Viswambhara Educational Society

Ph: 0870-2455188
Fax: 0870-2455542

VAAGDEVI DEGREE & P.G COLLEGE

(Approved by A.I.C.T.E, NEW DELHI & Affiliated to Kakatiya University)

#2-2-457/A,Kishanpura,HANAMKONDA-506001,Warangal,T.S.

www.vaagdevicolleges.com,E-mail:a.schalam213@gmail.com

DEPARTMENT OF BOTANY

S.No	PAPER	NUMBER	COURSE OUTCOME
01	**SEMESTER -I**TITLE: **MICROBIAL DIVERSITY OF LOWER PLANTS**	**CO1**	To gain knowledge about microbial diversity
		CO2	To have the ability to utilize the concept of mushroom cultivation.
		CO3	To understand the phylogeny of plants.
		CO4	To know about various plant diseases and their control measures.
		CO5	To understand life cycles of different algal species.
		CO6	To explore economic importance of algae & fungi.
		CO7	To know the evolution of sporophytes in bryophytes.
		CO8	To understand the stelar evolution and seed formation habit in pteridophytes.
02	**SEMESTER -II** TITLE: **GYMNOSPERMS, TAXONOMY OF ANGIOSPERMS ANDECOLOGY**	**CO1**	To gain knowledge about life cycles of gymnosperm plants.
		CO2	To explain about fossils and fossilization.
		CO3	To understand about geological time scale.
		CO4	To recognize the major groups of vascular plants and their phylogenetic relationships.
		CO5	To gain proficiency in the use of keys and identification manuals to identify any unknown plants to species level.
		CO6	To understand ecological relationships between organisms and their environment.
		CO7	To identify diversity of life forms in an ecosystem.
		CO8	To understand the role that biodiversity plays in conservation science.
		CO9	To gain knowledge about life cycles of gymnosperm plants.

03	**SEMESTER -III** **TITLE:**	**CO1**	To gain knowledge of plant cells, tissues and their functions.

	PLANT ANATOMY AND EMBRYOLOGY	**CO2**	To make connections between plant anatomy and the other major disciplines of biology.
		CO3	To identify and compare structural differences among different taxa of vascular plants.
		CO4	To know the structure and development of monocot and dicot embryos.
		CO5	To compare the function and morphology of pollen grains.
		CO6	Describe and illustrate modern and fossil spores and pollen grains.
04	**SEMESTER -IVTITLE: CELL BIOLOGY, GENETICS &PLANT PHYSIOLOGY**	**CO1**	To explain the structure of Cell components and their functions.
		CO2	To describe cell division in plants.
		CO3	To have knowledge of the nature and function of genes, processes of inheritance.
		CO4	To describe linkage, crossing over and mutations.
		CO5	To understand plant physiological processes and metabolism.
		CO6	To explain the role of micro nutrients in plant growth and development.
		CO7	To relate photosynthesis with the formation of primary and secondary metabolites.
		CO8	To clarify the mechanism and breaking of dormancy.
05	**SEMESTER -V TITLE: BIODIVERSITY & CONSERVATION**	**CO1**	To have the knowledge of elements of environment.
		CO2	To understand the importance of Climatic factors like light, temperature, in related to growth of plant.
		CO3	To know how to conserve the threatened plants in environment.
06	**SEMESTER –VITITLE: TISSUE CULTUREAND BIOTECHNOLOGY.**	**CO1**	To explain the main techniques of in vitro culture of plant cells & tissues.
		CO2	To know the methods used for the bio-production of plant secondary metabolites.
		CO3	To know the main techniques of genetic manipulation of plant organisms.
		CO4	To Know the Process of various metabolic activities in plant body
		CO5	To know about various methods in tissue culture
		CO6	To know the importance of tissue culture and biotechnology

S.No	PAPER	NUMBER	COURSE OUTCOME
		CO7	To know the applications of biotechnology.

DEPARTMENT OF CHEMISTRY

S.No	PAPER	NUMBER	COURSE OUTCOME
1	CHEMICAL BONDING	C01	To know about the Ionic solids, Lattice energy and solubility of Ionic solids.
		C02	To know about the Fajan's rule, polarity and polarizability of ions .
		C03	To know about Hybidization, Shapes of molecules and Molecular Orbital Theory.
2	P-BLOCK ELEMENTS 1	C01	To know about the Diborans, Boran Nitrogen Compounds
		C02	To know about the Carbides and Silicones
		C03	To gain the knowledge on Nitrides, Reactivity-hydrolysis, Reactions of hydrazine, hydroxyl amine and phosphazenes.
3	STRUCTURAL THEORY IN ORGANIC CHEMISTRY	C01	To acquire the knowledge on Bond polarization, Applications of inductive effect
		C02	To know about stability of Carbo cations, Carbanions and free radicals.
		C03	To gain knowledge on Hyper conjugation and its applications.
4	ATOMIC STRUCTURE AND ELEMENTARY QUANTUM MECHANICS	CO1	To know about Black body Radiation,Heatcapacities of solids
		CO2	To gain knowledge about photoelectric effect,Compton effect,Debroglies Hypothesis
5	ISOMERISM	CO1	To know about classification of Isomers,Representation of Stereoisomers
		CO2	To gain knowledge on conformational and configurational Isomers
6	CHEMISTY OF D-BLOCK ELEMENTS	CO1	To know about the characteristic Properties of d-block elements
		CO2	To gain knowledge about the comparision of

			Ti,Cr,Cu Triads
7	CARBONYL COMPOUNDS	CO1	To know the Physical and chemical properties of aldehydes and ketones
		CO2	To differentiate the aldehydes and ketones based on reaction with Tollens,Fehlings Reagents
8	ELECTROCHEMISTRY	CO1	To know the conduction in metals and electrolytic solutions,Types of Conductances
		CO2	To acquire knowledge on migration of ions & kohlraush law,Debye-Huckel onsagar equation,Transport number
		CO3	To gain knowledge on Electrolytic & Galvanic cells,EMF,Types of Reversible Electrodes
9	DILUTE SOLUTIONS & COLLEGIATIVE PROPERTIES	CO1	To know about Dilute solutions,Relative lowering of vapour pressure,Osmotic pressure
		CO2	To gain knowledge on Elevation in boiling point & Depression in freezing point
10	COORDINATION COMPOUNDS	CO1	To know the simple inorganic molecules & coordination complexes,Nomenclature-IUPAC Rules,Coordination no,Types of Ligands
		CO2	To gain knowledge on Werner theory,Valence bond theory,Crystal field Theory
		CO3	To know about isomerism in coordination compounds
11	AMINES,CYANIDES & ISOCYANIDES	CO1	To know the classification of Amines,Preparation methods of Amines
		CO2	Hinsberg separation method of Amines,Diazonium salts Preparation& Properties
		CO3	To gain knowledge on preparation and properties of cyanides and Isocyanides

12	THERMODYNAMICS	C01	To know about First law of Thermodynamics,Thermodynamic quantities,sign convention problem on first Law
		C02	To gain knowledge on Heat capacities at constant pressure & volume
		C03	To know about Second law of

			Thermodynamics,Carnot theorm,Carnot cycle
		CO4	To know about Entropy,Enthalphy changes,Gibbs equations and Maxwell Relations
13	CHROMATOGRAPHY	**C01**	To know about solvent Extraction,Classification of Chromatographic methods
		C02	To gain knowledge briefly about Thin Layer ,Column,Paper chromatographic Techniques
		C03	To acquire knowledge about Ion Exchange,Gas,High Performance Liquid Chromatography Techniques
14	MEDICINAL CHEMISTRY	**C01**	To know about Diseases,Terminology in medicinal Chemistry,Drugs,ADME
		CO2	To gain knowledge on Enzymes and Receptors
		CO3	To acquire Knowledge on Synthetic and Therapeutic Activity of Drugs

DEPARTMENT OF COMMERCE

S.No	Year / Semester	Subject/Course	Subject/Course Outcome
01	B.Com I Year / I Semester	Financial accounting I	To understand the importance of accounting and preparation of final accounts
02		Business Organisation and Management	To understand the importance and types of Business organisation and the principles of management.
03		Fundamentals of Information Technology	To understand the generations of computer technology and introduction to Microsoft Windows
04	B.Com I Year/II Semester	Business Law	To understand the concepts of Business Law, and the provisions relating to Companies Management
05		Financial accounting II	To understand the accounting procedure of different types of business organizations such as consignment and Joint Ventures etc.
06	B.Com II Year/III Semester	Advanced accounting	To understand the Accounting procedure in the companies and

			valuation of goodwill and shares
07		Business statistics	To understand the basic statistical concepts such as measures of central tendency and measures of dispersion and Correlation
08		Income Tax	To understand the Indian Income Tax act and Valuation of Income of an Assessee.
09		Entrepreneur Development and Business Ethics	To understand the characteristics of an entrepreneur, types of entrepreneurs and the various business ethics.
10	B.Com II Year/IV Semester	Business Statistics	To understand the statistical tools like regression, index numbers and probability
11		Corporate Accounting	To understand the accounting procedure of corporate entities.
12		Income Tax	To understand the valuation of income of an Assessee under five heads as per Income Tax Act, 1961.
13		Auditing	To understand the importance of auditing. Vouching, detecting and rectification of errors, valuation of assets and liabilities.
14	B.Com III Year/V Semester	Business Laws	To understand the development of Business Laws , Intellectual Property Rights
15		Banking Theory and Practice	To understand the development of Banking System in India and functions of commercial and central bank.
16		Computerised Accounting	To understand the maintenance of accounts in accounting software such as Tally.
17		Cost Accounting	To understand the importance of Cost Accounting in the industries and different types of cost determination.
18		Consumerism	To understand the rights of the consumer and protection

			mechanism for consumer rights.
19		Organizational Behaviour	To understand the groups and the behaviour of groups in an organisation. Group dynamics, group conflict management, personality and its traits.
20	B.Com III Year/VI Semester	Commerce Lab	To have a practical exposure to the various components and concepts of commerce.
21		Tax Planning and Management	To understand the importance of tax planning and tax management.
22		Company law	To understand the Company Law 2013. Formation and Management of Companies.
23		Financial Institutions and Markets	To understand the role of Financial Institution and Markets in the development of Indian Economy and structure of Indian Financial System.
24		Managerial Accounting	To understand the importance of usage of Accounts for the managerial decisions. Cash Flow, Funds Flow statements.
25		Preparation of Tax Returns	To understand the PAN Card, E Filing etc.
26		Advertisement	To understand the role of advertisement in the economy.. Preparation of Advertisement copy. Influence of Advertisement on sales of an organisation.
27		Human Resource Management	To understand the importance of human resource for the organisation development and training, recruitment

DEPARTMENT OF PHYSICS

Sl.NO	PAPER	Number	Course outcome
1	MECHANICS	CO1	To understand the uses of vector calculus in the field of physics by studying Gauss's divergence theorem , Stoke's theorem & Green's theorem.
		CO2	To know about concepts of mechanics of particles & Rigid bodies.
		CO3	To gain knowledge on concepts of central forces
		CO4	To gain knowledge of relativity, Galilean & Lorentz transformations, concept of four vector formalism.
2	WAVES AND OSCILLATIONS	CO1	To acquire the knowledge of fundamentals of vibrations, Simple Harmonic Oscillator- equation & it's solution, Lissajous figures etc.
		CO2	To Know the concept and applications of Damped Oscillator and coupled oscillator.
		CO3	To gain the knowledge of vibrations on strings, overtones, energy transport, transverse impedance.
		CO4	To understand the concepts of vibrations of bars.
3	THERMAL PHYSICS	CO1	To understand the concepts of Kinetic Theory Gases, Transport phenomena, basic laws of thermodynamics.
		CO2	To acquire the knowledge of thermodynamic potentials and Maxwell's equations, concepts of low temperature physics.
		CO3	To acquire the knowledge of the Quantum theory of Radiation, pyroheliometers.
		CO4	To understand the concepts of Statistical Mechanics, Maxwell-Boltzmann, Bose-Einstein, Fermi-Dirac Statistics.
4	OPTICS	CO1	To understand the concepts of Interference of Light by studying Interference phenomena.
		CO2	To acquire the knowledge of concepts of Diffraction phenomena.
		CO3	To understand the concepts of Polarization of light.
		CO4	To gain the knowledge of the concepts of Aberrations.

5	ELECTROMAGNETISM	CO1	To have the knowledge of concepts of electric field ,electric flux, Gauss's law and it's applications, concept of electric potential etc.
		CO2	The know the concepts of magnetic field and magnetic flux, Biot-Savart's law and it's applications, Ampere's law and applications etc.
		CO3	To have the knowledge of Faraday's laws of electromagnetic Induction, Lenz's law, concepts of self induction and mutual induction.
		CO4	To understand the Maxwell's electromagnetic wave equations in free spce & dielectric medium, Transverse nature of Electromagnetic waves. Polarization of Electromagnetic waves etc.
6	SOLID STATE PHYSICS	CO1	To gain the knowledge on crystal structures and crystal systems, Lattice vibrations, theories of specific heat of solids.
		CO2	To know about concepts of magnetic properties of matter and dielectric properties of solids.
		CO3	To understand the concept of band theory of solids, classification of solids , Hall effect and it's uses.
		CO4	To gain the knowledge on Lasers, construction, working principle and uses, concepts of Superconductivity and uses of superconductors.
7	MODERN PHYSICS	CO1	To acquire knowledge regarding the concept of black body radiation, photoelectric effect, atomic spectra, Bohr's model and Somerfield's model.
		CO2	To know the concepts of dual nature of matter, matter waves, Heisenberg uncertainty principle and applications.
		CO3	To Acquire the knowledge about concept of nucleus, nature of nuclear forces and nuclear models.
		CO4	To Know the concept of radioactive materials, half life , mean life, types of decay, nuclear reactions and elementary particles.
8	BASIC ELECTRONICS	CO1	To understand the concepts of Network elements and network theorems.
		CO2	To acquire the knowledge on Band theory of P-N junction diodes and uses of junction diode.
		CO3	To understand the concepts of bipolar junction transistor,

			uses of BJTs.
		CO4	To Understand the concept of Binary number system, Decimal, Hexadecimal Number system, Boolean algebra, Logic gates , De-Morgan's theorems.
9	WAVES & OPTICS	CO1	To gain the knowledge of vibrations on strings, overtones, energy transport, transverse impedance. The concepts of vibrations of bars.
		CO2	To understand the concepts of Interference of Light by studying Interference phenomena.
		CO3	To acquire the knowledge of concepts of Diffraction phenomena.
		CO4	To understand the concepts of Polarization of light.
10	ELECTROMAGN ETIC THEORY	CO1	To have the knowledge of concepts of electric field ,electric flux, Gauss's law and it's applications, concept of electric potential etc.
		CO2	The know the concepts of magnetic field and magnetic flux, Biot-Savart's law and it's applications, Ampere's law and applications etc.
		CO3	To have the knowledge of Faraday's laws of electromagnetic Induction, Lenz's law, concepts of self induction and mutual induction. To understand the Maxwell's electromagnetic wave equations in free space & dielectric medium, Transverse nature of Electromagnetic waves. Polarization of Electromagnetic waves etc.
		CO4	To understand the concepts of varying currents, To understand the concepts of Network elements and network theorems.

Program objectives and Course out comes

COURSE TITLE	COURSE CODE	COURSE OUTCOMES
Microcontrollers and Applications	BS 605-ELE	**CO1:** To understand and analyze the basic architecture of microcontroller. Functioning of each pin of controller and onchip memory port organization

CO2: To understand in writing a program using various addressing modes and to know the accessing of memory using various instructions

CO3: To understand utilization of various addressing modes and instructions in writing programs

CO4: to understand the basic requirements for the interfacing of external devices and to develop program for embedded system aplications |

DEPARTMENT OF TELUGU

Sl.No	PAPER	Number	Course outcome
1	DHARMJUNIVAKCHATURYAM.	CO1	Mahabharata visheshalu
		CO2	Tikkana natakeeyata,
		CO3	Parichina Telugu padabandalu
		CO4	Parichina kavitvam
2	GUNANIDHIKATHA.	CO1	Sreenadhuni kavitvam
		CO2	Puruni prdhanyata
		CO3	Vidya radhanyata
		CO4	Chatuvulu
3	NARASIHASATAKAM	CO1	Satakam viseshaalu
		CO2	Dhariamsalu
		CO3	Neeti visheshalu
		CO4	Bhakthi visheshalu
4	ARDHARATRI ARUNODAYA	CO1	Vachana kavitvam visheshalu
		CO2	Telagana samajikamsalu
		CO3	Naijam palana
		CO4	Rajakarla duscharyalu
5	NIVURUTOLAGINANIPPU	CO1	Katha sahityam visheshalu
		CO2	Patrowchityam
		CO3	Atmavisvasam, pattudala

		CO4	Jrutagyatabhavam
6	CHALICHEEMALU	C01	Natakavisheshalu
		CO2	Gramarajikeeyalu
		CO3	Devalayam aastulu
		CO4	Gramasarpanch adhikara durviniyogam.
7	ALANKARALU CHANDASSU	CO1	Sabdalankaravisheshalu
		CO2	Sabdalankararadhanyata
		CO3	Parichina chadovisheshalu
		CO4	Aadhunika geyachandassu , mutyala saarlu.

DEPARTMEN OF ZOOLOGY

Sl.No	PAPER	NUMBER	COURSE OUTCOME
1	ANIMAL DIVERSITY-INVERTEBRATES (PROTOZOA,PORIFERA)	CO1	To acquire the knowledge of microscopic living organismsGenral charecters& classification of the animals, and the comparision,origin and evolution of cell and acellular
		CO2	To the knowledge acquire about the invertebrates Diseases (viral,bacterial fungal helmenths protozoal)
		CO3	To the know cells and spicules coral,and coralreef formation bio-indicators vectors regeneration and symmetry
		CO4	To acquire the knowledge of Economic importance of invertebrates
2	ANIMALPHYSIOLOGY AND ANIMAL	CO1	To know the Homeostasis and Osmoregulation Hormone regulation of blood glucose levels in human being
		CO2	To gain knowledge about Digestive,Respiratory,Circulaory Nervous& Reproductive ..system of vertebrates

	BEHAVIOUR	CO3	To know the Endocrine system,glands-Structure Secretions and functions
		CO4	To know the Animal behavior Learninig&memory biological rhythms
3	PHYSIOLOGY AND	CO1	To know the Homeostasis and Osmoregulation Hormone regulation of blood glucose levels in

	BIOCHEMISTRY		human being marine and fresh water Animals
		CO2	To gain knowledge about Digestive,Respiratory,Circulaory Nervous& Reproductive ..system of vertebrates
		CO3	To know about Recombinant DNA technology,stem cells types and their applications
		CO4	To know the Endocrine system,glands-Structure Secretions and functions
4	APPLIED ZOOLOGY	CO1	To know the types of fisheries,culture. Induced breeding .transportation of fish &prawn
		CO2	To know the life cycle of Bombyx mori, Structure of gland & secretion of silk
		CO3	To know the Apiculture bee keeping equipment. Methods of extraction ofHoney
		CO4	To know the classification of fowls based on their use-Broilers and Commercial layers.
5	ANIMAL DIVERSITY-VERTEBRATES (HEMICHORDATA, PROTOCHORDATA & CEPHALOCHORDATE)	CO1	To acquire the knowledge of General characters & classification of the animals, and the comparision origin and evolution vertebrates
		CO2	To know the General characters &classification of vertebrates
		CO3	To gain knowledge about Digestive, Respiratory, Circulatory Nervous& Reproductive system of vertebrates
		CO4	To acquire the knowledge of Economic importance of vertebrates
6	CELL BIOLOGY, GENETICS AND DEVELOPMENTAL BIOLOGY	CO1	To gain knowledge regarding of the unit of life that is cell, cell structure types, cell functions, various organelles of the cell and their function's structure
		CO2	To gain knowledge about DNA, RNA –types structure &functions which is very useful at molecular level of genes in various aspects of life quality of genetical characters and forensic method of the living organisms
		CO3	To Acquire the knowledge about Genetical aspects

		CO4	To acquire the knowledge of the development of male and female (oogenesis and spermatogenesis) reproductive organs emdroy the fertilization methodsto develop with new genetically combinations leading to new varieties
7	IMMUNOLOGY AND ANIMAL BIOTECHNOLOGY	CO1	To know about immune system-types structure ,function & Antigen-antibody reactions.
		CO2	
		CO3	To know about Cloning,cloning methods,vectors
		CO4	To know the Vaccines-types and their reactions
			To know about Recombinant DNA technology,stem cells types and their applications
8	AQUATIC BIOLOGY	CO1	To acquire the knowledge of fresh water & marain water
		CO2	To acquire the knowledge of Origin and classification of lakes. Lake as an Ecosystem& Lake morphometry
		CO3	To know the oceanic pelagic zone, marine benthic zone.
		CO4	To know the Aquatic pollution salinity and density of sea water,

DEPARTMENT OF COMPUTERS

Sl.No.	Course Code	Course Name	Course Outcomes
1	CSC 111	COMPUTER FUNDAMENTALS AND PHOTOSHOP	CO-1: The student is able to explore the basic knowledge of computer hardware and software. CO-2: The student is able to learn and work on adobe Photoshop applications. CO-3: The student is able to create and edit photo albums. CO-4: The student is able to design and edit Banners and visiting cards etc..

2	CSC112	PROGRAMMING IN C	**CO-1**. Appreciate and understand the working of a digital computer **CO-2.** Analyse a given problem and develop an algorithm to solve the problem **CO-3.** Use the 'C' language constructs in the right way **CO-4.** Design, develop and test programs written in 'C'
3	CSC103	OBJECT ORIENTED PROGRAMMING USING JAVA	**CO-1.** Understand the concept and underlying principles of Object-Oriented Programming **CO-2.** Understand how object-oriented concepts are incorporated into the Java programming language **CO-3.** Develop problem-solving and programming skills using OOP concept **CO-4.** Become familiar with the fundamentals and acquire programming skills in the Java language.
4	CSC104	DATA STRUCTURES	**CO-1.**student knows how arrays, records, linked structures, stacks, queues, trees, and graphs are represented in memory and its applications **CO-2.** Write programs that use arrays, records, linked structures, stacks, queues, trees, and graphs **CO-3.** Compare and contrast the benefits of dynamic and static data structures implementations **CO-4.** Describe the concept of recursion, give examples of its use, describe how it can be implemented using a stack.

			CO-5. Discuss the computational efficiency of the principal algorithms for sorting, searching, and hashing.
5	CSC105	DATABASE MANAGEMENT SYSTEMS	**CO-1.**Student knows database structure and its design **CO-2**. Students are able to understand Different data models used for database design **CO-3.** Students are able to understand database transactions and data recovery **CO-4.** Students canuse DML,DDL,DCL commands to manipulate data in the database
6	CSC121	SOFTWARE ENGINEERING	**CO-1**.Ability to gather and specify requirements of the software projects. **CO-2**.Ability to analyse software requirements with existing tools **CO-3**.Able to differentiate different testing methodologies and apply the basic project management practices in real life projects **CO-4**.Ability to work in a team as well as independently on software projects

7	CSC115	OPERATING SYSTEMS	**CO-1.** Analyse the concepts of processes in operating system and illustration of the scheduling of processor for a given problem instance. **CO-2.** Identify the dead lock situation and provide appropriate solution so that protection and security of the operating system is also maintained. **CO-3.** Analyse memory management techniques, concepts of virtual memory and disk scheduling. **CO-4.** Understand the implementation of file systems and directories along with the interfacing of IO devices with the operating system.
8	CSC122	COMPUTER NETWORKS	**CO-1.** Identify the different components in a Communication System and their respective roles. **CO-2.** Describe the technical issues related to the local Area Networks **CO-3.** Knows about different topologies and network types **CO-4.** Identify the common technologies available in establishing LAN infrastructure.

9	CSC106	GUI PROGRAMMING	**CO1.**Design and develop Windows application using different Windows technologies that use a variety of GUI controls and classes to fulfill specific user requirements. **CO2.**Explain how event driven applications use threading to perform time-consuming operations. **CO3.**Demonstrate how to use specific features of the GUI programming language to write objectoriented programs and handle run-time errors. **CO4.**Explain in a public setting how user interfaces should be designed to accommodate human physiology and limitations.
10	CSC116	WEB TECHNOLOGIES	**CO-1**. To understand the web architecture and web services. **CO-2**. To practice latest web technologies and tools by conducting experiments. **CO-3**. To design interactive web pages using HTML and Style sheets. **CO-4**. To study the framework and building blocks of .NET Integrated Development Environment. **CO-5**. To provide solutions by identifying and formulating IT related problems.
11	CSC118	FOUNDATION OF DATA SCIENCE	**CO-1**.Able to apply fundamental algorithmic ideas to process data. **CO-2**.Learn to apply hypotheses and data into actionable predictions. **CO-3**.Document and transfer the results and effectively communicate the findings using visualization techniques.

12	CSC119	BIG DATA	**CO-1**. Learn tips and tricks for Big Data use cases and solutions. **CO-2**. Learn to build and maintain reliable, scalable, distributed systems with Apache Hadoop. **CO-1.** Able to apply Hadoop ecosystem components.

DEPARTMENT OF ENGLISH

PROGRAMME OUTCOMES

The following are the expected Programme Outcomes of UG courses from Department of English at Government Degree College Narsampet, Warangal District, Telangana State.

[A] Critical Close Reading

An ability to read critically the prescribed texts and understand its broader implications. This

includes:

- Read closely in a variety of forms, styles, structures, and modes.
- Use of various interpretative techniques.

[B] Critical Thinking

An ability to think critically on various issues and subject matters and relate the same with real life situations.

This includes the ability to:

- Synthesize and integrate knowledge.
- Practice and develop argumentative skills.
- In-depth study of the subject matter.

[C] Integration of Knowledge:

Demonstrate detailed knowledge in one or more disciplines and the ability to integrate knowledge across disciplinary boundaries.

This includes the ability to:
- Study the current state of knowledge.
- Multi-disciplinary learning ability.
- Show familiarity with works from other disciplines.

[D] Communication Skill

Demonstrate the ability to extract and convey information accurately in a variety of formats. This includes:

- An ability to adjust writing style appropriately to the content, the context, and nature of the subject.
- Ability to communicate ideas logically.
- Write clearly and effectively in a variety of forms, adapting writing and analytical skills to all situations

[E] Research Aptitude

Development of a spirit of critical and scholarly enquiry for the subject.

This includes:
- To identify and evaluate appropriate research sources,
- To incorporating the sources into documented academic writing,
- To formulate original arguments in response to those sources.
- To apply appropriate research methodologies to specific problems

[F] Role as a Global Citizen

A critical understanding about the ways of the world and realization of one's role within communities to effect change.

This includes the ability to:
- Demonstration of intercultural awareness.
- To understand the meaning of cultural globalization in true sense.
- Collaborate respectfully with others, individually and in teams.
- Maintain highest ethical standard in personal life.
- ☐

The students of Undergraduate are further

- ➢ Developing intellectual, personal and professional abilities through effective communicative skills; ensuring high standard of behavioral attitude through literary subjects and shaping the students socially responsible citizens.

- ➢ To enhance employability of the students by developing their linguistic competence and communicative skills

➢ Students should be able to develop their intellectual, personal and professional abilities. Students should acquire basic language skills, such as Listening, Speaking, Reading and Writing.

PROGRAMME SPECIFIC OUTCOMES

➢ On successful completion of the Programme, the students will be accurate both in oral and written communication as they will be strong in Grammar and its usage.

➢ They can express a thorough command of English and its linguistic Structures.

➢ They can apply critical frameworks to analyze the linguistic, cultural and historical background of texts written in English.

➢ They will be familiar with the conventions of diverse textual genres including fiction, non-fiction, poetry, autobiography, biography, Journal, film, plays, editorials etc.

➢ To enable students to understand the passage by silent reading
➢ To learn phonetics and proper intonation

DEPARTMENT OF ENGLISH - COURSE OUTCOMES w.e.f. 2020-21

S. No.	Semester	Course	Credits	Course Outcome
1	I	English for Advancement	4	➢ Students can enjoy all the essays and improves literary skills ➢ Students can learn all the grammar skills
2	II	English for Advancement	4	➢ Students will be able to improve comprehensive skills as well as advanced grammar skills ➢ Students can understand the values of literature
3	III	English for Excellence	3	➢ The text contains Gender studies focusing on achieving gender equaliity, geder roles and violence against women. ➢ Students will also be able to make use of grammar and soft skills when they face competitive exams
4	IV	English for Excellence	3	➢ The text contains issues of environmental pollution such as renewable and non-renewable resources and its uses, ecosystem and conservation of Biodiversity ➢ Students can improve reported speech, conditionals, common errrors, collocations, etc.
5	V	Communication Skills English through Human Values and Ethics	3	➢ The text contains an anthology of literary pieces of prose and poetry focusing on human values and ethics ➢ The students will be able to enhance their writing skills through note-making, paragraph writing and speaking skills
6	VI	Communication Skills English for Employability Skills	3	➢ The text contains an anthology of literary pieces of prose and poetry focusing on human values and ethics ➢ The students will be able to enhance their writing skills through letter writing, email writing etc.

Course Outcomes (B.Sc.,B.Com)Department of Hindi

	PAPER	Number	Course outcome
			COURSE OUTCOME
1	HINDI PAPER-I	CO1	To develop Hindi Reading & LinguisticComprehension of Students
		CO2	To understand the types of Hindi Short Story articles
		CO3	To understand the Biography of Writers
		CO4	To able to understand the importance of Grammar, Translation and writing skills.
2	HINDI PAPER-II	CO1	To develop Hindi Reading & LinguisticComprehension of Students
		CO2	To understand the types of Hindi Short Story articles
		CO3	To understand the Biography of Writers.
		CO4	To able to understand the importance of Grammar and letter writing.
3	HINDI PAPER-III	CO1	To develop Hindi Reading & LinguisticComprehension of Students
		CO2	To understand about Hindi Literature.
		CO3	To understand about Hindi Literature and about writers & their life history.
		CO4	To understand about personalities of Social , political and literature .
		CO5	To able to understand the importance of Grammarand Essay writing.
4	HINDI PAPER-IV	CO1	To aquire knowledge about the poetry of Meerabai, Rahim & Bihari.
		CO2	To understand about Hindi Literature & writers.
		CO3	To understand the history of Hindi Literature & Biography of Writers.
		CO4	To acquire the knowledge about life history of Hindi poets like Meerabai, Rahim, Bihari, Premchand, Nirala, Mahaveerprasad Dwivedi, Harivansh Rai Bachhan etc.
		CO5	To able to understand the translation from Telegu, English to Hindi and writing skills.

DEPARTMENT OF MATHEMATICS

COURSE OUTCOMES

PAPER-I: DIFFERENTIAL AND INTEGRAL CALCULUS

Sl. No.	Course Code	Course Name	Course Outcomes
1	MAT1	DIFFERENTIAL AND INTEGRAL CALCULUS	1. To enable the students to solve mathematical problems of daily life. We have to select the content and methods of teaching so that the students are able to make use of their learning of mathematics in daily life. 2. To enable the students to understand the contribution of mathematics to the development of culture and civilization. 3. To develop thinking and reasoning power of the students. 4. To prepare a sound foundation needed for various vocations. Mathematics is needed in various professions such as those of engineers, bankers, scientists, accountants, statisticians etc. 5. To prepare the child for further learning in mathematics and the related fields. School mathematics should also aim at preparing him for higher learning in mathematics. 6. To give the child an insight into the relationship of different topics and branches of the subject. 7. To enable the child to understand popular literature. He should be so prepared

			that he finds no handicap in understanding mathematical terms and concepts used in various journals, magazines, newspapers etc. 8. To teach the child the art of economic and creative living. 9. To develop in the child rational and scientific attitude towards life.
2	MAT2	DIFFERENTIAL EQUATIONS	1. To analyze real world scenarios to recognize when ordinary differential equations (ODEs) or systems of ODEs are appropriate, formulate problems about the scenarios, creatively model these scenarios (using technology, if appropriate) in order to solve the problems using multiple approaches, judge if the results are reasonable, and then interpret and clearly communicate the results. 2. To recognize ODEs and system of ODEs concepts that are encountered in the real world, understand and be able to communicate the underlying mathematics involved to help another person gain insight into the situation. 3. To work with ODEs and systems of ODEs in various situations and use correct mathematical terminology, notation, and symbolic processes in order to engage in work, study, and conversation on topics involving ODEs and systems of ODEs with

			colleagues in the field of mathematics, science or engineering.
3	MAT3	REAL ANALYSIS	Upon successful completion of Real Analysis, students will be able to 1. Describe the real line as a complete, ordered field. 2. Determine the basic topological properties of subsets of the real numbers. 3. Use the definitions of convergence as they apply to sequences, series, and functions. 4. Determine the continuity, differentiability, and integrability of functions defined on subsets of the real line. 5. Apply the Mean Value Theorem and the Fundamental Theorem of Calculus to problems in the context of real analysis. 6. Produce rigorous proofs of results that arise in the context of real analysis.
4	MAT4	ABSTRACT ALGEBRA	Upon successful completion of Abstract Algebra, students will be able to 1. Assess properties implied by the definitions of groups and rings. 2. Use various canonical types of groups (including cyclic groups and groups of permutations) and canonical types of rings (including polynomial rings and

			modular rings).
			3. Analyze and demonstrate examples of subgroups, normal subgroups and quotient groups.
			4. Analyze and demonstrate examples of ideals and quotient rings.
			5. Use the concepts of isomorphism and homomorphism for groups and rings.
5	MAT5	LINEAR ALGEBRA	Upon successful completion of Linear Algebra, students will be able to 1. Solve systems of linear equations 2. Analyze vectors in R^n geometrically and algebraically. 3. Recognize the concepts of the terms span, linear independence, basis, and dimension, and apply these concepts to various vector spaces and subspaces. 4. Use matrix algebra and the related matrices to linear transformations, compute and use determinants. 5. Compute and use eigenvectors and eigenvalues. 6. Determine and use orthogonality.
			After studying this course, students should be able 1. To understand geometrical terminology for angles, triangles,

6	MAT6	SOLID GEOMENTRY	quadrilaterals and circles. 2. To measure angles using a protractor. 3. To use geometrical results to determine unknown angles. 4. To recognise line and rotational symmetries. 5. To find the areas of triangles, quadrilaterals and circles and shapes.
7	MAT7	NUMERICAL ANALYSIS	Upon successful completion of Numerical Analysis, a student will be able to 1. Derive numerical methods for approximating the solution of problems of continuous mathematics. 2. Analyze the error incumbent in any such numerical approximation. 3. Implement a variety of numerical algorithms using appropriate technology. 4. Compare the viability of different approaches to the numerical solution of problems arising in roots of solution of non-linear equations, interpolation and approximation, numerical differentiation and integration, solution of linear systems.
			Upon successful completion of Multiple Integrals & Vector Calculus, a student will be compute

8	MAT8	MULTIPLE INTEGRALS AND VECTOR CALCULUS	and analyze
			1. The vector-valued functions of a real variable and their curves and in turn the geometry of such curves including curvature, torsion and the Frenet-Serre frame and intrinsic geometry
			2. Scalar and vector valued functions of 2 and 3 variables and surfaces, and in turn the geometry of surfaces
			3. Gradient vector fields and constructing potentials, Integral curves of vector fields and solving differential equations to find such curves
			4. The differential ideas of divergence, curl, and the Laplacian along with their physical interpretations, using differential forms or tensors to represent derivative operations.
			5. The integral ideas of the functions defined including line, surface and volume integrals - both derivation and calculation in rectangular, cylindrical and spherical coordinate systems and understand the proofs of each instance of the fundamental theorem of calculus.
			6. stepinput functions using the Laplace transform

Department of Business Management

SL.NO	YEAR /SEMESTER	SUBJECT/COURSE	COURSE OUTCOMES
1	MBA I/ I SEM	Management and Organization Theory	CO1: To introduce the concepts of Organisation and Management and understanding of different principles, functions and process of management.
		Accounting for Managers	CO2: To provide basic understanding about Accounting process and to expose latest trends in Corporate Accounting practices
		Statistics for Managers	CO3: To familiarize the students with the statistical techniques popularly used I managerial decision making.
		Information Technology for Managers	CO4: To expose the students the latest trends in Information Technology
		Marketing Management	CO5: To understand the marketing concepts and major decisions involved in marketing management.
		Business Environment	CO6: To understand the nature of business and the influence of the environment.
		Managerial Economics	CO7: To highlight the significance of Managerial Economics in Business Management and managerial Decision making.
2.	MBA-I/II Semester	Human Resource Management	CO1: To understand about the functioning of the Human resource function in an Organization
		Financial Management	CO2: To ensure broad understanding of the concepts, theories, and techniques and functions of Financial management.
		Management Accounting	CO3: To understand the various concepts of cost and management account which are useful for decision making.
		Operations Research	CO4: To understand the various techniques used in the research operations in an Organization.
		Business Research Methodology	CO5: To understand the methods of research with an emphasis on various stages that are necessary to enable well informed decision making.
		Business Ethics	CO6: To understand the ethical issues pertaining to business and implementation of Business Ethics for Sustainable Business.
		Customer Relationship Management	CO7: To understand the various methods and measure to maintain better customer relationships and practice the best methods for effective relationship with customers.
		Organization Behavior	CO1: To understand about the concepts of Organization related to individual and Group behavior
		Strategic Management	CO2: To understand the importance of Strategic Management in decision-making process and also

3	MBA-II/III Semester		to study about various Corporate Level competitive strategies.
		Managerial Communication	CO3: To prepare the students and understand the nature and importance of different forms of communication. It also aims to develop communication skills for organizing their jobs.
		Business Law	CO4: To understand the basic rules of Agreements and Contracts along with the basic Rules of Offer, Acceptance, Consideration, Capacity/Competency to contract & rules governing Consideration in The Indian Contract Act, 1872.
		Human Resource Development	CO5: The kind of work done or initiatives taken into developing human resources may vary from organization to organization depending on its need, nature, size etc.
		Labor Laws	CO6: To elaborate the concept of Industrial Relations. The students should able to illustrate the role of trade union in the industrial setup
		Organisation Development	CO7: To focus on improving an organization's capability through the alignment of strategy, structure, people, rewards, systems, metrics, and management processes.
		Consumer Behaviour	CO5: To have an understanding of the concepts and applications of consumer behavior, understanding of group influences and understand consumer behavior in cultural and contextual environment.
		Advertising & Sales Management	CO6: To understand outline of key marketing concepts and its application to different markets and identify factors and processes essential for designing marketing strategy
		Product & Brand Management	CO7: To understand the Customer Based Brand Equity model in order to build a superior brand and the importance of the brand management processes to take effective branding decisions.
		Security Analysis & Port folioManagement	CO5: To provide theoretical and practical background in the field of investment.
		Indian Financial System	CO6: To determine the need of financial system and describe how and why financial systems work.
		Corporate Taxation & Planning	CO7: To explain different types of incomes and their taxability and expenses and their deductibility.
		Operations Management	CO1: To understand the input–process–output framework, the extensions of it, and apply those to a wide range of operations examine the types of transformation processes occurring within

			operations.
4	MBA-II/IV Semester	International Business	CO2: To focus on the overview of the unique problems faced by firms engaging in international activities; the importance of understanding the foreign economic, social, political, cultural, and legal environment.
		Creativity and Innovations	CO3: To Understand different perspectives on why creativity matters and consider cognitive aspects of creativity and how personality and individual differences might contribute and explore ways in which individuals can enhance their own creative potential.
		Management information system	CO4: To analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions and design, implement and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
		Management of Industrial Relations	CO5: To familiarize with the role of management and unions in the promotions of industrial relations and examine the labor relation issues and its management.
		Compensation Management	CO6: To recognize how pay decisions help the organization achieve a competitive advantage and analyze, integrate, and apply the knowledge to solve compensation related problems in organizations.
		Strategic Human Resource Management	CO7: To understand the role of strategic human resources in the organization, the business skills necessary to contribute to the achievement of organizational goals.
		Services Marketing	CO5: To understand about the importance of Service Marketing and Understand the Seven P's of Services Marketing.
		Rural Marketing	CO6: To understand the need and importance of Rural Marketing, Agricultural Marketing and Rural Marketing Mix Strategies.
		Supply Chain Management	CO7:To understand the fundamentals, elements, functions of supply chain, techniques of Inventory management ,ware housing and logistics Management.
		International financial Management	CO5: To understand the importance of International Financial System, Foreign Exchange Market, International Monetary System and Financial Management of Multinational Firm.
		Strategic Financial	CO6:To understand about the Need of Financial Planning, Estimating of Financial Requirements,

| | | Management | Corporate Acquisitions, Capital Valuation and Corporate Restructuring and reengineering. |
| | | Financial Derivatives | CO7: To understand about the evolution and different types of Derivatives Market. Types of Contracts, Valuation of Options and Financial Derivative Market in India. |

subject	Number	Course Outcomes
C and Data Structures	CO1	Solve problems using various data structures like linea, stack, queue, tress and graphs
Operating System	CO2	Understand Operating System concepts ofOperating S
Java Programming	CO3	Develop reusable programs using the concepts of inhe, polymorphism, interfaces and packages
Computer Networks	CO4	Emphasizes basic principles and topics of fundamenta, importance concerning the technology
Probability and Statistical Methods	CO5	Calculate the expected value of a random variable. Calculate the expected value of a function of a random Express the variance of a random variable
C and DS Lab	CO6	Develop simple real-time applications searching techn, get familiarity of the programming environment.
OS Lab	CO7	Implements various scheduling algorithms available
Java Programming Lab	CO8	Design event driven GUI and web related applications, which mimic the real word scenarios
Python Programming	CO1	Know the usage of Functions, Modules, Packages and Files in Python
Database Management Systems	CO2	Understand about the database management system, design,
Software Engineering	CO3	Understanding of software Functional and non-functio
Cryptography and Network Security	CO4	To understand various block cipher and stream cipher symmetric,public key cryptosystems
Principles and Practice of Management	CO5	To understand about the improtance of management an of management in detail
Python Programming lab	CO6	Perform number crunching using NumPy and Analyse
DBMS Lab	CO7	implements PL/SQL sub programming concepts such procedures,functions,triggers,packages etc
Software Engineering Lab	CO8	Understanding software testing, testing strategies for

Database Management Systems	CO1	Understands about the database management system, design,
Data Communication and Networks	CO2	Understands OSI architecture for transmitting the data
Software Engineering	CO3	Understanding of software Functional and non-functio
Principles and Practices of Management	CO4	To enable them to analyze and understand the environ of the organization.
.NET Programming	CO5	– Emphasizes basic principles and topics Visual Basic .NET- Modules- variables- error handling- Arrays, lists - collections – Files- directories- streams Object serialization - Regular expressions – Threading OBJECT ORIENTED PROGRAMMING concepts
Database Management Systems Laboratory	CO6	implements all kinds of language queries on emp and
Software Engineering Laboratory	CO7	Understanding software testing, testing strategies for
.NET Programming Laboratory	CO8	implements the Features of ADO.NET. Architecture o ADO.NET and creates Forms and Web Forms. and de Data base access in Web Applications like Web Servi Deploying applications.
Data Mining	CO1	understanding Basic Concepts of frequent patterns- Mining methods,Apriori and FP- Growth, Association Classification and Prediction
Unix Network Programming	CO2	Inter-process Communication: Introduction, File and Record Locking, Simple Client- server Pipes FIFO's, Streams and Messages, Name Spaces, System Message Queues, Semaphores, Shared Memory, Socke
Web Technologies	CO3	Develop various types of servlet applications to impler tracking ,dynamic servlets
Mobile Communications	CO4	Understands entities and terminology, IP packet delive agent advertisement and DHCP protocol
Accountancy and Financial Management	CO5	Analyse and solve valuation and investment probler
Unix Network Programming Laboratory	CO6	Implements various system calls and Vi Editing tool
Web Technologies Laboratory	CO7	Develop Web based applications using servlets and JS
Data Mining Laboratory	CO8	UsesWeka tools implement various cluster analysis to

Artificial Intelligence	CO1	Basic understanding of AI, history and the technologic current machines. It talks about the different applicati Gives importance to knowledge representation techni
Cryptography and Network Security	CO2	Understanding of SecuritySerivices,Security and mech
Mobile Application Development	CO3	Develop JDBC application and performs various opera database
Elective - I Cloud Computing	CO4	Understanding Platform as a Service (PaaS),IaaS, Util Overview, Cloud Storage Providers.
Elective – I I E-Commerce	CO5	Explain the process that should be followed in buildin e-commerce presence. Procurement and supply chains e-commerce, security threats in e-commerce.
Mobile Application Development Laboratory	CO6	Understands Commands, Items, and Event Processing User Interfaces, Display Class, Exception Handling . Screen Class, Alert Class, Clipping Regions,Animatic
Cryptography and Network Security Laboratory	CO7	creates Digtial Signature, hashcode using java application programmming
Mini Project Laboratory	CO8	Develop a software product using the Agile methodolo
MAJOR PROJECT WORK	CO1	Students will be able to practice acquired knowledge chosen area of technology for project development.