Yashwantrao Chavan Maharashtra Open University, Nashik – 422 222

1.1.1: Learning Outcomes Curriculum Framework (LOCF) Document.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
01	B. A.	**After learning this program, learner will able to:** Acquire information and knowledge in literature, languages and Social Sciences.	**After learning this program, learner will able to:** **1.** Understand micro and macroeconomics and economic development of India. **2.** Understand economic theory of agriculture and agro-industries in rural development. **3.** Understand prose, poetry, literature and languages in communication.	1. ECO218: Micro-Economics (Anshlaxyi Aartha shashtra)	**After learning this course, learner will be able to:** 1. Understand Micro Economics in terms of the meaning, nature, scope and importance; economic problems, methods and policies; demand and supply theory, income inequality, nature of market system, type, pricing, equilibrium of industry; and the government intervention in the economy.
				2. ECO219 :Macro Economics (Samagralaxyi Aarthashashtra)	1. Comprehend Macro Economics in terms of the concept, meaning, nature, scope, importance, theory; price index, value of money, banking system as well as income, employment, and investment.
				3. ECO275 : Economic Development of India (Bharatacha Aarthik Vikas)	1. Get acquainted with economic development of India with reference to the development index, planning and problems in economy, issues in human resource, role of agriculture and industry in economic development, and inherent problems; labor market in India; financial and trade policy and structural changes in economy.
				4. ECO276 : Public Finance (Sarvajanik Vitta vyavhar)	1. Get introduced to public finance, public revenue, public expenditure, public debt, federal fiscal system; meaning of budget, concept, type; policy and its impact on economy.
				5. ECO277 : (International Economic) Aantarrashtriya Aarthashashtra	1. Get acquainted with International Economics with reference to the theory of international trade, terms of trade, balance of payments, international trade policy, international finance; nature, function, role and importance of international organization, international monetary system, exchange rate, policies.

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				6. ECO278 : Economic Theory of Agricultural Industries and service sector (Krishi Udyog va Seva kheshtrache Aarthik Sidhant)	1. Understand the economic theory of agriculture, industry and service sector; agricultural productivity, marketing of agricultural products, agricultural financing, pricing, industrialization, industrial finance, sick industry; service sector, meaning, scope, significance, and its contribution in socio-economic development of the region.
				7. ECO279 :Consumer protection (Grahak Saurakshan)	1. Describe consumer protection in terms of concepts and meanings; rights and duties of consumer; consumer movement practices; consumer issues and solutions; pricing policy, marketing, advertising, publicity, and the consumer.
				8. ECO309 : Rural Development (Gramin Vikas)	1. Discuss rural development in terms of problems faced by general and special groups in rural India; rural government organizations, approaches of government; non-governmental and charitable organizations in rural development, their role, coordination and collective movements of the victims.
				9. ENG214 : How to Read a Short Story	1. Get oriented with the English literature in the most popular forms; inculcate life values and sharpen aesthetic sensibilities through great literary works; discuss the form with close text reading; analyze and appreciate the genre of short story.
				10. ENG215 : How to Read a Novel	1. Get acquainted with the tools of analysis of a novel as a competent reader; learn definition and five elements of novel and ways of interpretations of a fiction.
				11. ENG255 : Indian Writing In English	1. Understand the tradition of Indian writing in English, including fictional prose, non -fictional prose and poetry; and get to know the Indianness in the Indian writing in English.
				12. ENG256 : Understanding Drama	1. Get introduced to the theory and history of drama, definition and elements, sub genres and major periods and movements of drama and theatre; and study Indian dramatist Girish Karnad and western dramatist William Shakespeare.
				13. ENG257 : Understanding Prose	1. Get acquainted with the history of English prose, all forms of prose writings, and development of English prose from its conception to the present times, relate the development of English thought; scientific and other writings.
				14. ENG258 : Understanding	1. Get introduced to the tradition of poetry writing from nineteenth century to the present times viz. Romantic Poetry,

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				Poetry	Victorian Poetry, and the Modern Poetry,
				15. ENG259 : Communication Skills in English	1. Use English language effectively for different purposes in various formal and informal situations; writing for business purposes, and hone their communicative competence.
				16. ENG306 : Structure of Modern English	1. Explain the concept of language along with its nature and function; get introduced to phonological, morphological and syntactical system of English language through Phonetics and Phonology; grammar of English words, phrases and sentence.
				17. EVS201 : Environment Studies	1. Understand eco-systems; importance and conservation of biodiversity and wildlife; protection of Earth's protective layer, environmental issues such as pollution; increase awareness regarding environmental crisis such as natural and manmade disasters.
				18. GKN101 : Foundation Course of General Knowledge & Social Awareness	1. Get aware of the history and process of developments in the field of science and technology, environment, health, communication revolution and biotechnology and various other sectors.
				19. HEN101 : Foundation Course of Hindi & English Language	1. Get introduced to the Hindi and English language skills and basic structural paradigms related with these languages.
				20. HIN212 : Hindi : Fictional writing in Hindi (Kathanpar Sahitya)	1. Get introduced to the structure and form of Hindi literary genres such as plays, stories and novels, and read, appreciate and analyze selected texts of the said genres.
				21. HIN213 : Hindi : Prose Writing in Hindi (Kathetar Sahitya)	1. Get acquainted with non-fictional prose in Hindi literature, such as biographies, reportage, diaries and travelogues.
				22. HIN260 : Poetry: nature and Analysis (Kavita : Swaroop Aur Vivechan)	1. Understand the definition and structure of Hindi poetry and get acquainted with medieval and modern Hindi poetry.
				23. HIN261 :Literature and Criticism: nature and Analysis (Sahitya Aur Sameeksha : Swaroop Aur Vivechan)	1. Get acquainted with various literary theories regarding Hindi literature; and get acquainted with the critical views of important critics of Hindi literature.
				24. HIN262 : Renaissance in Hindi Literature (Hindimain Navjagaran)	1. Get introduced to Hindi language script and its different dialects; know about the origin of Hindi language and its different dimensions in different periods.

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				25. HIN263 : Structure of Hindi Language (Hindi ka Bhasha Vaidnyanik Adhyayan)	1. Get acquainted with official use of Hindi language, its use in formal and informal settings such as letters, interviews and advertisements in Hindi; build capacity to use Hindi in government and non-government offices, get acquainted with Hindi vocabulary used in different fields.
				26. HIN264 : Hindi for Practical Purpose (Prayojan mulak Hindi)	1. Understand the theory and practice of translation, various types of translations and of different genres of Hindi literature, and get acquainted with features of translation in different fields.
				27. HIN307 :Translation: Nature and Analysis (Anuvad : Swaroop Aur Vivechan)	1. Describe the nationalist movement, British administration and constitutional progress in India.
				28. HIS220 : History of Modern India (Aadhunik Bharatcha Itihas)	1. Discuss American, French and Russian Revolution and also define Industrial Revolution and Nationalism.
				29. HIS221 : : History of Modern World (Aadhunik Jagacha Itihas)	1. Illustrate Political, Economic and Socio-cultural progress in Ancient India.
				30. HIS280 : Ancient India : Beginning to Yadava Period (Prachin Bharat : Prarambh te Yadavkal)	1. Get acquainted with the history of medieval period; sultanate age, Bahamani and Vijay agar Empire, Mughal Empire.
				31. HIS281 : Medial India (1206 to 1857) (Madhyayugin Bharat (1206 te 1857)	1. Discuss the status of woman in Ancient, Medieval and Modern India.
				32. HIS282 : Development of Women in India (Bharatiya Stri jivanachi Vatchal)	1. Describe the history of south Asian countries (India, Pakistan, Bangladesh, Nepal, Bhutan, Sri Lanka, Maldives) and discuss the SAARC Organization.
				33. HIS283 : History of SARC countries (SAARC Deshancha Itihas)	1. Illustrate Indian cultural heritage, describe religious differences and get an idea of direction of social reconsolidation in India.
				34. HIS285 : Unity of Diversity (Vividhatetil Ekata)	1. Define British colonialism, describe socio-cultural Renaissance in colonial Maharashtra and explain the participation of Maharashtra in the National Movement.
				35. HIS310 : History of Social Transformation in Maharashtra	1. Get introduced to the theoretical perspectives of humanities, get acquainted with performing arts, experimental and

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				(Aadhunik Maharashtratil Parivartanacha Itihas)	instrumental arts.
				36. HUM101 : Foundation Course of Humanities	1. Understand linguistic theory and practice, use of language, nature and practice of linguistic creativity of Marathi language.
				37. MAR102 : Foundation Course of Marathi Language	1. Explain the nature, and structure of short stories and novels; and critically appreciate and analyze the given short stories and novels written in Marathi.
				38. MAR210 : Study of Literary Genres (Vangmaya prakarancha Aabhyas)	1. Get acquainted with the new literatures and the post-independent literature viz. Dalit, Rural, and feminist writings in Marathi.
				39. MAR211 : Post Independence Literary Movements (Swatantryottar Vangamayin Pravah)	1. Understand the nature of poetry and drama, critically appreciate and analyze various poems and plays written in Marathi.
				40. MAR250 : Lirerary Genres (Vangamaya Prakar)	1. Gets an idea of the mediaeval literature, Mahanubhav literature, Saint literature, Panditi, Shahiri and Bakhar literature.
				41. MAR251 : Medial Literary Movements (Madhyayugin Vangamayin Pravaha)	1. Get acquainted with the nature and concept of Enlightenment literature in Marathi, Ideological writings during the Enlightenment period, and explain feature writings in Marathi.
				42. MAR252 : Enlitenment Literature in Marathi (Prabodhanpar Sahitya)	1. Discuss the origin, development and nature of Children's literature; describe short stories for children, novels for children, plays for children and biography writings for children in Marathi.
				43. MAR253 : Literature for Lildrens (Balsahitya)	1. Get specific skills related to different type of content writing to be used in different type of media.
				44. MAR254 : Writing Skills for Media (Prasar Madhyamansathi Lekhan kaushallya)	1. Illustrate the folk literature, modern literature, and research methodology to study the folk and modern literature in Marathi.
				45. MAR305 : Folk Literature (Loksahitya)	1. Explain the study skills viz. listening, reading, writing, note taking, note making, using libraries and references etc.
				46. OPN101 : Foundation Course of Self Study Skills	1. Understand the political scenario in India, describe democratic process and political process in India.
				47. POL224 : Political process in India (Bharatiya	1. Discuss the fundamental rights, second and third generation rights, right to employment, rights of the tribal, peasants and

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				Rajkaranachi Prakriya)	landless laborers.
				48. POL225 : Our Rights and their Fulfillment (Aaple Hakka Aani Tyanchi Paripurti)	1. Explain the relation between individual, society and the State; Describe the political concepts and political behavior of the individual.
				49. POL286 : Nature of Political science (Rajyashatrache Swaroop)	1. Discuss the constitution and federal system of the State; explain important concepts and issues in political science viz.party system, election system, and three branches of the government i.e. legislature, executive and judiciary.
				50. POL287 :Political Structure (Rajkiya Sanrachana)	1. Discuss different Indian political ideologies postulated in different by various ages in India.
				51. POL288 : Political Heritage in India (Aadhunik Bharatatil Rajkiya Varsa)	1. Understand different theories and nature of international relations; get acquainted with the transition in international relations.
				52. POL289 : International Relations and Politics (Aantarrashtriya Sambandha Va Rajkaran)	1. Get acquainted with the western classical and modern political ideologies.
				53. POL290 : Western Political Thinking (Paschimatya Rajkiya Vichar Pravah)	1. Describe the nature and scope of public administration and different aspects of administrative system and local self-government.
				54. POL311 : Public Administration (Lok Prashasan)	1. Understand various psychological concepts such as attention, memory, thought process, motivation and emotion.
				55. PSY216 :I and my behavior (Me Aani Maze Vartan)	1. Get acquainted with the intellectual, social, and emotional development of the child from pregnancy to pre-school.
				56. PSY217 : Child Nourishment and Child Development (Balsangopan Ani Balvikas)	1. Describe the nature of communication and human exchange as well as adjustment, problems and personal development
				57. PSY270 :Human Transaction and Adjustment (Manavi Vinimaya Va Samayojan)	1. Explain the psychological concepts like social psychology, socialization, language and communication, attitude, social behavior, community, leadership etc.

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				58. PSY271 : I and my Social behavior (Me Aani Maze Samajik Vartan)	1. Get introduced to the concept of mental health, nutrition, development, and developmental disorders etc.
				59. PSY272 :Mental Health (Mansik Swasthya)	1. Discuss the nature of personality, the process of development and self-awareness as well as the psychological problems and mental health.
				60. PSY273 : Personality Development (Vyaktimattva Vikas)	1. Get introduced to the concepts of family, marital guidance, marital problems and treatment as well as marital adjustment.
				61. PSY274 : Marital Adjustment Counselling (Vaivahik Samayojan Ani Margadarshan)	1. Gets acquainted with research, collection of data and processing, psychoanalysis and statistics, psychological experiments and tests.
				62. PSY308 :Experimental Method: Statistics, psychological Experiments (Prayogik Padhati : Sankhiki Va Manasshastriya Prayog)	1. Describe the foundations of social sciences like history, political science, sociology and psychology. The learner will also know about the communication revolution and foundations of biotechnology.
				63. SOC101 : Foundation Course of Social Sciences	1. Explain the process, components and consequences of social movements; describe social movements and issues like un touchability, Dalits, farmers, peasants' rights, and movements.
				64. SOC222 : Social Change and Social Movements (Samajik Parivartan Ani Samajik Chalvali)	1. Describe the Indian social structure and its different aspects like family, caste, tribal communities, economy and politics.
				65. SOC223 : Indian Society (Bharatiya Samaj)	1. Explain the concepts relating to environment; discuss various issues and problems relating to the environment and society at local and global level.
				66. SOC291 : Environment and Society (Paryavaran Va Samaj)	1. Understand about nature and scope of the rural sociology in which learner will be knowing about caste system, economy, rural politics and rural culture in detail.
				67. SOC292 : Rural Sociology (Gramin Samajshastra)	1. Understand the origin of sociology, and get introduced to the contribution of Emilie Durkheim, Karl Marx and Max Weber in the theories of sociology.
				68. SOC293 : Classical Thinkers in Sociology	1. Explain different aspects of industrial sociology viz.

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				(Samajshastrache Abhijat Wicharwant)	industries, bureaucracy, workers and management and industrial relations and worker's welfare.
				69. SOC294 : industrial Sociology (Audhyogik Samajshastra)	1. Describe different aspects related to population studies, family health and related issues.
				70. SOC295 : Population Studies (Loksankhya Shikshan)	1. Discuss the process of old age, issues and problems relating to old age, and adjustment.
				71 SOC312 : Process aging (Vayowardhan Prakriya)	1. Understand Micro Economics in terms of the meaning, nature, scope and importance; economic problems, methods and policies; demand and supply theory, income inequality, nature of market system, type, pricing, equilibrium of industry; and the government intervention in the economy.
02	B. A. (Mass Communication and Journalism	**After learning this program, learner will able to:** Understand principles and Practices in mass communication and practical journalism as a profession.	**After learning this program, learner will able to :** 1. Develop capacity of critical and analytical power to work with print and electronic media, become well-trained and skilled human resource for print and other media sectors 2. Acquainted with practical input such as survey, collection of news items and writing analytical report on the theme. 3. Develop skills of translating news report, write script for radio or television.	1. EVS201 : Environment Studies	**After learning this course, the learner will be able to:** 1. Understand eco-systems; importance of conservation of biodiversity and wildlife; protection of Earth's protective layer, and understand environmental issues such as pollution; increase awareness regarding environmental crisis such as natural and manmade disasters.
				2. GKN101 : Foundation Course of General Knowledge & Social Awareness	1. Get aware of the history and process of developments in the field of science and technology, environment, health, communication revolution and biotechnology and various other sectors.
				3. HEN101 : Foundation Course of Hindi & English Language	1. Get introduced to the Hindi and English language skills and basic structural paradigms related with these languages.
				4. HUM101 : Foundation Course of Humanities	1. Get introduced to the theoretical perspectives of humanities; get acquainted with performing arts, experimental and instrumental arts.
				5. MAR101 : Marathi	1. Understand linguistic theory and practice, use of language, nature and practice of linguistic creativity of Marathi language.
				6. MCJ201 : News Paper Business & Journalism	1. Understand the skills required for the profession of journalism and mass communication; get acquainted with important aspects related to newspaper and media industry.
				7. MCJ202 : Various Areas of News	1. Understand media theories; get introduced to the areas where news can be built, viz cooperative sector, sports, commerce and agriculture.
				8. MCJ203 : Modern Maharashtra	1. Get acquainted with administration, economy, renaissance movement, literature and journalism in Maharashtra.

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				9. MCJ204 : Modern India	1. Get introduced to varied fields such as politics, foreign relations, international politics, economy, geo-politics, socio-politics and culture of modern India.
				10. MCJ205 : Writing Skills for Print Media	1. Write news item, editorial, column, readers' letters; get translation skills and techniques.
				11. MCJ206 : Audio Video Media Nature & Skills	1. Get the skills required in media about radio, television, documentaries; voice culture, and other techniques and presentation skills.
				12. MCJ301 : Mass Communication & Development Communication	1. Get introduced to mass communication, development communication; nature and impact of communication revolution.
				13. MCJ302 : Indian Constitution & Governance	1. Get introduced to the Indian Constitution, Indian polity, administrative structure and its working pattern in India.
				14. MCJ303 : Journalism: Laws & Ethics	1. Understand laws and regulations related to mass media sector, human rights and journalistic ethics.
				15. MCJ304 : Journalism & Related Work Areas	1. Get introduced to advertising, public relations and photo journalism.
				16. MCJ305 : Editing: Nature & Skills	1. Get editing skills for newspaper, periodicals and books.
				17. MCJ306 : Computer Application & Printing Techniques In Media	1. Use computer skills useful for printing; execute pagination, graphics, design and various other printing techniques useful in the publishing and the news paper industry.
				18. OPN101 : Foundation Course of Self Study Skills	1. Explain the study skills viz. listening, reading, writing, note taking, note making, using libraries and references etc.
				19. SOC101 : Foundation Course of Social Sciences	1. Know about the foundations of social sciences like history, political science, sociology and psychology. The learner will also know about the communication revolution and foundations of biotechnology

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03	B. Com. (English / Marathi Medium)	**After learning this program, learner will able to :** Understand commerce, business, trading and able to make profit-loss analysis	**After learning this program, learner will able to :** 1. Understand commerce, business and trading. 2. Develop understanding in Economics and Business, Management. 3. Understand business organization and business practices. 4. Understand business laws in trading and payments.	1. COM 106 : Commerce	**After learning this course, the learner will be able to:** 1. Understand the definition of economics, nature of economics & inter-relationship between economics and commerce
				2. COM 107 : Elements of Statistics	1. Understand the elements of statistics, nature of statistics and its significance in daily life.
				3. COM 208 : Accountancy Part-I	1. Understand system of accounting and bank reconciliation statement
				4. COM 209 : Accountancy Part-II	1. Understand the types of investment accounts, Information about brokers accounts and writing of investment account.
				5. COM 210 : Business Law	1. Understand evolution of Indian Contract Act and its importance, importance of Contract in daily transactions and legal relationship.
				6. COM 211 : Office Management	1. Understand different functions of the office and its importance in an organization and appreciate types of relationships between the functional departments or divisions in the organization.
				7. COM 212 : Business Organization and Administration	1. Understand commercial organization, partnership firms, co-operative organization and public and government enterprises
				8. COM 220 : Indian Economic Environment	1. Understand Indian economic environment and its management, relationship between man and environment.
				9. COM 221 : Costing, Auditing & Taxation	1. Understand concept and objects of Auditing, scope and advantages of auditing.
				10. COM 222 : Human Resource Management	1. Understand concept of Human Resource Management and personal management in the Organization.
				11. COM 306 : Banking & Finance-I	1. Understand concept of bank, functions of bank and origin of word bank and evolution of banking system. business
				12. COM 307 : Banking & Finance-II	1. Understand concept and nature of money market, Importance, Limitations of Indian money market and suggestions for the improvement of Indian money market.
				13. ECO 201 : Business	1. Understand meaning and difference between plant, firm and

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				Economics	industry and nature of production process
				14. ENG 102 : English for Business	1Understand to have interaction in English language in business.
				15. EVS201 : Environment Studies	1. Understand role of nature and biodiversity conservation in natural resources management for equitable use of natural resources for sustainable development.
				16. GKN 101 : General Knowledge and Social Awareness	1. Explain the concepts of civilization, culture and religion, understand various concepts of philosophy and spiritual values in religion
				17. MGM 105 : Management Science	1. Understand meaning of Business and business management and types of administration and management in Business.
				18. MGM 224 : Managerial Economics	1. Explain the definitions and nature of Managerial Economics and branches of managerial economics.
				19. MGM 225 : Business Communication	1. Explain importance of business communications and process of communication in business.
				20. MGM 308 : Marketing Management-I	1. Understand concept and importance of market and marketing in modern society.
				21. MGM 309 : Marketing Management-II	1. Understand the importance of advertisement for sale promotion and types of advertosement.
				22. OPN101 : Foundation Course of Self Study Skills	1. Understand and develop skills useful in business environment.
04	B. Com. (Co-operative Managem	**After learning this program, the learner will able to :** 1.Understand nature and	**After learning this program, the learner will able to :** 1. Train people in Cooperative management sector.	1. COM106 : Commerce (Vanijya shatra)	**After learning this course, the learner will be able to:** 1. Acquisition of knowledge of the basic principles of business Economics and how cooperative can be a very effective alternative to the existing system to achieve individual and social welfare by eliminating the tendency, scope of exploitation.

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	ent)	practices in Cooperative Management and create skilled manpower in Cooperative Management.	2. Acquire knowledge of Co-operative Management in agro based industries and Co-operation. 3. Apply quantitative and qualitative knowledge for planning their future business.	2. COM211 : Office Management (Karyalyin Vyvastapan)	1. Ability to manage and administer office, Ability to handle and use of model technique of computer in office administration and management.
				3. COM220 :Economic Environment in India (Bharatiya Aarthik Paryavaran)	1. Ability to train people for creation of beautiful economic environment 2. Capacity to guide people to how people can mould themselves to create favorable economic environment
				4. COM221 :Cost Accounting Audit and Taxation (Parivaya Ankekshan ani Kar Aakarni)	1. Ability to calculate different type of cost. 2. Ability to access the real cost of economic activity. 3. Ability to access tax and payment methods.
				5. COM222 :Human Recourse Management (Manav Sansadhan Vyvastapan)	1. Ability to assign manpower and duties as per their skills, ability. 2. Ability to train manpower. 3. Capacity to select manpower for the required job
				6. ECO201 :Professional Economics (Vyvsaik Aarthshastra)	1. Acquisition of knowledge of the basic principles of business Economics and how cooperative can be a very effective alternative to the existing system to achieve individual and social welfare by eliminating the tendency, scope of exploitation.
				7. EVS201 :Environmental Studies (Paryavaran Abhyas)	1. Explain Aesthetic/Recreational value of nature, need for public awareness 2. Explain Natural resources and associated problems, Non-renewable resources, renewable resources 3. Explain What can you do to save electricity?, Understanding ecosystems, Resource utilization 4. Explain Causes effect and control of water pollution, Air pollution, and noise pollution 5. Understand about environment and green practices to be followed.
				8. HEN101 : Foundation Course in Hindi and English (Hindi Va Engraji Bhashancha Adhishtan Abhyaskram)	1. Development of knowledge of Hindi and English language from communication point of view. 1. Development of writing skills in Hindi and English language. 2. Development of expression skills and listening skills in Hindi and English language.

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				9. MGM218 : cooperatives : Principle and Practices (Sahakar : Tattve ani Karyapadhati)	1. Acquisition of knowledge of cooperative principle and functions. 2. Capacity building in contributions in cooperative banking society or any other activity being run on Cooperative basis 3. Capacity building to motivate other to use Cooperative principle in day to day life, business or economic activity to benefit individuals and Society at large.
				10. MGM219 :Cooperative Management and Administration (Sahakari Vyvastapan Va Prashasan)	1. Capacity buildings to contribute in the establishment of a cooperative society. 2. Capacity building to provide services on professional basis in establishing cooperative society undertakings activity by providing knowledge of legal issues Cooperative laws sub law. 3. Ability to contribute professionally in the management and administration of cooperative society or activity
				11. MGM220 :Cooperative Laws and Other Laws (Sahakari Kayada Va Itar Kayade)	1. Ability to provide knowledge in establishing cooperative society from legal point of view. 2. Ability to contribute in the management and administration of a cooperative society. 3. Ability to contribute professionally in the management and administration of cooperative society or in activity.
				12. MGM221 :Cooperative Accounting , banking and Auditing (Sahakari Jamakharch: Banking Va Lekhaparikshan)	1. Ability to write accounts of a cooperative society or a bank 2. Ability to guide professionally as to how accounts can be maintained of a cooperative bank or an activity. 3. Capacity buildings to undertake the task of accounts writing, auditing accounts maintaining of a cooperative society.
				13. MGM222 : Case Study and Project Report (Sthiti: Abhyas v Prakalp Ahaval)	1. Ability to assign manpower and duties as per their skills, ability. 2. Ability to train manpower. 3. Capacity to select manpower for the required job
				14. MGM225 :Business Communication (Vyavsaya Sadnyapan)	1. Ability to make effective business communication. 2. Ability to access Jorge and make people understand importance of business communication. 3. Ability to contribute professionally in effective business communication.

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				15. MGM230 : Dairy Cooperative Farming (Sahakari Dugdha Vyavsaya)	1. Capacity to unite farmers engaged in livestock farming 2. Capacity to initiate activity of milk collection and distribution. 3. Ability to undertake Cooperative activity and small scale basis
				16. MGM231 : Cooperative Banking Sahakari Banking	1. Ability to work in a cooperative society. 2. Ability to work as small savings daily collects in Cooperative Bank. 3. Ability to write books of accounts, daily correspondence and administration of a cooperative bank or a society.
				17. MGM235 :Apex Cooperative Bodies (Shikhar Sahakari Sanstha)	1. Ability to work in primary agriculture cooperative society. 2. Ability to people to be member of cooperative society and advantages of it 3. Capacity to write accounts work as recovery officer in a Cooperative Bank Society 4. Ability to write people and convey them important of cooperative principles to initiate an activity based on the Cooperative principle.
				18. MGM240 :Cooperative Farming and Agribusiness (Sahakari Krushi Vyavsaya)	1. Ability to demonstrate how agriculture can be very successful business if run on Cooperative basis. 2. Ability to contribute professionally in agriculture society seeds pesticides and stores. 3. Ability to unite, train farmers for Cooperative activity
				19. MGM308 :Marketing Management 1 (Vipanan Vyvastapan-1)	1. Ability to undertake marketing of products. 2. Ability to work in an industry in the marketing division. 3. Ability to guide in marketing of a goods or products
				20. MGM309 : Marketing Management 2 (Vipanan Vyvastapan-2)	1. Ability to undertake marketing of products. 2. Ability to work in an industry in the marketing division. 3. Ability to guide in marketing of a goods or products
05	B.C.A. (Bachelor of Computer	**After completing this program, the learner will able to :** 1. Acquire knowledge and	**After completing this program, the learner will able to :** 1. Train a person in computer basics and Information	1.AEC001 : English Communication	After completing this course, the learner will be able to: 1.Communicate effectively and appropriately in real life situation and integrate the use of four language skills a) Reading b) Writing c) Listening d) Speaking

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	Applications)	skills in using information technology in office communication and business.	Technology. 2. Enable the students to acquire knowledge of software development.. 3. Increase employability of learners in Information Technology sector.	2.CMP201 : Programming Expertise in C	1. Understand algorithms, computing problems and use of programming concepts to develop logical solutions.
				3.CMP202 : Data Structures Through C	1. Understand algorithms, data structures with its applications and implement learned algorithm design techniques and data structures to solve problems.
				4.CMP203 : OOPs and C++	1. Develop algorithms for solving problems by using modular programming concepts and explore and apply tools and best practices in object-oriented programming to provide analytical and logical solutions.
				5. CMP204 : Office Tools	1. Efficiently Use office tools like Microsoft word, excel, PowerPoint etc. in implementing better documentation and presentations and Perform basic office duties and responsibilities.
				6.CMP205 : Software Engineering	1. Develop the software projects or prototypes by understanding the requirements and will be efficient in using the software design and coding techniques along with project management.
				7.CMP206 : Principles of Data Base Management System	1. Construct an Entity-Relationship (E-R) model from specifications and to transform to relational model, understand SQL databases and database transaction management and use these applications of database systems
				8.CMP207 : Computer Fundamentals	1. Identify and analyze common types of computing problems & apply logic to develop solutions using programming in day to day Applications.
				9.CMP209 : Data Communication and Networking	1. Gain fundamental knowledge on data communication and the design of computer networks and network security and use these tools and techniques in network development, administration.
				10.CMP211 : Visual Programming	1. Understand interface design (GUI) concepts, event based programming and use them to code visual programs by using Visual Basic work environment.
				11. CMP212 : Building Web Portals through ASP.NET	1. Understand .Net Framework and ASP.Net controls and use them to Develop dynamic web applications, create and consume web services.
				12.CMP213 : Programming	1. Understand .Net Framework and C# controls and use them to

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
				Excellence Through C#	Develop dynamic web applications, create and consume web services.
				13. CMP214 : Enterprise Solutions using J2EE	1. Design and develop dynamic, database-driven application using J2EE and will be able to connect to any JDBC-compliant database, and perform hands on practice with a database to create database-driven connectivity.
				14. CMP215 : Data Structures through C++	1. Gain knowledge of various methods used in data structures, Apply and implement learned algorithm design techniques, Object orientated concepts and data structures to solve problems.
				15. CMP216 : Distributed Computing through COM/DCOM	1. Understanding Distributed Computing, COM and Distributed component object model architecture and its applications and uses in network integration and security management.
				16. CMP217 : DirectX Game Programming	1. Understand the process of game designing and development /programming and writing APIs and SDK' using game development tools based on MFC and DirectX from windows.
				17. CMP218 : Writing Windows Device Drivers	1. Gain knowledge of the basic fundamentals of writinga Windows *device driver* and Design, develop, and deploy hardware and device drivers for Windows PCs and other devices.
				18. CMP220 : Programming Excellence through VB.NET	1. Understand .Net Framework and VB.Net controls and use them to Develop dynamic web applications, create and consume web services.
				19. CMP221 : Statistical Techniques	1. Choose and apply appropriate numerical methods and statistical techniques to obtain approximate solutions to difficult mathematical problems.
				20. CMP223 : Computer Organization	1. Understand and use computer systems and its components, storage /I/O devices and their working and PC troubleshooting.
				21. CMP226 : Enterprise Resource Planning (ERP)	1. Understand and use computer systems and its components, storage /I/O devices and their working and PC troubleshooting.
				22. CMP227 : E-Commerce	1. Demonstrate an understanding of basic Business models, retailing in E-commerce by analyzing branding and pricing strategies, using and determining the effectiveness of market

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
					research and use of E-payment systems and its applications.
				23. CMP230 : Communication skills and Technical writing	1. Develop/Improve Visual Communication Skills, Writing Skills, conversational skills and research skills. Develop professional work habits, including those necessary for effective collaboration and cooperation with other students, instructors and Service Learning contact representatives.
				24. CMP242 : Humanities and Social Obligations	1. Understand the role of individuals and institutions within the context of society and Apply knowledge and experience to foster personal growth and better appreciate the diverse social world in which we live.
				25. CMP247 : JAVA	1. Understand the concept of OOP ,Create Java application programs using sound OOP practices, Use testing and debugging tools to automatically discover errors of Java programs as well as use versioning tools for collaborative programming/editing.
				26. CMP248 : Linux	1. Understand Linux operating systems, its installation , different tools using in Linux system administration and management and handle Microsoft network, mail server and web servers
				27. CMP250 : Mathematics for computers	1. Choose and apply appropriate numerical methods to obtain approximate solutions to difficult mathematical problems and demonstrate working of various numerical methods and their applications.
				28. CMP255 : Operating Systems	1. Identify basic components of operating system, operating system installation, Understanding and simulate activities of various operating system components, Memory /process , I/O devices management , scheduling algorithms and their working , create and use different file systems.
				29. CMP256 : Oracle	1. Understand and implement basis of programming, management, and security issues of working with PL/SQL program units, use of built-in packages that come with Oracle, the creation of triggers, and stored procedure features and creating and handling of databases.
				30. CMP258 : Professional Development	1. Develop professional work habits, including those necessary for effective collaboration and cooperation with other students, instructors and Service Learning contact representatives.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
				31. CMP259 : Project	1. Apply and extend technologies and concepts learned throughout the program to develop/design applications, product prototype and understand and make use of software development life cycle and project management.
				32. CMP262 : Study Skills	1. Provides information, techniques, strategies and skills helpful in becoming more efficient in note taking, textbook reading, and taking exams. It helps students in identification of preferred learning style and development of skills in scheduling study time, library research, memory strategies and critical thinking.
				33. CMP263 : System Analysis & Design	1. Understanding and implementing the requirements analysis, gathering and documentation concepts and use Software development life cycle processes to design systems/products.
				34. CMP332 : Quantitative Aptitude	1. Apply Quantitative/Logical/verbal/probabilistic reasoning to draw conclusions or make decisions and communicate their rationale based on understanding, analysis, and critique of self-created or reported statistical information and statistical summaries and Compete in various competitive exams like CAT, CMAT, GATE, GRE, GATE, UPSC, GPSC etc.
				35. CMP400 : Environmental Studies	1. Understand environment and its various components, related issues and problems, identifying and solving them and using experiences and acquired knowledge to save the environment for future generations.
				36. CMP401 : Cloud computing	1. Understand core concepts of cloud storage and demonstrate their use in storage systems and Analyze various cloud programming models and apply them to solve problems on the cloud.
				37. CMP402 : Mobile Application Development	1. Understand Mobile application development for the Android Operating System using XML, java and developing simple applications that could run on Android phones and tablets.Also helps students understand Android application development phases, terminologies, application design, and coding.
				38. CMP403 : Software Testing	1. Ability understand and identify various software testing problems, and solve these problems by designing and selecting

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
					software test models, criteria, strategies, and methods.
				39. CMP501 : Mathematics	1. Choose and apply appropriate numerical methods to obtain approximate solutions to difficult mathematical problems and demonstrate working of various numerical methods and their applications.
				40. CMP502 : Problem Solving Using Computers	1. Identify and analyze common types of computing problems & apply logic to develop solutions using programming in day to day Applications.
				41. CMP503 : Programming Using C++	1. Develop algorithms for solving problems by using modular programming concepts and build object models and design software solutions using object-oriented principles and strategies
				42. CMP504 : Statistics	1. Choose and apply appropriate numerical methods and statistical techniques to obtain approximate solutions to difficult mathematical problems.
				43. CMP505 : Data Structure Using C++	1. Gain knowledge of various methods used in data structures, Apply and implement learned algorithm design techniques, Object orientated concepts and data structures to solve problems.
				44. CMP506 : Computer Networks	1. Gain fundamental knowledge on data communication and the design of computer networks and network security and use these tools and techniques in network development, administration.
				45. CMP507 : Operating System	1. Identify basic components of operating system, operating system installation, Understanding and simulate activities of various operating system components, Memory /process , I/O devices management , scheduling algorithms and their working , create and use different file systems.
				46. CMP508 : Web Technologies	1. Develop web pages and web application using HTML, JavaScript, CSS, PHP and use Web ApplicationTerminologies, Internet Tools, E – Commerce and other web services.
				47. CMP509 : Database Management System	1. Construct an Entity-Relationship (E-R) model from specifications and to transform to relational model, understand SQL databases and database transaction management and use

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
					these applications of database systems.
				48. CMP510 : Computer System Architecture	1. Understand and use computer systems and its components , storage /I/O devices and their working and PC troubleshooting
				49. CMP511 : Software Engineering	1. Develop the software projects or prototypes by understanding the requirements and will be efficient in using the software design and coding techniques along with project management.
				50. CMP512 : Java	1. Understand the concept of OOP ,Create Java application programs using sound OOP practices, Use testing and debugging tools to automatically discover errors of Java programs as well as use versioning tools for collaborative programming/editing.
				51. CMP513 : E Commerce Technologies	1. Demonstrate an understanding of basic Business models, retailing in E-commerce by analyzing branding and pricing strategies, using and determining the effectiveness of market research and use of E-payment systems and its applications.
				52. CMP514 : Advance Java	1. Design the application of Databases in the Java programming through JDBC and dynamic web application development using Servlet and JSP
				53. CMP515 : Linux Administration	1. Understand Linux systems, its installation , different tools using in Linux system administration and management and handle Microsoft network, mail server and web servers
				54. CMP516 : Android Programming	1. Understand mobile computing, Android architectures working, its applications and use different tools to design, develop and deploy application in actual android device.
				55. CMP517 : PHP Programming	1. Understand and use PHP, SQL and PHP frameworks, content management using WordPress and develop web applications using these tools.
				56. CMP701 : Lab: Mathematics	1. Choose and apply appropriate numerical methods to obtain approximate solutions to difficult mathematical problems and demonstrate working of various numerical methods and their applications.
				57. CMP702 : Lab: Problem Solving Using Computers	1. Develop logical solutions and create programs, applications in C.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
				58. CMP703 : Lab: Programming Using C++	1. Develop logical solutions and create programs, and object oriented applications in C++
				59. CMP704 : Lab: Statistics	1. Choose and apply appropriate numerical methods and statistical techniques to obtain approximate solutions to difficult mathematical problems.
				60. CMP705 : Lab: Data Structure Using C++	1. Apply and implement learned algorithm design techniques, Object orientated concepts and data structures to solve problems/ create different applications.
				61. CMP706 : Lab: Computer Networks	1. Use different computer network tools to establish networks, managing the network administration and its security.
				62. CMP707 : Lab: Operating System	1. Operating system installation, demonstration and use of various memory management and process scheduling techniques, create and use different file system.
				63. CMP708 : Lab: Web Technologies	1. Develop web pages and web application using HTML, JavaScript, CSS, PHP and use Web ApplicationTerminologies, Internet Tools, E – Commerce and other web services.
				64. CMP709 : Lab: Database Management System	1. Create and use different types of databases and their applications , managing database transactions and security
				65. CMP710 : Lab: Computer System Architecture	1. Demonstrate PC Troubleshooting and use of different Maintenance Tools.
				66. CMP711 : Lab: Software Engineering	1. Develop the software projects or prototypes and use software testing and debugging tools.
				67. CMP712 : Lab: Java	1. Create Java application programs using sound OOP practices, Use testing and debugging tools to automatically discover errors of Java programs as well as use versioning tools for collaborative programming/editing.
				68. CMP713 : Lab: E Commerce Technologies	1. Perform market research and develop strategies, risks assessment and solution development.
				69. CMP714 : Lab: Advance Java	1. Design the application of Databases in the Java programming through JDBC and dynamic web application development

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
					using Servlet and JSP
				70. CMP715 : Lab: Linux Administration	1. Perform Linux installation and troubleshooting, using different administration /management tools and handle Microsoft network, mail server and web servers
				71. CMP716 : Lab: Android Programming	1. Gain knowledge of mobile computing, Android architectures working, its applications and use different tools to design, develop and deploy application in actual android device.
				72. CMP717 : Lab: PHP Programming	1. Understand and use PHP, SQL and PHP frameworks, content management using Word Press and develop web applications using these tools.
				73. CMP801 : Project-BCA	1. Apply and extend technologies and concepts learned throughout the program to develop/design applications, product prototype and understand and make use of software development life cycle and project management.
				74. ENV121 : Environmental Studies	1. Understand environment and its various components, related issues and problems, identifying and solving them and using experiences and acquired knowledge to save the environment for future generations.
				75. ICT151 : IT And E-Learning Skills	1. Analyze the information, by identifying its different components and use different resources of e-learning like LMS,OERs, MOOC, Mobile , productivity tools etc.
				76. OPN272 : Financial And Investment Skills	1. Select and employ base level tools for financial analysis, analyze companies for investment purposes, develop portfolio strategies for individual and institutional investors and analyze the relevant legal issues involved in civil and criminal matters affecting business.
				77. OPN273 : Personality And Career Skills	1. Acquire Soft skills and develop pleasant and appealing personality traits as self-confidence, positive attitude, emotional intelligence, social grace, flexibility, friendliness and effective communication skills which will help them acquire good career opportunities and use the learned concepts of time/stress/workflow management in work and personal life.
06	B. Ed.	**After learning this**	**After learning this program,**	1. EDU101-Student & their	**After learning this course, the learner will be able to:** 1. Academic psychology can be used in teaching.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
	(Bachelor of Education)	**program, the learner will able to :** 1.Understand psychological basis of education in development of children and their testing, guidance and counseling	**the learner will able to :** 1. Understand the developmental Processes and needs of children and adolescents and role in facilitating development 2. Familiarizes with psychological Principals in curriculum transactions and Psychological testing, guidance and counseling 3. Acquaint with professionalization of teacher education	Development	
				2. EDU102-Learning & Teaching	1. Teaching can be done by considering the teaching and the psychology of the teacher.
				3. EDU103-Language of Curriculum, school Faculty & interaction of subject	1.While teaching, the correlation between the curriculum, syllabus and textbook of a particular subject can be explained.
				4. EDU 421Evaluation & Assessment	1.Students can be accurately assessed.
				5. EDU 405 – Pedagogy of School subject: Marathi	1.Marathi subject can be taught according to the content.
				6. EDU 406 - Pedagogy of School subject: Hindi	1.Hindi subject can be taught according to the content.
				7. EDU 407 – Pedagogy of School subject: English	1.English subject can be taught according to the content.
				8. EDU 408Pedagogy of School subject: Sanskrit	1.Sanskrit subject can be taught according to the content.
				9. EDU 409 Pedagogy of School subject: History	1.History subject can be taught according to the content.
				10. EDU 410 – Pedagogy of School subject: Geography	1.Geography subject can be taught according to the content.
				11. EDU 411 - Pedagogy of School subject: Mathematics	1.Mathematics subject can be taught according to the content.
				12. EDU 412 - Pedagogy of School subject: Science	1.Science subject can be taught according to the content.
				13. EDU 413 – Pedagogy of School subject: Economics	1.Economics subject can be taught according to the content.
				14. EDU 414 – Pedagogy of	1.Accountancy subject can be taught according to the content.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
				School subject: Accountancy	
				15. EDU 441- Art & Craft	1.Will use art in education.
				16. EDU 491- Reading & Reflection	1.Will make the right interpretation of the reading.
				17. EDU 492- Self invention	1.Will recognize themselves.
				18. EDU 422 - Immerging Indian society & Education	1.The role of Indian education experts in education will be clear.
				19. EDU 423 – Gender, school & society	1.Education can inculcate values and culture.
				20. EDU 424 – Knowledge & curriculum	1.Curriculum, syllabus and textbook compatibility can be verified.
				21. EDU 425 - Inclusive Education	1.Special children's disabilities can be considered in the teaching process.
				22. EDU 426 – Education Technology	1.The tools of educational technology can be managed by making proper use of them in teaching.
				23. EDU 427 – Child & Child Education	1.Study methods in child psychology can be used.
				24. EDU 428 – Education & Self help Group	1.Empower women on the basis of self-help groups.
				25. EDU 429 – Value Education	1.Explain the relationship between values and education.
				26. EDU 430 – English for Primary teachers	1.Understand that words behave in a variety of ways in the act of communication
				27. EDU 433 – Communication Modes in Education	1.Content can be communicated effectively.
				28. EDU 434 – Primary Education	1.The nature of primary education can be explained.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
				& their responsibilities	
				29.435 UDE – Secondary Education & their responsibilities	1.The nature of secondary education can be explained.
				30. EDU 436 – Changing role of Teachers & their actions	1.Will do action research.
				31. EVS – 201 Environment Education	1.Protect and nurture the environment.
				32. EDU 494- Application of information communication technology in Education	1.They can use information communication technology in education.
				33.EDU 442- Reflection on school activities	1.Will meditate on your every action.
07	B. Lib. & I. Sc. (Bachelor of Library and Information Science)	**After learning this program, the learner will able to :** 1.Train and develop skills in management of institutional library and provide library services to learners	**After learning this program, the learner will able to :** 1. Develop capacities for the effective administration and management of the library. 2. Develop skills and techniques to select categories for books. 3. Provide effective library services	1. LIB001 : Library & Society	**After learning this course, the learner will be able to:** 1. Understand the Role of library, types of Libraries and their Functions, Laws of Library, Concept of Resource sharing and User study, Library Legislation Library Associations, Schemes and Progrmmes.
				2. LIB002 : Library Management	1. Understand the basics of management and its application in library management, Accessioning, Circulation and Maintenance of documents, Selecting and acquiring of documents and collection development, Library usage and maintenance of the library and prepare budgeting and stock verification.
				3. LIB003 : Library Classifications	1. Understand library classification, aims, and features; Various concepts and theories/ principles in library classification, Schemes of Classification, Characteristics, Merits and Demerits and Various standards in document description, Various facets of Notation and Call Number, the basic subject and their kinds, the Postulates and Principles of Classification.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
				4. LIB004 : Library Cataloguing	1. Get knowledge of book classification (class numbers for documents with simple, compound and complex subject), class numbers by using the standard subdivisions/common isolates/auxiliary tables, compilation of book numbers and capacity to use index of the classification scheme and Steps in Practical Classification etc.
				5. LIB005 : Reference Service & Sources	1. Understand the concept of library catalogue, various conceptsand theories in cataloguing, the Main and Added entries of library catalogue, various Inner and Outer forms of library catalogue, various approaches of acquiring subject headings, the concept of co-operative and centralized cataloguing, the normative principles of cataloguing, the concept and importance of bibliography, the Information Retrieval, Trade bibliography and bibliographic control, various catalogue entries for simple, complex, various authorships, editorial publications, serial publications and corporate body documents and catalogue entries for non-print materials.
				6. LIB006 : Information Service	1. Get practical knowledge about cataloguing, use the catalogue codes and standards, the concept of library catalogue, main and added entries of library catalogue, various inner and outer forms of library catalogue, various approaches of deriving subject headings, prepare catalogue entries for various types of information sources, subject headings using various methods and tools and AACR-2 in detail.
				7. LIB007 : Computer Application in Libraries	1. Understand Reference Service, Information Sources, theories and philosophy of reference service, concept of usereducation, kinds and nature of reference service in different types of libraries, concept of classification of reference sourcesand their evaluation, reference questions and their information sources with bibliographical description, expertise in providing reference services to users of a library and write reference project.
08	B. Sc. (Compute	**After learning this program, the learner will**	**After learning this program, the learner will able to :**	1. CMP400 : Environmental Studies	**After learning this course, the learner will be able to:** 1. Understand environment and its various components, related issues and problems, identifying and solving them and using

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
	r System Administration)	**able to :** 1.Understand computer and computer network technology in communication and in business management.	1. Develop skills relevant to computer networking and work places. 2. Able to create conductive environment for online Learning. 3. Apply the knowledge and skills in business operations.		experiences and acquired knowledge to save the environment for future generations.
				2. CSA101 : Introduction to IT Hardware	1. Provide the participant much needed knowledge of computer hardware and networking.
				3. CSA102 : Troubleshooting IT Hardware	1. Identify and rectify the on board computer hardware, software and network related problems.
				4. CSA103 : Building and Maintaining a Small Office Network	1. Know how interconnect more than one computer to form a network to communicate and transfer data.
				5. CSA104 : Troubleshooting IT Network	2. Know how to troubleshoot and solve Networking Problem including Passive and Active Components.
				6. CSA105 : IT Skills - Basics	1. Developed a product or process by applying knowledge of programming, web, database, human computer interaction, and networking and security tools.
				7. CSA111 : Business Communication - 1	1. Provide an overview of Prerequisites to Business Communication, to provide an outline to effective Organizational Communication, to underline the nuances of Business communication.
				8. CSA112 : Introduction To IT Hardware	1. Explains the relationships between the components of a computer and how data are transferred among the components.Identify the peripheral devices outside computer. Uses computer using input devices, such as keyboard and mouse. Transfers data outside the computer using output devices, such as screen and printer.
				9. CSA113 : Introduction to IT Networks	1. Explains the computer networks, relationships between the components of network and how data flows in network and also use of different network management and security tools.
				10. CSA114 : IT Skills - Basics	1. Developed a product or process by applying knowledge of programming, web, database, human computer interaction, networking and security tools
				11. CSA115 : Troubleshooting It	1. Identify and rectify the on board computer hardware, software and network related problems.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
				Hardware	
				12. CSA116 : Troubleshooting It Network	1. Know how to troubleshoot and solve Networking Problem including Passive and Active Components.
				13. CSA117 : Lab: IT Skills - Basics	1. Developed a product or process by applying knowledge of programming, web, database, human computer interaction, and networking and security tools.
				14. CSA201 : Computer Security basics	1. Focuses on the models, tools, and techniques for enforcement of security. Students will learn security from multiple perspectives
				15. CSA202 : Securing workstations and Basic Security Practices	1. Develop basic understanding of security, cryptography, system attacks and defenses against them
				16. CSA203 : Desktop Operating systems	1. Understand the basic components of computer operating Systems, and the interactions among the various components.
				17. CSA204 : Managing and maintaining Desktop OS	1. Manage the resources of a computer system , keep track ofwho is using which resource, granting resource requests, and mediating conflicting requests from different programs and users., provide efficient and fair sharing of resources among users and programs.
				18. CSA205 : Mini Project -1	1. Apply and extend technologies and concepts learned throughout the program to develop/design applications, product prototype and understand and make use of software development life cycle and project management
				19. CSA211 : Computer Security Basics	1. Focuses on the models, tools, and techniques for enforcement of security. Students will learn security from multiple perspectives
				20. CSA212 : Desktop Operating Systems	1. Understand the basic components of computer operating Systems, and the interactions among the various components.
				21. CSA213 : Managing And Maintaining Desktop OS	1. Manage the resources of a computer system , keep track of who is using which resource, granting resource requests, and mediating conflicting requests from different programs and

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
					users., provide efficient and fair sharing of resources among users and programs.
				22. CSA214 : Lab: Computer Security Basics	1. Develop basic understanding of security, cryptography, system attacks and defenses against them
				23. CSA215 : Lab: Desktop Operating Systems	1. Operating system installation, demonstration and use of various memory management and process scheduling techniques, create and use different file system
				24. CSA216 : Lab: Managing And Maintaining Desktop Os	1. Manage the resources of a computer system, keep track of who is using which resource, granting resource requests, and mediating conflicting requests from different programs and users. Provide efficient and fair sharing of resources among users and programs.
				25. CSA301 : Configuring Windows 7	1. Identify and resolve desktop application issues related to configurations , Identify the cause and resolve network configuration issues, Manage and maintain systems and PCs that run Windows 7, Support mobile and remote users, Identify the cause and resolve security configuration issues
				26. CSA302 : Configuring and maintaining Windows 7	1. Provides students with the knowledge and skills to successfully administer, maintain, and troubleshoot Windows 7 computers.
				27. CSA303 : Configuring Windows Server 2008	1. Manage and protect data access and information, simplify deployment and management of the enterprise's identity infrastructure, and provide more secure and traceable access to data.
				28. CSA304 : Configuring and maintaining Windows server 2008	1. Manage and protect data access and information, simplify deployment and management of the enterprise's identity infrastructure, and provide more secure and traceable access to data in windows server 2008
				29. CSA305 : Business Communication: Level 1	1. Provide an overview of Prerequisites to Business Communication, To provide an outline to effective Organizational Communication, To underline the nuances of Business communication.
				30. CSA311 : Business Communication - 2	1. Acquire effective business communications skills, research approaches and information collection, developing and

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
					delivering effective presentations, effective interpersonal communications.
				31. CSA312 : Configuring Windows 7	1. Identify and resolve desktop application issues related to configurations , Identify the cause and resolve network configuration issues, Manage and maintain systems and PCs that run Windows 7, Support mobile and remote users, Identify the cause and resolve security configuration issues
				32. CSA313 : Managing And Maintaining Windows 7	1. Provides students with the knowledge and skills to successfully administer, maintain, and troubleshoot Windows 7 computers.
				33. CSA314 : Configuring Windows Server 2008	1. Trains the candidates to manage and protect data access and information, simplify deployment and management of the enterprise's identity infrastructure, and provide more secure and traceable access to data.
				34. CSA315 : Lab: Configuring Windows 7	1. Identify and resolve desktop application issues related to configurations , Identify the cause and resolve network configuration issues, Manage and maintain systems and PCs that run Windows 7, Support mobile and remote users, Identify the cause and resolve security configuration issues
				35. CSA316 : Lab: Managing And Maintaining Windows 7	1. Understand and demonstrate administration duties, maintain, and troubleshoot Windows 7 computers.
				36. CSA317 : Lab: Configuring Windows Server 2008	1. Trains the candidates to configure windows server 2008, manage and protect data access and information and provide more secure and traceable access to data.
				37. CSA401 : Windows Server 2008 Active Directory, Configuring	1. Includes Installation and Configuration of Active Directory on Windows Server.
				38. CSA402 : Configuring and Maintaining Windows Server 2008 AD	1. Includes Configuration and maintenance activities of Active Directory on Windows Server 2008.
				39. CSA403 : Windows Server 2008 Network Infrastructure,	1. Learn how to Configure IP addressing, routing, and IPsec. Configure name resolution by using Domain Name System

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
				Configuring	(DNS) with windows server, Monitor and manage a network infrastructure with Windows Server 2008.
				40. CSA404 : Configuring and Maintaining Windows Server 2008, NIS	1. Learn how to Manage remote and wireless network access., Configure Network Access Protection (NAP), Configure file and print services with Windows Server 2008., Monitor and manage a network infrastructure
				41. CSA405 : Mini Project -2	1. Apply and extend technologies and concepts learned throughout the program to develop/design applications, product prototype and understand and make use of software development life cycle and project management.
				42. CSA411 : IT Infrastructure Support Services	1. Understand and learn process of infrastructure support and the tools/services used perform duties like provide day-to-day support to employees. This includes desktop support and project support for multiple sites throughout the organization. Responsible for deploying, maintaining, and repairing the computer and network infrastructure of ICL.
				43. CSA412 : Configuring Windows Server 2008 Active Directory	1. Includes Installation and Configuration of Active Directory on Windows Server.
				44. CSA413 : Configuring Windows Server 2008 Network Infrastructure	1. Learn how to Configure IP addressing, routing, and IPsec., Configure name resolution by using Domain Name System (DNS).,Configure remote and wireless network access., Configure Network Access Protection (NAP), Configure file and print services., Monitor and manage a network infrastructure
				45. CSA414 : Managing And Maintaining Windows Server 2008 Network Infrastructure	1. Learn how to Manage remote and wireless network access., Configure Network Access Protection (NAP), Configure file and print services with Windows Server 2008., Monitor and manage a network infrastructure
				46. CSA415 : Lab: Configuring Windows Server 2008 Active Directory	1. Includes Installation and Configuration of Active Directory on Windows Server.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
				47. CSA416 : Lab: Managing And Maintaining Windows Server 2008 Active Directory	1. Acquire the skills of management and maintenance process Directory on Windows Server like Active Directory Organization,Monitor Active Directory with Premium Tools and Use Security Groups to Apply Permissions to Resources.
				48. CSA417 : Lab: Managing And Maintaining Windows Server 2008 Network Infrastructure	1. Learn how to Configure IP addressing, routing, and IPsec., Configure name resolution by using Domain Name System (DNS).,Configure remote and wireless network access., Configure Network Access Protection (NAP), Configure file and print services., Monitor and manage a network infrastructure
				49. CSA501 : Red Hat Linux Basic Administration	1.Learn designed for IT professionals working to become full-time enterprise *Linux* system administrators.
				50. CSA502 : Configuring and maintaining Red Hat Linux Systems	1.Understand Red Hat Linux operating systems, and demonstrate different tools to maintenance and management
				51. CSA503 : Red Hat Linux Advanced Administration	1. Install Red Hat Linux interactively, Control common system hardware; administer Linux printing sub system Create and maintain the Linux file system, Perform user and group administration, Integrate a workstation with an existingnetwork, Configure a workstation as a client to NIS, DNS, and DHCP services, Back up file systems to tape and tar archive, Manipulate software packages with RPM, Perform performance, memory, and process mgmt. Configure basic host security.
				52. CSA504 : Administering Red Hat Linux Systems	1. Demonstrate duties like Installation of Red Hat Linux interactively, Control common system hardware; administer Linux printing sub system and Create and maintain the Linux file system
				53. CSA505 : Business Communication: Level 2	1. Allow students to acquire effective business communications skills, research approaches and information collection, developing and delivering effective presentations, effective interpersonal communications.
				54. CSA511 : Soft Skills Part I	1.Acquire Soft skills and develop pleasant and

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					appealing personality traits as self-confidence, positive attitude, emotional intelligence, social grace, flexibility, friendliness.
				55. CSA512 : Red Hat Linux Basic Administration	1. Understand Red Hat Linux operating systems, its installation, different tools using in Linux system administration and roles and responsibilities of system administrator.
				56. CSA513 : Configuring And Maintaining Red Hat Linux Systems	1. Understand Red Hat Linux operating systems, and demonstrate different tools to maintenance and management
				57. CSA514 : Red Hat Linux Advanced Administration	1. Understand Red Hat Linux operating systems and demonstrate the use of different tools to handle Microsoft network, mail server and web servers
				58. CSA515 : Lab: Administering Red Hat Linux Systems-1	1. Demonstrate and implement red hat Linux installation and administration activities such as
				59. CSA516 : Lab: Administering Red Hat Linux Systems-2	1. Demonstrate roles and responsibilities of system administrator.
				60. CSA517 : Lab: Administering Red Hat Linux Systems-3	1. Demonstrate how to administrate Microsoft network, mail server and web servers on red hat Linux systems.
				61. CSA601 : Introduction to Ethical Hacking and Advanced Security Practices	1. Understand an insight into ethical hacking and its functions. Give the scoop into what are the foundations, processes and outcomes from Ethical Hacking and common attacks that demand this skill to be acquired.
				62. CSA602 : IT information Security Administration skills	1. Understand and demonstrate roles and responsibilities of IT administrator and use of different tools for providing information security. Provide day-to-day support to employees includes desktop support Responsible for deploying, maintaining, and repairing the computer and network infrastructure and providing resolution to security issues.
				63. CSA603 : Project	1. Apply and extend technologies and concepts learned throughout the program to develop/design applications, product prototype and understand and make use of software development life cycle and project management.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
				64. CSA611 : Soft Skills Part II	1. Acquire effective soft skills like critical thinking and communication skills which will help them acquire good career opportunities and use the learned concepts of time/stress/workflow management in work and personal life
				65. CSA612 : Ethical Hacking	1. Understands the security holes in the systems, use of different hacking tactics and its functions, critical risk assessment and find solutions to prevent any kind of penetrations or security breaches
				66. CSA613 : Advanced Security Practices	1. Develop basic understanding of security, cryptography, system attacks and defenses against them
				67. CSA614 : Lab: Ethical Hacking	1. Demonstrate the use of different tools learned in theory to protect system/organization from hacking and penetration attempts.
				68. CSA615 : Lab: Advanced Security Practices	1. Plan, perform and evaluate security tests from a variety of perspectives, Analyze a given set of security policies and procedures, along with security test results, to determine effectiveness and Help the organization build information security infrastructure.
				69. CSA616 : Project	1. Apply and extend technologies and concepts learned throughout the program to develop/design applications, product prototype and understand and make use of software development life cycle and project management.
				70. ENV121 : Environmental Science	1. Understand environment and its various components, related issues and problems, identifying and solving them and using experiences and acquired knowledge to save the environment for future generations.
09	B. Sc. (Media Graphics & Animation)	**After learning this program, the learner will able to :** 1.Understand power of media graphics and animation industry and create design	**After learning this program, the learner will able to :** 1. Develop skilled manpower for product design from the initial concept to the delivery of projects.	1. BMG101 : Introduction to Computers & Internet	**After learning this course, the learner will be able to:** 1. Operate computers and internet successfully
				2. BMG102 : Drawing and Sketching	1. Draw and sketch components required in creation of media graphics and animation.
				3. BMG103 : Color Theory	1. Use the knowledge of color theory required in creation of media graphics and animation.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
		and deliver products within limited budget.	2. Educate and train a person in animation, photo editing and website design. 3. Inculcate technical and commercial skills in order to deliver projects within the budgetary provision.	4. BMG104 : Typography	1. Use typography required in creation of media graphics and animation.
				5. BMG105 : Computer Graphics Part-I:Adobe Photoshop	1. Use adobe Photoshop required in creation of media graphics and animation.
				6. BMG106 : Computer Graphics Part-II: Adobe Illustrator	1. Use adobe Photoshop illustrator required in creation of media graphics and animation.
				7. BMG107 : Technical and Creative Writing	1. Do technical and creative writing required in creation of media graphics and animation
				8. BMG108 : Introduction to Multimedia and its Application	1. Apply the knowledge of multimedia and application required in creation of media graphics and animation
				9. BMG109 : Developing Presentations	1. Use the knowledge of developing presentations required in creation of media graphics and animation
				10. BMG110 : Design Principles	1. Use adobe Photoshop illustrator required in creation of media graphics and animation
				11. BMG111 : Print Media Part-I:Coral Draw	1. Use the knowledge of coral draw in print media
				12. BMG112 : Print Media Part-II: Quark Express	1. Use the knowledge of quark express in print media
				13. BMG201 : Introduction to Web Development	1. Develop the web
				14. BMG202 : HTML	1. Develop HTML
				15. BMG203 : Computer Animation: Introduction to Flash	1. Use the knowledge of flash required in creation of media graphics and animation
				16. BMG204 : Content Digitization	1. Use the knowledge of content digitization required in creation of media graphics and animation
				17. BMG205 : Content Authoring on Web using Macromedia	1. Use the knowledge of content authoring on web using Macromedia Dreamweaver

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
				Dreamweaver	
				18. BMG206 : Developing Dynamic Web pages using Java and VB Scripts	1. Develop dynamic web pages using Java and VB Scripts
				19. BMG207 : Video-Production Basics	1. Create basic video production.
				20. BMG208 : Story Boarding	1. Create story boarding
				21. BMG209 : Visual Communication	1. Create visual communication
				22. BMG210 : Audio Editing: Sound Forge	1. Do audio editing using sound forge
				23. BMG211 : Video-Editing: Adobe Premier	1. Do video editing using adobe premier
				24. BMG212 : Advance Video Effects	1. Do advance video effects.
				25. BMG301 : Animation Principles	1. Use the knowledge of animation principles required in creation of media graphics and animation
				26. BMG302 : Introduction to Maya	1. Use the knowledge of Maya
				27. BMG303 : Character Set up & Animation in Maya	1. Use character set up and animation in Maya
				28. BMG304 : Advanced Maya	1. Use the knowledge of advanced Maya required in creation of media graphics and animation
				29. BMG305 : Introduction to 3DS Max	1. Use the knowledge of 3DS max required in creation of media graphics and animation
				30. BMG306 : Advanced 3DS Max	1. Use the knowledge of advanced 3DS max required in creation of media graphics and animation

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
				31. BMG307 : Character Animations	1. Create character animations
				32. BMG308 : CG Film Making	1. Create CG Film making
				33. BMG309 : Project Work	1. Use the knowledge which he/she learnt through B Sc MGA programme
				34. BMG310 : Environment Science	1. Apply the knowledge of environment science in his profession and daily life.
10	B.Sc. (Physics, Chemistry, Mathematics)	**After learning this program, the learner will able to :** 1. Understand the basic concepts of Physics, Chemistry and Mathematics and their significance in day to day life.	**After learning this program, the learner will able to :** 1. Prepare students with clear understanding of important basic concepts and principles of Physics, Chemistry, Mathematics and their relevance in day to day life 2. Expose students to current trends in research about Physics, Chemistry, Mathematics 3. Impart important skills which are essential for success in world of work	1. AEC111 : English Communication	**After learning this course, the learner will be able to:** 1. Communicate effectively with others.
				2. AEC211 : Environmental Science	1. Understand importance of environment so as to protect and preserve environment
				3. S34121 : Physics - 01	1. Understand the Laws of motion and apply them in calculations of the motion of simple systems.
				4. S34122 : Physics - 01 Practical	1. Conduct practical activities related Newton's laws and based on Physics-01
				5. S34221 : Physics - 02	1. Understand the different concept of Electrostatics.
				6. S34222 : Physics - 02 Practical	1. Correlate their physics theory concepts through practical.
				7. S34321 : Physics - 03	1. Understand the different concept of Thermodynamics.
				8. S34322 : Physics - 03 Practical	1. Conduct practical activities on the different concept of Thermodynamics
				9. S34421 : Physics - 04	1. Explain the concept of Fluids and Sound.
				10. S34422 : Physics - 04 Practical	1. Demonstrate practical skills during conduct of practical activities
				11. S34521 : Physics - 05	1. Explain the operation of logic gates.
				12. S34522 : Physics - 05 Practical	1. Conduct practical activities based on Physics 05

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
				13. S34621 : Physics - 06	1. Explain the concept and application of Microcontroller.
				14. S34622 : Physics - 06 Practical	1. Demonstrate quantitative problem solving skills
				15. S37131 : Chemistry - 01	1.Define atomic number and atomic mass numberand discovery of electron, proton and neutron and their characteristics..
				16. S37132 : Chemistry - 01 Practical	1.Conduct the practical activities based on Chemistry 01
				17. S37231 : Chemistry - 02	1.Understand the law of thermodynamics, electrolytes, aromatic hydrocarbon and properties of alcohol and calculate the percentage of ionic character of molecules.
				18. S37232 : Chemistry - 02 Practical	1.Demonstratethe practical activities based on Chemistry 02
				19. S37331 : Chemistry - 03	1.Apply concepts and principles associated with chemical energy, chemical kinetics and electron transfer reactions.
				20. S37332 : Chemistry - 03 Practical	1.Demonstrate competence required for the practical skills and techniques used in physical and organic chemistry and analysis of experimental results
				21. S37431 : Chemistry - 04	1.Understand and explain the structure and bonding in molecules / ions and predict the structure of molecules / ions.
				22. S37432 : Chemistry - 04 Practical	1.Demonstrate competence required for the practical skills and techniques to understand fundamentals of the chemistry of the main group elements, and important real world applications of many of these species.
				23. S37531 : Chemistry - 05	1. Understand principles of coordination chemistry to explain how nature tailors properties of metal centers for specific applications.
				24. S37532 : Chemistry - 05 Practical	1. Demonstrate the practical activities based on Chemistry 05
				25. S37631 : Chemistry - 06	1.Acquire the competence to think of chemistry as a sustainable activityand public awareness in evolution,
				26. S37632 : Chemistry - 06	1. Conduct practical activities based on Chemistry 06

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				Practical	
				27. S41141 : Mathematics - 01	1.Explain the concept of function.
				28. S41142 : Mathematics - 01 Practical	1. Apply theorems on limit, differentiation to solve the problems.
				29. S41241 : Mathematics - 02	1. Explain and Convert separable and homogeneous equations to exact differential equations by integrating factors.
				30. S41242 : Mathematics - 02 Practical	1. Describe first order and higher order differential equation, partial difference equation.
				31. S41341 : Mathematics - 03	1. Explain the concept convergence of a sequence.
				32. S41342 : Mathematics - 03 Practical	1. Understand the problems of set theory, problems of convergence, sequences and series.
				33. S41441 : Mathematics - 04	1.Understanding of the idea of a group, a ring and an integral domain, and be aware of examples of these structures in mathematics.
				34. S41442 : Mathematics - 04 Practical	1. Explain problems in group theory and ring theory.
				35. S41541 : Mathematics - 05	1. Understand algebraic and geometric representations of vectors in R^n and their operations, including addition, scalar multiplication and dot product.
				36. S41542 : Mathematics - 05 Practical	1. Define problems of vector spaces and matrices.
				37. S41641 : Mathematics - 06	1.Describing and understanding of the several errors and approximation in numerical methods.
				38. S41642 : Mathematics - 06 Practical	1. Apply various numerical methods to solve problems.
				39. SEC311 : IT and ELearning Skills	1.Develop IT and ELearning skills required in day to day life and in education.
				40. SEC411 : Research Methodology	1. Describe various aspects of research at basic level.

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				41. SEC511 : Financial and Investment Skills	1. Develop an understanding of financial investments, instruments, and markets.
				42. SEC611 : Personality and Career Skills	1.Explain how to acquire necessary skills, both in and out of class, for your career goals.
11	B. Ed. (Special Education	**After learning this program, the learner will able to :** 1.Understand process of human development, Indian education system and acquire skills in assessing educational needs of children with disabilities.	**After learning this program, the learner will able to :** 1. Acquire knowledge & skills about human development, contemporary Indian education, and pedagogy of various school subjects and assessment for learning. 2. Acquire knowledge & skills about nature and educational needs of children with disabilities as well as of few select specific disabilities. 3. Develop conceptual understanding of education provisions and skills for working with children with various disabilities in Special and inclusive settings.	1. EDU281 : Human Growth and Development	**After learning this course, the learner will be able to:** 1. Explain the process of stage wise development, critically analysis of developmental variations, influencing factors with special focus on infancy, childhood adolescence.
				2. EDU282 : Contemporary India and Education	1.Explain and analyse the Philosophies of education, role of educational system, concept of diversity and challenges faced by the Contemporary Indian Education in global context.
				3. EDU283 : Learning, Teaching and Assessment	2.Comprehend the theories of learning, the learning process,the stages of teaching and learning and the role of teacher and assessment in teaching learning process in order to introduce dynamic assessment scheme
				4. EDU291 : Inclusive Education	1.Develop an understanding about inclusive education and addressing diversity in the mainstream classroom. It is also formulated in a way that the learners will know the pedagogical practices and recognises ways in which different stakeholders can collaborate for the success of inclusive education.
				5. EDU292 : Introduction to Sensory Disabilities	1.Name the different types of sensory impairments and describe the subtypes, nature, characteristics & assessment, as well as impact of sensory disabilities and explain the issues & ways to address challenges in educating students with sensory disabilities
				6. EDU293 : Introduction to Neuro Developmental Disabilities	1.The course integrates relevant subject matter in the areas of Learning Disability, intellectual Disability and Autism Spectrum Disorder.
				7. EDU294 : Introduction to Locomotor and Multiple Disabilities	1.Develop understanding about planning effective educational programme and functional activities for students with loco-motor and multiple disabilities.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
				8. EDU301 : Guidance and Counseling	1.Apply the skills of guidance and counselling in classroom situations, describe the process of development of self-image and self-esteem.and appreciate the types and issues of counselling and guidance in inclusive settings
				9. EDU302 : Early Childhood care and Education	1.Provide an insight into developmental milestones of typical children and enable them to understand deviations and strategies to address them.
				10. EDU303 : Application of ICT in Classroom	1.Includes uses of all kinds of media and computer in order to give hands on experience of applying ICT in various learning environments as well to familiarize the student teacher with different modes of computer based learning.
				11. EDU304 : Adult Education	1.Know the meaning, nature, scope and various educational institutes offering adult education and their relevance for adult with Disabilities.
				12. EDU305 : Self Help Group and Education	1.Acquaint knowledge about developing self help groups as an organization and its working for the person with disabilities.
				13. EDU309 : Braille And Assistive Devices	1.Familiarizes the student-teachers with the importance and operational aspects of Braille, which has stood the test of time and competition for the last about 185 years. It also introduces them to basic devices used for teaching blind and low vision children.
				14. EDU311 : Orientation and Mobility	1.Describe the nature and scope of O&M as also the O&Mrelated responsibilities of the special teacher, acquire basic knowledge of human guide techniques, describe pre-cane and cane travel skills and devices, get acquainted with the importance and skills of training in independent living for the visually impaired.
				15. EDU312 : Communication Options : Oralism /oral Rehabilitation and Auditory Verbal Approach	1.Discuss the Aural Oral Options with reference to persons with hearing impairment in the context of India, the relevant issues like literacy, inclusion and training with reference to Oralism /Oral Rehabilitation and exhibit beginner level hands on skills in using these options.
				16. EDU314 : Augmentative and	1.The student-teachers will be equipped with a basic knowledge of AAC, AAC systems, AAC assessment, programme

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				Alternative Communication	planning and strategies
				17. EDU321 : Assessment and Identification of Needs (HI)	1.Acquire knowledge and explain the need and techniques for early identification audio-logical assessment, communicative, language and speech related assessment and needs of children with hearing loss.
				18. EDU321 HI : Assessment And Identification of Needs (HI)	1.Develop capacities of learners to design curriculum keeping in view the special needs of children with hearing impairment. Learners are expected to go beyond the 3Rs with broad understanding of 21st century learning. The learner would also develop requisite skills of developing literacy skills of reading and writing as well as appreciate need and decide suitable adaptation to be undertaken for curricular transactions.
				19. EDU322 : Curriculum Designing Adaptation And Evaluation(HI)	1. Understand specialised techniques for developing listening, speaking, communication and linguistic skills to children with hearing impairment for themto access knowledge.
				20. EDU323 : Intervention and strategies	1. Acquire knowledge of technology so that the same could be used effectively for children with hearing impairment.
				21. EDU324 : Technology and Disability	1. Explain psycho social development of early childhood and role of family, understand the family needs and find self-ready to support families for empowering the child with disability and ensure family involvement in educational programs.
				22. EDU325 : Psychosocial and Family Issues	1. Reflect upon current level of literacy skills of the self. Show interest and begin working upon basic skills required to be active readers and independent writers
				23. EDU326 : Reading and Reflecting on Text	1. Exhibit Basic understanding in art appreciation, art expression and art education and plan and implement facilitating strategies for students with and without special needs.
				24. EDU327 : Drama And Art in Education	1. Explain the concept and relevance of research in education and special education.
				25. EDU328 : Basic Research and Statistics	1. Acquaint knowledge about various types of schools for Children with and without disability It will also helpful to

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				26. EDU332 : Cross Disability and Inclusion	enhance knowledge about the similarities and differences between teaching strategies used at these various types of schools e.g. special school for various disabilities and inclusive school set up.
				27. EDU332.1 HI : Cross Disability And Inclusion (HI)	
				28. EDU332.1 ID : Cross Disability And Inclusion (ID)	
				29. EDU332.1 MR : Cross Disability And Inclusion (MR)	1.Acquaint knowledge about various types of schools for Children with and without disability It will also helpful to enhance practical knowledge about the similarities and differences between teaching strategies used at these various types of schools e.g. special school for various disabilities andinclusive school set up.
				30. EDU332.1 VI : Cross Disability And Inclusion (VI)	
				31. EDU332.2 : Cross Disability And Inclusion	
				32. EDU332.2 : Cross Disability And Inclusion (HI)	
				33. EDU332.2 : Cross Disability And Inclusion (ID)	
				34. EDU332.2 : Cross Disability And Inclusion (MR)	1.Grasp and exhibit their knowledge about classroom planning, teaching, assessment and other curricular activities.
				35. EDU332.2 : Cross Disability And Inclusion (VI)	
				36. EDU333 : Disability Specialization	1.Grasp and exhibit their knowledge about classroom planning, teaching, assessment and other curricular and extracurricular activities.
				37. EDU333.1 : Disability Specialization	1.Acquaint knowledge about other than specialization of disability. It will also helpful to enhance practical knowledge about the similarities and differences between teaching strategies used at these various types of schools e.g. special school for various disabilities and inclusive school set up.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
				38. EDU333.2 : Disability Specialization	1. Gain and execute knowledge about inclusive school teaching strategies
				39. EDU335 : Main Disability Special School (pract. related to area C)	1. Help the student-teachers to generate their student's interest for learningscience and develop a scientific attitude. It is designed to equip the student-teachers to teach science using innovative methods, techniques and teaching learning material to students with & without disabilities.
				40. EDU335 : Main Disability Special School(pract. related to area C	1. Explain and describe the nature of Mathematics, aims, objectives, planning, methods, and assessment of teaching Mathematics at school level.
				41. EDU336 : Other disability Special School	1. Explain the scope of history for development of competencies in designing lesson plans methodologies and evaluations tools at secondary level and also modify and adapt content-area curricula, materials and techniques for students with disabilities.
				42. EDU337 : Inclusive School	1. Explain the scope of Geography for development of competencies in designing lesson plans methodologies and evaluations tools at secondary level and also modify and adapt content-area curricula, materials and techniques for students with disabilities.
				43. EDU341 : Pedagogy of teaching Science	1. Not applicable for B.Ed. Spl. Ed.
				44. EDU342 : Pedagogy of teaching Mathematics	1. Enable the student-teachers to gain a strong knowledge base in nature of Marathi language & literature, Instructional planning and evaluation. It will help in applying theory to practice to design own materials and plan lessons in preparation for teaching real classes at secondary level
				45. EDU343 : Pedagogy of teaching History	1. Enable the student-teachers to gain a strong knowledge base in nature of Hindi language & literature, Instructional planning and evaluation. It will help in applying theory to practice to design own materials and plan lessons in preparation for teaching real classes at secondary level

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
				46. EDU344 : Pedagogy of teaching Geography	1. Enable the student-teachers to gain a strong knowledge base in nature of English language & literature, Instructional planning and evaluation. It will help in applying theory to practice to design own materials and plan lessons in preparation for teaching real classes at secondary level
				47. EDU345 : Pedagogy of teaching Economics	1.Describe the needs and develop skills to assess children with visual impairment and multiple disabilities
				48. EDU346 : Pedagogy of teaching Marathi	1.Describe the needs and develop skills to assess children with visual impairment and multiple disabilities
				49. EDU347 : Pedagogy of teaching Hindi	1.Provide basic understanding of the concept from approaches to curriculum development to the final assessment of curriculum in regards of Visual Impairment.
				50. EDU348 : Pedagogy of teaching English	1.Explain various theoretical perspectives related to intervention & teaching strategies, techniques of teaching, developing TLM and describe the process of assessment visual efficiency and classroom management for children with low vision.
				51. EDU351 : Identification Of Children With Visual Impairment and Assessment Of Needs (VI)	1.Acquaint the student-teachers with various devices for making the teaching learning process for important school subjects meaningful, exciting and rewarding for all Concerned.
				52. EDU351 VI : Identification of Children With Visual Impairment And Assessment of Needs (VI)	1.Get insight into the plethora of emotions the family goes through at the birth of a special child, the challenges they face throughout the life of the visually impaired, and the roles and responsibilities of the family and the community
				53. EDU352 : Curriculum Adaptation and Strategies for Teaching Expanded curriculum	1.Comprehend historical perspective, nature and needs and characteristics of persons with Intellectual Disability and understand various procedures, areas and approaches of assessment and their relevance.
				54. EDU353 : Intervention and strategies	1.Comprehend historical perspective, nature and needs and characteristics of persons with Intellectual Disability and understand various procedures, areas and approaches of assessment and their relevance.
				55. EDU354 : Technology and	1.Understand nature of curriculum, principles and steps of curriculum designing, domains and curriculum evaluation.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
				Education of Visually Impaired	Acquire knowledge about curriculum domains at secondary, prevocational and vocational level and understand its implications.
				56. EDU355 : Psychosocial and Family Issues	1.Understand basic of learning and teaching and acquire competency to select and demonstrate appropriate teaching strategies for teaching in different curriculum areas.
				57. EDU361 ID : Assessment And Identification of Needs (ID)	1.Comprehend role of technology in educating children with ID and acquire knowledge about its various approaches and modes. Apply technology for developing lesson plan and adapted assistive devices.
				58. EDU361 MR : Assessment And Identification of Needs (MR)	1.Develop insight into various Psycho-social issues and their impact on rehabilitation on PwID, misconception and social practices and develop based approach and realize importance of family involvement in rehabilitation process by forming parents self help group and parent association
				59. EDU362 : Curriculum Designing Adaptation And Evaluation	1.Acquaint the student-teachers with various devices for making the teaching learning process for important school subjects meaningful, exciting and rewarding for all Concerned.
				60. EDU363 : Intervention And Strategies	1.Get insight into the plethora of emotions the family goes through at the birth of a special child, the challenges they face throughout the life of the visually impaired, and the roles and responsibilities of the family and the community
				61. EDU364 : Technology And Disability	1.Comprehend historical perspective, nature and needs and characteristics of persons with Intellectual Disability and understand various procedures, areas and approaches of assessment and their relevance.
				62. EDU365 : Psychosocial And Family Issues	1.Comprehend historical perspective, nature and needs and characteristics of persons with Intellectual Disability and understand various procedures, areas and approaches of assessment and their relevance.
12	M. A.	**After learning this**	**After learning this program, the**		**After learning this course, the learner will be able to:** 1.Describe Meaning & Scope of Philosophy, Contribution of

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
	(Education)	**program, the learner will able to :** 1.Understand and explain western and Indian philosophy in education as well as effects of education on social change.	**learner will able to :** 1. Explain the Western and Indian Philosophy in Education. 2. Describe the effect of education on social change. 3. Enhance the knowledge of various discipline of Psychology in Education	1. EDU-521 Philosophical Perspectives in Education	Thinkers, Various cults, Education, Values& Culture.
				2. EDU-522 Social Culture Perspectives in Education	1. Explain Meaning ,Scope of Educational Sociology, Western Thinker's Educational Theory ,Indian Society and New approach of Education
				3. EDU-523 Research Methods	1. Use Research : Tools, Problem, Proposal, Study of related material , and apply Scientific Research Methods, Nature of Research, Writing of Research Proposal ,Historical Method, Descriptive Survey Method, Writing of Research Report .
				4. EDU-524 Use Of Statistics in Research	1. Analyze Fundamental statistics and Advance statistics
				5. EDU-525 Psychological Perspectives of Education	1. Illustrate Educational Psychology, Nature, Scope& learning Methods, Growth and Development, Learning.
				6. EDU-526 Psychological Perspectives in personality	1. Intelligence, Creativity, Personality, Psychology of teaching and teachers, Indian psychology.
				7. EDU-527 Instructional System Design	1. System approach for education, Education, Instruction and Training, Structure of learning.
				8. EDU-528 Instructional Designs in Distance Education	1. Distinguish understand models for Instructional design, Instructional Design, Settings Objectives & Curriculum.
				9. EDU-531 Assessment in Education	1. Illustrate assessment in education, Education & Approaches of examinations, Foundation of educational assessment, Educational Measurement, Types of examinations and test,Test, Techniques& Principals of Grading System, Mastery Learning and testing.
				10. EDU-532 Evaluation in Education	1. Development of test, test and question segregation, Test score and meaning, Evaluation, Purpose and objectives, Models of Evaluation Important subject of Evaluation.
				11. EDU-533 Communication Modes in Education	1. Analyze communication process, Effective and Educational communication, Instructional types in higher education, and direct methods of instructional.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
				12. EDU-534 Communication Modes in Distance Education	1. Develop educational audio programme, Instructional videos & programme learning, printed instructional material in education.
				13. EDU-535 Educational Management	1. Use Educational management & administration, Decision making competency, Leadership, Resource Management.
				14. EDU-536 Educational Administration	1. Apply organization, Supervision and control and conduct Administrative research and Change with planning and discuss about Educational system in India& administrative structure.
				15. EDU-537 Educational Planning	1. Describe educational Planning, Multilevel and micro level educational planning in India, system of educational finance.
				16. EDU-538 Educational Planning	1. Discuss national educational policy, Economics of Education, Financial Management and Statistic for educational planning.
				17. EDU-539 Adult Education	1. explain psychological characteristics of adult learners, Aspects of adult teaching in continue education, communication in continue education,
				18. EDU-540 Continuing Education	1. describe nature, scope and importance of continue education, Administrative and management of continue education
				19. EDU-541 Non-Formal Education	1. Recognized concept of Non-formal education, contribution of great Thinkers, Experiments of Non-formal education of developmental countries Problems of Literacy and primary education in India.
				20. EDU-542 Role of Non-Formal Education	1. explain role of Non -formal education of Government & non Government Institutions, learning, teaching techniques and evaluation, Financial aspect of Non- formal education
13	M. A. (English)	**After learning this program, the learner will able to :** 1. Understand theories of language evolution and demonstrate abilities in creative writing in english	**After learning this program, the learner will able to :** 1. Understand evolution theory of English language and nature of British drama and Novel. 2. Enable learners obtain expertise in English communication.	1. ENG401 : British Poetry	**After learning this course, the learner will be able to:** 1. Understand the theme, structure and style in British poetry
				2. ENG402 : British Drama	1. Understand the theme, structure and style in British Drama
				3. ENG403 : British Novel	1. Demonstrate the awareness of evolution theory of language by varied culture
				4. ENG404 : Aspects Of Language	1. Develop the students' abilities in grammar, oral skills, reading, writing and study skills

			3. Provide opportunity to learners to studying latest development in the English language and communication.	5. ENG405 : Literary Criticism And Theory	1. Apply critical and theoretical approaches to the reading and analysis of literary and cultural texts in multiple genres.
				6. ENG406 : American Literature	1. Demonstrate improvement in critical writing and critical thinking skills through interpretation and comparative analysis of literary texts
				7. ENG407 : New Literatures In English	1. Know the process of beginning and growth of English language
				8. ENG408 : Contemporary Indian Literature In English Translation	1. Know about various innovative ways of using English language in verbal and non- verbal communications
				9. ENG409 : English Studies In India	1. Develop and integrate the use of the four language skills i.e. Reading, to Listening, Speaking and Writing;
				10. ENG521 : Literature in English - Poetry- I	1. Identify a variety of forms and genres of poetry from diverse cultures and historic periods
				11. ENG522 : Literature in English - Novel- I	1. know literary form and structure in shaping a text's meaning

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				12. ENG523 : Basic Concepts In Linguistics - I	1. Explain the basic concepts of language and linguistics research
				13. ENG524 : Indian English Novel - I	1. Understand the need of wiping out social evils to dream of a healthy society
				14. ENG525 : 19th Century American Literature - I	1. Identify strengths, limitations, and cultural assumptions of various literary forms practiced in America through the nineteenth century.
				15. ENG526 : British Literature from Chaucer to the End of the 17th Century - I	1. Understand gradual changes from reason to emotion in British literature
				16. ENG541 : Literature in English - Poetry- II	1. Recognize poetry from a variety of cultures, languages and historic periods
				17. ENG542 : Literature in English - Novel- II	1. Analyze novels for their structure and meaning, using correct terminology
				18. ENG543 : Basic Concepts in Linguistics - II	1. Analyze linguistic data in ways that aim to address theoretical and empirical issues in the study of language.
				19. ENG544 : Indian English Novel - II	1. Introduce novel as a literary genre
				20. ENG545 : 19th Century American Literature - II	1. expose the students to the literature produced in America in the 19th century
				21. ENG546 : British Literature from Chaucer to the End of the 17th Century - II	1. Understand gradual changes from reason to emotion in British literature.
				22. ENG547 : Communication Skills	1. understand the different aspects of communication using the four macro skills – LSRW (Listening, Speaking, Reading, Writing)
				23. ENG548 : Journalism And Mass Communication	1. Gain conceptual and theoretical knowledge of Journalism and Mass Communication, and learn to think critically about issues and topics of the subject.

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				24. ENG551 : Literature in English: Drama - I	1. Explore how writers use the resources language as a creativity to explore the entire range of human experience through dramas as a literary form.
				25. ENG552 : Critical Theories - I	1. update their knowledge of current literary issues and critical theories
				26. ENG553 : Modern and Postmodern British Literature - I	1. Describe the relationships between various movements such as Modernism and Postmodernism and the literature of the period.
				27. ENG554 : Indian English – Poetry –I	1. Develop a skill to appreciate the Indian English poetry.
				28. ENG555 : 20th Century American Literature - I	1. Display a working knowledge of the cultural and historical contexts of 20th century American literature
				29. ENG556 : British Literature from Pope to the End of the 19th Century - I	1. identify and analyze the socio-economic-political contexts that inform the literature of the period from Pope to the End of the 19th Century
				30. ENG561 : Literature in English: Drama - II	1. Interpret literary texts in English by nurturing and utilizing their ability to understand drama in a skilled, knowledgeable, and ethical manner
				31. ENG562 : Critical Theories - II	1. Explore possible applications of critical theory to various literary texts
				32. ENG563 : Modern and Postmodern British Literature - II	1. Appreciate Modern and Postmodern British Literature as writing built on the intersecting lines of theoretical inferences
				33. ENG564 : Indian English - Poetry - II	1. Identify a variety of forms and genres of poetry from diverse cultures and historic periods
				34. ENG565 : 20th Century American Literature - II	1. Discuss key concepts of ethnic diversity and cultural inclusion
				35. ENG566 : British Literature from Pope to the End of the 19th Century - II	1. Identify and describe distinct literary characteristics of the British literature driven by reason, intellect, correctness and satirical spirit.

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14	M. B.A.	**After learning this program, the learner will able to :** 1. Able to practice professionalism in business management and entrepreneurship development.	**After learning this program, the learner will able to :** 1. Impart knowledge and skills in different functional areas of management 2. Prepare young graduates for acquiring competence in management profession 3. Create and nurture entrepreneurial acumen among young graduates	1. MBA 101:Accounting and finance for managers	**After learning this course, the learner will be able to,** 1. Define accounting and realize its importance. 2.Distinguish between Financial, Cost and Management Accounting. 3. Relate Finance Function and accounting. 4. Get an Overview about auditing and internal control
				2.MBA 102: Business Environment	1. What is business environment and why is it importance to foresee, the same is the objectives that would be achieved through this unit.
				3.MBA 103: Economics for Managers	1. Define economics. 2. Mangerial Economics. 3. Understand basic concepts of economics
				4.MBA 104:Management Processes & Organizational Behavior	1. Introduce and define the concept of management. 2. Understand the nature and importance of management. 3. Explain the various managerial roles. 4. Describe the levels of management
				5.MBA 105:Research Methodology & Communications	1. Understand the research process. 2. Examine the Characteristics of good research. 3. Present important research concepts. 4. Provide a short detail of the language of research.
				6.MBA 201:Business Ethics &Corporate Governance	1 Define ethics and business ethics. 2. Identify the six basic stages of moral development. 3. Describe the significance of business ethics and its issues
				7.MBA 202:Quantitative Techniques in Management	1.Understand basic structure of LP problem 2. Know the properties of LP model. 3. Know the Application areas of Linear Programming 4. Understand Formulation of LP Model.
				8.MBA 203: Production and Operations Management	1 Basic meaning of operations Management. 2. System perspective of operations Management. 3. Functions of Operations Management. 4. Challenges of Operations Management.
				9.MBA 204:Marketing Management	1.Define Marketing 2. Describe Marketing Planning and process. 3. Explain Marketing Mix. 4. Explain concept of Customer Relationship Management and

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					Holistic Marketing Dimensions.
				10.MBA 205:Human Resource Management	1. Understand the Concept of Human Resource Management. 2.Identify the nature and scope of HRM 3. Understand the Objectives and importance of HRM. 4. Illustrate the various functions of HRM.
				11.MBA 301:Strategic Management	1. State the meaning, nature and importance of strategic management. 2.Explain the dimension and benefits of strategic management 3. Identify the risks involved in strategic management
				12.MBA 302: International Business and International trade	1. Understand basic concepts related to international trade. 2.Explain the phenomenon of globalization along with its drivers and implications for international business.....
				13.FMG 301:Corporate Finance	1. Explain the meaning, nature of corporate finance. 2. Understand the importance of corporate finance. 3. Explain the Functions of corporate finance
				14.FMG 302:Indian Financial System & Management Of Financial Institution	1.Understand the concept, features and role of finance in an economy. 2.Describe the meaning, objectives and functions of the Financial System. 3. Learn the Structure of the Indian Financial system.
				15.FMG 303: Management Of Financial Services	1. Understand the concept of financial services. 2. Explain the nature of financial services. 3.Be aware about advantages of financial services
				16.FMG 304:Security Analysis & Portfolio Management	After completing this course, the learner will be able to, 1. Understand the concept of Security Analysis. 2. Understand the concept of Portfolio Management. 3. Learn the Investment Process. 4. Analyse the types of investments
				17.MKG 301:Marketing Research	1.Get familiar with the meaning of marketing research and its objective. 2.In addition, the objective is to make you understand the process of marketing research and how it helps in decision making process

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				18.MKG 302:Advertising And Sales Promotion	1.Familiarize the learners with the concept of integrated marketing communication. 2.Foster the learning ,how communication change the customer perception about company products
				19.MKG 303: Industrial Marketing	1. Explain why study industrial management. 2.Explain the concept, meaning and importance of industrial marketing. 3. Explain about product and industrial product
				20.MKG 304:Services Marketing	1. Understand the basic concept of services. 2. Identify the basic differences between goods and services. 3. Understand the characteristics of services. 4. Understand the need to study service marketing
				21. HRM 301: Organisational Change And Development.	1. Overview of Organizational development. 2. Nature, scope and objectives of organizational development. 3Values, assumptions and belief in organizational development. 4.Theories of organizational development
				22.HRM 302:Human Resource Planning	1.Overview of human resource planning 2.Nature, scope and objectives of human resource planning 3. Features need and factors affecting human resource planning. 4. The process and significance of strategic planning.
				23.HRM 303:Managing Interpersonal & Group Processes	1.Describe concepts and definitions related to Formation of Groups. 2.Understand how these groups are development and how Groups within an organization can be managed. 3.Describe the impact and their implications in various processes within the organization and their linkages with performance of organizations.
				24.HRM 304: International Human Resource Management	1.Describe Concepts and definitions related to international Human Resource Management. 2.Differentiate between International Human Resource Management and Domestic Human Resource Management. 3. Describe Challenges faced by organizations in managing people in the context of International operation & business
				25.MMG 301:Manufacturing	1. Know the needs of Business Strategy. 2. Understand type of Business strategy

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				Strategy	
				26.MMG 302:Supply Chain Management	1. Understand physical distribution and logistics. 2. Know about development of supply chain management. 3. Know about future of supply chain management
				27.MMG 303:World Class Manufacturing	1. What strategy really is? 2. Asserting the strategy. 3.Becoming strategic, focused and holistic 4.Creating strategic resonance via strategic operations management 5. Changing role of strategy in different manufacturing era.
				28.MMG 304:Production Planning And Control	1.Know about operation management 2. Know about productivity. 3.Understabd increase in productivity,
				29.MBA 401:Business Laws	1. Understand the meaning of law. 2. Explain the sources of business law in India
				30.MBA 402:Management Information System	1.Understanding information and its dimensions 2. Exploring the evolution of information system. 3. Knowing the applications of IS. 4. Understanding the role of IS in business.
				31.FMG 401:Taxation	1. Difference between direct Tax and Indirect Tax. 2. Basic Concepts and Definitions under the Income Tax Act. 3. Determination of Residential status of an Assesse.
				32.FMG 402:Banking and Bank Finance	1. Understand the concept and characteristics of a business. 2. Explain the classification of business activities. 3. Define various types of industry
				33.FMG 403:International Finance	1.Understand International Business and International Financial Management. 2. Elucide the reasons for the progression of Multinational firms. 3. Describe the role of Multinational Financial manager
				34. FMG 404: Management Control System.	1.Understanding meaning and purpose of management control systems. 2. Define elements of control system. 3. To analyze need for control in organizations.
				36.MKG 402: Sales And	1. Differentiate between marketing and sales, understand the

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				Distribution Management	relationship of sales with other environment and marketing variables. 2. Describe sales-related marketing policies and explain the changing role of personal selling
				37.MKG 403:Retail Marketing	1.Understand the meaning and concept of retailing along with its functions and an over view of retail market
				38.MKG 404:Rural Marketing	1. Define rural marketing. 2. Discuss about the nature and characteristics of rural market. 3. Describe the challenges and opportunities of rural market
				39.MKG 405: International Marketing	1.Understand the concept of international marketing in view of various changes that have taken place as a result of globalization. 2.Explain the process, scope, opportunities and challenges of the International marketing. 3. State the various trade theories prevalent in international market and their implications
				40.HRM 401: Industrial Relations & Labour Legislation	1.Describe the concept of Industrial Relations with respect to the Indian scenario. 2. Define Industrial Relations, Nature & Objectives of IR. 3. Explain parties to IR, Actors in the system. 4. Explain significance of IR.
				41.HRM 402:Management Of Training And Development	1.Understand the importance of training & Development for any organization. 2.Describe how training, Development, Education and teaching differ. 3. Understand basic principles of learning and how does it differ in case of Adult Learning
				42.HRM 403:Human Resource Development	1.Recognize the function of HRD as a sub system of larger HRM system of an Organization. 2.Interpret the role of HRD with respect to strategic direction of the firm. 3. Identify the Components of HRD system
				43.HRM 404:Performance and Reward Management	1. The meaning and characteristics of performance management. 2. Objectives of performance management. 3. Principles of performance management.

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					4. Performance appraisal to performance management.
				44.MMG 401:Total Quality Management & Six Sigma	1. Understand Quality assurances. 2. Understand Deming view. 3. Know about Quality management.
				45.MMG 402:Project Management	1. Understanding what is project. 2. Know about various project management approaches. 3. Know about roles of a project manger.
				46.MMG 403: Enterprise Resource Planning	1. Understand fundamentals of ERP. 2. Know about characteristics and advantages of ERP. 3. Know about challenges in ERP Implementation
				47.MMG 404:Services Operations Management	1.Understanding how and why services are important for Indian Economy. 2.Define "Service" 3.Define Operations" 4. Describe key challenges faced by service operations manager.
				48.MKG401:Consumer Behavior	1.Evolution of marketing concept, tools for implementing marketing strategies. 2. Value delivered to consumer and their retention. 3. Role of internet and other technologies. 4.Describe customer value, customer satisfaction and customer retention.
15	M. Com.	**After learning this program, the learner will able to :** 1.Understand basic concepts and practices in accounting, auditing and taxation, banking and money management.	**After learning this program, the learner will able to :** 1. Understand basic concepts of accounting, auditing and taxation. 2. Provide opportunity to those who are already employed in different professions to improve their chances of progressing to higher positions in their job.	1. ACG101 : Advanced Accounting-I	**After learning this course, the learner will be able to:** 1. Understand the accounting procedure involved for amalgamation absorption and external reconstruction.
				2. ACG102 : Advanced Accounting-II	1. Understand the basic principles of consolidation.
				3. ACG201 : Auditing-I	1. Understand the concept of audit.
				4. ACG202 : Auditing-II	1. Understand the concept and basic elements of the auditor's report.
				5. ACG301 : Direct Taxes	1. Understand basics of Income Tax& To understand A.Y. & P.Y.

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			3. Orient every student to cope up with the latest developments in contemporary, national and global level through effective transaction of the curricular and co-curricular aspects.	6. ACG302 : Indirect Taxes	1. Know Authority Structure of Excise and Custom and understand basics of Custom.
				7. BEG101 : Business Entrepreneurship-I	1. Learn about the concept of entrepreneurship.
				8. BEG102 : Business Entrepreneurship-II	1. Be aware about the background for understanding entrepreneurship in Indian society.
				9. BEG201 : Business Entrepreneurship-III	1. Understand the meaning of industrialization and Explain the need for industrialization.
				10. BEG202 : Business Entrepreneurship-IV	1. Learn why and how a small business must create a competitive advantage In the market.
				11. BEG301 : Business Entrepreneurship-V	1. Explain the association of strategy with small business and Appreciate various types of co-operative strategies for growth and expansion.
				12. BEG302 : Business Entrepreneurship-VI	1. Understand the difficulties of corporate entrepreneurship and Explain the top five pitfalls of succession in a family Business.
				13. BFG101 : Financial Markets and Institutions in India-I	1. Understand the structure of Indian financial system, share market and role of commercial banks.
				14. BFG102 : Financial Markets and Institutions in India-II	1. Understand the structure of cooperative banking system in India.
				15. BFG201 : Money, Central Banking in India and International Financial Institutions-I	1. Understand the evolution, measurement and functions of money.
				16. BFG202 : Money, Central Banking in India and International Financial Institutions-II	1. Understand the types and role of financial institute.

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				17. BFG301 : Banking Laws And Operations-I	1. Understand the features of Indian Banking System.
				18. BFG302 : Banking Laws And Operations-II	1. Understand the concept of Paying Banker & Collecting Banker.
				19. CAG101 : Advanced Cost Accounting-I	1. Understand the concept of cost, costing, cost accounting and cost accountancy.
				20. CAG102 : Advanced Cost Accounting-II	1. Understand amount of remuneration is calculated under time rate method and piece rate method.
				21. CAG201 : Advanced Cost Accounting-III	1. Advantages and limitations of job costing; and, Documents which are prepared and used in job costing.
				22. CAG202 : Advanced Cost Accounting-IV	1. Understand meanings and definitions of budget, budgeting and budgetary control.
				23. CAG301 : Cost And Management Audit- I	1. Understand the concept of Cost Audit and understand cost auditor role and the responsibilities which a cost auditor.
				24. CAG302 : Cost And Management Audit-II	1. Know the concept and definition & meaning of propriety audit, of management audit.
				25. CMP204 : Office Tools	1. Provide hands-on use of Microsoft Office applications Word, Excel, Access and PowerPoint.
				26. COM111 : Management Accounting-I	1. Explain the meaning and of management accounting.
				27. COM112 : Management Accounting-II	1. Understand the concept of budget and budgetary control.
				28. COM231 : Business Economics-I	1. Understand the different approaches of consumer choice under risk.
				29. COM232 : Business Economics-II	1. Understand the market structure and degree competition.
				30. COM331 : Strategic	1. Understand business policy implementation in organization.

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				Management-I	
				31. COM332 : Strategic Management-II	1. Explain the concepts of business and environment.
				32. COM431 : Corporate Finance And Laws-I	1. Describe the origin of SEBI describe the composition of SEBI board.
				33. COM432 : Corporate Finance And Laws-II	1. Understand The meaning and basic characteristics of company.
				34. COM433 : Research Methodology-I	1. Compare pure science research with social science research.
				35. COM434 : Research Methodology-II	1. Understand the meaning and scope of a research paper, project and review.
				36. GEN101 : English	1. Ability to communicate correctly and effectively within and about the disciplines.
				37. GEN103 : French	1. Know about the French- speaking countries in the world Learn about the people and their life of these countries.
				38. GEN104 : Arabic	1. Know the Arabic language and Learn about the people and their life of these countries.
				39. GEN105 : German	1. Know the German language and Learn about the people and their life of these countries.
				40. GEN121 : Cyber Security	1. Analyze and resolve security issues in networks and computer systems to secure
				41. GEN203 : Value Education	1. Be able to determine the quality of the values.
				42. GEN204 : Communication Skills	1. Communicate effectively in English.
				43. GEN401 : Yoga	1. Enable the student to have good health.
16	M. Lib. & I. Sc.	**After learning this program, the learner will able to:** 1. Manage institutional	**After learning this program, the learner will able to:** 1. Develop capacities for the effective administration and	1. LIB010 : Document Description, Processing,	**After learning this course, the learner will be able to:** 1.Get aware of information storage and retrieval, different ways in which information can be repackaged, various strategy and techniques of information searching, designing & developing IR Thesaurus, different types of abstracts and indexes.

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		library and library services including cataloguing, storage and retrieval services to learners.	management of the library. 2. Develop skills and techniques to select appropriate categories for books. 3. Provide effective library services.	Retrieval & Dissemination (Theory)	
				2. LIB011 : Management of Libraries & Information Centers (Theory)	1. Get familiarize with the basic concepts of management, basics of library administration & management, functions of management and their application to librarianship, documentation centers and systems their activities and techniques, Concept of System Analysis, Management of Change, Total Quality Management (TQM) & Marketing of Library Information Services, Library housekeeping operations, Financial management, Recent trends in library management.
				3. LIB012 : Library & Information Science: Research Methodology (Theory)	1.Understand the research process, various research methods, Application of Research Methodology in Library and Information Science and get introduced to research skills, use of various Data collection tools and statistical techniques for research.
				4. LIB013 : Library & Information Science: Current Trends (Theory)	1.Know the recent trends in Library and Information Science (LIS), the technological aspects introduced in library filed the changing methods of retrieving information from various repositories and all the new aspects of LIS.
				5. LIB201 : Academic & Research Libraries Theory)	1.Get skills in managing Academic and Research Libraries, Its Functions, Collection Development, Library Committees, Staffing pattern, Continuing education programme, the research library services management and Introduction of few Research libraries.
				6. LIB202 : Library Services & Programmes (Theory)	1.Get familiar with Public Libraries, School Libraries, Archives, Museums, and their Services and Programmes.
				7. LIB203 : Management of Non Book Material (Theory)	1.Know skills in managing Non Book materials, its forms, printed non-book material, non-print material, its organization, standards and catalogue entries.
				8. LIB301 : Application of Information Technology in Libraries & Information	1.Introduce the concept and use of ICT and its application in Libraries and Information Centers, Skills in planning and implementation of library automation, Digital library, Use of

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				Centers (Theory)	e-documents, Resource Sharing Networks and current trends in the use of ICT etc.
				9. LIB301 : Application of Information Technology in Libraries & Information Centers (Practical)	1.Get hands on training on library software's, Software for University Libraries (SOUL) in detail, Internet searching skills and techniques, various communication mediums etc.
				10. LIB302 : Project	1.Get introduced the Research Methodology, Statistical techniques in LIS research and Style of writing a research report.
17	M. Sc. (Environmental Science)	**After learning this program, the learner will able to :** 1.Understand role and importance of nature and environment in maintaining	**After learning this program, the learner will able to :** 1. Educate him about the environment and natural resources. 2. Create awareness about	1. S27011 : Environmental Science and Ecology	**After learning this course, the learner will be able to:** 1. Understand scope of environmental Science and ecology.
				2. S27012 : Environmental Engineering	1.Explain various water treatments.
				3. S27013 : Natural Resources	1.Understand various environmental Resources.

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		sustenance of food chain for human living.	various environmental problems and environmental legislation 3. Carry out problem based and need based research in natural resources management	and Their Conservation	
				4. S27014 : Lab Activities on S27011, S27012 and S27013	1.Perform various lab activities and Test the results.
				5. S27021 : Pollution and Health and Hazards	1.Explain impact of various types of pollution on human and Environmental health.
				6. S27022 : Environmental Statistics & Computer Application	1.Understand basics of statistics and its Use in research.
				7. S27023 : Environmental Pollution and Control	1.Understand different types of Pollution.
				8. S27024 : Lab Activities on S27021, S27022 and S27023	1.Perform various lab activities and test The results.
				9. S27031 : Environmental Monitoring and Energy Studies	1.Explain environmental quality Aspects and its assessment.
				10. S27032 : Natural Resources and Instrumentation	1.Explain natural resources and Environmental chemistry.
				11. S27033 : Environmental Microbiology, Toxicology and Chemistry	1.Understand and explain environmental microbiology and Toxicology.
				12. S27034 : Lab Activities on S27031 and S27033	1.Perform various lab activities and test The results.
				13. S27041 : Environmental Education, Policies and Legislation	1.Understand policies and acts regarding protection of the Environment.
				14. S27042 : Environmental Management - Land, Soil and	1.Classify types of land, soil, water, etc. and explain their conservation

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				Water	
				15. S27043 : Environmental Geo-science	1.Discuss various aspects of Earth And atmosphere.
				16. S27044 : Project - Work	1.Construct and present the project Work.
18	M. Sc. (Mathematics)	**After learning this program, learner will able to:** 1.Understand advance concepts in mathematics and mathematical research.	**After learning this program, the learner will able to :** 1.Understand basic concepts and principles of mathematics and their relevance in day today life 2.Develop problem solving skills in mathematics. 3.Exposure to students to tackle current trends in mathematical research.	1. S24011 : Algebra - I	**After learning this course, the learner will be able to:** 1.Apply facility in working with matrices, a concept that finds a large number of applications in real life including the graphs and networks.
				2. S24012 : Advanced Calculus	1.Explain the basic principles of multi-variable calculus with proofs.
				3. S24013 : Real Analysis	1. Understand thorough foundation of Riemann integration theory and convergence of sequence and series of functions.
				4. S24014 : Differential Equations	1. Express the existence-uniqueness theorem of differential equations.
				5. S24015 : Classical Mechanics	1. Understand the linear equations, vector spaces, matrices, linear transformations, determinants etc.
				6. S24021 : Linear Algebra	1. Analyze the solution set of a system of linear equations.
				7. S24022 : General Topology	1. Understand fundamental concepts and methods in general topology.
				8. S24023 : Complex Analysis	1. Understand and evaluate partial derivatives and integrals of multivariable functions.
				9. S24024 : Numerical Analysis	1. Find solutions of algebraic or transcendental equations using an appropriate numerical method.
				10. S24025 : Differential Geometry	1. Describe curves and surfaces and label their equations.
				11. S24031 : Functional Analysis	1.Recognize the fundamental properties of normed spaces and of the transformations between them.
				12. S24032 : Advanced Discrete Mathematics	1.Explain various important concepts such as logic and proofs, sets and functions, probability, recursion, graph theory, matrices, Boolean algebra and other important discrete math

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
					concepts.
				13. S24033 : Number Theory	1. Interpret the concepts of divisibility, prime number, congruence and number theorems.
				14. S24034 : Integral Equations	1. Classify and solve integral equations.
				15. S24035 : Operation Research –I	1.Use operational research tools in a wide range of applications
				16. S24041 : Measure and Integration	1.Define and understand basic notions in abstract integration theory, integration theory on topological spaces and the n-dimensional space
				17. S24042 : Partial Differential Equations	1. Solve linear Partial Differential with different methods.
				18. S24043 : Riemannian Geometry -I	1. Compare and contrast the methods introduced in the course.
				19. S24044 : Riemannian Geometry – II	1. Apply the basic principles of Riemannian geometry and work manifolds, tangent spaces and curvature.
				20. S24045 : Operation Research –II	1. Apply formulation and solution techniques of classic linear optimization, simplex algorithm, classic network models and matrix games problems at end of the class.

Sr. No.	Name of the Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course With Code	Course Learning Outcomes
19	**(M48) M.A. in Urdu Language and Literature**	After completing MA Urdu, students will be able to discuss various aspects of Urdu language and literature and will not only be aware of various literary movements, trends and literary traditions of Urdu language but will also be aware of human emotions and feelings as well as human values. In addition, they will be able to develop critical reasoning and analytical skills, as well as be able to think objectively about literary concepts and face problems and situations with an open mind.	The M-A- Urdu program prepares students for further higher education or doctoral programs in Urdu, for professional writing careers, and for teaching Urdu in schools, colleges, and universities, etc. In addition, they can also specialize in various areas of Urdu language such as ancient poetry, modern poetry, prose, novels, and short stories, which helps them further improve their professional skills.	**I-Semester** **MUR501** **Tareekh-e-Urdu Zaban-o-Adab**	After studying this course, learners will be able to: • You will be able to learn about the origins of the Urdu language and the different theories behind the birth of the Urdu language. • You will become familiar with Urdu linguistics and its various forms. • You will be able to examine the period-by-period evolution of Urdu literature in the Deccan. • You will be able to learn about the beginning and development of Urdu in North India.
				MUR502 **Urdu Ghazal**	After studying this course, learners will be able to: • Learners will be able to discuss the art and introduction of Urdu Ghazal and its various details. • Will be able to gain a good understanding of the early period of Urdu Ghazal. • Will be able to learn about the ancient period of Urdu Ghazal and its various poets. • Will be able to become aware of the various poets of the modern period of Urdu Ghazal and their changing trends.

				MUR503 **Urdu Masnavi**	After studying this course, learners will be able to: • Familiarize themselves with the art, introduction and various types of this ancient Urdu poetic genres, the Masnavi. • will be able to discuss in detail the Urdu Masnavis and their themes in the Deccan. • will be able to cover in detail the tradition and themes of the Urdu Masnavi in North India. • will be able to study and analysed important Urdu Masnavi's of the Deccan and the North.
				MUR504 **Drama: Fan, Ta'aruf aur Riwayat**	After studying this course, learners will be able to: • Understand the art, technique and tradition of drama. • will be able to discuss in detail the tradition and beginnings of Urdu drama.
				MUR505 **Urdu Marsiya**	After studying this course, learners will be able to: • You will be able to learn about the definition of an Urdu elegy, its types, and the art of reciting an elegy. • Students will be able to gain substantial knowledge of the tradition of Urdu elegy. • will be able to learn about the lives of important Urdu elegy writers and their art of elegy writing. • will be able to study and analyze the text of important Urdu elegy writers.

				MUR506 **Film aur Awami Adab**	After studying this course, learners will be able to: • Understand what film is, the history of film, film as a genre, and the principles and theories of film. • will be able to become familiar with all the stages of filmmaking from script to screen. • will become familiar with the relationships between film, literature, and society. • will be able to discuss the tradition of popular literature and its different forms.
				MUR599 **Research Methodology**	After studying this course, learners will be able to: • gain detailed knowledge about the art and tradition of research • will be able to gain knowledge about the beginning and development of Urdu research • will be able to become aware of important Urdu researchers and their research efforts and research methodology • will be able to gain detailed knowledge about Urdu research and important research institutions in Maharashtra
				II-Semester **MUR508** **Urdu Nazm**	After studying this course, learners will be able to: • Discuss the art of Urdu poetry and its various forms. • Will be able to examine the tradition and evolution of Urdu poetry from era to era. • Will be able to analyse the personality of important Urdu poets and their poetic style.

					• Will be able to read and analyse the text of important and famous Urdu poems.
				MUR509 **Afsanvi Adab**	After studying this course, learners will be able to: • Get detailed information about the art, tradition and types of fictional literature • Learn about the art, history and development of Urdu Dastaan and important Urdu Dastaan (Folktale) • Learn about the art, history and development of Urdu novels and the art of important Urdu novelists • Learn about the art of Urdu short story and the art of important Urdu short story writers
				MUR510 **Urdu Qaseeda**	After studying this course, learners will be able to: • Learn about the art and introduction of Urdu Qaseeda, its types and its compositional elements. • Learn about Urdu Qaseeda and important Qaseeda writers in the Deccan. • Learn about the tradition of Urdu Qaseeda and important Qaseeda writers in North India. • Learn about famous and important Qaseeda writers of Urdu language and their art.

				MUR511 **Urdu Ke Ahem Drama Nigar aur Ahem Drame**	After studying this course, learners will be able to: • Be familiar with the personalities and art of important Urdu playwrights • Be able to read and analyse the texts of famous Urdu language plays
				MUR512 **Tanz-o-Mazah**	After studying this course, learners will be able to: • Learn about the art and introduction of satire and Humor the tradition of satire in Urdu. • Learn about satire and Humor in Urdu poetry and its artistic relevance. • Be familiar with the early impressions and tradition of satire in Urdu prose. • Be able to examine and analyse important satirical and humorous texts of the Urdu language
				MUR513 **Tahreekaat-o-Rujhanaat**	After studying this course, learners will be able to: • You will become familiar with the important movements and trends of Urdu, as well as their principles and ideologies. • Discuss the Aligarh Movement and its impact on Urdu literature • Be familiar with the Progressive Movement and its principles and ideologies • Will become familiar with the concepts of Halqa-e-Arbab-e-Zauq and modernism and the literary ideas of important writers associated with it.

				संशोधन प्रकल्प (MUR 514)	क्षेत्रीय प्रकल्प पूर्ण केल्यानंतर... १. अभ्यास विषयाच्या अनुषंगाने निर्देशिनास आलेल्या सामान्य किंवा स्थानिक समस्यांबाबत सजगता येते. २. संकल्पना आणि व्यावहारिक जीवन यांच्यातील सहसंबंधांची जाणीव होते. ३. माहिती व आकडेवारी गोळा करण्याचे कौशल्य विकसित होते. ४. प्रत्यक्ष सहभागी होऊन प्रश्नांची सोडवणूक करताना व्यक्तिमत्व विकास होतो. ५. संस्थात्मक पातळीवरील समस्यांचे स्वरूप ओळखून उपाय सुचविण्याची क्षमता विकसित होते.

Sr. No.	Name of the Program	Program Learning Outcomes	Program-Specific Learning Outcomes	Name of Course With Code	Course Learning Outcomes
20	M49 MA Marathi	लोकप्रशासन पदव्युत्तर पदवी शिक्षणक्रम पूर्ण केल्यानंतर विद्यार्थ्यांना.... लोकप्रशासनातील विविधी संकल्पना, तत्वे यांची ओळख होते. तसेच सार्वजनीक धोरणाचे व माहितीचे विश्लेषण करता येते आणि लोकप्रशासनातील समस्या सोडवण्यासाठी स्व-कौशल्याचा उपयोग करून निर्णय घेण्याची क्षमता विकसित होते.	१. लोकप्रशासनातील संकल्पनांची ओळख होते. २. लोकप्रशासनातील तत्वे व सिद्धांत स्पष्ट होतात. ३. लोकप्रशासनातील समस्या सोडवण्यासाठी स्व-कौशल्याचा उपयोग करता येतो. ४. सार्वजनीक ध्येय धोरणाचे व माहितीचे विश्लेषण करता येते. ५. प्रशासकीय विचारवंतांचे योगदान व कार्याचे मूल्यमापन करता येते. ६. प्रशासनिक प्रक्रियांचे विश्लेषण करून निर्णय घेण्याची क्षमता विकसित होते.	**लोकप्रशासनाचे सिद्धांत व विचार (PAD501)**	१. लोकप्रशासनाची तत्वे, स्वरूप व व्याप्ती समजते. २. प्रशासकीय संघटनेचा अर्थ, वैशिष्ट्ये,रचना आणि प्रकार स्पष्ट करता येते. ३. प्रशासकीय विचारवंतांचे विचार आणि दृष्टीकोन स्पष्ट होते. ४. पाश्चिमात्य प्रशासकीय व व्यवस्थापकीय विचारांची उपयुक्तता विशद करता येते. ५. संघटनेच्या तत्वांचे मूल्यांकन करता यते.

		१. २. प्रशासकीय विचारवंतांचे योगदान व कार्याचे मूल्यमापन करता येते. ३. प्रशासनिक प्रक्रियांचे विश्लेषण करून निर्णय घेण्याची क्षमता विकसित होते. ४. लोकप्रशासनातील समस्यावर उपाय सुचविण्याची दृष्टी तयार होते.			
				भारतीय संविधान आणि प्रशासन (PAD502)	१. भारतीय संविधानाचा इतिहास, तत्वज्ञान आणि प्रक्रिया समजते. २. भारतीय संविधानाची संरचना स्पष्ट होते. ३. संविधानिक व वैधानिक संस्थेचे महत्व समजते. ४. भारतीय संविधान आणि लोकप्रशासन सहसंबंध स्पष्ट होते. ५. भारतातील राजकीय संस्कृती आणि व्यवस्थेचे विवेचन करता येते
				भारतीय शासन आणि प्रशासन (PAD503)	१. भारतीय राजकीय यंत्रणा व कार्यपद्धतीची ओळख होते. २. भारतीय प्रशासनाची वैशिष्टे समजून येतात. ३. राज्य प्रशासन व्यवस्था व कार्यपद्धती स्पष्ट होते. ४. जिल्हा प्रशासनाची रचना, कार्यपद्धती समजून येते.

					५. केंद्र आणि राज्य यांचे कार्यपद्धती व अधिकार यांचा तुलनात्मक करता येत.
				लोकप्रशासनातील प्रवाह भाग -१ (PAD504)	१. लोकप्रशासानातील नव संकल्पनांची ओळख होते. २. सुशासनविषयक विचार स्पष्ट होतात. ३. पर्यावरण, धोरणे, कायदे यांचे महत्व समजते.
				भारतातील लोकसेवा (PAD505)	१. भारतातीय लोकसेवेच्या इतिहासाची ओळख होते. २. भारतातील लोकसेवा व्यवस्था समजते. ३. प्रशासनातील पारदर्शकतेसाठी कार्य करणाऱ्या संस्था समजून येतात. ४. लोकसेवेतील समस्याची जाणीव होते. ५. भारतीय लोकसेवेचे मुल्यांकन करता येते.
				मानव आणि वित्तीय संसाधन व्यवस्थापन (PAD506)	१. कर्मचारी आणि वितीय प्रशासनातील संकल्पना स्पष्ट होतात. २. मानव संसाधन व्यवस्थापनाचे महत्व समजते. ३. व्यवस्थापनाच्या विविध पद्धती समजून घेऊन त्याचे मुल्यांकन करता येते. ४. वितीय व्यवस्थापचे विश्लेषण करता येते. ५. मानव संसाधन व्यवस्थापनाची तंत्रे स्पष्ट करता येतात.
				संशोधन पद्धती (RM) (PAD599)	१. सामाजिक संशोधन पद्धतीच्या पायऱ्या/टप्पे समजून येतात.

					२. सिद्धांत, संकल्पना यांची व्यावहारिक जीवनाशी सांगड घालण्याची समज मिर्माण होते. ३. तथ्य संकलन, माहितीचे विश्लेषण आणि संशोधनकरण्याची क्षमता विकसित होते. ४. नवीन ज्ञान आणि समज निर्माण करण्याची क्षमता तयार होते. चिकित्सकवृत्ती विकसित करून समस्यांवर उपाययोजना सुचविण्याचे कौशल्य विकाशित होतात.
			SEM-II	**समकालीन लोकप्रशासन (PAD507)**	१. विकास प्रशासन व सामाजिक न्याय या संकल्पनेची ओळख होते. २. एफ. डब्ल्यू . रिग्ज यांचे योगदान स्पष्ट करता येते. ३. विविध देशातील प्रशासकीय पद्धतीची तुलना करता येते. ४. सामाजिक न्यायाची धोरणे आणि कार्यक्रमाचे विश्लेषण करता येते. ५. आपत्ती प्रशासनात कार्य करणाऱ्या विविध घटकांचे मूल्यमापन करता येते.
				स्थानिक शासन आणि प्रशासन (PAD508)	१. स्थानिक शास संकल्पना स्पष्ट करता येते. २. भारताच्या स्थानिक शासनव्यवस्थेची विविध देशाच्या स्थानिक शासनव्यवस्थेशी तुलना करता येते. ३. पंचायतीराज व्यवस्थेची रचना व कार्यपद्धतीचे विश्लेषण करता येते.

					४. भारतातील नागरी स्थानिक शासन व्यवस्थेचे मुल्यांकन करता येते. ५. ग्रामीण आणि शहरी शासन संस्थेची तुलना करता येते.
				तुलनात्मक व विकास प्रशासन (PAD509)	१. तुलनात्मक प्रशासन संकल्पना परिभाषित करता येते. २. तुलनात्मक लोकप्रशासनापुढील समस्या स्पष्ट करता येते. ३. जपान व फ्रांसमधील प्रशासकीय व्यवस्थेचे वर्गीकरण करता येते. ४. विकास प्रशासनाच्या प्रारूपाचे विश्लेषण करता येते. ५. विकास प्रशासनात नोकरशाहीची भूमिकेचे मूल्यमापन करता येते.
				लोकप्रशासनातील प्रवाह भाग -२ (PAD510)	१. आरोग्य प्रशासन संकल्पनेची ओळख होते. २. आंतरराष्ट्रीय संस्था व संघटना स्पष्ट करता येतात. ३. केंद्रीय आरोग्य प्रशासन यंत्रणा व सुविधाचे मूल्यमापन करता येते.
				सामाजिक कल्याण प्रशासन आणि आर्थिक प्रशासन (PAD511)	१. सामाजिक कल्याण आणि आर्थिक प्रशासन संकल्पनेची ओळख होते. २. सामाजिक कल्याण व आरक्षण विषयक कायद्याचे महत्व समजते. ३. अर्थसंकल्पाचे आर्थिक व सामाजिक पैलू स्पष्ट होतात.

					४. नवीन आर्थिक धोरणाचे विश्लेषण करता येते. ५. सामजिक कल्याणाच्या विविध योजनेचे मूल्यमापन करता येते.
				भारतातील ग्रामीण विकास प्रशासन (PAD512)	१. ग्रामीण विकास संकल्पना स्पष्ट होते. २. सामुदायिक विकास व एकात्मिक ग्रामीण विकास यातील फरक ओळखता येते. ३. ग्रामीण विकासाचे विविध कार्यक्रम स्पष्ट करता येते. ४. ग्रामीण विकासाच्या समस्यावर उपाय सुचविण्याची दृष्टी तयार होते. ५. ग्रामीण विकास यंत्रणेच्या कार्याचे मूल्यमापन करता येते.
				) क्षेत्रीय प्रकल्प (FP) (PAD513)	क्षेत्रीय प्रकल्प पूर्ण केल्यानंतर... १. अभ्यास विषयाच्या अनुषंगाने निर्देशिनास आलेल्या सामान्य किंवा स्थानिक समस्यांबाबत सजगता येते. २. संकल्पना आणि व्यावहारिक जीवन यांच्यातील सहसंबंधांची जाणीव होते. ३. माहिती व आकडेवारी गोळा करण्याचे कौशल्य विकसित होते. ४. प्रत्यक्ष सहभागी होऊन प्रश्नांची सोडवणूक करताना व्यक्तिमत्व विकास होतो. ५. संस्थात्मक पातळीवरील समस्यांचे स्वरूप ओळखून उपाय सुचविण्याची क्षमता विकसित होते.

			SEM-III	**भारतातील लोकशाही व विकास (PAD601)**	१. लोकशाहीचे प्रकार समजून येतात. २. लोकशाहीपुढील आव्हाने स्पष्ट होतात. ३. भारतातील विकास यंत्रणाची ओळख होते. ४. भारतीय लोकशाही व विकास प्रशासन सहसंबंध समजते.
				सार्वजनिक धोरण (PAD602)	१. सार्वजनिक धोरणाची रूपरेषा समजते. २. सार्वजनिक धोरण निर्मितीचे सिद्धांत स्पष्ट होतात. ३. सार्वजनिक धोरण निर्मितीची प्रक्रियाचे विश्लेषण करता येते. ४. भारतातील महत्वाची सार्वजनिक धोरणांचे मूल्यमापन करता येते
				महाराष्ट्र प्रशासनाची रूपरेषा (PAD603)	१. महाराष्ट्र राज्यातील महसूल व्यवस्था समजते. २. महाराष्ट्र राज्यातील पोलीस प्रशासनाची रचना स्पष्ट होते. ३. महाराष्ट्र राज्यातील प्रशिक्षण व संशोधन संस्थांचे विश्लेषण करता येते. ४. संविधानीक व वैधानिक संस्था यातील फरक ओळखता येते.
				शिवकालीन प्रशासन (PAD604)	१. शिवकालीन प्रशासनाचा इतिहास समजून येते. २. शिवकालीन प्रशासनची कार्यपद्धती स्पष्ट होते.
				स्वंयसेवी संस्था आणि सहकार प्रशासन (PAD605)	१. स्वंयसेवी संस्था व संकल्पानांची ओळख होते. २. स्वंयसेवी संस्थेची कार्यपद्धती स्पष्ट होते. ३. सहकार संकल्पना आणि चळवळ समजते. ४. सहकार प्रशासन आणि व्यवस्थापनाचे मूल्यमापन करता येते.

				संशोधन प्रकल्प (PAD600)	१. अभ्यास विषयाच्या अनुषंगाने निर्देशिनास आलेल्या सामान्य किंवा स्थानिक समस्यांबाबत सजगता येते. २. संकल्पना आणि व्यावहारिक जीवन यांच्यातील सहसंबंधांची जाणीव होते. ३. माहिती व आकडेवारी गोळा करण्याचे कौशल्य विकसित होते. ४. प्रत्यक्ष सहभागी होऊन प्रश्नांची सोडवणूक करताना व्यक्तिमत्व विकास होतो.
			SEM-IV	**शैक्षणिक प्रशासन व व्यवस्थापन (PAD607)**	१. भारतातील शैक्षणिक प्रशासनाचा इतिहासाची ओळख होते. २. शालेय शैक्षणिक प्रशासनाची संरचना स्पष्ट होते. ३. उच्य शिक्षण संस्था व कार्यप्रणालीचे विश्लेषण करता येते. ४. तंत्र व व्यावसायिक शिक्षण प्रशासन व्यवस्था समजते.
				मानवी हक्क आणि मानव विकास प्रशासन (PAD608)	१. मानवी हक्क चळवळीचा इतिहासाची ओळख होते. २. मानवी हक्काशी संबंधित संवैधानिक तरतुदी समजून येतात. ३. भारतातील मानव विकासाचे महत्व समजते. ४. मानव विकासाचे विविध पैलू स्पष्ट होतात.
				भारतीय प्रशासकीय विचार (PAD609)	१. प्राचीन भारतीय प्रशासकीय विचार व दृष्टीकोन स्पष्ट होते. २. मध्ययुगीन भारतीय प्रशासकीय विचाराची उपयुक्तता विशद करता येते.

					३. आधुनिक भारतीय प्रशासकीय विचार समजतात. ४. आधुनिक भारतीय प्रशासकीय विचाराची प्रासंगिकता स्पष्ट करता येते
				कृषी प्रशासन आणि उद्योजकता विकास (PAD610)	१. कृषी विकासाचे महत्व समजतात. २. भारतातील कृषी प्रशासन व्यवस्थाचे मूल्यमापन करता येते. ३. उद्योजकता विकासाचे राष्ट्र विकासातील योगदान स्पष्ट होतात. ४. निगमांकित शासन व सामाजिक जबाबदारीची दृष्टी तयार होते.
				माहिती तंत्रज्ञान आणि लोकप्रशासन (PAD611)	१. माहिती तंत्रज्ञान प्रशासनातील संकल्पनाची ओळख होते. २. माहिती तंत्रज्ञान प्रशासन यंत्रणाची माहिती होते. ३. प्रशासनात कृत्रिम बुद्धिमतेचा वापर करण्याचे कौशल्य तयार होते. ४. सायबर सुरक्षेचे महत्व विशद करता येते.
				संशोधन प्रकल्प (PAD699)	६. सामाजिक समस्यांबाबत सजगता येते. ७. संकल्पना आणि व्यावहारिक जीवन यांच्यातील सहसंबंधांची जाणीव होते. ८. माहिती व आकडेवारी गोळा करण्याचे कौशल्य विकसित होते. ९. प्रत्यक्ष सहभागी होऊन प्रश्नांची सोडवणूक करताना व्यक्तिमत्व विकास होतो.

Sr. No.	Name of the Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course With Code	1) Course Learning Outcomes
21	**M. A (M50)** **ECONOMICS**	1) Students will be able to analyze and apply advanced economic theories and models to diverse situations. 2) Students will be able to conduct rigorous and original economic research.	2) Students will be able to critically evaluate and provide solutions to complex economic issues and policies. 3) Students will be able to assume leadership positions in academia, government, and the private sector. 4) Students will be able to integrate interdisciplinary approaches in addressing economic challenges.	**1. FUNDAMENTAL ECONOMIC THEORIES (ECO 501)**	1) Students are able to grasp the core principles and concepts of microeconomic theory, including supply and demand analysis, elasticity, and consumer choice theory. 2) Students are able to assess and predict the behavior of individual consumers and firms in different market structures such as perfect competition, monopoly, oligopoly, and monopolistic competition. 3) Students are able to utilize microeconomic models effectively to analyze real-world scenarios, make informed decisions, and formulate policy recommendations concerning pricing, production, resource allocation, and market regulation. 4) Students are able to identify and understand the factors that influence key macroeconomic indicators such as GDP growth, inflation rates, and unemployment rates. 5) Students are able to analyze the effectiveness of fiscal and monetary policies in shaping macroeconomic outcomes, including their impact on economic growth, price stability, and employment levels. 6) Students are able to critically evaluate various macroeconomic theories and assess their relevance to economic policymaking and forecasting, gaining insights into how policy decisions affect overall economic performance and stability.
				2. ECONOMICS OF DEVELOPMENT AND PLANNING (ECO 502)	1) Students are able to demonstrate a comprehensive understanding of economic development theories and their application to real-world scenarios.

					2) Students are able to critically analyze the effectiveness of various policies and strategies in addressing development challenges and fostering sustainable growth. 3) Students are able to identify and assess the institutional barriers to development and propose solutions to promote inclusive economic progress. 4) Students are able to evaluate the impact of development interventions on poverty reduction, income distribution, and overall human well-being. 5) Students are able to conduct independent research and apply economic analysis to propose evidence-based policy recommendations for promoting economic development and planning initiatives.
				3. WELFARE ECONOMICS (ECO 503)	**COURSE OUTCOMES:** 1) Students are able to demonstrate a thorough understanding of the theoretical foundations and principles of welfare economics, including concepts of social welfare and utility. 2) Students are able to apply the concept of Pareto efficiency to analyze resource allocation in society and assess the efficiency of market outcomes. 3) Students are able to assess the effectiveness of government policies, such as taxation and social welfare programs, in promoting societal well-being and addressing income inequality. 4) Students are able to critically evaluate the assumptions and limitations of classical and new classical theories of welfare economics in the context of

					contemporary economic challenges and policy dilemmas. 5) Students are able to formulate evidence-based policy recommendations informed by welfare economic principles to address societal welfare concerns and promote economic efficiency and equity.
				4. DEVELOPMENT OF ECONOMIC THOUGHTS (ECO 504)	1) Students are able to demonstrate a comprehensive understanding of the historical evolution of economic ideas and theories from ancient civilizations to the present day. 2) Students are able to analyze and interpret the contributions of key economic thinkers, such as Adam Smith, Karl Marx, and John Maynard Keynes, to the development of economic thought. 3) Students are able to identify and explain the fundamental principles and key concepts of major schools of economic thought, including classical, neoclassical, Marxist, and Keynesian economics. 4) Students are able to evaluate the influence of economic thought on economic policy formation, institutional development, and societal progress. 5) Students are able to apply critical thinking skills to assess the relevance and applicability of historical economic theories to contemporary economic challenges and policy debates.

				5. AGRICULTURE ECONOMICS (ECO 505)	1. Students are able to demonstrate a comprehensive understanding of the economic principles governing agricultural production, distribution, and consumption. 2. Students are able to analyze agricultural markets effectively, including identifying key factors influencing supply and demand dynamics and understanding price determination mechanisms. 3. Students are able to evaluate the impact of government policies, subsidies, and regulations on agricultural markets and farm incomes. 4. Students are able to assess the environmental and sustainability implications of agricultural practices, policies, and technologies. 5. Students are able to apply economic analysis to propose solutions and strategies for addressing pressing challenges in the agricultural sector, such as enhancing food security, promoting rural development, and navigating international trade dynamics.
				6. PUBLIC ECONOMICS (ECO 507)	1. Students are able to demonstrate a comprehensive understanding of the role of government in the economy and the principles of public finance. 2. Students are able to analyze and evaluate the efficiency and equity implications of different forms of government intervention, including taxation and public spending.

					3. Students are able to apply economic theories and concepts to assess the provision of public goods and address market failures effectively. 4. Students are able to critically evaluate the design and impact of tax policies on resource allocation, income distribution, and economic growth. 5. Students are able to utilize economic analysis to propose evidence-based policy recommendations for addressing societal challenges such as poverty alleviation and environmental sustainability through effective government interventions.
				7.RESEARCH METHODOLOGY IN ECONOMICS (ECO 599)	1) Students are able to articulate the fundamental principles and techniques of conducting research in economics. 2) Students are able to formulate clear and focused research questions and hypotheses. 3) Students are able to select and apply appropriate research methodologies to address economic inquiries effectively. 4) Students are able to demonstrate proficiency in collecting, analyzing, and interpreting data relevant to economic research. 5) Students are able to produce well-structured and substantiated research projects showcasing mastery of research methodology in economics.

				8.DEMOGRAPHICS (ECO 508)	1. Students are able to apply demographic analysis to economic research and policy. 2. Students are able to analyze population effects on economic variables. 3. Students are able to understand demographics' impact on development and policy. 4. Students are able to anticipate and address demographic challenges economically. 5. Students are able to use demographic theories to analyze contemporary economic issues.
				9.ECONOMICS OF TRANSPORT AND COMMUNICATION (ECO 509)	1. Students are able to comprehend the economic theories governing transportation and communication systems. 2. Students are able to evaluate the effects of transportation and communication networks on economic growth and productivity. 3. Students are able to demonstrate an understanding of how government policies influence transportation and communication industries. 4. Students are able to analyze the interconnectedness between transportation, communication, and global economic processes. 5. Students are able to apply economic frameworks to assess and propose solutions for real-world challenges in transportation and communication.

				10.DEVELOPMENT OF ECONOMIC THOUGHTS –PART 2 (ECO 510)	1. Students are able to analyze the ideas of influential economists. 2. Students are able to comprehend the evolution of Indian economic thought. 3. Students are able to critically evaluate Indian economic theories. 4. Students are able to understand the historical and cultural contexts of Indian economic thought. 5. Students are able to compare and contrast Indian economic theories with global paradigms.
				11. FINANCIAL ECONOMICS (ECO 511)	1. Students are able to explain the role of financial markets and institutions in the economy. 2. Students are able to interpret economic factors influencing financial decision making. 3. Students are able to apply financial theories to analyze and solve practical problems. 4. Students are able to assess the risks and returns of different investment options. 5. Students are able to utilize financial modeling and quantitative analysis techniques for informed decision making.
				12.BEHAVIOURAL ECONOMICS (ECO 512)	1. Students will be able to integrate principles from psychology and economics to understand decision-making.

					2. Students will be able to identify and analyze biases and heuristics affecting economic choices. 3. Students will be able to explore the influence of social and cultural factors on economic behavior. 4. Students will be able to design interventions aimed at improving decision-making outcomes. 5. Students will be able to evaluate the impact of behavioral economics on policy formulation and market dynamics.
				13. Field Projects	1. Students will be able to apply economic theories to analyze real-world field data and interpret findings effectively. 2. Students will be able to assess the socio-economic impact of policy interventions through on-ground data collection and evaluation. 3. Students will be able to design and conduct field surveys to understand the dynamics of rural and urban economies.

22	**MA Public Admministration (M58)**	लोकप्रशासन पदव्युत्तर पदवी शिक्षणक्रम पूर्ण केल्यानंतर विद्यार्थ्यांना.... १. लोकप्रशासनातील विविधी संकल्पना, तत्वे यांची ओळख होते. तसेच सार्वजनीक धोरणाचे व माहितीचे विश्लेषण करता येते आणि लोकप्रशासनातील समस्या सोडवण्यासाठी स्व-कौशल्याचा उपयोग करून निर्णय घेण्याची क्षमता विकसित होते. २. प्रशासकीय विचारवंतांचे योगदान व कार्याचे मूल्यमापन करता येते. ३. प्रशासनिक प्रक्रियांचे विश्लेषण करून निर्णय घेण्याची क्षमता विकसित होते. ४. लोकप्रशासनातील समस्यावर उपाय सुचविण्याची दृष्टी तयार होते.	७. लोकप्रशासनातील संकल्पनांची ओळख होते. ८. लोकप्रशासनातील तत्वे व सिद्धांत स्पष्ट होतात. ९. लोकप्रशासनातील समस्या सोडवण्यासाठी स्व-कौशल्याचा उपयोग करता येतो. १०. सार्वजनीक ध्येय धोरणाचे व माहितीचे विश्लेषण करता येते. ११. प्रशासकीय विचारवंतांचे योगदान व कार्याचे मूल्यमापन करता येते. १२. प्रशासनिक प्रक्रियांचे विश्लेषण करून निर्णय घेण्याची क्षमता विकसित होते.	**लोकप्रशासनाचे सिद्धांत व विचार (PAD501)**	६. लोकप्रशासनाची तत्वे, स्वरूप व व्याप्ती समजते. ७. प्रशासकीय संघटनेचा अर्थ, वैशिष्ट्ये,रचना आणि प्रकार स्पष्ट करता येते. ८. प्रशासकीय विचारवंतांचे विचार आणि दृष्टीकोन स्पष्ट होते. ९. पाश्चिमात्य प्रशासकीय व व्यवस्थापकीय विचारांची उपयुक्तता विशद करता येते. १०. संघटनेच्या तत्वांचे मूल्यांकन करता यते.
				भारतीय संविधान आणि प्रशासन (PAD502)	६. भारतीय संविधानाचा इतिहास, तत्वज्ञान आणि प्रक्रिया समजते. ७. भारतीय संविधानाची संरचना स्पष्ट होते. ८. संविधानिक व वैधानिक संस्थेचे महत्व समजते. ९. भारतीय संविधान आणि लोकप्रशासन सहसंबंध स्पष्ट होते. १०. भारतातील राजकीय संस्कृती आणि व्यवस्थेचे विवेचन करता येते

				भारतीय शासन आणि प्रशासन (PAD503)	६. भारतीय राजकीय यंत्रणा व कार्यपद्धतीची ओळख होते. ७. भारतीय प्रशासनाची वैशिष्टे समजून येतात. ८. राज्य प्रशासन व्यवस्था व कार्यपद्धती स्पष्ट होते. ९. जिल्हा प्रशासनाची रचना, कार्यपद्धती समजून येते. १०. केंद्र आणि राज्य यांचे कार्यपद्धती व अधिकार यांचा तुलनात्मक करता येत.
				लोकप्रशासनातील प्रवाह भाग -१ (PAD504)	४. लोकप्रशासानातील नव संकल्पनांची ओळख होते. ५. सुशासनविषयक विचार स्पष्ट होतात. ६. पर्यावरण, धोरणे, कायदे यांचे महत्व समजते.
				भारतातील लोकसेवा (PAD505)	६. भारतातीय लोकसेवेच्या इतिहासाची ओळख होते. ७. भारतातील लोकसेवा व्यवस्था समजते. ८. प्रशासनातील पारदर्शकतेसाठी कार्य करणाऱ्या संस्था समजून येतात. ९. लोकसेवेतील समस्याची जाणीव होते. १०. भारतीय लोकसेवेचे मुल्यांकन करता येते.
				मानव आणि वित्तीय संसाधन व्यवस्थापन (PAD506)	६. कर्मचारी आणि वितीय प्रशासनातील संकल्पना स्पष्ट होतात. ७. मानव संसाधन व्यवस्थापनाचे महत्व समजते. ८. व्यवस्थापनाच्या विविध पद्धती समजून घेऊन त्याचे मुल्यांकन करता येते. ९. वितीय व्यवस्थापचे विश्लेषण करता येते.

					१०. मानव संसाधन व्यवस्थापनाची तंत्रे स्पष्ट करता येतात.
				संशोधन पद्धती (RM) (PAD599)	५. सामाजिक संशोधन पद्धतीच्या पायऱ्या/टप्पे समजून येतात. ६. सिद्धांत, संकल्पना यांची व्यावहारिक जीवनाशी सांगड घालण्याची समज निर्माण होते. ७. तथ्य संकलन, माहितीचे विश्लेषण आणि संशोधनकरण्याची क्षमता विकसित होते. ८. नवीन ज्ञान आणि समज निर्माण करण्याची क्षमता तयार होते. चिकित्सकवृत्ती विकसित करून समस्यांवर उपाययोजना सुचविण्याचे कौशल्य विकाशित होतात.
			SEM-II	**समकालीन लोकप्रशासन (PAD507)**	६. विकास प्रशासन व सामाजिक न्याय या संकल्पनेची ओळख होते. ७. एफ. डब्ल्यू . रिग्ज यांचे योगदान स्पष्ट करता येते. ८. विविध देशातील प्रशासकीय पद्धतीची तुलना करता येते. ९. सामाजिक न्यायाची धोरणे आणि कार्यक्रमाचे विश्लेषण करता येते. १०. आपत्ती प्रशासनात कार्य करणाऱ्या विविध घटकांचे मूल्यमापन करता येते.
				स्थानिक शासन आणि प्रशासन (PAD508)	६. स्थानिक शास संकल्पना स्पष्ट करता येते.

					७. भारताच्या स्थानिक शासनव्यवस्थेची विविध देशाच्या स्थानिक शासनव्यवस्थेशी तुलना करता येते. ८. पंचायतीराज व्यवस्थेची रचना व कार्यपद्धतीचे विश्लेषण करता येते. ९. भारतातील नागरी स्थानिक शासन व्यवस्थेचे मुल्यांकन करता येते. १०. ग्रामीण आणि शहरी शासन संस्थेची तुलना करता येते.
				तुलनात्मक व विकास प्रशासन (PAD509)	६. तुलनात्मक प्रशासन संकल्पना परिभाषित करता येते. ७. तुलनात्मक लोकप्रशासनापुढील समस्या स्पष्ट करता येते. ८. जपान व फ्रांसमधील प्रशासकीय व्यवस्थेचे वर्गीकरण करता येते. ९. विकास प्रशासनाच्या प्रारूपाचे विश्लेषण करता येते. १०. विकास प्रशासनात नोकरशाहीची भूमिकेचे मूल्यमापन करता येते.
				लोकप्रशासनातील प्रवाह भाग -२ (PAD510)	४. आरोग्य प्रशासन संकल्पनेची ओळख होते. ५. आंतरराष्ट्रीय संस्था व संघटना स्पष्ट करता येतात. ६. केंद्रीय आरोग्य प्रशासन यंत्रणा व सुविधाचे मूल्यमापन करता येते.
				सामाजिक कल्याण प्रशासन आणि आर्थिक	६. सामाजिक कल्याण आणि आर्थिक प्रशासन संकल्पनेची ओळख होते.

				प्रशासन (PAD511)	७. सामाजिक कल्याण व आरक्षण विषयक कायद्याचे महत्व समजते. ८. अर्थसंकल्पाचे आर्थिक व सामाजिक पैलू स्पष्ट होतात. ९. नवीन आर्थिक धोरणाचे विश्लेषण करता येते. १०. सामजिक कल्याणाच्या विविध योजनेचे मूल्यमापन करता येते.
				भारतातील ग्रामीण विकास प्रशासन (PAD512)	६. ग्रामीण विकास संकल्पना स्पष्ट होते. ७. सामुदायिक विकास व एकात्मिक ग्रामीण विकास यातील फरक ओळखता येते. ८. ग्रामीण विकासाचे विविध कार्यक्रम स्पष्ट करता येते. ९. ग्रामीण विकासाच्या समस्यावर उपाय सुचविण्याची दृष्टी तयार होते. १०. ग्रामीण विकास यंत्रणेच्या कार्याचे मूल्यमापन करता येते.
				) क्षेत्रीय प्रकल्प (FP) (PAD513)	क्षेत्रीय प्रकल्प पूर्ण केल्यानंतर... ६. अभ्यास विषयाच्या अनुषंगाने निर्देशिनास आलेल्या सामान्य किंवा स्थानिक समस्यांबाबत सजगता येते. ७. संकल्पना आणि व्यावहारिक जीवन यांच्यातील सहसंबंधांची जाणीव होते. ८. माहिती व आकडेवारी गोळा करण्याचे कौशल्य विकसित होते.

					९. प्रत्यक्ष सहभागी होऊन प्रश्नांची सोडवणूक करताना व्यक्तिमत्व विकास होतो. १०. संस्थात्मक पातळीवरील समस्यांचे स्वरूप ओळखून उपाय सुचविण्याची क्षमता विकसित होते.
			SEM-III	**भारतातील लोकशाही व विकास (PAD601)**	५. लोकशाहीचे प्रकार समजून येतात. ६. लोकशाहीपुढील आव्हाने स्पष्ट होतात. ७. भारतातील विकास यंत्रणाची ओळख होते. ८. भारतीय लोकशाही व विकास प्रशासन सहसंबंध समजते.
				सार्वजनिक धोरण (PAD602)	५. सार्वजनिक धोरणाची रूपरेषा समजते. ६. सार्वजनिक धोरण निर्मितीचे सिद्धांत स्पष्ट होतात. ७. सार्वजनिक धोरण निर्मितीची प्रक्रियाचे विश्लेषण करता येते. ८. भारतातील महत्वाची सार्वजनिक धोरणांचे मूल्यमापन करता येते
				महाराष्ट्र प्रशासनाची रूपरेषा (PAD603)	५. महाराष्ट्र राज्यातील महसूल व्यवस्था समजते. ६. महाराष्ट्र राज्यातील पोलीस प्रशासनाची रचना स्पष्ट होते. ७. महाराष्ट्र राज्यातील प्रशिक्षण व संशोधन संस्थांचे विश्लेषण करता येते. ८. संविधानीक व वैधानिक संस्था यातील फरक ओळखता येते.
				शिवकालीन प्रशासन (PAD604)	३. शिवकालीन प्रशासनाचा इतिहास समजून येते. ४. शिवकालीन प्रशासनची कार्यपद्धती स्पष्ट होते.
				स्वंयसेवी संस्था आणि सहकार प्रशासन	५. स्वंयसेवी संस्था व संकल्पानांची ओळख होते. ६. स्वंयसेवी संस्थेची कार्यपद्धती स्पष्ट होते.

				(PAD605)	७. सहकार संकल्पना आणि चळवळ समजते. ८. सहकार प्रशासन आणि व्यवस्थापनाचे मूल्यमापन करता येते.
				संशोधन प्रकल्प (PAD600)	५. अभ्यास विषयाच्या अनुषंगाने निर्देशिनास आलेल्या सामान्य किंवा स्थानिक समस्यांबाबत सजगता येते. ६. संकल्पना आणि व्यावहारिक जीवन यांच्यातील सहसंबंधांची जाणीव होते. ७. माहिती व आकडेवारी गोळा करण्याचे कौशल्य विकसित होते. ८. प्रत्यक्ष सहभागी होऊन प्रश्नांची सोडवणूक करताना व्यक्तिमत्व विकास होतो.
			SEM-IV	**शैक्षणिक प्रशासन व व्यवस्थापन (PAD607)**	५. भारतातील शैक्षणिक प्रशासनाचा इतिहासाची ओळख होते. ६. शालेय शैक्षणिक प्रशासनाची संरचना स्पष्ट होते. ७. उच्य शिक्षण संस्था व कार्यप्रणालीचे विश्लेषण करता येते. ८. तंत्र व व्यावसायिक शिक्षण प्रशासन व्यवस्था समजते.
				मानवी हक्क आणि मानव विकास प्रशासन (PAD608)	५. मानवी हक्क चळवळीचा इतिहासाची ओळख होते. ६. मानवी हक्काशी संबंधित संवैधानिक तरतुदी समजून येतात. ७. भारतातील मानव विकासाचे महत्व समजते. ८. मानव विकासाचे विविध पैलू स्पष्ट होतात.

				भारतीय प्रशासकीय विचार (PAD609)	५. प्राचीन भारतीय प्रशासकीय विचार व दृष्टीकोन स्पष्ट होते. ६. मध्ययुगीन भारतीय प्रशासकीय विचाराची उपयुक्तता विशद करता येते. ७. आधुनिक भारतीय प्रशासकीय विचार समजतात. ८. आधुनिक भारतीय प्रशासकीय विचाराची प्रासंगिकता स्पष्ट करता येते
				कृषी प्रशासन आणि उद्योजकता विकास (PAD610)	५. कृषी विकासाचे महत्व समजतात. ६. भारतातील कृषी प्रशासन व्यवस्थाचे मूल्यमापन करता येते. ७. उद्योजकता विकासाचे राष्ट्र विकासातील योगदान स्पष्ट होतात. ८. निगमांकित शासन व सामाजिक जबाबदारीची दृष्टी तयार होते.
				माहिती तंत्रज्ञान आणि लोकप्रशासन (PAD611)	५. माहिती तंत्रज्ञान प्रशासनातील संकल्पनाची ओळख होते. ६. माहिती तंत्रज्ञान प्रशासन यंत्रणाची माहिती होते. ७. प्रशासनात कृत्रिम बुद्धिमतेचा वापर करण्याचे कौशल्य तयार होते. ८. सायबर सुरक्षेचे महत्व विशद करता येते.
				संशोधन प्रकल्प (PAD699)	१०. सामाजिक समस्यांबाबत सजगता येते. ११. संकल्पना आणि व्यावहारिक जीवन यांच्यातील सहसंबंधांची जाणीव होते. १२. माहिती व आकडेवारी गोळा करण्याचे कौशल्य विकसित होते. १३. प्रत्यक्ष सहभागी होऊन प्रश्नांची सोडवणूक करताना व्यक्तिमत्व विकास होतो.

Sr. No.	Name of the Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course With Code	Course Learning Outcomes
23	M85				
		• भाषा, शोध साहित्यिक पृष्ठभूमि, साहित्यिक, कलाकृतियों का समझ ,रचना एवं विश्लेषण करने की क्षमता विकसित होगी। • चरित्र निर्माण एवं व्यक्तित्व विकास के लिए आवश्यक क्षमताएँ प्राप्त होगी • छात्र विभिन्न व्यावसायिक कौशल विकसित कर उन्हें रोजगार प्राप्त करने	१. हिंदी साहित्य की विभिन्न कलाओं के प्रवृत्तिगत अध्ययन से विभिन्न साहित्यिक कलाओं को समझाने और विश्लेषण करने की क्षमता विकसित होगी। २. हिंदी साहित्य के वर्गीकरण की आधार साहित्यिक युगों, और धाराओं को समझने और उसकी पहचान करने में सक्षम हो। ३. साहित्य की विविध विधाओं का स्वरूपात्मक ज्ञान प्राप्त कर छात्रों में साहित्यिक रूपों और उसकी विशेषताओं की पहचान करने की क्षमता विकसित होगी। ४. लोकसाहित्य के क्षेत्र में शोधकार्य करने से छात्र शोध की मूलभूत विधियों से परिचित होंगे। ५. प्रमुख साहित्यकारों और उनके साहित्यिक ग्रंथों का अध्ययन करने से छात्रों में साहित्यिक समझ में वृद्धि होगी। ६. संवाद कौशल और प्रस्तुति कौशलको विकसित करने के लिए प्रशिक्षित होंगे।	१. हिंदी साहित्य का इतिहास (आदिकाल, भक्तिकाल और रीतिकाल (HIN501)	• छात्र में हिंदी साहित्येतिहास की लेखन एवं परंपरा के संदर्भ में जानकारी हासिल कर पाएगे। • हिंदी साहित्येतिहास की आशय, उपयोगिता और दर्शन को समझ पाएगे। • अध्ययन के बाद हिंदी साहित्य की आदिकाल, भक्तिकाल और रीतीकाल से परिचित होगा ।

		और उसमें सफल होने में मदद होगी.	७. आलोचनात्मक सोच विकसित होकर छात्रों में साहित्यिक और गैर-साहित्यिक विषयों के बारे में गहराई से सोचने और उन्हें आलोचनात्मक दृष्टिकोण से समझने की क्षमता विकसित होगी। ८. छात्र साहित्यिक कलाओं की विभिन्न धाराओं, शैलियाँ, और कला-संगीत के संदर्भ में समझ विकसित करेंगे। ९. शोध के प्रति रुचि और उत्साह बढ़ेगा, जिससे वे नवीन ज्ञान की खोज और उसमें योगदान कर सकेंगे। १०. छात्र विभिन्न व्यावसायिक कौशल विकसित करेंगे जो उन्हें रोजगार प्राप्त करने और उसमें सफल होने में मदद करेंगे		
				२. भारतीय साहित्य (HIN506)(४ श्रेयांक)	● छात्र भारतीय साहित्य की अवधारणाओं को समझ पाएगा ● भारतीय कविता का स्वरूप एवं प्रतिनिधि कवियों से परिचय होगा ● भारतीय कथा का विकासक्रम को समझकर प्रतिनिधिक भारतीय कथाकारों से परिचय होगा भारतीय नाटक का विकासक्रम और प्रतिनिधिक भारतीय नाटककारों से परिचय होगा
				3. कथासाहित्य (HIN502) (४ श्रेयांक)	● कथा साहित्य में कहानियों/कहानी का उदभव और विकास को समझ पाएगा।

					• प्रतिनिधिक कहानियों से परिचय होगा। • कथा साहित्य में उपन्यास की उदभव और विकासक्रम से परिचित होकर छात्रों में उपन्यास से रूचि निर्माण होने सहायता मिलेगी। • फाँस और दौड़उपन्यास में अभिव्यक्त व्यक्तित्व, कृतित्व, समीक्षा और समस्याएँ से अवगत होगा।
				४. संप्रेषण कौशल (HIN514) (२ श्रेयांक)	• वाचन कला की संकल्पना और महत्व को समझ पाएगा। • काव्य, नाट्य और कथा में वाचन कौशल की महत्व को समझ पाएगा • संभाषण कला की संकल्पना और महत्व से अवगत होगा
				५. हिंदी साहित्य विविध विमर्श (HIN505) (४ श्रेयांक)	• विमर्श संकल्पना और स्वरूप को समझ पाएगा। • स्त्री विमर्श को समझ पाएगा • दलित विमर्श को समझ पाएगा • आदिवासी विमर्श को समझ पाएगा
				६. कथेत्तर गद्य साहित्य (HIN505) (४ श्रेयांक)	• कथेत्तर गद्य साहित्य में हिंदी निबंध की उदभव और विकास रूबरू होगा। • निबंध की परिभाषा, स्वरूप और प्रकारों को समझ पाएगे । • जीवनी और आत्मकथा की उदभव और

					विकास को जान पाएगे । ● जीवनी और आत्मकथा की परिभाषा और स्वरूप को समझ पाएगे। ● रेखाचित्र और संस्मरण की उदभव और विकास को समझ पाएगे। ● रेखाचित्र और संस्मरण की परिभाषा और स्वरूप को समझ पाएगे। ● यात्रावृत्तांत और साक्षात्कार की उदभव और विकास को समझ पाएगे। ● रेखाचित्र परिभाषा, स्वरूप और तत्व को समझ पाएगे। ● रेखाचित्र उद्भव /उद्भव और विकास को समझ पाएगे। ● संस्मरण परिभाषा, स्वरूप और तत्व को समझ पाएगे।
				७. शोध प्रविधि (Research Methodology)(४ श्रेयांक)	● शोध स्वरूप एवं संकल्पना को समझ पाएगे। ● शोध प्रकार, क्षेत्रऔर समस्या को समझ पाएगे। ● शोध प्रविधि और प्रक्रिया को समझ पाएगे। ● शोध लेखन प्रणाली और प्रस्तुति को समझ पाएगे
				८. हिंदी साहित्य का	● छात्र में हिंदी साहित्य का इतिहास का

				इतिहास(HIN 507) (आधुनिक काल)	आधुनिक काल की पृष्ठभूमी में बारे में जानकारी मिलेगी ● स्वतंत्रतापूर्व हिंदी साहित्य से परिचय होगे ● स्वातंत्र्योत्तर हिंदी साहित्य(2000 तक) को समझ पाएगे ● इक्कीसवी सदी का हिंदी साहित्य को समझ पाएगे .
				९. भाषा विज्ञान (HIN508) (४ श्रेयांक	● भाषाविज्ञान का स्वरूप और व्याप्ति से अवगत होगे . ● विविध भाषा परिवार से परिचित होगे . ● अनुप्रयुक्त भाषाविज्ञान से परिचित होगे. ● भाषाविज्ञान के विविध अंग को समझ सकोगे.
				१०. प्राचीन और मध्ययुगीन काव्य HIN 515(४ श्रेयांक)	● आदिकालीन काव्य को समझ सकोगे ● भक्तिकालीन निर्गुण काव्य को समझ सकोगे ● भक्तिकालीन सगुण काव्य को समझ सकोगे ● रीतिकालीन काव्य को समझ सकोगे
				११. सृजनात्मक लेखन (HIN516) (२श्रेयांक)	● सृजनात्मक लेखन : सैद्धांतिक पक्ष को समझ सकोगे ● सृजनात्मक लेखन : व्यावहारिक पक्ष को

					समझ सकोगे
				१२. राजभाषा हिंदी (HIN511 (४ श्रेयांक)	• संवैधानिक प्रावधानको समझ सकोगे • कार्यालयीन हिंदीको समझ सकोगे • आलेखन और टिप्पण को समझ सकोगे प्रशासनिकशब्दावली को समझ सकोगे
				१३. हिंदी वेब साहित्य (HIN517)	• प्युटर (संगणक) प्रणाली-उदभव उद् भव और विकास को समझ सकोगे • हिंदी वेब – उद् भव और विकास को समझ सकोगे • हिंदी वेब साहित्य को समझ सकोगे भाषा प्रौद्योगिकी-विकास एवं प्रयोग को समझ सकोगे
				१४. क्षेत्रीय परियोजना (FP) (HIN513) (४ श्रेयांक	• विद्यार्थ्यांयों में अध्ययन विषय के संबंध में संदर्भ आनेवाली सामान्य किंवा स्थानीय समस्यांओं से रुबरु होकर उनमें चेतना निर्माण कराना। • पाठ्यक्रम का सिद्धांत, संकल्पनाओं की व्यावहारिक जीवन से समायोजन करने में सक्षम बनाना। • तथ्य संकलन, सूचना विश्लेषण और शोध करने की क्षमता को विकसित करना। • अनुभव आधारित ज्ञान के आधार पर व्यक्तित्व विकास में मदद करना। • विद्यार्थ्यांयों में चिकित्सकवृत्ती विकसित कर समस्यांयों पर उपाययोजना में सुझाव

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Learning Outcomes	Name of Course with code	Course Learning Outcomes
	(M60) MA History	· मानवी उत्क्रांतीचा आणि विकासाचा पट उलगडून दाखवणे. · प्राचीन भारतातील लोहयुगीण संक्रमण आणि त्यामुळे घडून आलेले व्यापक परिणाम लक्षात आणून देणे. · हद्दप्पा संस्कृती, मौर्य साम्राज्य, मौर्योत्तर व्यापारी विकास याचे आकलन करून देणे. · मध्ययुगीन भारताचा इतिहास आणि सरंजामशाहीची वैशिष्ट्ये समजून सांगने. · प्राचीन-मध्ययुगापासून ते ब्रिटीश काळापर्यंत साहित्य, कला व स्थापत्य याची सविस्तर माहिती	शिक्षणक्रम पूर्ण केल्यानंतर विद्यार्थ्यांस .....· मानवी उत्क्रांतीचा आणि विकासाचा पट उलगडतो. · प्राचीन भारतातील लोहयुगीण संक्रमण आणि त्यामुळे घडून आलेले व्यापक परिणाम लक्षात येतात. · हद्दप्पा संस्कृती, मौर्य साम्राज्य, मौर्योत्तर व्यापारी विकास याचे आकलन होते. · मध्ययुगीन भारताचा इतिहास आणि सरंजामशाहीची वैशिष्ट्ये समजतात. · प्राचीन-	प्रारंभिक भारत (इ.स. सहाव्या शतकापर्यंत) [HIS515]	• मानवाच्या शिकारी अवस्थेपासून कृषी अवस्थेपर्यंतच्या वाटचालीची ओळख होते. • प्रथम नागरी क्रांती म्हणून हडप्पा सभ्यतेचे विविध पैलू स्पष्ट करता येते. • वैदिक व उत्तर वैदिक काळातील समाज जीवनातील फरक समजते. • उत्तर भारतातील महाजनपद आणि दक्षिण भारतातील
				प्रारंभिक भारत (इ.स. सहाव्या शतकापर्यंत)	• मानवाच्या शिकारी अवस्थेपासून कृषी अवस्थेपर्यंतच्या वाटचालीची ओळख होते. • प्रथम नागरी क्रांती म्हणून हडप्पा सभ्यतेचे विविध पैलू स्पष्ट करता येते. • वैदिक व उत्तर वैदिक काळातील समाज जीवनातील फरक समजतो. • उत्तर भारतातील महाजनपद आणि दक्षिण भारतातील महापाषण संस्कृतीची माहिती मिळते. • भारतातील पहिले साम्राज्य म्हणून मौर्य साम्राज्याची मुल्यांकन करता येते. • मौर्योत्तर काळातील व्यापार तसेच पर्शियन, कुशाण, शक-क्षत्रप यांच्या आगमनाचा इतिहास कळतो.

		देणे. · ब्रिटीश वसाहतवादाचे भारतीय उपखंडावर झालेले व्यापक परिणाम स्पष्ट करून सांगणे. ऐतिहासिक घटनांकडे चिकित्सक वृतीने बघण्याचा आणि संशोधन दृष्टीचा विकास करणे. भूतकाळाच्या अभ्यासातून वर्तमानाचे अचूक आकलन आणि भविष्याची योग्य दिशा ठरवण्यास सक्षम करणे. · भारतीय स्वतंत्र लढा आणि त्यातील आंतरविरोध विस्ताराने समजून सांगणे. · जगातील महत्वाच्या	मध्ययुगापासून ते ब्रिटीश काळापर्यंत साहित्य, कला व स्थापत्य याची सविस्तर माहिती होते. · ब्रिटीश वसाहतवादाचे भारतीय उपखंडावर झालेले व्यापक परिणाम स्पष्ट करता येतात. · भारतीय स्वतंत्र लढा आणि त्यातील आंतरविरोध विस्ताराने समजून घेता येतात. · जगातील महत्वाच्या ऐतिहासिक घटना आणि त्याचे भारतीय उपखंडावर झालेले परिणाम समजतात. ·	इतिहासाच्या सहाय्यकारी शास्त्रांची पद्धती आणि उपयोजन [HIS519]	• पुरातत्वशास्त्र याविषयाचा ओळख होते. • जगातील आणि भारतातील प्रमुख उत्खानीत स्थळे याची माहिती मिळते. • पुराभिलेखागारे याविषयी विस्ताराने सांगता येते. • मूर्ती विज्ञान, नानकशास्त्र, प्राचीन लिपी याचे स्पष्टीकरण करता येते. • मानवशास्त्र याविषयी विस्ताराने सांगता येते. • मौखिक इतिहासाचे सखोल ज्ञान मिळते.
				आधुनिक-पूर्व जगाचा इतिहास [HIS520]	• सरंजामशाहीच्या काळातील जगाची माहिती होते. • अधुनिकपूर्व जगातील व्यापारव्यवस्था समजून घेता येते. • मध्ययुगीन जगाच्या संक्रमण काळाचे स्पष्टीकरण करता येते. • आधुनिकपूर्व जगातील समाजव्यवस्थेचे मुल्यांकन करता येते. • आधुनिकपूर्व जगातील युद्ध तंत्र आणि संचार व्यवस्थेतील बदल स्पष्ट करता येते.

		जगातील महत्वाच्या ऐतिहासिक घटना आणि त्याचे भारतीय उपखंडावर झालेले परिणाम समजून सांगणे. · प्रादेशिक आणि स्थानिक इतिहासाचे महत्व लक्षात आणून देणे.	समजतात. · प्रादेशिक आणि स्थानिक इतिहासाचे महत्व लक्षात येते. · ऐतिहासिक घटनांकडे चिकित्सक वृतीने बघता येते आणि त्यांच्यामध्ये संशोधन दृष्टीचा विकास होतो. · भूतकाळाच्या अभ्यासातून वर्तमानाचे अचूक आकलन होते आणि भविष्याची योग्य दिशा ठरवण्यास सक्षम होतात.	संशोधन पद्धती [HIS599]	• सामाजिक संशोधन पद्धतीच्या पायऱ्या/टप्पे समजून येतात. • सिद्धांत, संकल्पना यांची व्यावहारिक जीवनाशी सांगड घालण्याची समज मिर्माण होते. • तथ्य संकलन, माहितीचे विश्लेषण आणि संशोधनकरण्याची क्षमता विकसित होते. • नवीन ज्ञान आणि समज निर्माण करण्याची क्षमता तयार होते. • चिकित्सकवृत्ती विकसित करून समस्यांवर उपाययोजना सुचविण्याचे कौशल्य विकाशित होतात.
				सरंजामशाहीच्या काळातील भारत (सहावे ते आठरावे शतक) [HIS521]	• राष्ट्रकुट, पाल आणि प्रतिहार यांच्यातील त्रिपक्षीय संघर्षाचे स्वरूप कळते. • चोल, चेर, पांड्य आणि पल्लव या दक्षिण भारतातील सत्तांची माहिती होते. • तुर्क सत्तेचा उदय आणि विस्तार स्पष्ट करता येतो. • विजयनगर आणि बहामनी सत्तेविषयी माहिती मिळते. • उत्तर आणि दक्षिण भारतातील कला, स्थापत्य आणि साहित्याचे मुल्यांकन करता येते. • मुगल सत्तेविषयी सविस्तर सांगता येते. • अठराव्या शतकाचा विवाद, जात, वर्ग स्थित्यंतराचा विवाद, इत्यादी विवादाचे स्पष्टीकरण देता येते.

भारतातील आर्थिक जीवनातील स्थित्यंतरे [HIS522]	• प्राचीन भारतातील शेती तंत्राचा उदय, पशुपाल, हस्तकौशल्याधीष्टीत उत्पादन ते नागरीकरण समजते. • प्राचीन भारताताचा अंतर्गत व बाह्यजगताशी असलेला व्यापार व विनिमय स्पष्ट करता येतो. • मध्ययुगीन भारतातील कृषिसंस्थेचे संघटन, स्थानीय बाजारपेठा आणि व्यापारी संस्था याबाबत माहिती मिळते. • ब्रिटीश काळातील वासाहतिक शोषणाच्या व्यवस्था समजून घेता येतात. • वसाहतकालीन आर्थिक व्यवस्थेच्या बदलाचे स्वरूप स्पष्ट करता येते. • स्वातंत्र्योत्तरकाळातील आर्थिक स्थित्यंतरांचे मुल्यांकन करता येते.
आधुनिक जग- भाग २ [HIS523]	• आधुनिक जगातील व्यापारवाद व साम्राज्यवाद या संकल्पना समजतात. • पहिले व दुसरे महायुद्ध आणि त्याचे परिणाम स्पष्ट करता येतात. • फॅसिझम आणि नाझीझम याचे स्वरूप स्पष्ट करून त्याची चिकित्सा करता येते. • आशिया व आफ्रिका खंडातील वसाहतविरोधी संघर्षाचे मुल्यांकन करता येते. • शीतयुद्ध आणि द्वि-ध्रुवीय विश्वरचनेचे पतन स्पष्ट करता येते. • जागतिकीकरणाचे पर्व समजते.

मध्ययुगीन इतिहासकार [HIS524]	• धर्मयुद्धानंतरची युरोपातील इतिहासलेखन परंपरेचे स्पष्टीकरण करता येते.. • ख्रिस्ती, अरब व भारतीय इतिहासलेखन परंपरा याचे मुल्यांकन करता येते. • मध्ययुगीन भारताचे प्रमुख वसाहतवादी, राष्ट्रवादी, मार्क्सवादी इतिहासकार यांची माहिती होते. • मध्ययुगीन इतिहासलेखनातील प्रमुख विवाद लक्षात येतात.
इतिहासाची उपयोजित क्षेत्रे [HIS525]	• वस्तुसंग्रहालयशास्त्र याविषयी सविस्तर माहिती मिळते. • पर्यटनाचा अर्थ, स्वरूप, संकल्पना आणि प्रकार स्पष्ट करता येतात. • भारतातील पर्यटनस्थळांचा सांस्कृतिक व सामाजिक संदर्भ ओळखता येतात. • ऐतिहासिक वारसा म्हणून नृत्य, संगीत व चित्रकला, सण-उत्सव व लोकसाहित्य याचे मुल्यांकन करता येते. • पुराभिलेखागारांची सर्वांगीण माहिती होते.

आधुनिक-पूर्व जगाचा इतिहास : भाग 2 [HIS526]	• पुराश्म, मध्याश्म व नवाश्म युगाच्या अभ्यासातून जगातील मानवाच्या उत्क्रांतीचे आकलन होते. • प्राचीन इजिप्तची, मेसोपोटेमिया, हडप्पा व चीनची सभ्यतांविषयी माहिती मिळते. • प्राचीन ग्रीकची, रोमची, इराणची व माया आणि इंका सभ्यतांविषयी माहिती मिळते. • प्रारंभिक राजकीय संस्था, सामाजिक व आर्थिक तसेच धर्मविचारातील स्थित्यंतरे यातून प्रारंभिक जगाचे मुल्यांकन करता येते. • प्रारंभिक जगातील कला-साहित्य-स्थापत्य-विज्ञान-तंत्रज्ञान याविषयीची माहिती होते.
क्षेत्रीय प्रकल्प [HIS527]	• अभ्यास विषयाच्या अनुषगाने निदर्शनास आलेल्या सामान्य व स्थानिक समस्यांबाबत सजगता येते. • संकल्पना आणि व्यावहारिक जीवन यांच्यातील सहसंबंधांची जाणीव होते. • माहिती व आकडेवारी गोळा करण्याचे कौशल्य विकसित होते. • प्रत्यक्ष सहभागी होऊन प्रश्नांची सोडवणूक करताना व्यक्तिमत्व विकास होतो. • संस्थात्मक पातळीवरील समस्यांचे स्वरूप ओळखून उपाय सुचविण्याची क्षमता विकसित होते.
इतिहास लेखानशास्त्र	• इतिहास म्हणजे काय? इतिहास का अभ्यासावा याचे

आधुनिक भारताचा इतिहास [HIS602]	• वसाहतवादी राजवटीचे स्वरूप आणि संरचना सांगता येते. • वसाहतवादी राजवटीच्या काळातील शासननीती कशी होती हे लक्षात येते . • वसाहतवादी राजवटीचे सामाजिक सांस्कृतिक संदर्भ स्पष्ट करता येतात. • वसाहतवादी काळातील सुधारणा चळवळीचे मूल्यांकन करता येते.
भारताचा सामाजिक इतिहास [HIS603]	• वर्णसंस्था, दासप्रथा व गणसमाज या संकल्पना स्पष्ट करता येतात. • जातिसंस्थेच्या उदयाची प्रक्रिया, तीचा भौतिक संदर्भ, विस्तार तसेच जातिसंस्थेचे धार्मिक अधिष्ठान लक्षात येते. • सरंजामशाही व जातपितृसत्तेचे पैलू स्पष्ट करता येतात. • वासाहतिक धोरणे व भारतातील सामाजिक परिवर्तन याचा सहासंबंध सांगता येतो. • ब्राह्मणेतर चळवळ, दलित चळवळ यासारख्या जातीविरोधी चळवळीचे महत्व स्पष्ट करता येते.
आधुनिक इतिहासकार [HIS604]	• मार्क्सवादी, नवमार्क्सवादी, अॅनाल्स याप्रकारच्या आधुनिक इतिहास लेखन परंपरा समजतात. • आधुनिक भारताचे वसाहतवादी, राष्ट्रवादी, मार्क्सवादी इतिहासकार यांची माहिती मिळते. • आधुनिक भारताचे सबाल्टर्न, फुले-आंबेडकरवादी, स्त्रीवादी इतिहासकार यांची माहिती मिळते.

भारतीय इतिहासाचे नवे आयाम [HIS605]	• दैनंदिन लोकजीवनाच्या इतिहासाचे काही पैलू जसे की, आहार, वेशभूषा, सण-उत्सव, ललित कला, कर्मकांड स्पष्ट करता येतात. • दैनंदिन लोकजीवनाच्या इतिहासाचे काही पैलू जसे की, सिनेमा, क्रिकेट स्पष्ट करता येतात. • दैनंदिन लोकजीवनाचा ऐतिहासिक अन्वयार्थ लावता येतो. • परिस्थितिकी आणि पर्यावरण याचे ऐतिहासिक आकलन होते. • विज्ञान, तंत्रज्ञानआणि आरोग्य या मुद्यांचा ऐतिहासिक परीपेक्षातून अन्वयार्थ लावता येतो.
दक्षिण जगाचा इतिहास [HIS606]	• ऑलप्तवादा चळवळ, द्विधृवा जग त एकधृवा जग याबाबत माहिती मिळते. • के. सी. भट्टाचार्य, फ्रांज फेनन, सय्यद हुसेन अलातास, समीर अमीन याचे विचार समजतात. • उत्तर जगाचे आर्थिक व राजकीय वर्चस्व आणि दक्षिण जगाचा प्रतिरोध स्पष्ट करता येतो. • यु.एस.एस.आर.चे विघटन आणि रशियाची समस्या समजून येते. • एकधृवी जगाकडून बहुध्रुवीजगाकडे झालेल्या वाटचालीचे मूल्यांकन करता येते.

संशोधन प्रकल्प [HIS600]	• अभ्यास विषयाच्या अनुषगाने निदशनास आलेल्या सामान्य व स्थानिक समस्यांबाबत सजगता येते. • संकल्पना आणि व्यावहारिक जीवन यांच्यातील सहसंबंधांची जाणीव होते. • माहिती व आकडेवारी गोळा करण्याचे कौशल्य विकसित होते. • प्रत्यक्ष सहभागी होऊन प्रश्नांची सोडवणूक करताना व्यक्तिमत्व विकास होतो. • संस्थात्मक पातळीवरील समस्यांचे स्वरूप ओळखून उपाय सुचविण्याची क्षमता विकसित होते.
राष्ट्रवादी चळवळीचा इतिहास [HIS607]	• वसाहतवादविरोधातील प्रारंभिक प्रतिकार स्पष्ट करता येतात. • १८५७ चा उठाव याची सविस्तर माहिती मिळते. • भारतीय स्वातंत्र्याच्या लढ्याचे मूल्यांकन करता येते. • जात-जमात-लिंगभाव आणि राष्ट्रवादाचे ताणेबाणे लक्षात येतात. • भारतीय राष्ट्रीय चळवळीचे विभिन्न आयाम स्पष्ट करता येतात.

जनचळवळीचे युग [HIS608]	• जगातील जनचळवळी जसे की, वंशभेद, नागरीहक्क, कामगार, स्त्रीया यांच्या चळवळीची माहिती मिळते. • भारतातील शेतकरी आणि कामगार चळवळी यांचे मूल्यांकन करता येते. • भारतातील आदिवाशी आणि जातीविरोधी चळवळी यांचे मूल्यांकन करता येते. • भारतातील स्त्रियांच्या चळवळीचे मूल्यांकन करता येते.
महाराष्ट्राचा इतिहास [HIS609]	• प्राचीन ते मध्ययुगीन महाराष्ट्राचा राजकीय इतिहास स्पष्ट करता येतो. • महाराष्ट्राची सांस्कृतिक जडणघडण- कला, स्थापत्य व शिल्प, भाषा आणि वान्ड्मय याचे मूल्यांकन करता येते. • मराठ्यांचा इतिहास सविस्तर माहिती होतो. • ब्रिटिश काळातील महाराष्ट्राचा सामाजिक, आर्थिक, राजकीय इतिहास स्पष्ट करता येतो.
समकालीन भारत (१९४७ ते २०००) [HIS610]	• सांवधान निमता, सस्थानाच विलानाकरण आाण राज्य पुनर्रचना याची माहिती होते. • आणीबाणी तसेच २००० पर्यंतची राजकीय वाटचाल सांगता येते. • भारतातील दारिद्य, विषमता आणि वर्गकलह, जातिसंघर्ष याचे आकलन होते. • जागतिकीकरणाचे आव्हान, बदलती विश्वरचना आणि भारत याची माहिती होते.

24				आधुनिक आशियाचा इतिहास [HIS611]	• आधुनिक चीनच्या इतिहासची माहिती होते. • आधुनिक जपानच्या इतिहासाची माहिती मिळते. • इंडोनेशिया, ब्रह्मदेश, सयाम, लाओस, कंबोडिया यांच्या वसाहतवादविरोधी संघर्षाचे मुल्यांकन करता येते. • मध्य-पूर्वेचा इतिहास स्पष्ट करता येतो.
				संशोधन प्रकल्प. [HIS699]	• अभ्यास विषयाच्या अनुषगाने निदशनास आलेल्या सामान्य व स्थानिक समस्यांबाबत सजगता येते. • संकल्पना आणि व्यावहारिक जीवन यांच्यातील सहसंबंधांची जाणीव होते. • माहिती व आकडेवारी गोळा करण्याचे कौशल्य विकसित होते. • प्रत्यक्ष सहभागी होऊन प्रश्नांची सोडवणूक करताना व्यक्तिमत्व विकास होतो. • संस्थात्मक पातळीवरील समस्यांचे स्वरूप ओळखून उपाय सुचविण्याची क्षमता विकसित होते.

यशवंतराव चव्हाण महाराष्ट्र मुक्त विद्यापीठ, नाशिक
नॅक मानांकित 'अ' श्रेणी
ज्ञानगंगोत्री, गंगापूर धरणाजवळ, गोवर्धन
नाशिक – ४२२ २२२ (महाराष्ट्र) भारत

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विज्ञान विद्याशाखा / School of Sciences

Appendix Q1M: 1.1.1-2- Outcome analysis of Programme Specific Learning Outcomes [LOCF] and Course Learning Outcomes

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
1	V100: B.Sc. (Botany, Chemistry, Zoology) {2023 Pattern}	After completing this program, the learner will able to : • Demonstrate a broad understanding of core concepts in botany, chemistry, and zoology, integrating knowledge across all three disciplines. • Develop the ability to conduct experiments,	Interdisciplinary Knowledge: Demonstrate a comprehensive understanding of fundamental concepts across botany, chemistry, and zoology, integrating them to study life sciences. Laboratory and Research Skills: Apply practical skills in laboratory techniques, performing experiments and analyzing data across plant,	1. AEC111:English Communication	After successful completion of this course, student should be able to – • Communicate effectively in spoken English, including pronunciation, fluency, and clarity. • Develop strong listening skills to understand spoken English, including different accents and dialects. • Create and deliver effective presentations, including the use of visual aids and public speaking techniques. • Write professional documents (e.g., resumes, cover letters), participate in job interviews, and communicate effectively in workplace settings.
				2. BNY101: Plant Diversity	After successful completion of this course, student should be able to – • Develop the ability to identify common plant species and understand the key features used in plant identification.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
		analyze data, and apply scientific methods in botany, chemistry, and zoology. • Apply critical thinking to solve interdisciplinary problems, drawing connections between biological, chemical, and ecological concepts. • Engage in independent research and contribute to scientific inquiry, using tools and techniques from botany, chemistry, and zoology. • Effectively communicate scientific ideas and research findings across	animal, and chemical sciences. Ecological and Environmental Awareness: Understand the interdependence of plants, animals, and chemical processes in ecosystems, and contribute to environmental sustainability and conservation. Critical Thinking and Problem-Solving: Use analytical skills to solve biological, chemical, and ecological problems, applying concepts from all three disciplines. Scientific Communication: Effectively communicate scientific findings and		• Effectively communicate their understanding of plant diversity through written reports, presentations, and discussions. • Acquire the foundational skills required for conducting research in plant biology or related fields. • Recognize the importance of plant conservation and ethical considerations related to plant use and biodiversity.
				3. BNY102: Plant Diversity	After successful completion of this course, student should be able to – • Develop the ability to identify common plant species and understand the key features used in plant identification. • Effectively communicate their understanding of plant diversity through written reports presentations, and discussions. • Acquire the foundational skills required for conducting research in plant biology or related fields. • Recognize the importance of plant conservation and ethical considerations related to plant use and biodiversity.
				4. CHE104: Basic Inorganic & Organic Chemistry	After successful completion of this course, student should be able to

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
		the fields of botany, chemistry, and zoology in both oral and written forms.	concepts in botany, chemistry, and zoology, both in written and oral formats.		● Understand the foundational principles of Bohr's model and its limitations. ● Understand the general characteristics of ionic bonding, including the transfer of electrons and electrostatic attractions. ● Apply the principles of nucleophilicity and electrophilicity to deduce the mechanisms of various organic reactions.
				5. CHE105: Basic Inorganic & Organic Chemistry	After successful completion of this course, student should be able to ● Acquire practical laboratory skills, including the ability to perform experiments, use laboratory equipment and analyze experimental data. ● Perform basic quantitative analyses, including stoichiometric calculations and concentration determinations. ● Effectively communicate experimental procedures, results, and conclusions through written lab reports and oral presentations. ● Recognize the relevance of chemistry in everyday life, industry and other scientific disciplines.
				6. ZGY101: Animal Diversity (T)	After successful completion of this course, student should be able to – ● Demonstrate a solid understanding of the diversity of animal life

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Develop the ability to identify common animals ● Apply critical thinking skills to analyze and compare animal adaptations, behaviors, and evolutionary patterns. ● Recognize ethical considerations related to animal research, conservation, and humane treatment. ● Apply knowledge of animal diversity to solve real-world ecological and conservation problems.
				7. ZGY102: Animal Diversity (P)	After successful completion of this course, student should be able to – ● Demonstrate a solid understanding of the diversity of animal life ● Develop the ability to identify common animals ● Apply critical thinking skills to analyze and compare animal adaptations, behaviors, and evolutionary patterns. ● Recognize ethical considerations related to animal research, conservation, and humane treatment. ● Apply knowledge of animal diversity to solve real-world ecological and conservation problems.
				8. AEC121: Environmental Science	After successful completion of this course, student should be able to – ● Develop a solid understanding of key environmental concepts, issues, and challenges. ● Recognize the interdisciplinary nature of environmental studies by integrating knowledge from various fields, such as biology, chemistry, sociology, and economics.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Develop the ability to advocate for environmental causes and promote sustainable practices within their communities and beyond. ● Foster a sense of environmental citizenship, encouraging students to actively contribute to a more sustainable and environmentally conscious society.
				9. BNY106: Plant Ecology & Taxonomy	After successful completion of this course, student should be able to – ● Develop the ability to identify common plant species and understand the key features used in plant identification. ● Apply critical thinking skills to analyze and compare plant adaptations, ecological roles, and evolutionary patterns. ● Recognize ethical considerations related to plant research, conservation, and sustainable use. ● Acquire foundational research skills required for conducting studies in plant ecology or related fields.
				10. BNY107: Plant Ecology & Taxonomy	After successful completion of this course, student should be able to – ● Develop the ability to identify common plant species and understand the key features used in plant identification. ● Apply critical thinking skills to analyze and compare plant adaptations, ecological roles, and evolutionary patterns. ● Recognize ethical considerations related to plant research, conservation, and sustainable use. ● Acquire foundational research skills required for conducting studies in plant ecology orrelated fields.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
				11. CHE106: Physical & Organic Chemistry - I	After successful completion of this course, student should be able to ● Apply mathematical and conceptual approaches to solve problems related to thermodynamics, kinetics, quantum mechanics and chemical equilibrium. ● Acquire the ability to perform calculations involving thermodynamic parameters, reaction rates and electrochemical processes. ● Explain the mechanisms of organic reactions and predict reaction outcomes based on mechanistic understanding.
				12.CHE107: Physical & Organic Chemistry – I	After successful completion of this course, student should be able to ● Understand how the heat capacity of a system depends on the amount of substance and the properties of the calorimeter. ● Perform calorimetric experiments to measure the heat absorbed or released during the dissolution of salts in water. ● Apply the concept of choosing appropriate solvents or solvent mixtures for crystallization based on the solubility of the target compound and impurities.
				13. ZGY106: Anatomy & Developmental Biology of Vertebrates (T)	After successful completion of this course, student should be able to – ● Analyze and compare the anatomy of different vertebrate species to identify common patterns and unique adaptations.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					• Explain the functional significance of anatomical features and how they relate to the ecological and physiological characteristics of vertebrates. • Apply an evolutionary perspective to interpret the similarities and differences in vertebrate anatomy and development. • Recognize how the study of vertebrate anatomy and development intersects with other scientific disciplines, such as evolutionary biology, ecology, and physiology
				14. ZGY107: Anatomy & Developmental Biology of Vertebrates (P)	After successful completion of this course, student should be able to – • Analyze and compare the anatomy of different vertebrate species to identify common patterns and unique adaptations. • Explain the functional significance of anatomical features and how they relate to the ecological and physiological characteristics of vertebrates. • Apply an evolutionary perspective to interpret the similarities and differences in vertebrate anatomy and development. • Recognize how the study of vertebrate anatomy and development intersects with other scientific disciplines, such as evolutionary biology, ecology, and physiology.
				15. SEC311: IT & E-Learning Skills	After successful completion of this course, student should be able to –

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					• Evaluate and critically analyze online information and media sources, distinguishing between credible and unreliable content. • Create and manipulate multimedia content for educational presentations and projects. • Apply e-learning pedagogy and instructional design principles to design and deliver effective online educational content. • Adapt to evolving technology and educational trends, demonstrating the ability to continue learning and staying up-to-date with IT and e-learning advancements. • Exhibit responsible and ethical behavior in online learning environments, respecting copyright, privacy, and digital etiquette.
				16. BNY201: Diversity & Morphology of Angrosperm.	After successful completion of this course, student should be able to – • Demonstrate a comprehensive understanding of the diversity of angiosperms, including their classification and evolutionary relationships. • Analyze how angiosperms have adapted to different environments and niches and identify their unique ecological roles. • Interpret the evolutionary history of angiosperms and their relationships with other plant groups. • Apply fieldwork techniques for the identification and study of angiosperms in their natural habitats.
				17. BNY202: Diversity & Morphology of Angiosperm	After successful completion of this course, student should be able to –

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					• Demonstrate a comprehensive understanding of the diversity of angiosperms, including their classification and evolutionary relationships. • Analyze how angiosperms have adapted to different environments and niches and identify their unique ecological roles. • Interpret the evolutionary history of angiosperms and their relationships with other plant groups. • Apply fieldwork techniques for the identification and study of angiosperms in their natural habitats.
				18. CHE201: Physical & Organic Chemistry - II	After successful completion of this course, student should be able to ● Understand the significance of the Clausius–Clapeyron equation. ● Analyze and interpret vapor pressure-composition curves for both ideal and non-ideal solutions. ● Understand and perform the acidic and alkaline hydrolysis of esters to prepare carboxylic acids. ● Understand the classification of carbohydrates.
				19. CHE202: Physical & Organic Chemistry - II	After successful completion of this course, student should be able to ● Learn the principles of phase equilibria and the construction of phase diagrams for binary systems. ● Understand and calculate the equivalent conductance (Λ) of an electrolyte at different concentrations. ● Understand how potentiometric methods can be used to determine concentrations of ions in solutions. ● Identify the properties of various monofunctional organic groups.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
				20. ZGY201: Animal Physiology & Ecology (T)	After successful completion of this course, student should be able to – ● Explain the cellular and molecular mechanisms underlying physiological processes in animals. ● Integrate knowledge of animal physiology to understand how physiological systems work together to maintain homeostasis. ● Explain ecosystem processes and the roles of animals in ecosystem functioning. ● Recognize the importance of conservation efforts and identify strategies for the protection of animal species and their habitats.
				21. ZGY202: Animal Physiology & Ecology (P)	After successful completion of this course, student should be able to – ● Explain the cellular and molecular mechanisms underlying physiological processes in animals. ● Integrate knowledge of animal physiology to understand how physiological systems work together to maintain homeostasis. ● Explain ecosystem processes and the roles of animals in ecosystem functioning. ● Recognize the importance of conservation efforts and identify strategies for the protection of animal species and their habitats.
				22. SEC411: Research Methodology	After successful completion of this course, student should be able to –

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					• Formulate research questions, hypotheses, and research designs suitable for their areas of interest. • Analyze research data using appropriate statistical or qualitative analysis techniques and interpret the results. • Conduct effective literature reviews, synthesize existing research, and identify research gaps. • Critically evaluate research studies, identify methodological strengths and weaknesses, and assess the validity and reliability of research results.
				23. BNY206: Plant Systematic – Algae, Fungi & Bryophytes	After successful completion of this course, student should be able to – • Demonstrate a comprehensive understanding of the diversity of non-vascular plants, including algae, fungi, and bryophytes. • Recognize the evolutionary relationships among these plant groups and their significance in the context of plant evolution. • Apply critical thinking to analyze and interpret plant systematics data and draw conclusions about plant relationships and classification. • Acquire practical fieldwork skills for collecting, documenting, and preserving plant specimens.
				24. BNY207: Plant Systematic – Algae, Fungi & Bryophytes	After successful completion of this course, student should be able to – • Demonstrate a comprehensive understanding of the diversity of non-vascular plants, including algae, fungi, and bryophytes. • Recognize the evolutionary relationships among these plant groups and their significance in the context of plant evolution.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					• Apply critical thinking to analyze and interpret plant systematics data and draw conclusions about plant relationships and classification. • Acquire practical fieldwork skills for collecting, documenting, and preserving plant specimens.
				25. CHE206: Physical & Inorganic Chemistry	After successful completion of this course, student should be able to ● Understand general trends in transition elements and understand valence bond theory. ● Understand the splitting of d-orbitals in octahedral and tetrahedral fields and calculate CFSE for both geometries. ● Understand and explain the qualitative effect of temperature on both surface tension and viscosity.
				26. CHE207: Physical & Inorganic Chemistry	After successful completion of this course, student should be able to ● Understand the principles and procedures of gravimetric analysis. ● Use an Ostwald's viscometer to measure the relative viscosity of a liquid or dilute solution. ● Analyze the effects of varying concentrations of reactants on the reaction rate and derive the rate law expression.
				27. ZGY206: Genetics & Evolutionary Biology (T)	After successful completion of this course, student should be able to – ● Explain the molecular mechanisms of DNA replication, transcription, and translation. ● Recognize the sources and significance of genetic variation within populations.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Construct and interpret phylogenetic trees to illustrate evolutionary relationships among organisms. ● Apply critical thinking skills to evaluate scientific evidence, analyze evolutionary concepts, and synthesize information to answer complex questions.
				28. ZGY207: Genetics & Evolutionary Biology (P)	After successful completion of this course, student should be able to – ● Explain the molecular mechanisms of DNA replication, transcription, and translation. ● Recognize the sources and significance of genetic variation within populations. ● Construct and interpret phylogenetic trees to illustrate evolutionary relationships among organisms. ● Apply critical thinking skills to evaluate scientific evidence, analyze evolutionary concepts, and synthesize information to answer complex questions.
				29. SEC511: Financial & Investment Skills	After successful completion of this course, student should be able to – ● Create a retirement plan, set financial goals, and select appropriate retirement savings strategies. ● Apply knowledge of economic factors to make investment decisions that consider economic conditions and trends. ● Effectively communicate financial and investment strategies and decisions, both in writing and verbally.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					• Apply critical thinking skills to analyze investment opportunities, assess risks, and adapt to changing financial markets.
				30. BNY301: Cell Biology & Genetics	After successful completion of this course, student should be able to – • Explain key cellular processes such as cell division, energy production, and cell signaling. • Describe mechanisms of membrane transport and how they regulate the movement of molecules into and out of cells. • Explain the molecular mechanisms of DNA replication, transcription, and translation. • Apply critical thinking to evaluate scientific evidence, analyze genetic concepts, and synthesize information to answer complex questions.
				31. BNY301: Cell Biology & Genetics	After successful completion of this course, student should be able to – • Explain key cellular processes such as cell division, energy production, and cell signaling. • Describe mechanisms of membrane transport and how they regulate the movement of molecules into and out of cells. • Explain the molecular mechanisms of DNA replication, transcription, and translation. • Apply critical thinking to evaluate scientific evidence, analyze genetic concepts, and synthesize information to answer complex questions.
				32. CHE301: Molecular Modeling Chemistry	After successful completion of this course, student should be able to

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Understand the basics of quantum mechanics and its relevance to electronic structure calculations. ● Apply quantum chemistry methods to study electronic structure and spectroscopic properties of molecules. ● Recognize the interdisciplinary nature of molecular modeling and its applications in chemistry, biochemistry, materials science, and other fields.
				33. CHE302: Molecular Modeling Chemistry	After successful completion of this course, student should be able to ● Understand and articulate the differences in C-C bond lengths among ethane, ethene, ethyne, and benzene. ● Generate and interpret electron density and electrostatic potential maps for various molecules, emphasizing regions of charge distribution. ● Understand the concept of heat of hydration and its significance in thermodynamic studies.
				34. ZGY301: Mammalian Histology (T)	After successful completion of this course, student should be able to – ● Apply quantum chemistry methods to study electronic structure and spectroscopic properties of molecules. ● Apply computational techniques to solve chemical problems, predict molecular properties, and investigate reaction mechanisms. ● Develop research skills for designing and conducting computational experiments and interpreting results.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
				35. ZGY302: Mammalian Histology (P)	After successful completion of this course, student should be able to – ● Apply quantum chemistry methods to study electronic structure and spectroscopic properties of molecules. ● Apply computational techniques to solve chemical problems, predict molecular properties, and investigate reaction mechanisms. ● Develop research skills for designing and conducting computational experiments and interpreting results.
				36. SEC611: Personality & Career Skills	After successful completion of this course, student should be able to – ● Build and maintain a professional network of contacts and mentors. ● Develop adaptability and resilience in response to changes in the job market and evolving career goals. ● Recognize the importance of life-long learning and continuous skill development for career success. ● • take ownership of their career development and continue to apply the skills and knowledge gained in the course throughout their professional lives.
				37. BNY307: Analytical Techniques in Plant Sciences & Horticulture	After successful completion of this course, student should be able to – • Operate spectroscopic instruments and interpret spectroscopic data for plant characterization. • Analyze and interpret data obtained from analytical techniques and present results effectively.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					• Apply critical thinking skills to select appropriate analytical methods and troubleshoot technical issues. Develop research skills necessary for conducting experiments, collecting data, and drawing conclusions in the context of plant sciences and horticulture.
				38. BNY308: Analytical Techniques in Plant Sciences & Horticulture	After successful completion of this course, student should be able to – • Operate spectroscopic instruments and interpret spectroscopic data for plant characterization. • Analyze and interpret data obtained from analytical techniques and present results effectively. • Apply critical thinking skills to select appropriate analytical methods and troubleshoot technical issues. • Develop research skills necessary for conducting experiments, collecting data, and drawing conclusions in the context of plant sciences and horticulture.
				39. CHE307: Green Chemistry	After successful completion of this course, student should be able to • Apply knowledge of renewable resources and feedstock in chemical processes. • Choose and use green solvents effectively to reduce the environmental impact of chemical processes. • Perform life cycle assessments (LCAs) to evaluate the environmental impact of chemical products and processes.
				40. CHE308: Green Chemistry	After successful completion of this course, student should be able to

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					• Understand the principles of green chemistry in the synthesis of nanoparticles. • Apply atom economy concepts to evaluate the efficiency of different synthetic routes in organic chemistry. • Apply principles of green chemistry to design synthetic pathways that maximize atom economy and minimize waste. • Understand the principles of mechanochemistry and its advantages in solvent-free synthesis methods.
				41. ZGY307: Pest Management & Parasitology (T)	After successful completion of this course, student should be able to – • Explain the biology, life cycles, and behavior of pests and parasites. • Apply ecological principles to understand pest and parasite interactions within ecosystems. • Develop knowledge and skills to implement integrated pest management strategies for sustainable pest control. • Analyze the economic impact of pests and parasites on agriculture, livestock, and public health and propose mitigation strategies.
				42. ZGY308: Pest Management & Parasitology (P)	After successful completion of this course, student should be able to – • Explain the biology, life cycles, and behavior of pests and parasites.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Apply ecological principles to understand pest and parasite interactions within ecosystems. ● Develop knowledge and skills to implement integrated pest management strategies for sustainable pest control. ● Analyze the economic impact of pests and parasites on agriculture, livestock, and public health and propose mitigation strategies.
2	V151: Master of Science (Mathematics) {2023 Pattern}	After completing this program, the learner will able to : ● Enhance their logical thinking and apply advanced mathematical concepts to solve complex problems. ● Formulate research questions, design experiments or investigations, collect and analyse data, and present their findings in a clear and coherent manner. ● Apply advanced mathematical techniques and tools to analyse and solve challenging	● Advanced Problem Solving: Apply advanced mathematical techniques to solve complex problems in pure and applied mathematics. ● Mathematical Modeling: Develop mathematical models to represent and solve real-world problems in various fields like physics, economics, and biology. ● Research Proficiency: Conduct independent research, critically analyze mathematical theories, and contribute original ideas to the field.	1. MAT501: Real Analysis	After successful completion of this course, student should be able to ● Comprehend the aspect of Metric Space which forms foundation for topology ● Understand thorough foundation of Riemann integration theory ● Use convergence of sequence and series of functions to evaluate Riemann integration of functions
				2. MAT502:Abstract Algebra	After successful completion of this course, student should be able to ● Build foundation of group and ring theory ● Apply the concept of subgroup and normal subgroups to discuss the solvability of groups and thereby solvability of equations of any positive order ● Generalize the concepts of divisibility to rings and apply them in general context and factorize polynomials.
				3. MAT503: Ordinary Differential Equations	After successful completion of this course, student will be able to ● Understand various methods of solutions of differential equations of first and second order.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
		problems encountered in mathematics and related fields. ● Formulate mathematical models that represent real-world phenomena, analyse the models using mathematical methods, and interpret the results to make informed decisions or predictions. ● Develop proficiency in utilizing computational tools, software, and programming languages to aid in mathematical analysis, numerical simulations, and data visualization. ● Present complex mathematical concepts, proofs, and research findings to both technical and non-technical audiences. ● Develop a strong foundation for professional growth and	• Computational Mathematics: Utilize software tools and numerical methods to solve mathematical problems and perform data analysis. • Probability and Statistics Application: Apply advanced probability and statistical methods to analyze data and model random processes in diverse domains.		● Apply these methods to solve differential equations in physics and engineering fields ● Discuss approximation and existence & uniqueness of solution of nth order differential equations to solve them using the techniques discussed thereby.
				4. MAT504:Programming in C and Scilab	After successful completion of this course, student will be able to ● Use numerical methods in solving problems in Maths, Physics, Chemistry and any other areas using C. ● Perform various Matrix Operations using C. ● Write, compile and debug programs in Scilab. ● Understand and solve matrices operations effectively using Scilab ● Use conditional expressions and looping statement to solve problems associated with conditions and repetitions ● Solve problems by using various numerical methods in Scilab
				5. RES505: Research Methodology	After successful completion of this course, student will be able to ● Understand some basic concepts of research and its methodologies. ● Select proper method of Data collection & representation ● Select and apply appropriate statistical method for data analysis. ● Perform literature review, research writings with the knowledge of Intellectual Property Rights.
				6. MAT506: Operations Research	After successful completion of this course, student should be able to

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
		lifelong learning in mathematics.			● Understand the theory of convex sets, functions, formulation of LPP, techniques of integer and non-integer solution of Linear and nonlinear programming problems. ● Use quantitative methods and techniques for effective decisions– making ● Develop model formulation and applications that are used in solving business decision problems.
				7. MAT507: Numerical Analysis	After successful completion of this course, student should be able to ● Find solutions of algebraic or transcendental equations using an appropriate numerical method ● Solve linear systems of equations using an appropriate numerical method ● Apply the techniques of numerical methods to solve ordinary differential equations.
				8. MAT509: Topology	After successful completion of this course, student should be able to ● Understand the basic concepts of topology and base for the topology ● Discuss continuity of functions in topological spaces ● Apply countability axioms for discussion of compactness, connectedness and sequential continuity of functions.
				9. MAT510: Linear Algebra	After successful completion of this course, student should be able to ● Develop concepts of vector spaces and modules ● Solve problems based on Linear transformations and Characteristic roots ● Construct matrices in Nilpotent, Jordan and Rational forms which are useful for solving system of equations

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Visualize theadjoint, self-adjoint and normal linear trans formations
				10. MAT511: Partial Differential Equations	After successful completion of this course, student should be able to ● Solve the first-order linear and non-linear partial differential equations by using Lagrange's and Charpit'smethods respectively. ● Understand concepts, methods of Solutions and applications of Partial Differential equations.
				11. MAT512:LaTex and Programming in SageMath	After successful completion of this course, student should be able to ● Write a simple LaTeX input document based on the article class ● Turn the input document into pdf with the pdflatex program ● Format Words, Lines, and Paragraphs ● Understand how to present data using tables ● Typeset mathematical formulas, use nested list, tabular and array environments. ● Import figures and pictures that are stored in external files.
				12. MAT513: OJT	After successful completion of this course, student should be able to – ● Students will demonstrate proficiency in applying theoretical knowledge and academic concepts to real-world professional situations. ● Students will possess job-specific skills that are relevant to their chosen field of study, enabling them to perform tasks and responsibilities effectively and efficiently.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Students will acquire a comprehensive understanding of industry practices, trends, and challenges, contributing to their overall knowledge and expertise in the field. ● Students will establish professional networks and relationships, expanding their professional connections and opportunities for future collaborations and career advancement. ● Students will develop problem-solving and critical thinking abilities, demonstrating the ability to analyze complex situations, make informed decisions, and propose effective solutions. ● Students will demonstrate professionalism, adaptability, and effective communication skills in a professional work environment.
				13. MAT514:FP	After successful completion of this course, student should be able to – ● Demonstrate the ability to apply theoretical knowledge and concepts to real-world situations, effectively bridging the gap between academia and practical applications. ● Develop advanced research and investigative skills, including the ability to design and execute research projects, collect and analyze data, and draw well-founded conclusions. ● Conduct independent research, demonstrating the ability to formulate research questions, design appropriate methodologies, and independently execute fieldwork or data collection. ● Exhibit effective collaboration and communication skills, demonstrating the ability to work collaboratively

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					with others, engage in professional dialogue, and effectively communicate their research findings to diverse audiences. ● Showcase advanced problem-solving and critical thinking abilities, demonstrating the capacity to identify and address challenges encountered during fieldwork, analyze complex data, and propose innovative solutions. ● Demonstrate a thorough understanding of ethical considerations, field safety protocols, and best practices in their chosen field of study.
				14. MAT515: Number Theory	After successful completion of this course, student should be able to ● Understand the concept of arithmetical functions ● Solve problems based on congruences and quadratic residues ● Know the concepts of primitive root theory
				15. MAT516: Field Theory	After successful completion of this course, student should be able to ● Understand concepts in field theory such as finite and algebraic extensions, algebraic elements, constructible elements, solvable groups etc ● Aware the motive behind development of galois theory and solvability by radicals ● Apply concepts in field theory for solving polynomial equations, systems of equations, ancient problems on impossibility of constructions and finding formula for solutions of polynomial equations.
				16. MAT601:Complex Analysis	After successful completion of this course, student should be able to

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Understand the concepts of analytic functions, harmonic functions and the importance of the Cauchy Riemann equations. ● Apply analyticity solve integration of functions ● Describe the basic properties of singularities, zeros residues, poles to solve integrals. ● Apply concept of Hadamard Theorem and Uniqueness of Direct Analytic Continuation along a Curve, Power Series Method of Analytic Continuation
				17. Measure and Integration Theory	After successful completion of this course, student should be able to ● Develop fundamentals of measurable sets and functions ● Apply the concept of measurability of function and sets to solve integration of functions. ● Discuss L^p spaces in more general setting and use them to prove Riesz theorem.
				18. MAT603:Integral Equations	After successful completion of this course, student should be able to ● Classify and solve integral equations ● Apply integral equations to solve ODEs
				19. MAT604: Mathematical Statistics & Combinatorics	After successful completion of this course, student should be able to ● Use various graphical and diagrammatic techniques of data representation ● Analyse data pertaining to discrete and continuous variables and to interpret ● the results ● Compute various measures of central tendency, dispersion, skewness and kurtosis ● Summarize and analyze the data using computer

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Find the probabilities of events ● Apply standard probability distributions to different situations
				20. MAT605: Research Project - I	After successful completion of this course, student should be able to ● Frame research problem & do literature survey about the same ● Apply knowledge earned to analyse and solve real life problems ● Learn basic techniques for carrying out research
				21. MAT606: Discrete Mathematics	After successful completion of this course, student should be able to ● Solve problems on permutation and combinations, discrete Probability ● Understand concepts of graph theory, Trees, Cut-sets ● Understand properties of Boolean algebra, lattice and Boolean functions, Algebraic Systems defined by Lattices
				22. MAT607: Differential Geometry	After successful completion of this course, student should be able to ● Describe curves and surfaces and label their equations ● Represent the curves and surfaces in different forms and identify their nature ● Construct various surfaces ● Compute various parameters related to curves and surfaces and justify their behaviour
				23. MAT608: Integral Transforms	After successful completion of this course, student should be able to ● Solve problems on differential and integral equations using Laplace, Fourier transform techniques ● Solve difference Equations by using Z transforms

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Solve problems based on Mellin Transform and Hankel transform techniques
				24. MAT609:Classical Mechanics	After successful completion of this course, student should be able to ● Use Euler's variational principles to solve real life problems. ● Apply D'Alembert's Principle, Lagrange's equation, Hamiltonians Principle, Hamilton's equation and Hamilton Jacobi equation to form differential equation as well as its solution of various real existing systems. ● Formulate Poisson's brackets, Lagrange's bracket, and canonical transformation for solution of equations.
				25. MAT610:Functional Analysis	After successful completion of this course, student should be able to ● Know the concepts of normed spaces, Banach space and Hilbert spaces ● Explain how the notion of norm induces metric on a linear space and then think of sequences, continuity and completeness over linear spaces ● Apply uniform boundedness principal, Hahn-Banach theorem for solution of differential equations
				26. MAT611: Programming in Python	After successful completion of this course, student should be able to ● Explain basic principles of Python programming language ● Implement object oriented concepts ● Demonstrate the use of Python in Mathematics such as operations research and computational Geometry etc. ● Study graphics and design and implement a program to solve a real world problem

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Implement the concepts of data with python and database connectivity
				27. MAT612: Research Project	After successful completion of this course, student should be able to ● Frame research problem & do literature survey about the same ● Do independent thinking ● Learn basic techniques for carrying out research
				28. MAT613:Cryptography	After successful completion of this course, student should be able to ● Use various primarily tests, encryption and decryption algorithms ● Apply arithmetic of elliptic curves in cryptography ● Use ways of doing secret communication
				29. MAT614:Topics in Fuzzy Mathematics	After successful completion of this course, student should be able to ● Apply the concepts of fuzzy sets, algebra of fuzzy sets and extension principal. ● Explain generalize notions of fuzzy union, intersection and fuzzy complementation and their properties. ● Apply fuzzy relations, fuzzy arithmetic's, fuzzy relation equations and fuzzy logic for real life problems.
				30. MAT615:Algebraic Topology	After successful completion of this course, student should be able to ● Explain the fundamental concepts of algebraic topology and their role in modern mathematics and applied contexts. ● Explain the well-known theorems- The Euler-Poincare theorem, Euler's theorem, Brouwer's fixed point theorem.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Learn the relation between first homology group and fundamental group. ● Apply problem-solving using algebraic topology techniques applied to diverse situations in physics, engineering and other mathematical contexts.
3	V152: M.Sc.(EVS) {2023 Pattern}	After completing this program, the learner will able to : ● Advanced Knowledge: Graduates will demonstrate a deep understanding of key environmental concepts, principles, and theories relevant to the field of environmental studies. ● Problem-Solving Skills: Graduates will be capable of applying scientific and analytical approaches to identify and address complex environmental issues effectively. ● Interdisciplinary Integration: Graduates will be able to integrate	Environmental Awareness: Demonstrate a comprehensive understanding of environmental issues, including climate change, pollution, and biodiversity conservation. Research and Analytical Skills: Conduct independent research, collect environmental data, and analyze findings using scientific methods and tools. Sustainable Practices: Apply knowledge of sustainable development and environmental management practices to address ecological challenges. Environmental Policy and Legislation: Understand environmental laws, policies, and regulations, and their role	1. EVS501: Environmental Science and Environmental Biology	After successful completion of this course, student should be able to ● Applying scientific principles and methods to investigate and analyze environmental issues. ● Evaluating the impact of human activities on ecosystems, biodiversity, and natural resources. ● Generating creative solutions to address environmental challenges and promote sustainability. ● Engaging in ethical decision-making processes related to environmental and biological issues. ● Conducting fieldwork and laboratory experiments to collect and analyze environmental data.
				2. EVS502:Natural Resources and Their Conservation	After successful completion of this course, student should be able to ● Students will be able to propose and evaluate conservation strategies and practices to mitigate the impacts on natural resources. ● Students will understand the economic, social, and environmental values associated with the conservation of natural resources. ● Students will be able to analyze case studies and assess the interdependencies between natural resources, ecosystems, and human well-being. ● Students will be able to apply critical thinking skills to evaluate and propose solutions for challenges related to natural resource conservation.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
		knowledge from different disciplines to comprehend and resolve environmental problems with a comprehensive approach. ● Research Proficiency: Graduates will be skilled in conducting independent research, designing experiments, collecting and analyzing data, and interpreting research findings related to environmental studies. ● Policy Analysis: Graduates will be able to analyze environmental policies, assess their impact on environmental sustainability, and contribute to the formulation of evidence based policies. ● Sustainable Solutions: Graduates will demonstrate the	in protecting ecosystems and promoting sustainability. Interdisciplinary Problem Solving: Integrate knowledge from various scientific disciplines to develop solutions for pressing environmental issues.	3. EVS503:Biodiversity and Conservation	After successful completion of this course, student should be able to ● Demonstrate an advanced understanding of biodiversity science, including the factors influencing biodiversity patterns and processes, the role of species interactions, and the impact of human activities on biodiversity. ● Proficient in conducting independent research in biodiversity and conservation, including designing and implementing field studies, analyzing data using advanced statistical methods, and communicating research findings effectively. ● Critically evaluate the genetic aspects of biodiversity conservation, including assessing genetic diversity, understanding population dynamics, and utilizing genetic information in conservation planning. ● Critically analyze and evaluate conservation strategies and policies, considering their ecological, socio-economic, and ethical implications, and propose evidence-based recommendations for effective conservation. ● Integrate knowledge and perspectives from various disciplines to develop interdisciplinary approaches to biodiversity conservation. They will collaborate effectively with professionals from diverse backgrounds to address complex conservation issues.
				4. EVS504:Lab Activities on EVS501, EVS502 & EVS503	After successful completion of this course, student should be able to ● Evaluating the impact of human activities on ecosystems, biodiversity, and natural resources. ● Generating creative solutions to address environmental challenges and promote sustainability. ● Analyze case studies and assess the interdependencies between natural resources, ecosystems, and human well-being.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
		ability to develop and propose sustainable solutions for environmental challenges, taking into account social, economic, and environmental factors. ● Communication and Advocacy: Graduates will possess effective communication skills to convey scientific information and advocate for environmental protection and sustainable practices. Environmental Leadership: Graduates will be prepared to take on leadership roles in environmental organizations, governmental agencies, research institutions, and industries related to environmental conservation and sustainability.		5. RES505:Research Methodology	After successful completion of this course, student should be able to ● Select and apply appropriate research designs based on the research question or problem. ● Formulate clear and relevant research questions or hypotheses. ● Analyze and interpret data using appropriate statistical techniques. ● Identify and address ethical considerations in research, ensuring the protection of participants and data integrity. ● Develop critical thinking skills in evaluating research studies, identifying strengths and weaknesses, and proposing improvements.
				6. EVS506:Environmental Education, Policies & Legislation	After successful completion of this course, student should be able to ● Demonstrate a comprehensive understanding of the principles, theories, and approaches used in environmental education. ● Apply environmental education strategies and methodologies to design and implement effective educational programs and initiatives. ● Evaluate the impact of environmental education programs on knowledge, attitudes, and behaviors related to environmental conservation and sustainability. ● Analyze and interpret environmental policies, legislation, and legal frameworks at the national and international levels. ● Assess the effectiveness and impact of environmental policies and legislation in addressing environmental challenges and promoting sustainability.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
				7. EVS507:Management of Water Resources	After successful completion of this course, student should be able to ● Identifying and address complex water management challenges, applying their analytical skills to make informed decisions. ● Equipped to design and implement sustainable water management practices that consider environmental, social, and economic factors. ● Capable of conducting advanced research on water resource-related topics, utilizing appropriate methodologies and data analysis techniques. ● Contributing to the development and evaluation of water policies and governance frameworks at various levels, including regional and national scales.
				8. EVS509:Environmental Chemistry	After successful completion of this course, student should be able to ● Demonstrate a deep understanding of the principles and theories of environmental chemistry and their application to real-world environmental issues. ● Analyze and assess the behavior of environmental pollutants in different environmental compartments, applying concepts of transport, transformation, and fate. ● Possess advanced skills in environmental monitoring and assessment techniques, including sampling, analysis, and data interpretation. ● Evaluate and propose remediation strategies for environmental pollutants, considering their effectiveness, feasibility, and environmental implications.
				9. EVS510: Environmental Geosciences &	After successful completion of this course, student should be able to ● Demonstrate an advanced understanding of the principles and concepts of environmental geosciences and their applications to environmental management.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
				Computer Applications	● Proficient in using computer applications, such as GIS, remote sensing, and modeling software, for analyzing and visualizing environmental data and processes. ● Integrate geospatial and environmental data, conducting spatial analysis and modeling to assess environmental patterns and relationships. ● Apply computer applications to solve complex environmental problems and make informed decisions in various environmental domains. ● Demonstrate awareness and understanding of emerging technologies and trends in environmental geosciences and computer applications, and their potential applications to environmental research and management.
				10. EVS511:Herbal Wealth	After successful completion of this course, student should be able to ● Equipped with advanced knowledge and expertise in herbal medicine, enabling them to make informed decisions and recommendations in various healthcare settings. ● Critically evaluate the scientific literature and apply evidence-based approaches to assess the efficacy and safety of herbal interventions. ● Designing and conduct research studies related to herbal medicine, contributing to the advancement of knowledge in this field. ● Integrating herbal medicine knowledge into broader healthcare contexts, collaborating with other healthcare professionals to enhance patient care. ● Grasping of the quality assurance measures and regulatory frameworks related to herbal products and traditional medicine practices. ● Advocate for the recognition and incorporation of herbal medicine in healthcare systems and public health initiatives.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Contributing to advancements in herbal medicine research, potentially leading to the development of new herbal products or therapeutic approaches.
				11. EVS512:Lab Activities on EVS509 & EVS510	After successful completion of this course, student should be able to ● Demonstrate a deep understanding of the principles and theories of environmental chemistry and their application to real-world environmental issues. ● Analyze and assess the behavior of environmental pollutants in different environmental compartments, applying concepts of transport, transformation, and fate. ● Integrate geospatial and environmental data, conducting spatial analysis and modeling to assess environmental patterns and relationships. ● Apply computer applications to solve complex environmental problems and make informed decisions in various environmental domains. ● Demonstrate awareness and understanding of emerging technologies and trends in environmental geosciences and computer applications, and their potential applications to environmental research and management.
				12. EVS513:On Job Training	After successful completion of this course, student should be able to ● Students will demonstrate proficiency in applying theoretical knowledge and academic concepts to real-world professional situations. ● Students will possess job-specific skills that are relevant to their chosen field of study, enabling them to perform tasks and responsibilities effectively and efficiently. ● Students will acquire a comprehensive understanding of industry practices, trends, and challenges, contributing to their overall knowledge and expertise in the field.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Students will establish professional networks and relationships, expanding their professional connections and opportunities for future collaborations and career advancement. ● Students will develop problem-solving and critical thinking abilities, demonstrating the ability to analyze complex situations, make informed decisions, and propose effective solutions. ● Students will demonstrate professionalism, adaptability, and effective communication skills in a professional work environment.
				13. EVS514:Field Project	After successful completion of this course, student should be able to ● Students will demonstrate the ability to apply theoretical knowledge and concepts to real world situations, effectively bridging the gap between academia and practical applications. ● Students will develop advanced research and investigative skills, including the ability to design and execute research projects, collect and analyze data, and draw well-founded conclusions. ● Students will conduct independent research, demonstrating the ability to formulate research questions, design appropriate methodologies, and independently execute fieldwork or data collection. ● Students will exhibit effective collaboration and communication skills, demonstrating the ability to work collaboratively with others, engage in professional dialogue, and effectively communicate their research findings to diverse audiences. ● Students will showcase advanced problem-solving and critical thinking abilities, demonstrating the capacity to identify and address challenges encountered during

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					fieldwork, analyze complex data, and propose innovative solutions. ● Students will demonstrate a thorough understanding of ethical considerations, field safety protocols, and best practices in their chosen field of study.
				14. EVS515:Environmental Sustainability	After successful completion of this course, student should be able to ● Demonstrate a comprehensive understanding of environmental sustainability, including its theoretical foundations, key concepts, and the interconnections between social, economic, and ecological dimensions. ● Possess advanced research skills in environmental sustainability, including the ability to design and execute research projects, collect and analyze data, and communicate research findings effectively. ● Critically analyze and evaluate sustainability challenges and opportunities, applying systems thinking and interdisciplinary approaches to identify innovative and sustainable solutions. ● Design and implement sustainable management strategies for natural resources, ecosystems, and human systems, integrating social, economic, and environmental considerations.
				15. EVS516:Solid & Hazardous Waste Management	After successful completion of this course, student should be able to ● Critically analyze waste management challenges and propose appropriate solutions considering environmental, social, and economic factors. ● Characterize different types of solid and hazardous wastes accurately. Interpreting waste management regulations and policies to ensure compliance in waste handling and disposal practices.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Designing waste minimization plans and recycling programs to reduce the environmental impact of waste generation. ● Evaluating and select suitable waste treatment technologies based on the characteristics of the waste and the desired outcomes.
				16. EVS601:Environmental Monitoring and Energy Studies	After successful completion of this course, student should be able to ● Evaluating energy systems and identifying opportunities for improving energy efficiency and sustainability. ● Possess strong data analysis and interpretation skills, enabling them to draw meaningful conclusions from environmental and energy data. ● Developing and implement sustainable practices in various industries and organizations, considering environmental and energy factors. ● Comprehending the relationship between energy use, environmental impacts, and climate change, and propose effective strategies for mitigation and adaptation. ● Equipped to assess and implement cutting-edge technologies and innovations to address environmental and energy challenges.
				17. EVS602: Instrumentation & Lab Techniques	After successful completion of this course, student should be able to ● Capable of calibrating, maintaining, and troubleshooting instruments to ensure accurate and precise measurements. ● Skilled in using various analytical techniques and selecting the most suitable methods for specific research questions. ● Designing and executing well-structured experiments, applying appropriate statistical techniques to analyze and interpret data.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Collaborate effectively with researchers from different disciplines, integrating instrumentation and lab techniques to address complex research questions. ● Aware of emerging technologies and their potential applications in scientific research, enabling them to stay at the forefront of advancements.
				18. EVS603:Green Chemistry	After successful completion of this course, student should be able to ● Proficiency in conducting environmental impact assessments of chemical reactions and processes, identifying and addressing potential hazards. ● Capability of designing chemical reactions with green solvents and reaction conditions, minimizing waste and energy consumption. ● Effectively use renewable feedstock in chemical synthesis, contributing to the development of a bio-based and circular economy. ● Expertise in catalytic processes and green synthesis methods, promoting more sustainable chemical transformations. ● Applying life cycle assessment methodologies to evaluate the environmental impact of chemical products and processes. ● Utilization of green analytical methods for monitoring and quantifying chemical processes, reducing analytical waste and energy consumption.
				19. EVS604:Lab Activities on EVS601 & EVS602	After successful completion of this course, student should be able to ● After successful completion of this course, students should be able to – Evaluating energy systems and identifying opportunities for improving energy efficiency and sustainability.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Possess strong data analysis and interpretation skills, enabling them to draw meaningful conclusions from environmental and energy data. ● Developing and implementing sustainable practices in various industries and organizations, considering environmental and energy factors. ● Proficiently acquire and analyze data, presenting the results effectively using appropriate visualization methods and statistical tools. ● Collaborate effectively with researchers from different disciplines, integrating instrumentation and lab techniques to address complex research questions. ● Aware of emerging technologies and their potential applications in scientific research, enabling them to stay at the forefront of advancements.
				20. EVS605:Research Project	After successful completion of this course, student should be able to ● Demonstrating a high level of research competence, having successfully planned and executed a master's-level research project. ● Honed their critical thinking abilities, demonstrated by the comprehensive literature review and critical analysis of research findings. ● Proficient in selecting appropriate research design and methodologies, ensuring the research is well-structured and methodologically sound. ● Demonstrating expertise in collecting and analyzing data, utilizing appropriate statistical or qualitative analysis techniques. ● Developing effective project management skills, successfully meeting research milestones and completing the project within the given timeframe.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Problem-solving abilities, adapting their research strategies to overcome challenges encountered during the research process.
				21. EVS606:Sustainable management of Biodiversity	After successful completion of this course, student should be able to ● Assessing and analyzing threats to biodiversity, identify vulnerable species and ecosystems, and propose strategies for their protection. ● Designing and implementing biodiversity conservation plans and projects, taking into account ecological, social, and economic factors. ● Understanding the legal and policy frameworks governing biodiversity conservation and be able to assess their effectiveness and applicability. ● Comprehend the economic aspects of biodiversity conservation, including the valuation of ecosystem services, and integrate economic considerations into conservation planning.
				22. EVS607:Environmental Management	After successful completion of this course, student should be able to ● Develop Sustainable Management Plans: Create comprehensive and sustainable environmental management plans to address specific environmental issues. ● Evaluate Environmental Impacts: Assess the environmental impact of projects and policies using various assessment methods and models. ● Design Effective Policy Proposals: Formulate evidence-based environmental policies and strategies that address societal and ecological needs. ● Conduct Research and Analysis: Independently conduct research, analyze data, and draw conclusions to contribute to the field of environmental studies.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Engage with Stakeholders: Effectively engage and collaborate with diverse stakeholders, including government agencies, NGOs, and local communities. ● Communicate Environmental Issues: Articulate complex environmental issues to various audiences and advocate for sustainable solutions. ● Apply Ethical and Legal Principles: Demonstrate an understanding of the ethical and legal considerations in environmental management and policy.
				23. EVS608:Renewable Energy Studies	After successful completion of this course, student should be able to ● Critically analyze and evaluate different renewable energy technologies and their suitability for specific contexts. ● Capability of planning, designing, and managing renewable energy projects, considering technical, economic, and regulatory aspects. ● Demonstrating an understanding of the environmental and social implications of renewable energy deployment and make informed decisions to minimize negative impacts. ● Navigating energy policies and regulations and advocate for sustainable and renewable energy initiatives.
				24. EVS609:Environmental Microbiology and Toxicology	After successful completion of this course, student should be able to ● Proficiency in understanding microbial processes for pollutant biodegradation and the potential for using microorganisms in environmental cleanup. ● Comprehending microbial interactions and their significance in environmental processes, ecosystem stability, and pollutant transformations. ● Possess expertise in environmental toxicology, analyzing the impacts of pollutants on microorganisms and ecosystems.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Skilled in environmental sampling and laboratory analysis, effectively quantifying microbial populations and pollutant levels. ● Apply microbial bio-indicators to assess environmental health, contributing to pollution monitoring and remediation efforts.
				25. EVS610:Environmental issues & Human Health	After successful completion of this course, student should be able to ● Possess skills in designing, conducting, and analyzing epidemiological studies related to environmental health issues. ● Applying health impact assessment methodologies to evaluate and inform environmental projects and policies. ● Comprehending the health impacts of climate change, identifying vulnerable populations and proposing adaptation strategies. ● Analyze environmental policies and regulations and understand their implications for public health and environmental protection. ● Skilled in engaging with communities, advocating for environmental justice, and promoting public awareness of environmental health issues.
				26. EVS611:Lab Activities on EVS609 & EVS610	After successful completion of this course, student should be able to ● Proficiency in understanding microbial processes for pollutant biodegradation and the potential for using microorganisms in environmental cleanup. ● Comprehending microbial interactions and their significance in environmental processes, ecosystem stability, and pollutant transformations. ● Possess expertise in environmental toxicology, analyzing the impacts of pollutants on microorganisms and ecosystems.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Skilled in environmental sampling and laboratory analysis, effectively quantifying microbial populations and pollutant levels. ● Apply microbial bio-indicators to assess environmental health, contributing to pollution monitoring and remediation efforts.
				27.EVS612:Research Project	After successful completion of this course, student should be able to ● Demonstrating a high level of research competence, having successfully planned and executed a master's-level research project. ● Honed their critical thinking abilities, demonstrated by the comprehensive literature review and critical analysis of research findings. ● Proficient in selecting appropriate research design and methodologies, ensuring the research is well-structured and methodologically sound. ● Demonstrating expertise in collecting and analyzing data, utilizing appropriate statistical or qualitative analysis techniques. ● Developing effective project management skills, successfully meeting research milestones and completing the project within the given time frame. ● Problem-solving abilities, adapting their research strategies to overcome challenges encountered during the research process.
				28.EVS613:Statistical Approaches & Modeling in Environmental Sciences	After successful completion of this course, student should be able to ● Applying advanced statistical methods to analyze complex environmental datasets and draw meaningful conclusions from the results. ● Using statistical analysis and modeling outputs to support evidence-based decision making in environmental management and policy development.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Integrating their statistical expertise with environmental sciences knowledge, contributing to holistic solutions for environmental challenges.
				29.EVS614:Dissaster Management	After successful completion of this course, student should be able to ● Critical Thinking: Analyze complex disaster scenarios and identify potential risks and vulnerabilities, evaluating the ecological and societal implications. ● Problem-solving: Develop practical solutions and strategies for disaster preparedness, response, and recovery, taking into account environmental considerations. ● Communication: Effectively communicate disaster-related information and recommendations to diverse audiences, including policymakers, communities, and stakeholders. ● Interdisciplinary Approach: Integrate knowledge from various disciplines, such as environmental science, geography, sociology, and policy studies, to address multi-faceted disaster challenges. ● Ethics and Social Responsibility: Recognize the ethical dimensions of disaster management and consider social equity and justice in disaster response and recovery efforts. ● Research Skills: Conduct research on disaster management topics, utilizing appropriate methodologies and data analysis techniques to support evidence-based decision-making.
				30.EVS615: Applications Medicinal plants and their	After successful completion of this course, student should be able to ● Demonstrating expert knowledge of medicinal plants, including their identification, phytochemistry, and pharmacological properties.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Critically evaluate scientific literature on medicinal plants and apply evidence-based approaches to healthcare decision-making. ● Applying medicinal plant knowledge to various healthcare settings, such as herbal medicine, phytotherapy, and dietary supplement formulations. ● Designing and conducting research studies related to medicinal plants, contributing to the advancement of knowledge in this field. ● Aware of the importance of sustainability and biodiversity conservation in the context of using medicinal plants. ● Contributing to the development of new medicinal plant-based products, therapies, or research methodologies, leading to advancements in the field.
4	V153: M.Sc. Physics {2023 Pattern}	After completing this program, the learner will able to : In-depth Knowledge: Demonstrate a comprehensive understanding of core physics principles, theories, and concepts across various subfields. Analytical Skills: Develop critical thinking and analytical skills to solve complex physics problems using mathematical and computational methods.	Advanced Problem Solving: Apply advanced physics concepts and mathematical techniques to solve complex theoretical and experimental problems. Experimental Techniques: Demonstrate proficiency in modern experimental methods and instrumentation to conduct scientific experiments in various branches of physics. Theoretical Modeling: Develop and apply theoretical models to explain physical phenomena in areas like	PHY501: Classical Mechanics	After successful completion of this course, student should be able to ● Describe the laws governing the motion of a system of particles. ● Define Lagrange's equations of motion. ● Explain the role played by Hamilton's principle in classical mechanics ● Explain the function Routhian like the Lagrangian and the Hamiltonian ● Describe the role of canonical transformations in Hamitonian mechanics ● Clarify the rotations in a plane and space ● Underastand variational principles to real physical problems
				PHY502: Electronic Devices	After successful completion of this course, student should be able to • Explain structure and working principles of few important analog and digital electronics devices.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
		Experimental Expertise: Gain hands-on experience in designing and conducting experiments, as well as interpreting data accurately. Scientific Communication: Effectively communicate scientific ideas, research findings, and technical concepts in both written and oral formats. Lifelong Learning: Cultivate a mindset of continuous learning and adaptability to keep up with advancements in physics and related fields..	quantum mechanics, thermodynamics, and electromagnetism. Research and Innovation: Conduct independent research, critically analyze scientific literature, and contribute to advancements in the field of physics. Computational Physics: Utilize computational tools and simulations to solve physical problems and analyze experimental data effectively.		• Explain the characteristics, working principle and applications of Timer IC, VCO, PLL • Characterized the types of Power Supply, ADC, DAC and Logic Families
				PHY503: Mathematical Methods in Physics	After successful completion of this course, student should be able to • Understand the basic concepts of mathematics required to solve complex problems inphysics • Explain linear ODEs with constant coefficients • Apply the concept of Fourier transform in Physics
				PHY504: Physics I – Practical	After successful completion of this course, student should be able to • Explain a concept used in electronic devices and circuits • Gain a hands on experience working with real time circuits, to translate theory into practice • Design, Test and verify the operation of simple circuits
				RES505: Research Methodology	After successful completion of this course, student should be able to – • Understand some basic concepts of research and its methodologies. • Select proper method of Data collection & representation • Select and apply appropriate statistical method for data analysis. • Perform literature review, research writings with the knowledge of Intellectual Property Rights. • Identify and address ethical considerations in research, ensuring the protection of participants and data integrity.
				PHY506: Experimental Techniques in Physics	After successful completion of this course, student should be able to • Understand the important concepts and methods in experimental techniques

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					• Explain the working principles of the various techniques in experimental Physics • Analyze the most commonly employed Characterization techniques used in Physics
				PHY507: Physics of LASERs	After successful completion of this course, student should be able to • Describe the concept of stimulated emission and what is an active medium • Describe the different types of lasers, its principle, properties of laser beam and significance of the Lasers materials • Understand Laser Physics, and Laser devices to analyze and quantify complex problems in the field of nanotechnology
				PHY509: Atomic and Molecular Physics	After successful completion of this course, student should be able to • Explain the change in behavior of atoms in external applied electric and magnetic field • Correlate rotational, vibrational, electronic and rotation-vibration spectra of molecules • Understand the interaction of atoms in strong and weak magnetic field • Characterized a broad knowledge of the most important concept of atoms and molecules • Understand different spectroscopic techniques and their significance
				PHY510: Electrodynamics	After successful completion of this course, student should be able to • Understand the concepts of electrodynamics and Maxwell equations and their applications in various situations • Understand concepts in electric field and scalar potential, magnetic field and vector potential

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					• Identify electromagnetic potentials, gauge transformations and Lorentz transformations. • Inhomogeneous wave equations and their significance • Understanding the electrodynamics to create a scientific temperament
				PHY511 : Quantum Mechanics - I	After successful completion of this course, student should be able to • Explore the basic concepts of quantum Mechanics • Solve special functions and matrices for solving Quantum Mechanical Problems • Understand various quantum mechanical features by solving various potentials: example, Finite and infinite well, Harmonic oscillator • Apply the time – dependent and time – independent Schrödinger's equations • Apply the knowledge of Variational Methods for particle in box, Harmonic oscillator and Delta Function along with WKB approximation for classical Region and Tunneling
				PHY512: Physics II – Practical (Computational Methods using 'C' program)	After successful completion of this course, student should be able to • Use numerical methods in solving problems in Physics. • Develop logics which will help to programme with the C high-level language. • Analyze data using computational methods. • Identify modern programming methods and describe the extent and limitations of computational methods in Physics
				PHY513: OJT	After successful completion of this course, student should be able to – • Students will demonstrate proficiency in applying theoretical knowledge and academic • concepts to real-world professional situations.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					• Students will possess job-specific skills that are relevant to their chosen field of study, enabling them to perform tasks and responsibilities effectively and efficiently. • Students will acquire a comprehensive understanding of industry practices, trends, and challenges, contributing to their overall knowledge and expertise in the field. • Students will establish professional networks and relationships, expanding their professional connections and opportunities for future collaborations and career advancement. • Students will develop problem-solving and critical thinking abilities, demonstrating the ability to analyze complex situations, make informed decisions, and propose effective solutions. • Students will demonstrate professionalism, adaptability, and effective communication skills in a professional work environment.
				PHY514: FP	After successful completion of this course, student should be able to • Participate in the projects in industries during his or her industrial training. • Describe use of advanced tools and techniques encountered during industrial training and visit. • Interact with industrial personnel and follow engineering practices and discipline prescribed in industry. • Develop awareness about general workplace behavior and build interpersonal and team skills. • Prepare professional work reports and presentations.
				PHY515: Fundamentals of Materials Science	After successful completion of this course, student should be able to • Explain importance of materials in materials science and engineering field. • Classify materials according to their types

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					• Describe basic definition and conception of materials and physical properties of materials
				PHY516: Medical Physics	After successful completion of this course, student should be able to • Apply expert theoretical knowledge and an integrated understanding across all areas of medical physics. • Utilise advanced problem-solving skills to analyse outputs and synthesise complex information in applying medical physics knowledge into clinical practice. • Apply advanced theoretical and technical skills to perform and critically evaluate quality assurance procedures for medical physics • Demonstrate an expert understanding of the roles and responsibilities of medical physicists in patient care and public safety, as part of diverse interdisciplinary teams. • Interpret the significance and scope
				PHY601: Statistical Mechanics	After successful completion of this course, student should be able to • Explore the concepts of Phase space, Macro and Microstate • Interpret thermodynamic probability • Illustrate Maxwell-Boltzmann law - distribution of velocity • Validate Fermi-Dirac distribution law - electron gas and Bose-Einstein distribution law -photon gas • Describe and apply various aspects of statistical mechanics
				PHY602: Condensed Matter Physics	After successful completion of this course, student should be able to • Understand about the crystal structure, interaction with X-ray, lattice vibrations, defects, electronic properties and the magnetic properties. • Investigate the structural and physical properties of materials by developing better understanding of crystal

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					structure with particular emphasis on studying the electrical and magnetic behavior of solids • Establish various theories of different classes of solids showing varying properties like magnetism, polarization and superconductivity • Explain the significance and value of condensed matter Physics.
				PHY603: Quantum Mechanics - II	After successful completion of this course, student should be able to • Investigate the basic concepts of quantum Mechanics • Understand the time – dependent and time – independent Schrödinger's equations • Use perturbation theory to find approximate solutions to more complex quantum mechanical systems Learn Eigen values and Eigen functions of operators and computation of Clebsch–Gordan coefficients. • Explain approximation methods used in Quantum Mechanics
				PHY604: Physics III - Practical	After successful completion of this course, student should be able to • Collect data and revise an experimental procedure iteratively and reflectively, • Evaluate the process and outcomes of an experiment quantitatively and qualitatively, • Extend the scope of an investigation whether or not results come out as expected, • Communicate the process and outcomes of an experiment, and • Conduct an experiment collaboratively and ethically.
				PHY605: Research Project	After successful completion of this course, student should be able to • Make students familiar with approach to do literature survey

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					• Make student capable of independent thinking • Learn basic techniques for carrying out research
				PHY606: Physics of Thin Film	• After successful completion of this course, student should be able to • Understand the principle, differences and similarities, advantages, and disadvantages of different thin film deposition techniques. • Identify potential of thin film preparation method for future thin film application. • Understand about different instrumentation techniques and to analyze thin film properties to apply for various applications. • Understand, evaluate and use models for understanding nucleation and growth of thin films. • Improve problems solving skills related to evaluation of different properties of thin films.
				PHY607: Astronomy and Astrophysics	After successful completion of this course, student should be able to • Explain practical application of observational techniques • Solve problems with scientific reasoning and critical thinking skills • Understand the impact of astronomical bodies and formations on earth and climate. Communicate astronomical concepts and theories effectively. • Describe the classification of stars, stellar evolution, interstellar matter, galaxies etc. • Current understanding and investigation of the basic knowledge about cosmic threats viz., comets, asteroids, meteoroids.
				PHY608: Energy Studies	After successful completion of this course, student should be able to • Understand the difference between renewable and non-renewable energy resources.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					• Define energy; Identify energy sources; Analyse personal energy input and output
				PHY609: Nuclear and Particle Physics	After successful completion of this course, student should be able to • Describe the basic interaction mechanisms for charged particles and electromagnetic radiation and explain the working principles behind detectors and their characteristic properties with respect to energy resolution, efficiency etc • Identify the mechanism and kinematics of nuclear reactions • Describe the basic features involved in alpha and beta decays and nuclear forces • Understand Nuclear Structure, Comprehend Nuclear Reactions, Learn Radioactivity and Decay, Explore Nuclear Energy, Nuclear Medicine, and Develop Computational and Analytical Skills. • Study the atomic nuclei, their properties, interactions, and the forces that govern them. • It explores the fundamental structure and behavior of atomic nuclei, as well as the processes of nuclear reactions and the applications of nuclear phenomena. • Expose to current research topics, emerging technologies, and recent developments in • nuclear physics through lectures, literature reviews, or discussions • Apply the knowledge of nuclear physics can be valuable for pursuing advanced research or specialized careers in nuclear / radiation areas.
				PHY610: Electronic Instrumentation	After successful completion of this course, student should be able to

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					• Recognize the evolution and history of units and standards in Measurements. • Identify the various parameters that are measurable in electronic instrumentation. • Employ appropriate instruments to measure given sets of parameters. • Practice the construction of testing and measuring set up for electronic systems. • Understand about instrumentation concepts which can be applied to Control systems. • Relate the usage of various instrumentation standards and data acquisition systems.
				PHY611: Physics IV – Practical	After successful completion of this course, student should be able to • Recognize the evolution and history of units and standards in Measurements. • Identify the various parameters that are measurable in electronic instrumentation. • Employ appropriate instruments to measure given sets of parameters. • Practice the construction of testing and measuring set up for electronic systems. • Understand about instrumentation concepts which can be applied to Control systems. • Relate the usage of various instrumentation standards.
				PHY612: Research Project	After successful completion of this course, student should be able to • Make students familiar with approach to do literature survey • Make student capable of independent thinking • Learn basic techniques for carrying out research
				PHY613: Physics of Nano Materials	After successful completion of this course, student should be able to

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					• Understand in broad outline of Nanoscience and Nanotechnology. • Explain the effects of quantum confinement on the electronic structure and corresponding physical and chemical properties of materials at nanoscale • Correlate properties of nanostructures with their size, shape and surface characteristics. • Choose appropriate synthesis technique to synthesize quantum nanostructures of desired size, shape and surface properties • Focus on the design and development of efficient innovative nanostructured materials prepared by various methodologies and physicochemical characterization for technological applications • Explore the various applications of nanomaterials
				PHY614: General Relativity & Cosmology	After successful completion of this course, student should be able to • Gain familiarity with basic concepts from differential geometry and apply them in studying General Relativity • Apply and solve Einstein equations for systems such as a spherically symmetric star, black hole, and an isotropic and homogeneous Universe • Apply their understanding of General Relativity to current areas of research such as gravitational waves
				PHY615: Energy from Waste	After successful completion of this course, student should be able to • Apply the knowledge about the operations of Waste to Energy Plants. • Analyse the various aspects of Waste to Energy Management Systems. • Carry out Techno-economic feasibility for Waste to Energy Plants.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					• Apply the knowledge in planning and operations of Waste to Energy plants.
4	V154: M.Sc. Chemistry {2023 Pattern}	After completing this program, the learner will able to : ● Inculcate critical thinking and analytical skills to enable students to pursue higher studies and research in Chemistry. Expose students to current trends in research about Chemistry. ● Use key concepts of inorganic and organometallic chemistry including those related to synthesis, reaction chemistry, and structure and bonding. ● Apply the knowledge to develop the sustainable and eco--friendly	Advanced Chemical Knowledge: Demonstrate a deep understanding of core chemical principles in organic, inorganic, physical, and analytical chemistry. Laboratory Skills: Apply advanced laboratory techniques and methods to conduct experiments, analyze data, and synthesize chemical compounds. Research and Innovation: Conduct independent research, critically evaluate scientific literature, and contribute to advancements in chemical science. Analytical Techniques: Utilize modern analytical tools and instruments (e.g., NMR, UV-Vis, HPLC) to identify and quantify chemical substances.	1. CHE501: Inorganic Chemistry-I	After successful completion of this course, student should be able to ● Explain the nuclear structure, stable and unstable atomic nuclei, and nuclear reactions. ● Analyse selected crystal structures explain what kind of parameters that affect the crystal structure of a compound and perform calculations of the lattice enthalpy of ionic compounds. ● Analyze the various defects and its application on inorganic crystals. Explain the fundamentals of metallic clusters. ● Understand the periodic properties of the different groups of compounds focusing on production methods and application of selected elements and compounds.
				2. CHE502: Physical Chemistry-I	After successful completion of this course, student should be able to ● Solve the problems related to 1D box. ● Explore the role of operators in quantum. ● Understand the solved questions based on rates of different reactions. ● Evaluate the concept of group theory to predict the spectroscopic properties of molecules.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
		technology in Industrial Chemistry.. ● Formulate the macroscopic and quantum laws of the absorption of light by molecules and solids. Describe the various deactivation processes of molecular excited states. Characterize the kinetics of deactivation processes and their role in the photochemical reactivity. ● Understand the Principles of mass spectroscopy, gas chromatography and HPLC. Apply the techniques for structure determination of organic molecules. Understand the mechanism of various reactions.	Interdisciplinary Application: Apply chemistry knowledge to solve real-world problems in industries such as pharmaceuticals, materials science, and environmental chemistry.	3. CHE503: Organic Chemistry-I	After successful completion of this course, student should be able to ● Recognize either molecule is aromatic, non-aromatic or Antiaromatic. ● Describe mechanism of different aliphatic nucleophilic substitution reactions. ● Understand the potential energy diagrams. ● Apply a versatile knowledge of different name reactions and their application in synthesis.
				4. CHE504: Lab Activities on CHE501,CHE502 & CHE503	After successful completion of this course, student should be able to ● Build technical skill ● Generalize the qualitative analysis by semi micro-qualitative analysis method. Understand the basic concept and advantages of semi-micro qualitative analysis. ● Apply the techniques to prepare inorganic complexes. ● Analyze the systematic separations of d-block elements. Evaluate the d-block elements with their special tests. ● Apply the step wise procedure to predict the anions along with metals.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
				5. RES505: Research Methodology	After successful completion of this course, student should be able to ● Select and apply appropriate research designs based on the research question or problem. ● Formulate clear and relevant research questions or hypotheses. ● Analyze and interpret data using appropriate statistical techniques. ● Identify and address ethical considerations in research, ensuring the protection of participants and data integrity. ● Develop critical thinking skills in evaluating research studies, identifying strengths and weaknesses, and proposing improvements.
				6. CHE506: Physical Methods in Chemistry	After successful completion of this course, student should be able to ● Understand about electron spectroscopy and thermal analysis. ● Analyze Circular Dichroism and Optical Rotatory Dispersion. ● Explore the Electron Spin Resonance spectroscopy

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					• Apply the spectroscopic concepts for separation and identification of mixture compounds/ complex/ metals.
				7. CHE507: Polymer Chemistry	After successful completion of this course, student should be able to • After successful completion of this course, student should be able to • Explaining the basic concepts of polymer. Techniques & Kinetics of polymer. • Explore the Study of crystalline nature & degree of Crystallinity. • Understand polymer degradation & polymer reactions. • Analyze stereochemistry of polymers & determination of molecular weight.
				8. CHE509: Inorganic Chemistry-II	After successful completion of this course, student should be able to • Explain the theories of bonding in coordination compounds. • Comprehend the kinetics and mechanisms of reactions of complex compounds.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Explore the magnetic properties of coordination compounds. ● Analyze the types of coordination compounds like metal carbonyls, carboxylic pi-complex in coordination compounds. ● Evaluate the geometries of simple molecules.
				9. CHE510: Physical Chemistry- II	After successful completion of this course, student should be able to ● Explain the thermodynamics and Non-ideal systems ● Describe about the third law of thermodynamics ● Understand the classical Maxwell-Boltzmann and quantum statistics ● Know about partition functions and determining thermodynamic properties ● Understand heat capacity of solids. ● Use the thermodynamic factors in various organic synthesis processes (how the reaction condition and reaction rate variously depend on the thermodynamic factors).
				10. CHE511: Organic Chemistry-II	After successful completion of this course, student should be able to ● Recognize either molecule is aromatic, non-aromatic or Antiaromatic. ● Describe mechanism of different aliphatic nucleophilic substitution reactions. ● Understand the potential energy diagrams.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Apply a versatile knowledge of different name reactions and their application in synthesis. ● Explore the different organic reaction mechanisms.
				11. CHE512: Lab Activities on CHE509, CHE510 & CHE511	After successful completion of this course, student should be able to ● Get knowledge about the heat of solution, determination of molecular weight and Distribution coefficient. ● Apply the basic concepts of conductometric titrations to determine the ionic strength. ● Explain the various laws in electrochemistry. ● Apply the conductometric method for the solutions and measure its conductivity. Give practice to handle the conductivity meter, spectrophotometer.
				12. CHE513: OJT	After successful completion of this course, student should be able to ● Students will demonstrate proficiency in applying theoretical knowledge and academic concepts to real-world professional situations. ● Students will possess job-specific skills that are relevant to their chosen field of study, enabling them to perform tasks and responsibilities effectively and efficiently. ● Students will acquire a comprehensive understanding of industry practices, trends, and challenges,

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
				CHE514: FP	contributing to their overall knowledge and expertise in the field. ● Students will establish professional networks and relationships, expanding their professional connections and opportunities for future collaborations and career advancement. ● Students will develop problem-solving and critical thinking abilities, demonstrating the ability to analyze complex situations, make informed decisions, and propose effective solutions. After successful completion of this course, student should be able to ● Students will demonstrate professionalism, adaptability, and effective communication skills in a professional work environment. ● Students will demonstrate the ability to apply theoretical knowledge and concepts to real-world situations, effectively bridging the gap between academia and practical applications. ● Students will develop advanced research and investigative skills, including the ability to design and execute research projects, collect and analyze data, and draw well-founded conclusions. ● Students will conduct independent research, demonstrating the ability to formulate research questions, design appropriate methodologies, and independently execute fieldwork or data collection.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Students will exhibit effective collaboration and communication skills, demonstrating the ability to work collaboratively with others, engage in professional dialogue, and effectively communicate their research findings to diverse audiences. ● Students will showcase advanced problem-solving and critical thinking abilities, demonstrating the capacity to identify and address challenges encountered during fieldwork, analyze complex data, and propose innovative solutions. ● Students will demonstrate a thorough understanding of ethical considerations, field safety protocols, and best practices in their chosen field of study.
				13.CHE515: Analytical Chemistry	After successful completion of this course, student should be able to ● Impart knowledge on the instrumentation of UV-Visible spectrometry and FT-IR ● Comprehend the basic principles of Thermal methods, Polarography, powder and single crystal XRD techniques. ● Understand the applications of these instrumental techniques in studying various physical and chemical phenomena.
				14. CHE516: Chemical	After successful completion of this course, student should be able to

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
				Mathematics & Biostatistics	● Understand the functions, differential & integral. ● Explore the partial differentiation. ● Explain the Vectors, Matrices & Determinants. ● Analyze the statistics, probability & sampling. ● Use the knowledge of basic statistical methods to solve problems. Students are taught to operate. Use the statistical techniques in pharmaceuticals.
				15. CHE601: Organic Reaction Mechanism	After successful completion of this course, student should be able to ● Provide a versatile knowledge of different name reactions and their application in synthesis. ● Understand and learn about familiar Oxidation and Reduction reactions. Gain knowledge about reaction intermediates. ● Use the principles and reaction mechanisms involving various Free radical reactions. ● Analyze the different organic reaction mechanisms.
				16. CHE602: Stereochemistry	After successful completion of this course, student should be able to ● Comprehend the membrane and receptors in the drug delivery process. ● Explore the various theoretical laws to predict the pharmaco-kinetics of the compounds.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Analyses the molecular receptor binding and molecular recognition of the natural and synthetic compounds.
				17. CHE603: Advanced Synthetic Methods	After successful completion of this course, student should be able to ● Comprehend the fundamental knowledge on structure, reactivity and reaction mechanism of organic compounds. ● Explore the organic transformations through the disconnection approach. ● Generalize application of spectroscopic techniques for compound characterization.
				18. CHE604: Lab Activities on CHE601, CHE602 & CHE603	After successful completion of this course, student should be able to ● Develop technical skills. Explain the basic principles about quantitative analyses. ● Understand the concepts and systematic procedure in gravimetric analysis. ● Apply the systematic procedure for estimation. ● Analyze the synthesis method for in-organic coordination complexes ● Analyze the molecules and identify its nature through chromatography technique. Create ideas and concepts

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					for the water treatment process, food science and forensic fields.
				19. CHE605: Research Project	After successful completion of this course, student should be able to ● Use it to develop technical skills. ● Build empower our students with practical skills to comprehend the physiology and other functions of each and every vital system.
				20. CHE606: Green Chemistry	After successful completion of this course, student should be able to ● Comprehend the knowledge about the concept of Green chemistry. ● Understand the 12 principles of Green chemistry as well as the tools of Green chemistry. ● Apply how to evaluate a reaction or process and determine "Greener" alternatives. ● Build focus on the application of greener routes to improve industrial processes and to produce important products. ● Evaluate the greener synthetic pathway to produce pharmacological compounds. Understand the basics of Medicinal chemistry.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
				21. CHE607: Drugs & Heterocyclic	After successful completion of this course, student should be able to ● Generalize the classification, Chemical structure, production, properties and uses of Drug. ● Understand the dyeing process on fibers. ● Analyzes the types of dyes in various applications ● Use Pollution Control in the Drug Industry. Apply the various finishing processes of Drug. ● Explore this fundamental to fabricate the material and its dying process.
				22. CHE608: Biotechnology	After successful completion of this course, student should be able to ● Generalize the classification on proteins & types of enzymes ● Understand the structural model of DNA, Chemical composition, structure and functions of RNA. ● Analyzes the Microscopy & Spectroscopy ● Use the Fundamentals of Computers & Bioinformatics. ● Explore the Commercial potentials of Biotechnology.
				23. CHE609: Advance Organic Chemistry	After successful completion of this course, student should be able to ● Know about versatile knowledge of rearrangements

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					● Explain the different organic (radical and concerted) reactions and their applications in synthesis. Implement this basic concept to design and produce the new organic molecules. ● Analyze the principles of conformational analysis and stereochemistry. ● Describe the concepts in organic photochemistry. ● Analyze the various theories in pericyclic reactions.
				24. CHE610: Advanced Organic Spectroscopy	After successful completion of this course, student should be able to ● Understand about IR spectroscopy. Describe the basic concept of NMR spectroscopy ● Apply the different aspects of NMR spectroscopy to predict the structure of compounds. ● Analyze about the mass spectroscopy and Mossbauer spectroscopy. ● Evaluate about the invaluable tools in synthetic chemistry for the confirmation of ● Known molecules and elucidation of shape and structures of unknown compounds of high complexity with a high degree of certainty.
				25. CHE611: Lab Activities on	After successful completion of this course, student should be able to

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
				CHE609 & CHE610	● Develop technical skills. Explain the basic principles about quantitative analyses. ● Understand the concepts and systematic procedure in gravimetric analysis. ● Apply the systematic procedure for estimation. ● Analyze the synthesis method for in-organic co-ordination complexes ● Analyze the molecules and identify its nature through chromatography technique. Create ideas and concepts for the water treatment process, food science and forensic fields.
				26. CHE612: Research Project	After successful completion of this course, student should be able to ● Use it to develop technical skills. ● Build empower our students with practical skills to comprehend the physiology and other functions of each and every vital system.
				27. CHE613: Natural Products	After successful completion of this course, student should be able to ● Comprehend the Importance of natural products. ● Understand the terpenoids and its application. Knowledge about steroids and its synthesis.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					• Explore the importance of alkaloids in medicinal field and its synthesis • Analyze the various proteins and enzymes. • Apply the concepts present in the nucleic acids.
				28. CHE614: Industrial Organic Chemistry	After successful completion of this course, student should be able to • Use the concept of retrosynthesis and the terms involved. • Comprehend about the one group and two group disconnections. • Explore the various protection and deportation of important functional groups. • Apply the use of important reagents in organic synthesis. Explain the selected name reactions in Organic synthesis. • Generalize them a brief idea on organic synthesis in industries.
				29. CHE615: Pharmaceutical Chemistry	After successful completion of this course, student should be able to • Develop analytical instrumental techniques for identification, characterization and quantification of drugs. • Describe different techniques of organic synthesis, mechanisms, their application to process chemistry and drug discovery.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					• Understanding of interactions between medications in the body. • Discuss the fundamentals of volumetric analysis, significance of quality control in pharmaceutical analysis and use methods of concentration expression.
5	V155: M.Sc. Zoology {2023 Pattern}	After completing this program, the learner will able to : • Develop deeper understanding of key concepts of Zoology at biochemical, molecular, cellular, physiological, histological and systematic level. • Impart knowledge and skills through applied disciplines. • Integrate and explore biological data. Use current laboratory setup, instrumentation, statistical and biological techniques in the	Advanced Knowledge of Animal Biology: Demonstrate a comprehensive understanding of animal physiology, behavior, genetics, and ecology. Research and Experimentation: Conduct independent research, design experiments, and analyze biological data to contribute to the field of zoology. Taxonomy and Classification: Apply knowledge of animal taxonomy and classification to identify, classify, and study animal species.	1. **ZOO501:** Biochemistry	After successful completion of this course, student should be able to: • Appreciate the foundation of life processes. • Explain the deep understanding of the structure of biomolecules. • Understand the thermodynamics of enzyme catalyzed reactions and mechanisms of energy production at cellular and molecular levels. • Understand the application of biochemistry.
				2. **ZOO502:**Cell Biology	After successful completion of this course, student should be able to: • Explain the transport across cell, nuclear membrane; bioenergetics and metabolism. • Define the composition and organization of cytoskeleton. • Enumerate and explain signaling molecules and their receptors. How is the cell cycle regulated? The students will have an idea of stem cells and its applications. • Basic principles and application of microscopy, cell culture and flow cytometry
				3. **ZOO503:**Applied Zoology Part – I	After successful completion of this course, student should be able to:

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
		collection, organization, analysis, interpretation and manipulating the data related to Zoology discipline and allied branches.	Conservation and Ecology: Analyze ecological systems and implement conservation strategies to address biodiversity loss and environmental challenges. Advanced Laboratory Techniques: Utilize modern laboratory techniques and tools to investigate animal biology, including molecular biology, histology, and immunology.		• Students gain knowledge and skill in the fundamentals of animal sciences, and understand the complex interactions among various living organisms. • Analyze complex interactions among the various animals of different phyla, their distribution and their relationship with the environment.
				4. **ZOO504:** Lab on Biochemistry, Cell Biology & Applied Zoology Part-I	After successful completion of this course, student should be able to: • Frame a scientific question or problem. • Undertake investigations and perform analyses about biochemical problems. • The structures and purposes of basic components of prokaryotic and eukaryotic cells, especially macromolecules, membranes, and organelles
				5. **RES505:**Research Methodology	After successful completion of this course, student should be able to: • Understand some basic concepts of research and its methodologies. • Select proper method of Data collection & representation. • Select and apply appropriate statistical methods for data analysis. • Do literature review, research writings with the knowledge of Intellectual Property Rights.
				6. **ZOO506:**Developmental Biology	After successful completion of this course, student should be able to: • Explain the molecular and genetic background of animal and plant development.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					• Describe evolutionary history of complex multicellular life forms. • Compare environmental influence on development and homeostasis of animals and plants.
				7. **ZOO507:**Entomology	After successful completion of this course, student should be able to: • Study the physiology of male and female reproductive axes and reproductive cycles. • Develop understanding of endocrinology of pregnancy, parturition and lactation. • Understand the interrelationship between reproduction and immunity. • Study the seasonality in reproduction.
				8. **ZOO509:**Molecular Biology	After successful completion of this course, student should be able to: • Understand molecular processes viz. Replication, transcription, translation etc. • Underlying survival and propagation of life at molecular level. • Understand how genes are ultimately expressed as proteins which are responsible for the structure and function of all organisms. • Learn how four sequences (3 letter codons) generate the transcripts of life and determine the phenotypes of organisms.
				9. **ZOO510:** Genetics	After successful completion of this course, student should be able to: • Aware about genetic diseases, their types and causes.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
					• Understand molecular techniques that provide improvement, diagnosis and management of these diseases. • The principles of inheritance, linkage and crossing over which lead to variations will be made clear as well as the application thereof in gene mapping.
				10. **ZOO511:** Applied Zoology Part-II	After successful completion of this course, student should be able to: • Understands about parasites and epidemiology of parasites in human and animals. • Use of recombinant DNA technology in genetic manipulations and in a variety of industrial processes.
				11. **ZOO512:** Lab on Molecular Biology, Genetics & Applied Zoology Part-II	After successful completion of this course, student should be able to: • Students will demonstrate ability to use evolutionary theory and related equations to model and predict population change or stability. • The student will gain a basic understanding of human genetics and heredity. • Students gain knowledge and skill in the fundamentals of animal sciences, and understand the complex interactions among various living organisms.
					After successful completion of this course, student should be able to – • Students will demonstrate proficiency in applying theoretical knowledge and academic concepts to real-world professional situations.

Sr. No	Name of Program	Program Learning Outcomes	Program Specific Outcomes	Name of Course with code	Course Learning Outcomes
				12. **ZOO513:** On Job Training	• Students will possess job-specific skills that are relevant to their chosen field of study, enabling them to perform tasks and responsibilities effectively and efficiently. • Students will acquire a comprehensive understanding of industry practices, trends, and challenges, contributing to their overall knowledge and expertise in the field. • Students will establish professional networks and relationships, expanding their professional connections and opportunities for future collaborations and career advancement. • Students will develop problem-solving and critical thinking abilities, demonstrating the ability to analyze complex situations, make informed decisions, and propose effective solutions. • Students will demonstrate professionalism, adaptability, and effective communication skills in a professional work environment.
				13. **ZOO514:** Field Project	After successful completion of this course, student should be able to – • Demonstrate the ability to apply theoretical knowledge and concepts to real-world situations, effectively bridging the gap between academia and practical applications. • Develop advanced research and investigative skills, including the ability to design and execute research projects, collect and analyze data, and draw well-founded conclusions. • Conduct independent research, demonstrating the ability to formulate research questions, design appropriate

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					methodologies, and independently execute fieldwork or data collection. • Exhibit effective collaboration and communication skills, demonstrating the ability to work collaboratively with others, engage in professional dialogue, and effectively communicate their research findings to diverse audiences. • Showcase advanced problem-solving and critical thinking abilities, demonstrating the capacity to identify and address challenges encountered during fieldwork, analyze complex data, and propose innovative solutions. • Demonstrate a thorough understanding of ethical considerations, field safety protocols, and best practices in their chosen field of study.
				14. **ZOO515:** Animal Biotechnology	After successful completion of this course, student should be able to: • Understand and appreciate major public concerns and issues associated with Animal Biotechnology. • Have an understanding and grasp of international research environment where the frontiers of knowledge in Animal Biotechnology are under research. • Be able to adapt and respond positively and flexibly to changing circumstances; • Develop the professional skills and personal attributes to deal with complex issues, both systematically and creatively. • Have the capacity for individual work and teamwork. • Be lifelong learners with intellectual and practical skills.
				15. **ZOO516:** Toxicology	After successful completion of this course, student should be able to:

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					• Students will demonstrate an understanding of the core concepts of the science of toxicology, including hazard identification, exposure assessment, dose-response assessment and an understanding of the mechanisms of action and effects of toxic chemicals at multiple levels of biological organization. • Students will demonstrate an understanding of the role for the science of toxicology in society, including the importance of risk analysis, management and communication. Students will be able to identify and discuss contemporary issues in toxicology. • Students will be familiar with technical aspects and experimental approaches in toxicological research, testing and risk assessment.
				16. **ZOO601:** Immunology	After successful completion of this course, student should be able to: • Understanding about Immune System & its mechanisms. • Explain Ag-antibody reaction. • Various techniques used in Immunology.
				17. **ZOO602:** Endocrinology	After successful completion of this course, student should be able to: • To develop an understanding of the basic endocrinology. • To study the endocrine regulatory molecules mediating physiology and behavior. • To study the neural and endocrine components of physiological function and neuroendocrine regulation. • To understand the role of hormones in metabolic regulation and maintaining homeostasis.

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					• To understand the integrative working of signaling systems.
				18. **ZOO603:** Biodiversity & Conservation	After successful completion of this course, student should be able to: • Healthy and diverse ecosystems. • Viable populations of species. • Genetic resources and adaptive potential. • Sustainable use of biological resources. • 5. Species' roles in an ecosystem.
				19. **ZOO604:** Lab on Immunology, Endocrinology and Biodiversity & Conservation	After successful completion of this course, student should be able to: • Preservation of the diversity of species. • Sustainability of species and ecosystem. • Maintaining life-supporting and essential ecological processes.
				20. **ZOO605:** Research Project-I	After successful completion of this course, student should be able to – • Demonstrating a high level of research competence, having successfully planned and executed a master's-level research project. • Honed their critical thinking abilities, demonstrated by the comprehensive literature review and critical analysis of research findings. • Proficient in selecting appropriate research design and methodologies, ensuring the research is well-structured and methodologically sound.

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					• Demonstrating expertise in collecting and analyzing data, utilizing appropriate statistical or qualitative analysis techniques. • Developing effective project management skills, successfully meeting research milestones and completing the project within the given timeframe. • Problem-solving abilities, adapting their research strategies to overcome challenges encountered during the research process.
				21. **ZOO606:** Reproductive Physiology	After successful completion of this course, student should be able to: • Knowledge of the reproductive system and its functions in animals and man. • To provide a comprehensive, up-to-date review of reproductive physiology.
				22. **ZOO607:** Vermiculture	After successful completion of this course, student should be able to: • The course is structured at the basic level for the benefit of the students coming from different discipline having broad scope for employability. • In general soil earthworms, their characteristic features, occurrence, their influence on soil fertility and solid waste management are included. • Vermicomposting technology broadly followed at the global level and some Indigenous methods, role of microbes in increasing the soil fertility by the action of earthworms, their advantages and limitations dealt. • Role of microbes in worms and in decomposition is discussed.

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					• Vermiculture products and their benefits in agriculture practice, economics of Vermitechnology along with the practical difficulties are included. • Students will be trained on how to maintain a small vermicompost bin as a simple method for converting the Kitchen waste.
				23. **ZOO608:** Animal Behavior	After successful completion of this course, student should be able to: • Exhibit critical and integrative thinking skills. • Demonstrate ability to communicate scientific information in both oral and written formats. • Demonstrate knowledge of key concepts in animal behavior.
				24. **ZOO609:** Animal Physiology	After successful completion of this course, student should be able to: • Inculcate critical thinking to carry out scientific investigation objectively. • Equip the student with skills to analyze problems, formulate a hypothesis, evaluate and validate results, and draw reasonable conclusions thereof. • Prepare students for pursuing research or careers in industry in Animal Sciences and applied fields.
				25. **ZOO610:** Ichthyology	After successful completion of this course, student should be able to: • Distinguish families and higher taxonomic groups of fishes with respect to their physical features. • Draw patterns of phylogenetic relationships among various groups of fishes and to understand the

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					evolutionary significance of features mapped on these phylogenetic trees. • Understand the aquaculture practices of cold water, sewage fed, exotic fishes, larvivorous and carp fish • To understand the various fishing gear, pond and hatchery management and breeding techniques of various fish species • 5. To understand the fish preservation techniques and by products of fishery
				26. **ZOO611:** Lab On Animal Physiology & Ichthyology	After successful completion of this course, student should be able to: • An understanding of the various physiological systems of animals. • An understanding of structural differences in the physiological systems of animals from varied habitats. • 3. An understanding of the functional differences in animal's physiological systems.
				27. **ZOO612:** Research Project-II	After successful completion of this course, student should be able to – • Demonstrating a high level of research competence, having successfully planned and executed a master's-level research project. • Honed their critical thinking abilities, demonstrated by the comprehensive literature review and critical analysis of research findings. • Proficient in selecting appropriate research design and methodologies, ensuring the research is well-structured and methodologically sound.

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					• Demonstrating expertise in collecting and analyzing data, utilizing appropriate statistical or qualitative analysis techniques. • Developing effective project management skills, successfully meeting research milestones and completing the project within the given timeframe. • 6. Problem-solving abilities, adapting their research strategies to overcome challenges encountered during the research process.
				28. **ZOO613:** Comparative Animal physiology	After successful completion of this course, student should be able to: • Explore the basic physiological principles common to animals, relating structure to function • Understand all physiological processes of vertebrates &analyse them biochemically • Correlate the comparative physiology of the systems and understand their regulation & control • Compare the structure, functions and regulation of the receptor organs of vertebrates • Understand the structure, function and regulation of endocrine & neuroendocrine glands
				29. **ZOO614:** Aquaculture	After successful completion of this course, student should be able to: • Field oriented Training programmes and skill development programme. • Internship for Outgoing students in Aquaculture Labs, Hatcheries, Farming, Marketing

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					• Provides knowledge on Livestock, improvement aquaculture and pearl culture • Provides knowledge on Intellectual property rights and genetically modified organisms
				30. **ZOO615:** Parasitology	After successful completion of this course, student should be able to: • Understand the life history of vectors and pests, the diseases caused and their control • Understand the life history of parasites of domestic animals. • Gain knowledge of agro based small scale industries. • Study the culture of various organisms for economic benefit. • Have a broad array of career options and activities in human medicine, biomedical research and allied health professions.
6	V156: M.Sc. (Botany) {2023 Pattern}	After successful completion of this programme, students will be able to – ● Define the terms "botany", "plant", and "plant science" and explain their relationship to each other. ● Understand the basic principles of plant	Advanced Plant Biology Knowledge: Demonstrate a deep understanding of plant physiology, genetics, ecology, and taxonomy. Research and Experimental Skills: Conduct independent research, design experiments, and analyze data related to plant science. Plant Conservation and	**BOT501**: Diversity of Non Vascular Plants-I	● To identify and describe the different types of nonvascular plants. ● To explain the key features of nonvascular plants and their life cycles. ● To discuss the ecological importance of nonvascular plants. ● To apply their knowledge of nonvascular plants to real-world problems, such as conservation and restoration.
				BOT502: Diversity of Non Vascular Plants-II	● To identify and describe the different types of nonvascular plants. ● To explain the key features of nonvascular plants and their life cycles.

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		anatomy, physiology, and ecology. ● Conduct research in botany using a variety of methods. ● Communicate effectively about botany through written reports, presentations, and other media. ● Apply the principles of botany to solve real-world problems.	Ecology: Apply ecological principles and conservation strategies to study and protect plant biodiversity. Modern Laboratory Techniques: Utilize advanced laboratory techniques and tools, including microscopy and molecular biology methods, to study plant structures and functions. Interdisciplinary Application: Apply botanical knowledge to address real-world issues in agriculture, environmental management, and sustainable development.		● To discuss the ecological importance of nonvascular plants. ● To apply their knowledge of nonvascular plants to real-world problems, such as conservation and restoration. ● To evaluate the potential of nonvascular plants as biofertilizers and bioagents.
				BOT503: Diversity of Vascular Plants and Paleobotany- I	● To identify the major groups of vascular plants, both living and extinct, with 80% accuracy. ● To explain the evolutionary relationships between the major groups of vascular plants. ● To use paleobotanical data to reconstruct the history of the Earth's climate and environment. ● To write a research paper on a topic related to the diversity of vascular plants.
				BOT504: Lab Activities on BOT501, BOT502, BOT503	● To Identify the major groups of non-vascular plants, both living and extinct, with 80% accuracy. ● To explain the evolutionary relationships between the major groups of non-vascular plants. ● Use non-vascular plant data to reconstruct the history of the Earth's climate and environment. ● To write a research paper on a topic related to the diversity of non-vascular plants
				RES505: Research Methodology	● To design a research study to investigate the effects of climate change on the distribution of a particular species of plant. ● To collect data on the abundance of different species of plants in a particular ecosystem. ● To analyze data to determine the factors that limit the growth of a particular species of plant.

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					• To write a research paper that summarizes the results of their research study and discusses the implications of their findings. • To give a presentation to a lay audience about their research study and its findings.
				BOT506: Applied Phycology	• To identify and classify different groups of algae, including their morphological and anatomical characteristics. • To understand the ecological roles and contributions of algae in various ecosystems and their importance in the food chain. • To analyze the physiological processes of algae, including photosynthesis and reproduction, and relate them to broader botanical principles. • To evaluate the impact of algae on the environment, including harmful algal blooms and their management strategies. • To apply phycological knowledge in the field of agriculture, including algae-based fertilizers, biofertilizers, and soil health improvement.
				BOT507: Tools and Techniques in Plant Science	• To understand the basic tools and techniques used in plant science, such as microscopes, cell culture techniques, and genetic engineering. • To apply these tools and techniques to the study of plants, such as the identification of plant cells, the culture of plant cells, and the transformation of plant cells with genes. • To communicate effectively about tools and techniques in plant science through written reports, presentations, and other media.

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				BOT509: Plant Physiology	● To describe the fundamental physiological processes in plants, such as photosynthesis, respiration, transpiration, and nutrient uptake. ● To explain the role of plant hormones in growth regulation, development, and responses to environmental cues. ● To understand the mechanisms of water and mineral transport in plants and their significance in maintaining plant health and homeostasis. ● To analyze the factors influencing plant growth, including light, temperature, humidity, and nutrient availability. Investigate the responses of plants to abiotic and biotic stress factors, such as drought, salinity, pathogens, and herbivores. ● To evaluate the impact of environmental factors on crop productivity and explore strategies for improving crop yield and stress tolerance.
				BOT510: Herbal Wealth	● To identify and classify a wide range of medicinal and economically important plants and herbs based on their botanical characteristics. ● To describe the traditional and contemporary uses of herbs in different cultures for medicinal, culinary, cosmetic, and aromatic purposes. ● To understand the chemical constituents and active compounds present in medicinal herbs and their potential therapeutic benefits. ● To evaluate the scientific evidence supporting the medicinal properties and efficacy of herbal remedies. ● To discuss the importance of herbal wealth in the context of traditional medicine systems, such as

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					Ayurveda, Traditional Chinese Medicine, and Indigenous knowledge. ● To analyze the ecological significance of herbal resources and their conservation in the context of sustainable practices and biodiversity conservation.
				BOT511: Diversity of Vascular Plants and Paleobotany-II	● To identify the major groups of vascular plants, both living and extinct, with 80% accuracy. ● To explain the evolutionary relationships between the major groups of vascular plants. ● To use paleobotanical data to reconstruct the history of the Earth's climate and environment. ● To write a research paper on a topic related to the diversity of vascular plants.
				BOT512: BOT509, BOT510 & BOT511	● To identify medicinal plants by their common and scientific names. ● To describe the chemical constituents of medicinal plants and their effects on humans. ● To discuss the traditional and modern uses of medicinal plants. ● To evaluate the safety and efficacy of medicinal plants. ● To collect and prepare herbarium specimens. Conduct field studies of medicinal plants. ● To apply ethical principles to the study and use of medicinal plants. ● To write a research paper on a topic related to medicinal plants. ● To give a presentation on a topic related to medicinal plants.

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				BOT513: ON JOB TRAINING (OJT)	● To demonstrate proficiency in the skills and knowledge required for the job. ● To communicate effectively with colleagues and supervisors. Work independently and as part of a team. ● To solve problems and make decisions. Demonstrate professional behavior and ethics. ● To reflect on their experiences and identify areas for further learning and development.
				BOT514: FIELD PROJECT (FP)	● To apply theoretical knowledge and concepts to real-world situations, effectively bridging the gap between academia and practical applications. ● Students will develop advanced research and investigative skills, including the ability to design and execute research projects, collect and analyze data, and draw well-founded conclusions. ● Students will conduct independent research, demonstrating the ability to formulate research questions, design appropriate methodologies, and independently execute fieldwork or data collection. ● Students will exhibit effective collaboration and communication skills, demonstrating the ability to work collaboratively with others, engage in professional dialogue, and effectively communicate their research findings to diverse audiences. ● Students will showcase advanced problem-solving and critical thinking abilities, demonstrating the capacity to identify and address challenges encountered during fieldwork, analyze complex data, and propose innovative solutions.

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					● Students will demonstrate a thorough understanding of ethical considerations, field safety protocols, and best practices in their chosen field of study.
				BOT515: Biotechnology and Molecular Biology	● To understand the basic principles of biotechnology and molecular biology, such as DNA cloning, gene expression, and protein synthesis. ● To apply these principles to the study of plants, such as the development of new cultivars, the improvement of crop yields, and the development of new drugs. ● To communicate effectively about biotechnology and molecular biology through written reports, presentations, and other media.
				BOT516: Ecology and Phytogeography	● To understand the basic principles of ecology and phytogeography, such as the distribution of plants, the interactions between plants and their environment, and the effects of human activities on plant communities. ● To apply these principles to the study of plant communities, such as the identification of plant communities, the study of the factors that influence the distribution of plants, and the assessment of the impact of human activities on plant communities. ● To communicate effectively about ecology and phytogeography through written reports, presentations, and other media.
				BOT601: Cytogenetics and Plant Breeding	● To identify and interpret chromosomal abnormalities in plant cells.

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					• To apply cytogenetics to plant breeding by selecting parents with desirable traits and using various breeding methods. • To design and execute breeding experiments using proper techniques. • To evaluate the results of breeding experiments and draw conclusions about the effectiveness of the breeding methods used.
				BOT602: Advanced Plant Physiology	• To describe the basic principles of plant physiology, such as photosynthesis, respiration, transpiration, and the role of hormones in plant growth and development. • To apply these principles to the study of plant growth, development, and responses to the environment. • To conduct research on plant physiology using proper techniques and equipment. • To communicate effectively about plant physiology through written reports, presentations, and other media
				BOT603: Pharmacognosy	• To identify and classify crude drugs by their common and scientific names. • To describe the chemistry of secondary metabolites, such as alkaloids, glycosides, and tannins. • To describe the methods of extraction, purification, and standardization of crude drugs. • To understand the pharmacology of crude drugs, such as their mechanisms of action and side effects. • To evaluate the safety and efficacy of herbal medicines.

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				BOT604: Lab Activities on BOT601, BOT602 & BOT603	● To identify and interpret chromosomal abnormalities in plant cells. ● To apply cytogenetics to plant breeding by selecting parents with desirable traits and using various breeding methods. ● To design and execute breeding experiments using proper techniques. ● To evaluate the results of breeding experiments and draw conclusions about the effectiveness of the breeding methods used. ● To understand the basic principles of plant physiology, such as photosynthesis, respiration, transpiration, and the role of hormones in plant growth and development. ● To apply these principles to the study of plant growth, development, and responses to the environment.
				BOT605: Research Project	● To develop a research question or hypothesis that is relevant to the field of botany. ● To conduct a literature review to identify relevant research and theories. ● To design and conduct an experiment to test the hypothesis. ● To analyze and interpret data using appropriate statistical methods. ● To write a research report that clearly presents the findings of the experiment. ● Present research findings to an audience in a clear and concise manner.
				BOT606: Biostatistics	● To calculate basic statistical Majors, such as the mean, median, and standard deviation.

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					• To use statistical software to analyze botanical data. Interpret the results of statistical analyses. • To communicate the results of statistical analyses in a clear and concise manner.
				BOT607: Mycology and Plant Pathology	• Learning the structure, life cycles, economic importance etc of bacteria, virus, fungi and applying this knowledge in identification of organisms. • To analysis of diseases based on symptoms, and apply knowledge for identification of disease. • To understand and apply knowledge of fungal metabolites, their uses for human welfare. • Knowledge on the history, milestones in phytopathology of India Learn host-parasite relationships, various diseases and control methods. • Practical knowledge on disease control measures in various crops. • Knowledge on bacterial, viral, mycorrhizal and nematode diseases, symptoms and their importance.
				BOT608: Renewable Energy Studies	• Critically analyze and evaluate different renewable energy technologies and their suitability for specific contexts. • Capability of planning, designing, and managing renewable energy projects, considering technical, economic, and regulatory aspects. • Demonstrating an understanding of the environmental and social implications of renewable energy deployment and making informed decisions to minimize negative impacts.

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					• Navigating energy policies and regulations and advocating for sustainable and renewable energy initiatives.
				BOT609: Taxonomy of Angiosperms	• To identify and classify angiosperms by their common and scientific names. • To describe the morphological, anatomical, and molecular features of angiosperms. • To explain the evolutionary history of angiosperms. • To apply taxonomic principles to the study of angiosperms in the field and laboratory. • To communicate effectively about angiosperm taxonomy through written reports, presentations, and other media.
				BOT610: Seed Technology	• To understand the basic principles of seed technology, such as the structure of seeds, the germination process, and the factors that affect seed quality. • To apply these principles to the production, processing, and storage of seeds, such as the selection of seed parents, the production of seedbeds, and the storage of seeds in a cool, dry environment. • To Communicate effectively about seed technology through written reports, presentations, and other media.
				BOT611: Lab Activities on BOT609 & BOT610	•
				BOT612: Research Project	• To develop a research question or hypothesis that is relevant to the field of botany.

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					● To conduct a literature review to identify relevant research and theories. ● To design and conduct an experiment to test the hypothesis. To analyze and interpret data using appropriate statistical methods. ● To write a research report that clearly presents the findings of the experiment. ● Present research findings to an audience in a clear and concise manner.
				BOT613: Anatomy and Embryology	● To identify and classify various types of plant tissues (e.g., epidermal, ground, vascular) and understand their functions. ● To understand the principles of plant embryogenesis, from the formation of the zygote to the development of seedlings. ● To compare and contrast the embryonic development of different plant groups, including angiosperms and gymnosperms. ● To analyze the factors influencing plant growth and development, including hormonal regulation and environmental cues. ● To apply anatomical and embryological knowledge to solve practical problems in plant propagation, breeding, and horticulture. ● To conduct research and experiments related to plant anatomy and embryology, using appropriate methodologies and data analysis techniques.
				BOT614: Hydroponic Technology	● To understand the importance of water quality in hydroponics

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					• To identify the different types of grow lights and their applications • To apply the principles of plant physiology to hydroponics • To design and build a simple hydroponic system. • To conduct a research project on a topic related to hydroponics
				BOT615: Medicinal Plants and their Applications	• To identify medicinal plants by their common and scientific names. • To describe the chemical constituents of medicinal plants and their effects on humans. • To discuss the traditional and modern uses of medicinal plants. • To evaluate the safety and efficacy of medicinal plants. • To apply ethical principles to the study and use of medicinal plants.