी स्लाइड,पी.पी.टी., पोस्टर निर्माण, स्पीच टू टेक्स्ट एवं टेक्स्ट टू स्पीच, हिंदी शॉर्टहैंड का परिचय।
	• हिंदी से संबंधित वेबसाइट, ईमेल, इंटरनेट पर उपलब्ध पत्र - पत्रिकाएँ, दृश्य श्रव्य सामग्री, ई पुस्तकालय, सरकारी तथा गैर सरकारी चैनल, आभासी कक्षाएं।
	• पत्र-लेखन और प्रकार ।

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Reaccredited ' A+ ' Grade by NAAC (CGPA 3.68/4.00)
College with Potential for Excellence (CPE) by UGC
DST-FIST Supported & Star College Scheme by DBT.

- कार्यालयी पत्रों का स्वरूप व महत्व । कार्यालयी पत्र लेखन प्रविधि : विभिन्न अंग व चरण।

- आवेदन पत्र लेखन।

- कार्यालयी शब्दावली एवं अनुप्रयोग ।

- कार्यालयी पत्र- प्रारूपण-लेखन व विशेषताएँ ।

- टिप्पण ज्ञापन परिपत्र आदेश अधिसूचना ।

- प्रेस विज्ञप्ति व प्रतिवेदन ।

- बैठक का कार्यवृत, समाचार लेखन

- हिन्दी के विभिन्न की बोर्ड, सॉफ्टवेयर, यूनीकोड, टेक्स्ट टू स्पीच एंड स्पीच टू टेक्स्ट।

- इन्टरनेट पर हिन्दी भाषा।

- वेब डिजायनिंग में हिन्दी भाषा।

- वेब डिजायनिंग में हिन्दी का अनुप्रयोग, पी.पी.टी. स्लाइड एवं पोस्टर निर्माण।

- अनुवाद के सिद्धांत और समस्याएं।

- अनुवाद विज्ञान और भाषाः स्रोतभाषा एवं लक्ष्य भाषा।

- अनुवाद की प्रविधिः विभिन्न चरण-विश्लेषण, अंतरण एवं पुनर्गठन।

- अनुवाद के भेद: शाब्दिक अनुवाद, भावानुवाद, छायानुवाद, सारानुवाद, आशु अनुवाद, मशीनी अनुवाद।

- दुभाषियाः प्रविधि एवं भाषान्तरण: दुभाषिया (इंटरप्रीटर) की अर्हता व गुण।

	• माइक्रोसॉफ्ट वर्ड पर हिन्दी में कार्य करने का अभ्यास ।
	• माइक्रोसॉफ्ट एक्सेल में टेबुलेशन/वर्कशीट तैयार करना ।
	• माइक्रोसफ्ट पावरपाइंट पर हिन्दी में स्लाइड बनाकर प्रस्तुतीकरण करना।
	• यूनीकोड तकनीक का परिचय, हिंदी यूनीकोड फॉण्ट के प्रचलित प्रकारों का परिचय।
	• यूनीकोड फॉण्ट के माध्यम से हिंदी में टंकण करने का अभ्यास।
	• इंटरनेट मीडिया एवं वेब तकनीक- इंटरनेट मीडिया एवं वेब तकनीक।
	• वेब पत्रकारिता एवं सोशल मीडिया।
	• वेबसाइट : परिचय एवं प्रमुख अंग।
	• वेब पेज : परिचय एवं प्रमुख अंग।
	• हिन्दी की प्रमुख वेबसाइट एवं वेब पेज।
	• ब्लॉग, वेब पोर्टल एवं डिजिटल पत्र/पत्रिकाएँ-
	• ब्लॉग : परिचय, प्रमुख अंग एवं निर्माण की प्रक्रिया।
	• वेब पोर्टल : परिचय, प्रमुख अंग एवं निर्माण की प्रक्रिया।
	• डिजिटल पत्र/पत्रिकाएँ : परिचय एवं तकनीक।
	• हिन्दी के प्रमुख ब्लॉग एवं वेब पोर्टल|
	• हिन्दी की प्रमुख डिजिटल पत्र/पत्रिकाएँ।
HISTORY	
EMPLOYABILITY	• The ethics of Indian valor
	• Gupta Culture, Gupta Period: Golden Age Gupta-Vakataka Relations
	• Shakari Vikramaditya And His Cultural Achievements

	• Decline of Gupta Empire. Huna Invasion And its Impact
	• Pushyabhuti Dynasty. Harshvardhan - Military Campaigns
	• Administration and Religious Achievements
	• Khilji Dynasty: Jalaluddin and Allauddin Khilji, His Conquests, Administration and Reforms
	• Tughlaq Dynasty: Mohammad Bin Tughlaq and Firoz Shah Tughlaq- Their Achievements
	• Saint Tradition in India. Guru Nanak, Kabir, Tulsi Das, Meera Bai
	• Role of Women in freedom Struggle – LaxmiBai, AwantiBai, Jhalkari Bai
	• Indian Renaissance, Socio-Religious Movements- Raja Ram Mohan Roy and Brahma Samaj
	• Status of Women
SKILL DEVELOPMENT	• Evolution of language and Script: Brahmi, Kharoshiti, Pali, Prakrit, Sanskrit, etc
	• Cripps Mission, Simla Conference, Cabinet Mission, Subhash Chandra Bose and the INA
	• Communal Politics and the partition of India
	• Indian Independence Act 1947
	• Integration of Indian princely states
	• Main features of the Indian Constitution.
	• Architecture of Sultanate Period
POLITICAL SCIENCE	
EMPLOYABILITY	• State Finance Commission
	• State Election Commission
	• Municipal Corporation
	• Municipality
	• Town Panchayat
	• Township

	- Cantonment - Employment–MGNREGA–Entrepreneurship - Empowerment - Union Public Service Commission - Parliament and its working - Single Index Model: Portfolio total risk - Portfolio market risk and unique risk - Sharpe's optimization solution
ENTREPRENEURSHIP	- Meaning, Significance, Dimensions, Organization and Functions of NGO - Regulatory Mechanism at Central and State level Government over NGOs - Sources of Finances of NGOs, Expenditure - Account and Audit of NGOs - Self-Help Group Women - Entrepreneurial Process and Decision Making: Entrepreneurial ecosystem, Ideation - Development and exploitation of opportunities; Negotiation, decision-making process, and approaches - Effectuation and Causation - Introduction to business models - Creating value propositions-conventional industry logic, value innovation logic - Customer-focused innovation; building and analyzing business models - Entrepreneurial Development Programme relevance and achievements, the role of Government in organizing such programmes - Critical Evaluation - Pattern identification and recognition for venture creation: prototype and exemplar model

	• Reverse engineering
	• Evolution of Organisation
	• Sources and selection of venture finance options and its managerial implications
	• Introduction to Entrepreneurship: Entrepreneurs
	• Entrepreneurial personality and intentions, characteristics, traits and behavioral
SKILL DEVELOPMENT	• Mass Media
	• Leadership- Types, Roles, Style
	• Personality Traits, Functions, Performance
	• Campaigns, Opinion Polls, Exit Polls
	• T.V., Radio and Politics in India
	• Information and Communication Technology
	• Budgetary Process in India; Budget- Making
	• Budget- Enactment and Budget- Implementation
	• Agencies involved in Budgetary Process
FACULTY OF COMMERCE AND MANAGEMENT	
COMMERCE	
EMPLOYABILITY	• e-Filing of return
	• Computerized Accounting & generating report
	• Procedure to open and close bank accounts
	• Digital Advertising in India
	• Major tools of sales promotion
	• Digital Marketing & Viral Marketing
	• Job Interviews, Mock Interviews and CV, E-mail, Video Conferencing
	• Merchant Banking in India
	• Listing procedure and legal requirements of Companies
	• Job and Contract Costing

	• Functions of Stockbrokers
	• Procedure of PAN Card and its Obligation
	• E-banking and e-trading
	• Money and capital markets
	• Future of merchant banking in India
	• Salesmanship
	• Qualities and Functions of Project Manager, Rights and Responsibilities of a project manager
	• Marketing of financial, hospitality, hospital, tourism and educational services
ENTREPRENEURSHIP	• Computerized Accounting & generating reports
	• Final Account, Choice of Suitable Form of Organization
	• Importance of Elasticity of Demand
	• Consumer Equilibrium, Efficiency of Labor
	• The practice of quick calculation of addition, multiplication, division
	• Procedure to apply for house loan, personal loan, education loan and commercial loan
	• Claim filing
	• Insurance proposal to policy, procedure, and settlement of claims
	• Social Media Advertising, Salesmanship, Indian Contracts Act 1872
	• Limited Liability Partnership Act, 2008, Liquidation of company
	• Calculation of Commission, Discount and Brokerage, Concurrent Audit
	• Segmentation and positioning
	• Retailing and Wholesaling
	• Sales promotion- tools and techniques
	• Project Formulation: Pre-feasibility Study
	• Project Feasibility Analysis: Market Analysis, Technical Analysis, Financial Analysis, Economic Analysis

	- EXIM policy - Liberalization, Privatization and Globalization - Entrepreneurial challenges - Innovation and Entrepreneurship - Introduction to lean startups - Service Market Segmentation - Product planning for global markets - International logistic decisions - New Product Development - Management of international brands - Packaging labeling
SKILL DEVELOPMENT	- Functions of Business and Steps to Start an Enterprise - Portfolio Consultants, Registration under GST - Make or Buy and Shutdown decision - Prevention of corruption act 1988 and information technology act 2000 - Print Media, Broadcasting Media, Non-Media Advertising - Marketing strategies for Internet, mobile, telephone, debit/ credit card services - Filling and Filing of ITR Forms - Commission
MANAGEMENT	
EMPLOYABILITY	- Computerized Accounting software (cloud books, wave and Tally) - Job Analysis - Job Description - Job Specification - Recruitment, Selection, Induction, Placement, Promotion, And Transfer - Advertising

	• Publicity
	• Selling, Sales Promotion and Public Relations
	• Financial Services
	• Health Services
	• Hospitality Services
	• Human Resource and Development for workers
	• Role of trade unions
	• Employee coaching
	• Counselling and performance management
	• Career management and development
ENTREPRENEURSHIP	• Planning for Start-ups
	• Scope of Statistics in Management and Industry
	• Wage & Salary Administration
	• Job Evaluation & Designing
	• Salary Structure
	• Financial Institutions: Commercial banking introduction, its role in project finance and working capital finance
	• Development Financial Institutions (DFIs) - An overview and role in the Indian economy
	• Mutual Funds
	• Finance Decision
	• Investment decisions
	• Working capital decisions
	• Dividend decisions
	• Online Marketing and Advertisement, Online
	• Interactive Retailing
	• E-Commerce--Business Models: B2B, B2C, C2C, B2 Government,
	• Government to Government
	• Meaning and nature of inventory

	- Purpose and benefit of holding inventory - Risk and cost of holding inventories - Objectives of inventory management - Tools and techniques of inventory management
SKILL DEVELOPMENT	- Business Correspondence - Essentials of effective Business Correspondence - Structure of Business Letter - Types of Business Letter- Enquiry, Reply, Orders, Complaints, Circular Letter. Principles of clear business writing - Preparation of Final Accounts: Trading Account, Profit and Loss Account, Balance Sheet - Preparation of EMI Chart - Questionnaire designing, Design attitude measurement techniques - Scaling techniques - Digital Marketing Channels - Creating Initial Digital Marketing Plan - Prepaid E-payment systems - Post—paid E-payment systems - E-Cash or Digital Cash - E-Cheque - Credit cards - Smart Debit Cards - Emerging Trends in Indian Capital Market - Depositories and script less trading Book - Building, Stock Lending Scheme - Rolling Settlement - Green Shoe Option - Responsibilities and code of conduct for portfolio manager

	• Service marketing – Introduction, growth of service sector, concept, characteristics, • Classification of service designing, and marketing of services