

GOVERNMENT DEGREE COLLEGE, ADILABAD
TELANGANA STATE
Accredited by NAAC With 'B' Grade

PROGRAMME OUTCOMES (POs)
GENERAL HIGHER EDUCATION PROGRAMS IN INDIA

At the end of graduation, students of all undergraduate general degree programs will be able to

PO1.Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.

PO2.Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.

PO3.Effective Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.

PO4: Effective Citizenship: Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.

PO5: Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.

PO6: Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.

PO7: Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

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PROGRAMME SPECIFIC OUTCOMES (PSO2s)

B. A.

PSO21: Students are able to use correct English in oral as well as written form.

PSO22: The inculcation of human values has resulted into transformation of behavior.

PSO23: Students could interpret the literary works by critical analysis.

PSO24: Students could differentiate the great philosophers using their logic and literary capacity.

PSO25: To increase vision regarding modern political issues.

PSO26: To know the concept and process of globalization.

B. COM.

PSO21: demonstrate a grasp of theory, technically based skills and ethical perspectives relevant to core business areas, including marketing, statistics, financial accounting, management, accounting, finance, economics, information systems, strategic management, organizational behavior, and commercial law.

PSO223: Show basic understanding of subject matter related to marketing, statistics, financial accounting, management accounting, finance, economics, information systems, strategic management, organizational behavior and commercial law.

PSO23: Develop their own principles on models useful in business and commerce.

PSO24: Show the understanding and ability to apply the subject matter in hypothetical situations.

PSO25: Evaluate strengths and weaknesses, solve problems and make recommendations in business and commercial practices.

PSO26: Show ability to influence people and/or organizations in relation to business and commercial practices.

B. Sc

PSO1: The graduates will become successful professionals by demonstrating logical and analytical thinking abilities.

PSO2: The graduates will work and communicate effectively in inter-disciplinary environment, either independently or in a team, and demonstrate leadership qualities.

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PSO3: The graduates will engage in life-long learning and professional development through self-study, continuing education or professional and doctoral level studies.

PSO4: B.Sc Botany, Zoology & Chemistry course enables the students to take up advanced studies in Botany, Zoology & Chemistry.

PSO5: The main goal of a B.Sc degree in any subject is to develop a deeper understanding of natural laws, inquiring about the reasons and logics which govern them through established methods of observation, modelling, experimentation and calculations.

PSO6: This makes B.Sc degree a very important weapon in your arsenal and opens a plethora of opportunities for further studies, research as well as lucrative employment opportunities across the globe.

PSO7: The key advantages that B.Sc graduates have are that of choice.

PSO8: They have a wide range of options available in terms of subjects, topics, fields and other associated as mentioned above to pursue their graduation degree in.

PSO9: B.Sc graduates can opt to join a postgraduate level degree programme in their respective field or subject to pursue further studies.

PSO10: Some students have also been known to opt for non-science master degree programmes like journalism, animation, computer technology, management, hospitality sector and many others as their field of study after completion of their B.Sc graduation.

PSO11: After completing BSc. degree one can get employed in non-scientific sectors in addition to scientific sectors.

PSO12: They can seek out for career in research laboratories, Government corporations, banking and finance sector and so on. Apart from this, science graduates can also find jobs in IT industry, business, BPO, marketing, technical writing and so on.

Study Options after B.Sc Graduation

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COURSE LEARNING OUTCOMES (CLOs)

ENGLISH

General Objectives of I Semester and II Semester

CLO1: Aimed at improving not only the language abilities of students but also their life skills

CLO2: The curriculum offers a comprehensive, holistic package of literature, language skills, grammar, vocabulary, conversation and reading passages to suit the present-day needs of the students.

CLO3: The curriculum is envisaged to be an all-round skill development tool set.

CLO4: It enhances the abilities of learners to face classroom and real-life situations.

General Objectives of III Semester and IV Semester

CLO1: It contains engaging and relevant pieces of literature, followed by extensive and elaborate exercises in language and life skills, presented in a user-friendly manner.

CLO2: It contains selected literary pieces, offering glimpses of life and the world from different perspectives.

CLO3: Passages in the Reading Comprehension section include information about eminent personalities as well as art forms indigenous to Telangana State such as mimicry and the Perini dance form.

CLO4: These are followed by a number of exercises in grammar in each unit.

CLO5: It goes beyond classroom teaching and attempts to help students in coping with real life challenges.

CLO6: It also covers etymology, vocabulary, LSRW skills and communication and soft skills.

CLO7: It is expected that at the end of the course students would be able to better their grasp of the language and increase their level of confidence in day-to-day activities in which English has come to play an integral role.

Course Learning Outcomes of General English

Semester I:

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LO1: read the story “The Old Man at the Bridge” with comprehension

LO2: understand the theme/s and genre of the story

LO3: analyze the story for their structure and meaning, using correct terminology

LO4: discuss and evaluate the scene and outcome of the story

LO5: relate the problem of the main character i.e., old man to problems faced by some others in the society

LO6: understands the democratic principles in the lesson “India and Democracy”

LO7: Identify the two things that Indian society does not have

LO8: distinguishes democracy from other forms of Govt.

LO9: grasp the theme of the poem “The Scribe”;

LO10: appreciate the beauty of the poem;

LO11: recite and memorize the poem

LO12: develop interest in poetry; develop values referred to in the poem

LO13: create interest in reading the play “The Never Never Nest”

LO14: understands and knows the main theme/s i.e., buying things on installments keeps you permanently in debt.

LO15: discuss the disadvantages of buying things on installments

LO16: cultivate social and emotional intelligence

LO 17: develop faster rates of reading and comprehension

LO18 know the elements of language such as grammar, vocabulary, pronunciation etc.

LO19: learn use of articles, prepositions, correct spelling, one-word substitutes, antonyms and read the passage with comprehension and answer the questions about the passage.

Semester II:

LO1: read the story “The Reluctant Philanthropist” with comprehension

LO2: understand the theme/s and genre of the story

LO3: analyze the story for their structure and meaning, using correct terminology

LO4: discuss and evaluate the scene and outcome of the story

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LO5: relate the main theme of the story (i.e., neglect of parents in their old age by their children) to his real life

LO6: understand process and importance of reading books in the lesson "On Reading Books"

LO7: Identify the main responsibilities of the readers

LO8: distinguishes biographies from autobiographies

LO9: grasp the theme of the poem "After Blenheim;

LO10: appreciate the beauty of the poem;

LO11: recite and memorize the poem

LO12: develop interest in poetry; develop values referred to in the poem

LO13: understands and knows the main theme/s i.e., the worthlessness of war

LO14: create interest in reading the play "The Informer"

LO15: develop an understanding about the horror prevalent during World War II.

LO16: develop faster rates of reading and comprehension

LO17: comment on the anti-climax of the play

LO18: know the elements of language such as grammar, vocabulary, pronunciation etc.

LO19: learn use of question tags, phrasal verbs, degrees of comparison, suitable discourse markers, active and passive voice and read the passage with comprehension and answer the questions about the passage.

Semester III:

LO1: read the story "The Touch" with comprehension

LO2: understand the theme/s and genre of the story

LO3: analyze the story for their structure and meaning, using correct terminology

LO4: discuss the issues about the upbringing of a girl child.

LO5: relate the main theme of the story (i.e. Is the sense of helplessness experienced by the father in his old age?)

LO6: Identify the main responsibilities of the children towards their parents

LO7: Gets clear ideas for acquiring knowledge

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LO8: Know about the truthfulness as the key to a pure life

LO9: Understands the role of students in politics

LO10: appreciate the beauty of the poem 'The Bat Messenger'

LO11: recite and memorize the poem

LO12: develop interest in poetry; develop values referred to in the poem

LO13: understands and knows the main theme/s i.e., the pathetic condition of a social outcast

LO14: create interest in reading the play "Ramanujan"

LO15: Sums up the significance of Ramanujan's contribution to the field of mathematics

LO16: develop faster rates of reading and comprehension

LO17: Identify the Ramanujan's achievements in mathematics

LO18: know the elements of language such as grammar, vocabulary, pronunciation etc.

LO19: learn use of suffixes, prefixes, correction of sentences, dialogue writing, making notes expansion of proverbs and writing letters

Semester IV:

LO1: read the story "Arjun" with comprehension

LO2: understand the theme/s and genre of the story

LO3: analyze the story for their structure and meaning, using correct terminology

LO4: discuss the effects of deforestation.

LO5: Understands the saying "Save Tree, Save Earth"

LO6: Identify the main responsibilities of the people towards plantation and deforestation

LO7: Discuss the women's position and role in our culture

LO8: Points out the social codes applicable to widow and those meant for a widower

LO9: Comment on the changes coming up about women in contemporary scenario

LO10: appreciate the beauty of the poem 'Father Returning Home '

LO11: recite and memorize the poem

LO12: develop interest in poetry; develop values referred to in the poem

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LO13: understands and knows the main theme/s i.e., the plight of an old man in a metro city

LO14: create interest in reading the play “Jatra”

LO15: Discuss the disadvantages of the absence of humanism in the society

LO16: develop faster rates of reading and comprehension

LO17: Elucidate their idea of Humanism with reference to the play ‘Jatra’

LO18: know the elements of language such as grammar, vocabulary, pronunciation etc.

LO19: learn use of (simple, Compound, Complex) sentences, Correction of Sentences, E-Correspondence, Description of a person/place, Prepare resume and writing a report on the given idea

HINDI

Semester I:

LO1: read the lessons with comprehension “Utsaha”, Charitra Ka Sanghatan”, “Baazar Darshan”, Bhabhi, Bharath me Sanskriti Sangam and Rashtra ka Swaroop

LO2: understand the theme/s of the lessons

LO3: analyze lessons for their structure and meaning, using correct terminology

LO4: discuss and evaluate the scene and outcome of the lessons

LO5: relate the problem of the main characters

LO6: create interest in reading the non-detailed stories such as “Sadgati”, “Chota Jadugar”, “Praaya Chitt”, “Parada” and “Chief ki Daavat”

LO7: understands and knows the main theme/s of the stories

LO8: cultivate social and emotional intelligence

LO 9: develop faster rates of reading and comprehension

LO10 know the elements of language such as grammar, vocabulary, pronunciation etc.

LO11: learn to rewrite sentences as directed based on correct gender, number, tense, case and voice;

LO12: correct grammatically incorrect sentences; learns the usage of words into sentences

LO13: learns official hindi

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LO1: read the lessons with comprehension such as “Dharti ka Swarga”, “Taayee”, “Ande ke chilke”, “Raajaneetika Bantwara”, “Swami Vivekananda” and “Paryaavaran aur Hum”

LO2: understand the theme/s of the lessons

LO3: analyze lessons for their structure and meaning, using correct terminology

LO4: discuss and evaluate the scene and outcome of the lessons

LO5: relate the problem of the main characters

LO6: create interest in reading the non-detailed stories such as “Dipty Collectory”, “Gadal, Hansoo yaa Roun”, “Wapasi”, “Seva” and “Siliya”

LO7: understands and knows the main theme/s of the stories

LO8: cultivate social and emotional intelligence

LO 9: develop faster rates of reading and comprehension

LO10 know the elements of language such as grammar, vocabulary, pronunciation etc.

LO11: learns Sandhi vichched, antonyms, letter writing etc.

Semester III:

LO1: grasp the theme of the poems “Nava Yuvakonse”, “Phul aur Kaanta”, “Bharath”, “Jeevan ka Adhikar”, “Mera Naya Bachpan”

LO2: appreciate the beauty of the poems

LO3: recite and memorize important lines of poems

LO4: develop interest in poetry; develop values referred to in the poem

LO5: knows and understands the history of Hindi literature from 1050 AD-1700 AD

LO6: reads and understands given essays

LO7: writes essays on various topics

Semester IV:

LO1: grasp the theme of the poems “Bhagvan Buddh ke Prati”, “Ve Muskuraate Phul Nahi”, “Kalam aur Talwar”, “Tu Kyouin Bhaitgaya hi Path Par” and “Anubhav Paripakva”

LO2: appreciate the beauty of the poems

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LO3: recite and memorize important lines of poems

LO4: develop interest in poetry; develop values referred to in the poem

LO5: knows and understands the history of hindi literature from AD 1700-till date

LO6: learns translation English and Telugu to Hindi

TELUGU

Semester I:

LO1: read the story “Yugantham”, and “Enkanna” with comprehension

LO2: understand the theme/s and genre of the story

LO3: analyze the story for their structure and meaning, using correct terminology

LO4: discuss and evaluate the scene and outcome of the story

LO5: relate the problem of the main characters

LO6: grasp the theme of the poems “Shakuntalopakhyanam”, “Godaguchi Katha”, “Tyaga Nirathi”, “Gajendra Moksham”, “Kasulu”, “Raju-Kavi”, “Gangireddu” and “Jaya Bheri”

LO7: appreciate the beauty of the poems;

LO8: recite and memorize important lines from the poems

LO9: develop interest in poetry; develop values referred to in the poem

LO10: create interest in reading the Non-detailed story “Rudrama Devi”

LO11: understands and knows the main theme/s

LO12: discuss the greatness of Rudrama Devi

LO13: cultivate social and emotional intelligence

LO 14: develop faster rates of reading and comprehension

Semester II:

LO1: grasp the theme of the poems “Samvaranudi Tapassu”, “Sreeranga Kshetra Mahima”, “Hanumath Sandesham”, “Subhashitamulu”, “Antarnadam”, “ ‘Pra’panchapadulu”, “Roddu Roler” and “Alvida”

LO2: appreciate the beauty of the poems;

LO3: recite and memorize important lines from the poems

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LO4: develop interest in poetry; develop values referred to in the poem

LO5: reads the lessons "Mamidi Pandu", "Maa Ooru Poindi", and "Ideo Oka Kale-Perulu, Daarulu Gurthunchukovadam"

LO6: understands the main themes of the lessons

LO7: discuss the main points in the lessons

LO8: gives answer to questions on the lessons

LO9: create interest in reading the Non-detailed story "Rudrama Devi"

LO10: understands and knows the main theme/s

LO11: discuss the greatness of Rudrama Devi

LO12: cultivate social and emotional intelligence

LO 13: develop faster rates of reading and comprehension

LO15 know the elements of language such as grammar, vocabulary, pronunciation etc.

LO16: learn use of Sandhulu and Samasaalu

III Semester:

LO1: read the story "Konda Mallelu" with comprehension

LO2: understand the theme/s and genre of the story

LO3: analyze the story for their structure and meaning, using correct terminology

LO4: discuss and evaluate the scene and outcome of the story

LO5: understands the main thematic concerns in the lessons "Ardharatri Arunodayam " and "C.P. Brown Sahitya Seva"

LO6: Identify the main themes of the lessons i.e., Telangana Vimochana Dinam and the contribution of C.P. Brown to Telugu Language and Literature

LO7: grasp the theme of the poems "Dharmajuni Vakchaturyam", "Vibheeshanuni Sharanagati" and "Gunanidhi Katha" from ancient poetry; "Raitu Prashasti", "Gudiselu Kalipotunnai", and "Aarta Geetham" from modern poetry

LO8: appreciate the beauty and figures of speech in the poems;

LO9: recite and memorize important lines of the poems

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LO10: develop interest in poetry; try to inculcate the values referred to in the poem

LO11: create interest in reading the play “Chali Cheemalu”

LO12: understand and discuss and knows the main theme/s

LO13: cultivate social and emotional intelligence

LO14: develop faster rates of reading and comprehension

LO15: know the elements of language such as grammar, vocabulary, pronunciation etc.

IV Semester:

LO1: read the story “Nivuru Tolagina Nippu” with comprehension

LO2: understand the theme/s and genre of the story

LO3: analyze the story for their structure and meaning, using correct terminology

LO4: discuss and evaluate the scene and outcome of the story

LO5: understands the main thematic concerns in the lessons “Mana Grama Naamalu” and

LO6: Identify the main themes of the lessons the story behind the names of many telugu villages

LO7: grasp the theme of the poems “Naarada Ganamatsaryam”, “Vagdhana Bhangam” and “Narasimha Shatakam” from ancient poetry; and “Guru Dakshina”, “Naruda Nenu Naruda Nenu” and “Devarakonda Durgam” from modern poetry

LO8: appreciate the beauty and figures of speech in the poems;

LO9: recite and memorize important lines of the poems

LO10: develop interest in poetry; try to inculcate the values referred to in the poem

LO11: know the elements of language such as grammar, vocabulary, pronunciation etc.

LO12: learn the use of Alankaralu and Chandassu

POLITICAL SCIENCE

I Semester

Paper I: Political Theory

LO 1: Know the definitions, scope and importance of Political Science

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LO 2: Compare Political Science with other social sciences and know the relation between Political and other social sciences

LO 3: develop familiarity with different approaches to study of politic and ability to apply these to political problem and political behavior

LO4: Learn various concepts used in the study of Political Science

LO5: Understand the process of Origin of State: know various theories of Origin of State

II Semester

Paper II: Political Institution

LO1: Get to know the concepts of State, Nation and Civil Society

LO2: Comprehend the concepts and theories of Sovereignty, Monism and Pluralism

LO3: Learn about Liberty, Equality, Rule of Law and Kinds of Rights

LO4: Compare and Contrast various forms of Government such as Democracy, Unitary and Federal etc.

LO5: Get the knowledge of Theory of Separation of Powers between Legislature, Executive and Judiciary

III Semester

Paper III: Indian Constitution and Social Dynamics

LO1: Know about Nationalist Movement and Constitutional Development, Making of Indian Constitution

LO2: Understand the importance of Fundamental Rights and Directive Principles

LO3: Learn about Union Government and the powers and functions of various heads of Government

LO4: Get to know State Government and the powers and functions of various heads of State Government

LO5: Know about Social and Political Movements in India

IV Semester

Paper IV: Indian Political Process

LO1: Understand the relations between Centre and the State Relations and know the Recent Trends in these relations

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LO2: Know about the Local Self-Government in India, Panchayat Raj and Urban Local Bodies

LO3: Learn about Political Process, Political Parties, Pressure Groups, Media etc

LO4: Understand the Electoral Politics, Powers and Functions Election Commission, Voting Behaviour, Electoral Reforms etc.

LO5: Know about and Understand Statutory Commissions for Protection of Rights etc.

III Year

Paper III: Political Thought

LO1: Know about the Ancient Political Thought and Theories of various Thinkers such as Manu, Koutilya, Gautama Buddha etc

LO2: Know about the concepts such Varna Dhrma, Danda Neeti, State and Society, Dhamma and Sangha

LO3: Understand the history of Modern Political Thinkers such as Gandhi, Nehru, Ambedkar, M.N.Roy etc.

LO4: Understand the concepts such as Ahimsa, Satyagraha, Democratic Socialism, Annihilation of Caste, Radical Humanism

LO5: Know and Understand Western Political Thoughts of Aristotle, Plato, St. Thomas, Machiavelli, Thomas Hobbes, John Locke, J.J. Rousseau, Bentham, J.S. Mill, Hegel, Marks, Gramsci etc.

Paper IV: International Relations

LO1: Know about the Scope, Nature, Evolution, Significance of International Relations

LO2: Understand History of International Relations and important incidents such as First World War, Second World War and their impact on International Relations

LO3: Learn about the concept of International Powers, Super Power, Regional Power, Elements of National Power etc.

LO4: Comprehend the elements of International Political Economy, International Financial Institutions such as World Bank, WTO and their functions and role

LO5: Understand the concepts of Globalization and its impact on developing nations,

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LO6: Get the knowledge of International Organs such as UNO, its Structure and Role, the need for revision of Charter, Regional Organizations (European Union, SAARC, ASEAN etc.)

LO7: Learn about the importance and significance of International Security, Arms Race, Arms Control, Disarmament, Issues in Nuclear Politics, Foreign Policy and Recent Trends

LO8: Know about the Contemporary Issues such as Environment, Women Rights, and Terrorism etc.

PUBLIC ADMINISTRATION

Semester-I

LO1: know the basic concepts, principles & Theories of Public Administration

LO2: appreciate the efforts and contribution of administrative thinkers to develop Public Administration as a subject

LO3: understand the historical evolution of Public Administration

LO4: acquire the Knowledge for preparation of competitive exams

LO5: understand the importance & role of Public Administration in the society & Public life

LO6: know the organization, Principles, Administrative Procedure policy making process & limitations

LO7: acquire the event organization skills & Administrative skills in real life

LO8: acquire skills to become good employees and good Administrators in future

Semester-II

LO1: appreciate the development dynamics & emerging trends in Public Administration

LO2: Compare the Indian Administrative system with Administrative systems of other countries

LO3: understand the importance & role of Public services in the emergence and development of new state of Telangana

LO4: understand the role of civil society & Non Governmental Organizations in Administration

LO5: identify multi dimension problems in Governance

LO6: understand the present status of Public Administration in the Context of Liberalization & Globalization

LO7: improve Political Awareness and citizen participation in Govt Welfare Activities

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Semester-III

LO1: Understand the historical evolution and socio-economic, political, cultural and global context of Indian Administration

LO2: Identify the transformative role of Indian Administration

LO3: Bring out the multi-dimensionality of problems and processes of Indian Administration

LO4: Understand the form and substance of Indian Administration

LO5: Appreciate the emerging issues in Indian Administration in the context of changing role of state, market and civil society

Semester-IV

LO1: know the Administrative history of Telangana State

LO2: appreciate the Administrative reforms taken place in Indian Administration

LO3: identify the role of state Govt in Indian Administration

LO4: understand the relationship between central state & Local Governments

LO5: appreciate the emerging issues, recent trends in state Administration

LO6: develop ability to solve problem, capacity & redress citizen grievances

LO7: apply (use) RTI ACT in real life when they are in trouble and injustice

III YEAR: III PAPER

Management of Resources

CLO1: Explain the importance of physical, human and financial resources and their effective management in organizations

CLO2: Demonstrate a basic understanding of different tools used in forecasting and planning physical, human and financial resource needs

CLO3: Describe the meanings of terminology and tools used in managing resources effectively

CLO4: Record governmental regulations affecting major stakeholders in management of resources

CLO5: Analyze the key issues related to administering the physical, human and financial elements

IV PAPER: Rural and Urban Governance in India

LO1: gets the knowledge of local self-government and different types of local governments

LO2: understand the composition and working process of local governments

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LO3: understand the role of local governments in rural and urban development

LO4: identify the importance of decentralization of power in democracy

LO5: acquires the skills to become political leaders in future

LO6: responds to the local issues in real life situations

LO7: know the legal and administrative procedures of local governments

LO8: participate in welfare activities of government in future

HISTORY

Semester I: HISTORY OF INDIA (FROM EARLIEST TIMES TO C.700 AD)

LO1: knows about the definitions of history, its relationship with other social sciences and sources of Indian history

LO2: understand the ancient and Vedic period

LO3: comprehend the concepts of religious movements

LO4: knows about the foundation of different dynasties and developments

LO5: gets the knowledge of Gupta period and

II SEMESTER: HISTORY OF INDIA (700 AD – 1526 AD)

LO1: students will develop their knowledge about multiple culture life Rise of Regional States and Bhakti movement

LO2: Gets to know about the Arab and Delhi Sultanate conquest of Sind

LO3: comprehend the concept of Bhakti and Sufi Movements and their impact on society

LO4: understands various aspects of Kakatiya administration

LO5: acquires the knowledge of Vijayanagar Administration and Bahamanis and their contribution of the Deccan culture

III SEMESTER: HISTORY OF INDIA (1526 AD-1857 AD)

LO1: knows about the establishment of Mughal Dynasty

LO2: comprehend the rise of regional powers

LO3: understand the Advent of European Powers

LO4: learns about the European policies

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LO5: Compare the decline of rural cottage industries and urban handicrafts

IV SEMESTER: HISTORY OF INDIA (1858—1964 CE)

LO1: Understand about the Beginning of Colonial Rule and impact of policies

LO2: Get to know about the Socio-Religions reforms movements

LO3: Get the knowledge about factors for the Nationalism and freedom struggle

LO4: Know about the Revolutionary Movements

LO5: Get the knowledge about emergence of communal policies

PAPER III: HISTORY OF THE MODERN WORLD (FROM 1453 AD TO 1950 AD)

LO1: Know about the Renaissance and Geographical Discoveries

LO2: Get the knowledge of Emergence of Nation State in Europe

LO3: Compare and contrast various Revolutions

LO4: Understand the Industrial Revolution and its Impact

LO5: Get the knowledge about World War Courses and Consequences

LO6: Get to know the UNO, its contribution to world peace

PAPER IV: HISTORY AND CULTURE OF MODERN TELANGANA (FROM 1724 TO 2014 AD)

LO1: Know the sources are History of Telangana

LO2: Get the knowledge about Foundation of Asaf Jahi Dynesty

LO3: Compare and contrast various Rules of Mir Usman Ali Khan

LO4: Understand the Role of Andhra Mahasabha and Constitutional Reforms

LO5: Comprehend the concepts of Anti Nizam and Anti Feudal Movements

LO6: Understand about discrimination, dissent and protest and formation of Telangana state

ECONOMICS

Semester I

LO1: understand nature, Definition and scope of economics concepts of wealth, Importance of growth and Analysis of static and dynamic methods etc.

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LO2: recognize the utility analysis, cardinal and ordinal approaches and understand the law of diminishing marginal activity

LO3: acquire knowledge of demand, Law of demand, elasticity of demand

LO4: understand the supply, Law of supply, Supply function supply curve in perfect and imperfect market conditions

LO5: know about the production, Linear and Non linear production function as well as law of variable production and internal and external economics etc

Semester II

LO1: Understand the concept of costs, Revenue and their interrelation as well as learn the difference between average and marginal cost etc...

LO2: Learn concept of firm, Industry and classification of markets, Perfect competition and price determination etc...

LO3: Learn about monopolistic competition, Cournot model and kinky demand curve etc..

LO4: Acquire knowledge of concepts of marginal productivity such as marginal revenue product etc...

LO5: Know about the wage, Collective bargaining as well as classical and Neo-Classical theory of interest etc...

Semester III

LO1: Be aware of meaning, Nature, Scope and importance of Macro Economics along with National Income etc...

LO2: Understand the classical theory of complement, Wage cut policy and Keynesian theory of employment etc...

LO3: Know about the money and money supply, M1, M2, M3, M4 theories of money etc...

LO4: Learn the trade cycles meaning and causes of inflation and understand the effects of inflation with measures to control inflation

LO5: Acquire a knowledge of banking and stock market and its function as well as about NBFC

Semester IV

LO1: Understand the meaning and scope of public finance and difference between public and private finance etc...

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LO2: Be aware of public revenue and its sources, Classification also direct and indirect taxes methods etc...

LO3: Know about the public expenditure, Determination of public expenditure and Wagner's Law etc...

LO4: Acquire the knowledge of International trade, Role of international trade in economic development etc...

LO5: Recognize the concepts, Components and determinants of balance of payment and disequilibrium in balance of payments etc...

III Year Paper -III

LO1: Know Concepts of Development meaning of Economic growth and development – Measures of Economic Development – GNP, PCI, PQLI and HDI

LO2: Understand Structure of the Indian Economy Demographic features – Size and growth of the population – Age and Sex composition- Rural and Urban population – Occupational distribution – Population policy etc...

LO3: Learn New Economic Reforms – Liberalization, Privatization and Globalization in India – Inclusive Growth

LO4: Analyze Indian Agriculture nature and importance; Trends in agricultural production and productivity; Factors determining productivity etc...

LO5: Discuss Indian Industry and Services structure and Growth of Indian – Industrial policies of 1956 and 1991, Growth and problems of Small Scale Industry etc...

III Year Paper –IV

LO1: Understand the meaning and scope of public finance and taxation; distinguish between public and private finance; learn the principles of Maximum Social Advantage; identify the difference between Public goods and Private goods; trace the sources of Public revenue etc.

LO2: know about of public expenditure and public debt; classify public expenditure; come to know the reasons for the growth of public expenditure; analyze Wagner's law, Peacock-Wiseman hypothesis; classify Public debt; identify the causes and effects of the growth of India's public debt

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LO3: Learn in detail the theories of International Trade; distinguish between inter-regional and international trade; understand the importance of international trade; know and analyze theories of international trade etc.

LO4: Acquire the knowledge of protection and balance of payments; define Tariffs; distinguish types of tariffs; know the effects of tariffs; learn the concept of Optimum Tariff; Balance of Payments, Disequilibrium in Balance of Payments and Measures to correct it and Depreciation

LO5: understand the recent trends in Foreign Trade in India, EXIM policy, changing role of IMF, IBRD, WTO and their impact on India; know the concept of outsourcing

COMMERCE

Semester I: Information Technology:

LO1: learn the major concepts in the functional area of Accounting, Marketing, Finance information technology & Management

LO2: know Legal Social Ethical and Economic Environments of Business in a global context

LO3: understand and solve the business problems through information systems & technology

LO4: apply and solve the Organization problems using technology enhanced approaches

LO5: respond to Design & Implement the information systems

LO6: analyze Business Concepts and functions in an Integrated Manner

Business Economics:

LO1: Learn Business Economics concepts & principles which are useful in understanding the general economic environment

LO2: Know the concept of marginal cost, opportunity cost for analysis & decision making in the business environment

LO3: Understand the local and global business environment

LO4: Apply effective written and Oral Communication Skills to business Situations

LO5: Respond and acquire critical thinking skills in business situations

LO6: Analyze and apply and Ethical understanding and perspective to business situation

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Business Organization:

LO1: Learn the basic forms of ownership organization such as sole trade, partnership, Joint Hindu Family & Joint Stock Company & mutual funds

LO2: Understand the nature and purpose of different types organization

LO3: Understand Basic Concept Organizational Structure

LO4: Apply Different ways in which Organizations may be structure

LO5: Describe the main departments or functions of Business Organization

LO6: Explain the advantages & Disadvantages of Centralized & Decentralized Organization

Financial Accounting-1

LO1: acquire conceptual knowledge of basis of Accounting

LO2: know and understand basic Accounting Concepts

LO3: Understand Accounting & Preparation of final Accounts of sole trader

LO4: apply process in Business transactions

LO5: Respond to Financial Accounting changing student learning style through a Varsity of learning models and multi media

LO6: Analyze financial statements of sole trading

B.COM (CA): Information Technology

Semester I

LO1: Know the concepts of computer, MS-Office and Internet

LO2: Understand and Execute the programs like Ms-Office, Excel, Power Point etc..

LO3: Execute the programs like MS-Word, Excel and Internet

LO4: Able to a apply with help of daily life activities

Semester II

Principles of Management

LO1: Learn the concept of planning, Organizing, Delegation and Decentralization, Co-Ordination & Control

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LO2: Know and be able to communicate the management evolution and how it will affect further managers

LO3: Understand Major Internal processes of a business system and the environment in which it operates

LO4: Evaluate the influence of historical force on the current practice management

LO5: Analyze Quantitative and quantitative in information to isolate and formulaha best control/methods

Foreign Trade

LO1: Learn To gain knowledge of Indians foreign trade procedure policies and international institutions

LO2: Know comparative advantage and it formal expression and interpretation with in different theoretical models

LO3: Understand the major recent development in the world trading system

LO4: Apply BE able to apply partial equilibrium and general equilibrium models in analyzing the economic effects

LO5: Respond Develop Communication Skills through the presentation of work interactions during tutorial session and appropriate use of the discussion

LO6: Analyze the major models of international trade and be able to distinguish b/n them in terms of their assumptions of economic implications

Financial Accounting-II

LO1: Learn the concepts of bills of exchange consignment and joint venture accounts from incomplete records and nonprofit organizations

LO2: Know the different type of Accounts belongs to various business

LO3: Understand Accounting & Preparation of various business forms

LO4: Apply the processing of accounting transaction of various business forms

LO5: Respond Learning styles can change through different learning models

LO6: Analyze Student can analysis the business forms Accounting statements

Managerial Economics

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LO1: Learn the nature and scope of managerial economics market analyses macro economics fiscal policy

LO2: Know the demand and Supply are part and parcel of fundamental analysis of economics

LO3: Understand the markets like oligopoly & duo poly & monopoly and business cycles and finance commission role

LO4: Make Optional business decisions by integrating the concepts of economics mathematics and statistics

LO5: Respond to real-world business problems with a systematic theatrical framework

LO6: Analyze the demand and supply conditions and assess the position of a company

Semester-III

Programme in C:

LO1: Learn complete knowledge of 'C' languages learning basic programming constructs they can easily switch over to any other language in future

LO2: Know a defensive programming concept ability to handle possible errors during programme execution

LO3: Understand a concept of object thinking within the frame work of functional model

LO4: Apply this concept of programming and software code organization within the frame work and procedural programming paradigms

LO5: Respond a defensive programming concept ability to handle possible errors during program execution

LO6: Analyze to define and manage data structures based on problem subject domain

Business Statistics:

LO1: Learn the concept of basic statistical concepts such as statistical collection, statistical series, measures of central tendency, dispersion and correlabon & regression analysis

LO2: Know statistical method for solving practical problems

LO3: Understand the place and role of statistical methods in monitoring economic phenomena

LO4: Apply knowledge to solve simple tasks using computer (MS Excel)

LO5: Respond Independency calculate basic statistical parameters

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LO6: Analyze Modeling and analysis is frequently placed within a business context, with roughly equal emphasis on theory and its application

Entrepreneurial development & Business Ethics:

LO1: Learn the major concepts in the functional areas of accounting, marketing, finance, information technology, and management

LO2: Know Legal, Social, Ethical, and economic environments of business in a global context

LO3: Understand manage people, process, and resources within a diverse organization

LO4: Apply knowledge of leadership concepts in an integrated manner

LO5: Respond entrepreneurship/small Business option are prepared to pursue professional development opportunities

LO6: Analyze integral/external factors factor effecting a business organization to evaluate business opportunities

Advanced Accounting:

LO1: Learn Accounting techniques and methods for the formation dissolution, partner changes, earnings distribution & liquidation of partners

LO2: Know identify current issues related to financial accounting and financial reporting

LO3: Understand awareness of the organizational social and environmental context of accounting

LO4: Apply acquire skills required to apply management accounting techniques to organizational cost

LO5: Respond demonstrates and determine the impacts on parent company's financial statements

LO6: Analyze information flows in an organization and develop conceptual models of organizational relationships

Semester III

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Programming with C:

LO1: Know the concepts of Introduction to C, Data types, Functions, Arrays, User defined data types in C

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LO2: Understand the concepts above

LO3: Execute the programs on above topics and Lab

LO4: Programmes in their daily life

Semester IV: Income Tax II:

LO1: Learn the concept of agriculture income, Income from salaries income from house property, profits and gains of Business or profession

LO2: Know a broad understanding of Tax

LO3: Understand summarize the tax environment and the federal tax compliance process

LO4: Apply principles of tax law to complex legal problems, and critique the tax

LO5: Respond measure taxable income

LO6: Analyze interpret tax aspects of individual investment planning and personal activities

Auditing:

LO1: Learn concept of Audit process including the professional standards applicable to the financial statement

LO2: Know application of Auditing procedures to select transaction cycles

LO3: Understand sampling methodologies commonly used within the audit profession

LO4: Apply Ethical & legal responsibilities of financial statement auditors the public accounting profession

LO5: Respond, develop & demonstrate problem solving and critical thinking skills essential to solve unstructured auditing problems

LO6: Analyze and assess manual and information systems

Corporate Accounting:

LO1: Learn this courses covers the characteristics of the corporate accounting environment and its financial reporting requirements for companies

LO2: Know the basic principles of accounting for investments in associates

LO3: Understand an understanding of the accounting requirements for a corporate group and familiarly with the theory underlying the methods used to account for inter-company investran

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LO4: Apply to prepare consolidated accounts for a corporate group

LO5: Respond a communicate accounting policy and statutory recommendations and justify conclusions with reference to relevant laws and accounting standards

III YEAR

BUSINESS LAW

LO1: Learn acts relating to business, i.e. contract act, sale of Goods act, consumer protection company law etc..

LO2: Know contract legality, consideration, contract of sale, discharge of a contract consumer rights

LO3: Understand acts and law of business, company related law, intellectual property, Management & winging up of companies

LO4: Apply cases of contract act and able to create a written contract filing a case on consumer protection

LO5: Respond knows the practical problems relating to the sale of Goods Act. Cases of companies act

LO6: Analyze students are expected to know the model for at a complaint & legal environmental

Corporate Accounting:

LO1: Learn the knowledge of accounting standards preparation of final accounts preparation of financial statements of insurance & bank companies

LO2: Know basic accounts standards and financial statements of a company that may be bank or insurance company

LO3: Understand companies' amalgamation and internal Reconstruction and can understand transaction variance between banks & insurance and other companies

LO4: Apply the knowledge in different companies, Accounting process when Amalgamation & Reconstruction

LO5: Respond student can prepare final accounts using computers

LO6: Analyze student can analyze the differences between different corporate accounts

Auditing:

LO1: Learn concepts of Auditing planning of Audit and control vouching Report writing

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LO2: Know concept of Auditing, vouching, Rights duties of Auditor, Audit Report

LO3: Understand Audit reports, Business letters, and Business reports. Types of Audit, Audit planning & control

LO4: Apply use audit concepts and variables like risk assessment materiality internal controls documentation of evidence

LO5: Respond auditing and assurance concepts to read – world o evidence

LO6: Analyze issues currently facing the professional judgment and ethical implications

Business Communication:

LO1: Learn basic communication process – organizational communication – verbal-non verbal communication and report writing

LO2: Know level communication in business organization Intra- Intra Personal communication business enquires – report skills

LO3: Understand communication importance in business organization dimensions of communication in organizations network

LO4: Apply preparation of written communication aids i.e. business letters for calling for a post for interviews appointment orders etc.

LO5: Respond student can prepare letters with the help of computers and get feedback from communication system

LO6: Analyze Communication process in business organization by using verbal- non verbal communication tools and feedback analysis

Business Communication:

LO1: Learn essential business skills primary aims and knowledge of communication in the business environment

LO2: Know Oral, Written and visual communication

LO3: Understand capable of effectively monitoring, analyzing and adjusting their own communication behavior

LO4: Apply communication theories

LO5: Respond effectively to cultural communication differences

LO6: Analyze the concept will communicate ethically, responsibly and effectively as local, national, international and global citizens and leaders

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Principles of marketing:

LO1: Learn the concept develop a basic understanding of consumer market analysis marketing planning and marketing management

LO2: Know individual components of a marketing mix

LO3: Understanding of marketing terminology and concepts

LO4: Apply the organizational processes involved in the planning implementation and control of marketing activities

LO5: Respond knowledge of regulatory and ethical factors considered essential to making marketing decision

LO6: Analyze identify wants and environmental factors that shape marketing activities for certain target markets

Rural Marketing:

LO1: Learn the concept like relevance and scope of rural market in India

LO2: Know to acquaint the students with the appropriate concepts and techniques in the area of rural marketing

LO3: Understand the concept and methodology for conducting the research in rural market

LO4: Apply adoptions to the rural marketing mix (4A'S)

To meet the needs of rural consumers

LO5: Respond to the environment prevailing these dynamic involved in the behavior of rural consumer

LO6: Analyze identify the challenges and opportunities in the field of rural marketing for the budding managers and also expose the student to the rural market environment

B.COM (CA)

Web Programming

LO1: Student will know the concepts of HTML, VB Script, ASP, DHTML, and XML

LO2: Student will have to understand the above topics

LO3: Student will have to learn the programs on above topics

LO4: Student will execute the above topics

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TELANGANA STATE

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LO5: Student will learn how to create web page and execute on browser using tags

B.COM (CA) III YEAR

RELATIONAL DATABASE MANAGEMENT SYSTEMS

LO1: know the concepts of Database, SQL, PL/SQL, E-R Models

LO2: understand and create database and various models of database

LO3: learn to create the database, modify database and drop the database

LO4: apply the concepts in daily life and create databases on general entities like college, hospital and company etc.

BOTANY

Semester I: DIVERSITY OF LOWER PLANTS

LO1: Learn Primitive Organisms Properties

LO2: Know about the Advantages the study of lower plants

LO3: Understand the Micro Organisms Internal Structure

LO4: Describe the Lower plants External & Internal Morphology

LO5: Analyze the Lower plants Live in Extreme Environmental Condition

LO6: Compose the Internal relations among Bacteria and Cyano Bacterial Study

Lo7: Appreciate the usefulness of the lower organisms

Semester II: BRYOPHYTA, PTERIDOPHYTE, GYMNOSPERMS AND FOSSILS

LO1: Learn Bryophytes, Pternidophyte, Gymnosperms, and Fossils

LO2: Know about the life cycle of these classes

LO3: Understand the Internal, External features of these plants

LO4: Describe the Evolution of plants succession

LO5: Analyze the saprophytic evolution Bryophytes

LO6: Analyze the stellar evolution of Ptenidophyte

LO7: Compose the Cryptograms External Morphology

LO8: Differentiate among the Gametophyte and Saprophytes

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LO9: Appreciate the study of Fossils

LO10: Respond the plant evolution in different Eras

Semester III:

Paper: TAXANOMY OF ANGIOSPERMS AND MEDICINAL BOTANY

LO1: learn principles and classification of plants

LO2: know about the identification of different plants and different families

LO3: know how the plants are classified

LO4: know preparation of Herbarium techniques

LO5: understand the different medicinal properties of the medicinal plants

LO6: know about the various plants used in medicines

LO7: learn various types of medicines used in different methods

LO8: Acquire the knowledge and understanding of the traditional medicine and modern medicine

Semester IV:

Paper: PLANT ANATOMY, EMBRYOLOGY AND PALYNOLOGY

LO1: get the knowledge of internal structure of the plants

LO2: to understand the structures and functions of tissues

LO3: be able to analyse the topic of reproduction in plants

LO4: comprehend the development of plants

LO5: be informed of the knowledge of fossils in plants

LO6: classify pollen grains

III Year

Paper III: CELL BIOLOGY, GENETICS, ECOLOGY AND BIODIVERSITY

LO1: To learn the cell structure of the plant

LO2: To know the cell divisions of the plants

LO3: To understand the hereditary characteristics of the plants

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LO4: To learn various types of mutation in plants

LO5: To identify the different communities of the plants

LO6: To study the biodiversity of the plants

Paper IV: PLANT PHYSIOLOGY, TISSUE CULTURE, BIOTECHNOLOGY AND HORTICULTURE

LO1: Learn new knowledge about plant physiology

LO2: Know about Photosynthesis, Respiration in plants

LO3: Understand the Physiological activities like Photophosphorylation

Glycolysis, Electron transport system, Enzymes actions, Phytohormones

LO4: Appreciate the Bio Technology Advantages

LO5: Apply the Tissue Culture Techniques and use of Green Houses, Glass Houses, Shadenecks

LO6: Appreciate the Horticulture Techniques Floriculture, Agriculture, Olenculture, Gardening, Lanes, Plantations

LO7: Compare the Photophosphorylation & Oxidative Phosphorylation

LO8: Differentiate between Photosynthesis and Respiration

LO9: Appreciate the Photosynthesis Advantages

LO10: Respond to the different Techniques adopted in plant Tissue Culture, Anther Culture, Embryo Culture, Ovary Culture, Callus Regeneration, Nodal Culture and Organogenesis

ZOOLOGY

I Semester: Animal Diversity – Invertebrates

LO1: To know the Kingdom Animalia, Brief History of Invertebrates

LO2: To learn the General Characters Classification of Non-Chordates Protozoa to Echinodermata and Hemichordata

LO3: To understand the type study of *Elphidium* and *Sycon*

LO4: To get the Knowledge on type study of *Hirudinaria granulosa* (leech) and prawn and earthworm

LO5: To analyze the type study of *Pila* and Starfish

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LO6: To identify the affinities of Balanoglossus (Hemi-Chordata)

II Semester: ECOSYSTEM AND ZOOGEOGRAPHY

LO1: To evaluate the Ecosystem Structure and function

LO2: To understand the Biogeochemical Cycles and Animal Associations

LO3: To know about the Environmental Pollution and Wildlife Conservation

LO4: To get knowledge on Zoogeographical regions Wallace line Discontinuous distribution and Continental Drift

LO5: To analyze the Animal Behavior

Semester III: ANIMAL DIVERSITY-VERTEBRATES AND DEVELOPMENTAL BIOLOGY

LO1: To understand the General Characters, Classification and Morphology of Protochordata and Chordata phylum

LO2: To learn about parental case in Amphibia, Flight Adaptation in Birds/Aves and Dentition in Mammals

LO3: To evaluate the process of Gametogenesis in Male and Female

LO4: To analyze the different types of Eggs and also different types of Cleavages

LO5: To get the Knowledge on Total Membranes and Placenta

Semester IV: CELL AND MOLECULAR BIOLOGY, GENETICS AND EVOLUTION

LO1: To learn the structure and functions of cell Organelles

LO2: To know the differences in between Mitosis and Meiosis

LO3: To analyze about the DNA & RNA

LO4: To understand the CLoning Process

LO5: demonstrate the basic principles of genetics and Mendel's Law

LO6: gain knowledge of human evolution

III YEAR: Paper -III: ANIMAL PHYSIOLOGY, GENETICS AND EVOLUTION

LO1: To compare the differences Among the Proteins, Carbohydrates and Lipids Digestion and to learn the Digestion process in ruminants

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LO2: To understand the Human Respiratory System and Nervous System, Propagation of Nerve Impulse

LO3: To learn the Process of Formation of urine in Human along with structure and Function of Kidney

LO4: To indentify the different types of Muscles and to know the Knowledge on Muscle Contraction

LO5: To know the basic Principles of Genetics, Mendel's Law Epitasis, and Incomplete dominance & Co-Dominance

LO6: To understand the Impact of Hormones on different Metabolisms like Reproductive System etc.

LO7: To get the Knowledge of Human Evolution along with Horse Evolution

Paper- IV: AQUA CULTURE

LO1: know about Fisheries and Aqua Culture

LO2: understand different elements of Harmatology, Immunology, and Human Paraliles

LO3: analyze different aspects of Animal Biotechnology – CLOning, Diabetes and Parkinson's disease

PHYSICS

Semester I:

LO1: learns Vector analysis, Mechanics of particles and rigid bodies

LO2: knows about different theorems of Vector analysis, Motion of a Rocket, Motions of a symmetric top, central forces, gravitational field, gravitational potential, special theory of relativity

LO3: applies integration over vectors

LO4: analyze the theorems over vectors-central forces as gravitational forces, electrostatic forces, elastic forces etc.

LO5: compare and contrast different physical quantities

LO6: responds to real life situations in which the knowledge of these topics involved

Semester II:

LO1: learns fundamentals of vibrations

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LO2: knows about different oscillating bodies, vibrating strings and vibration of bars

LO3: understands principles of vibrating strings

LO4: compare between different types of oscillators and vibrations

LO5: applies the knowledge of these topics in real life situations

Semester III:

LO1: know the postulates of kinetic theory, concept of heat and work and concept of ensemble

LO2: acquire the knowledge of the development of kinetic theory of gases, concept of temperature and entropy

LO3: understands the kinetic theory of gases, heat, temperature, reversible and irreversible processes, principles of refrigeration

LO4: analyze thermal conductivity, equation of state, internal energy, entropy of universe

LO5: comprehend the laws of thermodynamics and black body radiation

Semester IV:

LO1: acquire the knowledge of properties of light, types of aberrations, theory of interference fringe, dispersion, polarization and laser light

LO2: knows about dispersion, interference, Newton's rings and polarization

LO3: understands properties of light and laser

LO4: compare interference and diffraction, polarized and unpolarized light

LO5: applies the knowledge in understanding different phenomenon of light in daily life

III Year:

III PAPER: LIGHT

LO1: acquires the knowledge of static electricity, capacitors, generator and semi-conductor

LO2: knows about capacitors, electromagnetic induction, and semiconductor devices etc.

LO3: understands working of capacitors, electric motor etc.

LO4: compare and analyze AC and DC currents

LO5: applies the knowledge in day to day life

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IV PAPER: MODERN PHYSICS (SOLID STATE)

LO1: Learn about the Nature, Physical Properties of matter/material

LO2: Know the basis for formation of materials into forms

LO3: Understand the arrangement of atoms in basis of lattices of matter

LO4: Compare the structure arrangements to different materials and its behavior in nature

LO5: Apply the knowledge to understand the existence of different materials in Nature

CHEMISTRY

Semester-I

LO1: Learn about S, P-Block elements, Structure of atom, Chemical bonds & Gaseous and liquid states

LO2: know the characteristics of group elements, different type of chemical bonds,

LO3: understand about the inductive effect, acyclic and salicylic Hydrocarbons

LO4: analyze the difference between gaseous and liquid state

LO5: apply use of the scientific method of solving problems

LO6: respond can tell shapes of atomic orbital

Semester-II

LO1: Learn P-Block elements, Halogen Compounds, Solutions, Material Science

LO2: Know Transition elements, concept of aromaticity

LO3: Understand Theories of bonding in metals, Laws of Crystallography

LO4: Analyze can classify the materials types of Titrations

LO5: Respond explanation of conductors, semiconductors, strong weak acids and bases

III Semester

LO1: acquire the knowledge of chemistry of f-block elements, symmetry of molecules and non-aqueous solvents

LO2: understand the preparation of alcohols, phenols, ethers and epoxides and carbonyl compounds

LO3: analyze the Phase Rule, Colloids and surface chemistry

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LO4: learn the applications of nanomaterials

LO5: know the stereochemistry of carbon compounds and conformational analysis

IV Semester

LO1: acquire the knowledge of Coordination Compounds-I, organometallic chemistry and metal carbonyls and related compounds

LO2: understand the carboxylic acids and derivatives, synthesis based on carbanions, Nitro hydrocarbons

LO3: analyze the elements of electrochemistry and EMF

LO4: learn the pericyclic reactions and synthetic strategies

LO5: get the overall understanding of asymmetric synthesis

III YEAR

PAPER III INORGANIC, ORGANIC& PHYSICAL CHEMISTRY

LO1: Learn Werner theory, Magnetic Properties

LO2: Know Hard and Soft bases

LO3: Understand Bio inorganic chemistry, essential and trace elements, bio logical significance of NA, K, MG, CU, ZN, CR & Toxicity of AS, HG&PB

LO4: Analyze first order, second order of reaction, pseudo first order, half life determination of order of reaction

LO5: know NMR Spectroscopy, Number of signals, splitting of signals & applications

LO6: Apply state & path functions, concept of heat & work first law of thermodynamics & second law of thermodynamics

PAPER IV CHEMISTRY & INDUSTRY

LO1: Learn paper chromatography TLC column Chromatography

LO2: Know Lambert Law, Beer-Lambert Law & its applications

LO3: Understand drug chemistry – drug, disease Historical evolution, Terminology, Nomenclature

LO4: Analyze needs of green chemistry green synthesis, green catalysis

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LO5: Respond classifications of polymers & chemistry or polymerization, PVC, Teflon, Biodegradability

LO6: Apply need of conversion of drugs into medicine, different type of formulations

MATHEMATICS

Semester-I: Differential Calculus

LO1: Know the definitions and importance of differential calculus

LO2: Learn successive differentiation and mean value theorems

LO3: Apply the theorems in solving the problems

LO4: Compare successive differentiation and partial differentiation

LO5: Understand maxima and minima of functions of two variables

LO6: Analyze legranges method of multipliers

Semester-II Differential Equations

LO1: Know about differential equations of first order and first degree

LO2: Learn differential equations, integrating factors, change in variables

LO3: Understand higher order linear differential equations

LO4: Compare differential equations of first order and first degree & Differential equations first order but not of first degree

LO5: Analyze the method of underterminel Co- Efficient and method of variation of parameters

LO6: Apply the methods for solving problems

Semester-II Real Analysis

LO1: Know the Definitions of sequences, Subsequences, Riemann Integration

LO2: Learn limit theorems for Sequences – Monotone Sequences and Cauchy Sequences

LO3: Comparison of power series with differentiation and integration of power series

LO4: Understand Alternating Series and Integrals Tests

LO5: Apply fundamental theorem of calculus for solving problems

Semester-IV Algebra

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LO1: Know about groups, subgroups, isomorphism's, introduction to rings

LO2: Learn some basic algebraic structures like groups rings etc...

LO3: Understand normal subgroups factor groups properties of rings subrings integral domains

LO4: Apply legranges theorem for solving problems

LO5: Analyze characteristics of a ring, Ideals and factor rings

LO6: To compare prime Ideals and maximal ideals

III YEAR

PAPER-III: Linear Algebra, Multiple Integrals and Vector Calculus

LO1: Know that Algebra, Liner Integral, Double Integral, Gradient Curl, Solenoidal Vector, Irrotational Vector

LO2: Understand evaluating line integrals, Calculation of Double Integrals

LO3: Learn Linear combination of vectors, Linear Span, Orthogonality

LO4: Compare Linear dependence and Linear Independence of vectors

LO5: Analyze Eigen values and Eigen vectors

LO6: Apply Gauss Divergence, Green theorem, Stokes theorem for solving problems

PAPER-IV: Numerical Analysis

LO1: Know about Interpolation, Curve fitting, Numerical differentiation

Numerical Integration

LO2: Learn methods like least squares method (Straight line, Exponential Curves, Second degree Parabola)

LO3: Understand the process of methods- Bisection method, Regula Falsi Method etc...

LO4: Analyze maximum and minimum value of a function

LO5: Apply methods like Gauss Elimination, Gauss-Jordan, Triangular decomposition method for solving problems

B.Sc. (MPCS)

Object Oriented Programming with C++

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Semester I

LO1: Know concepts of object Oriented Programming

LO2: Understand the concepts writing C++ Program

LO3: Able to write C++ Program in platform

LO4: Able to apply with the help of mathematical operations and software games

Semester II Data Structure using C++

LO1: Know the concepts of object Oriented programming Language

LO2: Understand the concepts of writing C++ program

LO3: Able to write C++ program in platform like turbo C++

LO4: Able to apply mathematical operations and games software's

B.Sc. (MPCS) III YEAR

GUI PROGRAMMING (VB)

LO1: know the concepts of VB, VB operations, functions, procedures, controls, Active X Control, Graphic Controls, Intrinsic Controls

LO2: understand the concepts of VB operations, functions etc.

LO3: learn to create or design graphical User Interface using controls

LO4: execute all the programs related to VB

B.Sc. (MPCS) III YEAR

DATABASE MANAGEMENT SYSTEMS

LO1: know the concepts of Database, SQL, PL/SQL, E-R Models

LO2: understand and create database and various models of database

LO3: learn to create the database, modify database and drop the database

LO4: apply the concepts in daily life and create databases on general entities like college, hospital and company etc.

MSc Botany

M.Sc. Botany curriculum is designed to equip students with subject domain knowledge and technical skills pertaining to plants in a holistic manner. It aims to train the students in all the areas of plant sciences with a unique combination of core and elective papers with significant interdisciplinary components.

Programme Specific Outcomes (PSOs)

PSO1. A student completing the course is able to understand different branches of Botany

PSO2. They become competent enough in various analytical and technical skills related to plant sciences.

PSO3. The student completing the course is able to identify various life forms of plants, design and execute experiments related to basic studies on evolution, ecology, developmental biology, physiology, biochemistry, plant interactions with microbes and insects, morphology, anatomy, reproduction, genetics, microbiology, molecular biology, recombinant DNA technology, proteomics and transgenic technology. Students are also familiarized with the use of bioinformatics tools and databases and in the application of statistics to biological data.

PSO4. The student completing the course is capable to perform short research projects using various tools and techniques in plant sciences and develop scientific temperament and research attitude.

Learning Outcomes of various courses :

Cell Biology, Cytology & Genetics

1. They understand the pattern of inheritance various life forms.
2. They develop strong fundamentals basics for further molecular studies.

Biology & Diversity of Algae & Bryophytes

Course Learning Outcomes: The students will develop understanding about the diversity, identification, classification and economic importance of lower plants.

Plant Development & Reproduction

Course Learning Outcomes: Student will develop the understanding of growth, development and reproduction in plants as well as understand the physiological and metabolic changes happening along with the environmental impact

Cytogenetics & Molecular Biology

1. About the acellular entities including infective particles comprising only protein or RNA, which are parasites of plants and/or animals and of the observations/proposals which challenge the established dogmas, such as, cell being the basic unit of life or higher plants are multicellular rather than supracellular, and current state of knowledge about the plant cell structure and their turn over, starting from cell wall to chromatin, in relation to their functions.
2. Students will understand the role of plant cytoskeleton and accessory proteins in major cellular processes of plants.
3. Student will focus on various components of the eukaryotic nuclear and organellar genome, with special reference to their regulatory role
4. They understand the principle mechanisms of genome replication, maintenance, function and regulation of expression.

Biology & Diversity of Microbes & Fungi

Course Learning Outcomes: The course will increase the understanding of the students about the classification, structure, role and infectious cycle of microbes and Fungi.

Plant Physiology Course Objectives:

Course Learning Outcomes:

1. Students will be able to understand the various physiological life processes in plants
2. They will also gain about the various uptake and transport mechanisms in plants and are able to coordinate the various processes. They understand the role of various hormones, signaling compounds, thermodynamics and enzyme kinetics..

Plant Metabolism Course

Course Learning Outcomes: 1. the student will enrich themselves with the phenomenon of metabolism of primary and secondary metabolites and their role in plants. 2. They are upgraded in analytical skills and instrumentation.

Biology & Diversity of Pteridophytes & Gymnosperms

Taxonomy of Angiosperms

Course Learning Outcomes: The students will be learning 1. The students will know about the systematic position of Generas, Species and , Families. 2. The students develop knowledge about plant nomenclature.

Plant Tissue Culture

Learning Outcome:- Student will understand the basic properties of plant cell and with apply the their basic knowledge of PTC in various fields for conservation, medicine, product development etc.

BioInformatics-I and II

Course Learning Outcome:- 1. They will developed firm base for hardwares, softwares, networking, processing of computers. 2. They are able to understand the designing and function of nvarious databases and bioinformatic resourses. 3. They are able to select specific softwares and tolls to solve certain biological problems with respect to Nucleotides and Proteins.

Reproductive Biology of Angiosperms-I

Course Learning outcomes:- 1. Students will able to differentiate reproductive organs at Morphological, Anatomical, Physiological and Biochemical level. 2. This knowledge will be help to apply in agriculture for production of hybrids. 3. The allergic problems in Humans can be justified on the basis of pollens.

Plant Ecology

Course Learning Outcomes: The students will be learning

1. They will be understand the concept, types, development and functions of various ecosystems and their communication. 2. The various environmental factors governing these ecosystems are also clearly understood.

Genetic Engineering Course Objectives:: 1. Basic principles and modern age applications of recombinant DNA technology.

2. Learning molecular and technical skills along with applications of the instrumentation.

3. Designing/conducting experiments and analysing experimental data.

4. Ethics of Recombinant DNA Technology.

M.Sc. Zoology

Programme Specific Outcomes

PSO 1 Understand and analyse the ecological and evolutionary significance of different taxa of animals.

PSO 2 To analyse the mechanisms involved in life processes upto the molecular level.

PSO 3 To perform the analytical experiments in various fields of biological science.

PSO 4 To identify a research problem and to formulate a scientific solution.

Animal Diversity: Phylogenetic And Taxonomic Approaches

CO 1 Understand the Organization and Life: Homology and Analogy, Diversity of invertebrates, Phylogeny of invertebrates

CO 2 Understand the Origin and development of animals and the Geological time scale

CO 3 To make the students aware for Paleontology i.e. Fossils and its significance.

CO 4 To acquire knowledge on the taxonomic status of various Invertebrate animals and animal groups
CO 5 Understand the Outline classification of Animals: Classification of animals.

CO 6 Understand the Levels of structural organization.

CO 7 Understand the principles and methods of taxonomy

Biochemistry At the end of this course the students will be able to:

CO 1 Demonstrate an understanding of chemical nature of life and life process.

CO 2 Obtain an idea on structure and functioning of biologically important molecules.

CO 3 Understand the importance of metabolism of bio macromolecules in normal physiology of a man.

CO 4 Stay informed about the abnormal metabolism of biomolecules and the resultant diseases.

CO 5 Use current biochemical and molecular techniques to plan and carry out experiments.

Biostatistics And Research Methodology

CO 1 To understand the concepts of statistics and research methodology and create awareness about the gadgets, tools and accessories of biological research.

CO 2 Help students to improve analytical and critical thinking skills through personal problem solving.

CO 3 To enable learners to effectively apply suitable statistical tests in research and equip them to prepare research papers and project proposals.

CO 4 To sensitize students about the ethics involved in research and enable them to come up with innovative research designs.

Developmental Biology

CO 1 To understand the developmental process that lead to establishment of body plan of vertebrates and the corresponding cellular and genetic mechanisms.

CO 2 Attain a basic conceptual knowledge about the principal cellular mechanisms of development.

CO 3 To explain the clinical implications of development and the mechanisms intervene in the developmental alterations.

CO 4 To expose the learner to the new developments in embryology and its relevance to man.

Genetics And Bioinformatics 72

CO 1: To get an in-depth understanding on the principles and mechanisms of inheritance

CO 2: To analyse the fine structure and molecular aspects of genetic material

CO 3: To understand the importance of inheritance in Man and congenital diseases

CO 4: To get acquainted with the field of bioinformatics and able to take up bioinformatics studies

Animal Diversity: Evolutionary, Ethological And Biochemical Methods & Approaches

CO 1 To enable the students to identify and study about different species of vertebrates and Invertebrates and their phylogenetic, morphological, ecological and pathological significance.

CO 2 Enable them to prepare keys and cladograms using appropriate softwares or tools.

CO 3 To understand the behaviour and activity pattern of different organisms based on field observation with respect to diurnal and seasonal.

CO 4 To develop the skills in student to do different statistical analysis using various softwares and onlinetools.

Biophysics, Instrumentation And Biological

CO 1 Understand the biophysical properties and functioning of life processes

CO 2 Have an idea of the different tools and techniques available for studying biochemical and biophysical nature of life

CO 3 Use the tools and techniques for project work/ research in biology

Diversity Of Life: Ecological, Embryological, Hereditary And Microbial Methods & Approaches

CO 1: To analyse various quality parameters of soil and water and evaluate their influence of biota

CO 2: To identify various stages of animal development and perform vital staining techniques

CO 3: To apply bioinformatics tool for the analysis and construction of phylogenetic trees

CO 4: To identify abnormal karyotypes and mutants

CO 5: To perform micrometric, microscopic and chromatographic techniques

Animal Physiology

CO 1 To study and compare the functioning of organ systems across the animal world

CO 2 Understand the comparative functioning of different systems in animals.

CO 3 To acquire deeper knowledge about the fundamental processes and mechanisms that serve and control the various functions of the body

CO 4 To enhance knowledge and appreciation of mammalian physiology.

Cell And Molecular Biology

CO 1 Understand the structural and functional details of the basic unit of life at the molecular level

CO 2 Understand and explain the basics of cell biology

CO 3 Explain the new developments in molecular biology and its implications in human welfare

Immunology

CO 1 To possess an in depth knowledge and new developments in immunology.

CO 2 To describe the organisation and functioning of the immune system.

CO 3 To give a detailed description of diagnostic tests of diseases.

CO 4 To understand different types of vaccines and their role in human health and well being.

Cell And Molecular Biology, Microbiology And Biotechnology

CO 1 Do the squash preparations of onion root tip, grasshopper testis and salivary gland of drosophila and to identify the mitotic index, different meiotic stages and giant chromosomes respectively.

CO 2 Prepare microtome sections spread and do histochemical staining of carbohydrates (PAS), Protein (Bromophenol blue), lipids (Sudan Black) and DNA (Fuelgen stain).

CO 3 Understand the methodology for plasmid and genomic DNA isolation

CO 4 Do Sterilization, disinfection and observe safety measures in microbiological laboratory.

CO 5 Prepare different types of culture media and to do different culture techniques

CO 6 Identify microorganisms using different tests and to enumerate microorganisms using haemocytometer and turbidimetry.

CO 7 Perform environmental sample analysis and bacteriological analysis of milk.

Animal Physiology And Immunology

CO 1 Ability to explain physiological processes in detail and on an appropriate level.

CO 2 Able to perform different immunological techniques like WIDAL Test, Western Blotting, ELISA, Rocket Immuno electrophoresis etc,

CO 3 Able to analyze different factors affecting enzyme activity and get deep knowledge about the functioning of various hormones and chemicals inside the body.

CO 4 To familiarize with various software related to physiology.

Environmental Science: Concepts And Approaches

CO 1 To understand various components of environment and their characteristics in detail and the various phenomena in biosphere.

CO 2 To enable the students to understand, think and evolve strategies for management and conservation of environment for sustaining life on earth.

CO 3 Make them aware about different laws and organizations related to biodiversity and conservation.

CO 4 To understand about environmental economics and green economy for the sustainable utilisation of natural resources.

Environmental Science:

CO 1 Determine the soil texture, moisture content, soil pH, Chloride, Calcium, Magnesium, Potassium and Phosphorous.

CO 2 Determine the Calcium Carbonate content of different egg shells.

CO 3 Estimate the primary productivity of different aquatic systems.

CO 4 Identify the different trophic levels from the gut analysis of fish.

CO 5 Understand the biodiversity in Forest/Grass land and Pond/River and to report the species richness, abundance and animal interactions.

Environmenmtal Science

CO 1: To analyse the various physico-chemical parameters of water

CO 2: To examine the toxicity of various heavy metals

CO 3: To isolate and enumerate the microorganisms in soil

CO 4: To analyse the microbiological quality of water CO 5: To elucidate the histo-pathological changes in tissues

M.Sc. Chemistry

PO1: Demonstrate and apply the fundamental knowledge of the basic principles in various fields of Chemistry

PO2: Create awareness and sense of responsibilities towards environment and apply knowledge to solve the issues related to Environmental pollution.

PO3: Apply knowledge to build up small scale industry for developing endogenous product.

PO4: Apply various aspects of chemistry in natural products isolations, pharmaceuticals, dyes, textiles, polymers, petroleum products, forensic etc. and also to develop interdisciplinary approach of the subject. Skill Outcomes: It would help students to

PO5: collaborate effectively on team-oriented projects in the field of Chemistry or other related fields. PO6: communicate scientific information in a clear and concise manner both orally and in Writing.

PO6: inculcate logical thinking to address a problem and become result oriented with a positive attitude.

PO7: Explain environmental pollution issues and the remedies thereof.

PO8: apply the knowledge to develop the sustainable and eco-friendly technology in Industrial Chemistry. Generic Outcomes:

PO9: Have developed their critical reasoning, judgment and communication skills.

PO10: Augment the recent developments in the field of green and eco-friendly reactions, pharmaceutical, Bioinorganic Chemistry and relevant fields of research and development. PO11: Enhance the scientific temper among the students so as to develop a research culture and implementation of the policies to tackle the burning issues at global and local level.

Fundamentals of Physical Chemistry I After successfully completing this course, students will be able to:

CO1: Represent of the rate law of the elementary and chain reaction

CO2: Understand of the theories for the determination of the rate of the reactions

CO3: Understand of the kinetics of the explosive photochemical and unimolecular reactions

CO4: Understand of the laws of thermodynamics and their applications

CO5: know the phase diagram of single component systems and binary mixtures

CO6: Understand of the applications statistical thermodynamics

CO7: Understand of the quantum chemistry of free electron and H- atom

Fundamentals of Physical Chemistry II After successfully completing this course, students will be able to:

CO1: Understand of the principle of Microwave, IR, Raman, Electronic, NMR, ESR and Mossbauer spectroscopy

CO2: Draw of the schematic Microwave, IR and Raman spectrum of di and triatomic molecules based on the selection rules.

CO3: Understand of decay kinetics and measurement of radioactivity

CO4: get knowledge of types of nuclear reactors

CO5: study the applications of radioactivity, Understand Radiolysis and radicals

Physical Chemistry After successfully completing this course, students will be able to:

CO1: prepare the solution of the desired concentration and the desired volume

CO2: Know the principle and handling of pH meter, Potentiometer, conductivitymeter, colorimeter, viscometer,etc.

CO3: Plot accurate graphs of the desired scale for the calculations

CO4: Maintain laboratory ethics, safety and cleanliness

CO5: Understand waste management of the laboratory

Molecular Symmetry and Chemistry of p-block elements

After successfully completing this course, students will be able to:

CO1: Able to visualize molecule in 3-D, understand the concept of symmetry elements and symmetry operations.

CO2: know the point groups of molecules and understand symmetry considerations for optical activity and dipole moment.

CO3: Understand the group multiplication table, character table and representations of group.

CO4: Apply the projection operator for constructing SALCs.

CO5: correlate application of symmetry to spectroscopy and find IR active modes of vibration.

CO6: Understand the detail chemistry of s- and p- block elements w.r.t. their compounds, reactions and applications.

CO7: learn the advance chemistry of boranes, fullerenes, zeolites, carbon nanotubes, Polymers, etc. CO8: Understand the organometallic chemistry of some important elements of s- and p-block.

CO9: understand how to derive the SALCs for molecules using the Projection Operators and also how to construct molecular orbitals using various symmetry operations and their representations.

Coordination and Bioinorganic Chemistry After successfully completing this course, students will be able to:

CO1: Understand the effect of various ligand field strengths on d-metal ions and find out ground state terms with their energies, microstates, degeneracy and microstate table for different transition metal ions and complexes.

CO2: Understand electronic spectra of complexes w.r.t. spin and orbital selection rules, various transitions, charge transfer spectra and luminescence spectra with LASER application.

CO3: know the magnetic properties of complexes and understand spin-only and effective magnetic moments, Zeeman effect, properties of complexes with A, E, and T terms.

CO4: Understand of Bioinorganic Chemistry: Use of metals in biological systems, various aspects of coordination chemistry related to bioinorganic research, metallobiopolymers, their structure, function, role of metal ion, etc.

CO6: Get the knowledge of Biochemistry of metals like Na, K, Fe, Ca and Mn.

Inorganic Chemistry Practical After successfully completing this course, students will be able to:

CO1: prepare the exact solutions for quantitative analysis.

CO2: Apply the knowledge of quantitative analysis for the determination of metals from ores/alloys. CO3: synthesize Inorganic complexes and also find their purity.

CO4: Understand Ion-exchange chromatography for separation of metal ions.

CO5: Understand the principle and working of different instruments like colourimeter, conductometer, spectrophotometer, etc.

Basic Organic Chemistry After successfully completing this course, students will be able to:

CO1: understand chemical bonding and reactivity, various effects in organic molecules.

CO2: understand Acidity and Basicity as well as aromaticity.

CO3: understand concepts of stereochemistry and will be able to stereochemical aspects in organic chemistry.

CO4: develop knowledge of substitution (electrophilic, nucleophilic), addition and elimination reactions.

Organic Reaction mechanism and Spectroscopy After successfully completing this course, students will be able to:

CO1: understand various reactions and rearrangements.

CO2: understand and write mechanism of reactions and their applications.

CO3: understand how to convert one molecule into another by using oxidising and reducing reagents. CO4: apply theoretical knowledge in practicals for various conversions.

Safety in Chemical Laboratory and good lab practices After successfully completing this course, students will be able to:

CO1: know meaning of safety signs on container of chemicals, safety in handling of chemicals, MSDS sheets.

CO2: understand detailed explanation of at least four different types of substances (e.g. nitric acid, benzene, potassium dichromate, bromine, etc.),

CO3: know handling of glasswares and care to be taken, handling of organic flammable as well as toxic solvents in laboratory

CO4: know use of safety goggles, shoes and gloves, fire extinguisher and its use and action to be taken in accidental cases

General Chemistry After successfully completing this course, students will be able to:

CO1: understand the Principles of mass spectroscopy, gas chromatography and HPLC

CO2: apply the techniques for structure determination of organic molecules.

CO3: perform statistical analysis of chemical data by developing analytical mind.

Spectroscopic Methods in Structure Determination After successfully completing this course, students will be able to:

CO1: understand how to interpret nuclear magnetic resonance spectrum.

CO2: know how to solve problems based on ^1H and ^{13}C NMR

CO3: know applications of mass spectroscopy in determination of structures.

CO4: understand methods of solving combined problems on all spectroscopic techniques.

Organic Stereochemistry After successfully completing this course, students will be able to:

CO1: understand various terminologies in stereochemistry.

CO2: will be able to draw the stereochemical structures of different molecules.

CO3: understand the isolation of racemic mixtures.

CO4: draw various organic reactive intermediates with stereochemistry.

Pericyclic reactions, Photochemistry and Heterocyclic Chemistry. After successfully completing this course, students will be able to:

CO1: understand various Pericyclic and photochemical reactions and rearrangements.

CO2: understand and write mechanism of reactions and their applications.

CO3: understand how to synthesize five, six and seven-membered heterocycles.

CO4: utilize their knowledge in practicals for various heterocyclic and photochemical conversions.

Chemistry of Natural products After successfully completing this course, students will be able to:

CO1: understand different Secondary metabolites and their importance.

CO2: become familiar with many reagents used in organic synthesis.

CO3: understand nature better by studying mechanisms in biological reactions.

CO4: understand various laboratory methods to determine structure of unknown organic sample.

CO5: develop interest in Biogenesis of naturally occurring essential compounds.

Carbohydrate and Chiron approach / Chiral Drugs and Medicinal Chemistry After successfully completing this course, students will be able to:

CO1: understand the stereochemistry of carbohydrates and their reactions.

CO2: understand the concept of chiral templates and chiral drugs

CO3: understand the synthesis of various drugs.

CO4: understand the mode of action of different anti-fungal, anti-bacterial and anti-viral drugs.

Organic Chemistry Practicals: CHO-347, CHO-447, CHO-448 After successfully completing this course students will know,

CO1: How to synthesize organic molecules.

CO2: How to maintain reaction conditions.

CO3: Arrangement of assembly.

CO4: How to follow reaction by using thin layer chromatography

CO5: Methods of purification of samples.