Rajarshi Shahu Education Society's

Yeshwantrao Chavan College of Arts, Commerce and Science, Sillod.

Programme Outcomes (PO)

Bachelor of Arts (BA)

PO1: Students will gain the Knowledge of Humanities.
PO2: Students will understand the grammar and syntax of the language.
PO3: Students will understand linguistic, cultural, and political significance of languages and social sciences.
PO4 : Students will understand intercultural awareness and competence.
PO5 : Students will find out solutions to complex problems with logical reasoning and innovative thinking.
PO6 : Students will be capable of logical arguments and innovative thinking.
PO7 : Students will practice creative thinking and expression.
PO8 : Students will gain knowledge in one or more disciplines and integrate knowledge and perspectives across disciplinary boundaries.

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Bachelor of Commerce (B.Com)

PO1: Students will understand major theories and models in key areas of Commerce &Management.
PO2: Students will use basic mathematical and statistical tools of analysis.
PO3: Students will obtain knowledge of microeconomics theory as it relates to markets, firms, government policy etc.
PO4: Students will understand basic mathematical and statistical skills necessary for analysis of a range of problems in economics, actuarial studies, accounting, marketing, management.
PO5: Students will obtain basic entrepreneurship skills and knowledge of the commerce subjects.

Bachelor of Science (B.Sc)

PO1: Students will be able to identify, formulate, and analyze complex scientific problems reaching substantiated conclusions using scientific principles.

PO2: Students will be able to develop a scientific temperament and gain basic scientific knowledge.

PO3: Students will be able to develop technical and scientific competence and practical skills.

PO4: Students will be able to conduct investigations in complex problems by using research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5: Students will be able to select and apply appropriate techniques, resources, and modern tools in carrying out scientific study.

PO6: Students will be able to develop a keen understanding of environment and sustainability and related issues.

Bachelor of Science (Computer Science)

PO1: Give application of Computer in the entire field.

PO2: Helps to understand basic concept related to computer.

PO3: Use in all fields of arts, commerce& science.

PO4: Use to solve mathematical problems.

PO5: Use to develop software programme.

PO6: Students are eligible for higher education

PO7: Students can acquire the different computer languages.

PO8: Obtain idea about web designing and multimedia designing.

Bachelor of Science (Biotechnology)

PO1: Proficiency in basic laboratory skills including aseptic techniques, operating instruments like PCR, Microscope etc.

PO2: Give chance to perform molecular and biochemical techniques used in biotechnology.

PO3: Give applications of biotechnological techniques for welfare of humans.

Master of Arts (MA)

PO1: Students will develop creativity and its application in Humanities.

PO2: Students will develop a sense of social attachment and responsibility which will make them a good citizen.

PO3: Students will understand linguistic, cultural, and political significance of languages and social sciences.

PO4 : Students will assimilate human values and deal with real life problems with humanity and sensitivity.

PO5 : Students will find out solutions to complex problems with logical reasoning and innovative thinking.

PO6 : Students will acquire good communicative and linguistic skill thereby expressing their ideas clearly and logically.

PO7 : Students will get familiar with socio-economical, socio-political, linguistic, historical and ideological issues.

PO8 : Students will be efficient in applying professional ethics, human values, gender equity, and environmental issues.

PO9 : students will develop an interest in contemporary knowledge, life skills and research aptitude.

Master of Commerce (M.Com)

PO1: Students will become efficient in major theories and models in key areas of Commerce &Management.

PO2: students will develop commercial, marketing, managerial and corporate skills.

PO3: Students will apply microeconomics theory to markets, firms, government policy, and resource allocation.

PO4: students will be able to apply basic mathematical and statistical skills necessary for analysis of a range of problems in economics, actuarial studies, accounting, marketing, and management.

PO5: Students will understand and apply business communication, financial accounting and commerce and management skills

PO6: Students will acquire entrepreneurship skills and find out opportunities in corporate world.

PO7: Students will acquire the skills of research and develop the aptitude for research.

Master of Science (M.Sc)

PO1: Students will acquire scientific knowledge and understanding of theoretical principles and their appropriate application.

PO2: Students will be able to develop a scientific temperament and gain advanced scientific knowledge and its application.

PO3: Students will be able to develop technical and scientific competence and practical skills.

PO4: Students will be able to conduct investigations in complex problems by using research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5: Students will be able to select and apply appropriate techniques, resources, and modern tools in carrying out scientific study.

PO6: Students will be able to develop a keen understanding of environment and sustainability and related issues.

PO7: Students will acquire the skills of handling different instruments and equipments with the help of which they can experiment independently for their professional development.

PO8: Students will develop an aptitude for scientific and applied research.

Master of Science (Computer science)

PO1: Students will have a wide range of options in career.

PO2: Student will have a lot of exposure to programming and logic building, so field like software development, software testing, application developer are open for them.

PO3: If a student focuses on hardware and microprocessors in particular, they make great advances in technology and robotics

PO4: Students will have bright prospects in the fields like Artificial Intelligence, Database management, Network Administrator, Software Engineer, Game Designer, data miners, data storage centre managers are some of the few options which are open for them.

PO5: Student can opt for developing mobile applications, teaching, developing software for government and other MNC.s.

PO6: Cyber security and network security are the latest booming field at the edge for students who are good in computers.

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Programme Specific Outcomes (PSO)

B.A. Marathi

PSO1: To understand the nature, scope, values and basic concepts in Marathi.
PSO2: Analyze the relationship among various genres of literature like poetry,Biography, autobiography, novel, drama, short stories, travel writing, one act play etc.
PSO3: Creates awareness among the students about socio-economic,political, cultural situations through the history of Marathi literature.
PSO4: Promotes the values through the literature of Mukundraj, Dnyaneshwar,Dnyandev, Tukaram, Ramdas etc.
PSO5: Understand the spiritual and religious aspects from the writers like theSaint Janabai, Chokhamela, Karmmela, Gora kumbhar, Visobakhechar,Savtamali etc.
PSO6: Develop an interest in Reading-writing skills, critical approaches,research ability.
PSO7: Determine and analyze various literary types like, Dalit, Rural, feminist, tribal, folk literature etc.
PSO8: Understand the literary process through literary criticism.

B.A. Hindi

PSO1: Understand the nature, scope and basic concepts in Hindi.
PSO2: Analyze the relationship among various genres of literature like poetry,autobiographical novel, drama, story one act play etc.
PSO3: Creates an awareness among the students about economical, socio-political and communal issues.
PSO4: Understand how applied Hindi is important in various sectors of societylike banks, govt. and semi govt. offices etc.
PSO5: Analyze various theories like modernism, feminism, realism, Romantism etc.
PSO6: Students will be benefitted from saint poetry. Through saints, theirphilosophies can be understood from poetry.
PSO7: Understand the process of literature in Hindi.
PSO8: Develop the creativity and mental set up.

B.A. English

PSO1: To help students towards better pronunciation.

PSO2: To enable students to acquire the structure of English.
PSO3: To introduce students to appreciate various forms of literature such as poetry, novels, drama, short stories etc.
PSO4: To identify multi-layer meanings in verses like lyric, sonnet, elegy, ballad etc.
PSO5: To familiarize the students with the literary terms like, metaphor,allegory, myth, bathos, irony, poetic license, caricature, burlesque etc.
PSO6: Introduce students to understand literary criticism and critics like, Plato,Aristotle, Wordworth, Coleridge, T. S. Eliot and many more.
PSO7: Introduce students to American Literature, Indian, British, African-literature etc.
PSO8: To make students aware about recent developments in literature tomodernism, Marxism, feminism, structuralism, psycho analytic,myth criticism etc.
PSO9: To make students aware about various literary ages such asChaucerian, Elizabethan, Renaissance, Restoration, Neo classic,Romantic, Victorian, Modern and Post modern ages.

B.A. Sociology

PSO1: Study the approaches, principles, concepts, methods and history of Sociology.
PSO2: Enable to describe the significance of social theory to society.
PSO3: Creates an awareness among the students about poverty, child labour,domestic violence and dowry etc.
PSO4: Study the social thinkers like AagustCompt, Max Weber, Karl Marx,Talcott Parson, Lewis Coser etc.
PSO5: Understand the basic concepts like society, social system, caste system,class system, family, marriage system, religiosity etc.
PSO6: Determine and analyze various approaches such as capitalist, mixed andsocialist.
PSO7: Develop an interest in carry out project integrating sociological theoryand methods.
PSO8: Makes able to substantively discuss the core theoretical perspectives ofthe society.

B.A. Political Science

PSO1: Understand the concept of state and its functions.
PSO2: Understand the functions and responsibilities of government.
PSO3: Understand the government work policies and decision making.
PSO4: Understand the relation between national and international politics.
PSO5: Understand the various political theories at national and international level.
PSO6: Analyze the basic concepts in political science.
PSO7: Makes aware about various political systems like dictatorship, democracy, Monarchy, etc.
PSO8: Becomes aware about local, state, and central government.
PSO9: Learns the thoughts of political thinkers like Plato, Aristotle, Machiavelli,Hobs, John Lock etc.
PSO10:Understand various isms such as liberalism, Communism, Imperialism,colonialism, fascism, Marxism etc.

B.A. History

PSO1: Understand the nature, scope, values and basic concepts in History.
PSO2: Analyze the relationship among History, Archeology, MuseologyTourism etc.
PSO3: Creates an awareness among the students about Historical monumentsSuch as caves, forts, temples etc.
PSO4: Promotes the social values through the history of social workers like Dr. B. R. Ambedkar, Mahatma Phule, LokmanyaTilak etc.
PSO5: Understand the thoughts of various thinkers like Karl Marx, Ranke, D.D.Kosambi, RomilaThaper, RanjitGuha etc.
PSO6: Understand the social, political, economical, religious, and cultural life ofAncient, Mediaeval, and Modern Indian History.
PSO7: Understand the process of Histography.
PSO8: Develop an interest in regional History.
PSO9: Understand the trends in History like Imperialism, Orientalism,feminism, colonialism and Subaltern etc.
PSO10: Understand the World History.

B.A. Economics

PSO1: Understand the nature, scope and basic concepts of Economics.
PSO2: Analyze the relationship among micro, macro, and welfare Economics.
PSO3: Understand the behavior of rural and urban economy.
PSO4: Learn the concepts like national and international trades.
PSO5: Determine various economic concepts like GDP, budget, structure of taxes, HDI, inclusive growth and sustainable development.
PSO6: Observe economic policies since 1950.

B.A. Dramatics

PSO1: Understand the nature, scope and basic concepts in Dramatics.
PSO2: Analyze the relationship among various nine rasas of Bharatmuni.
PSO3: Understand the various concepts in dramatics like observation, imaginationand concentration.
PSO4: Learn various techniques like light, set designing, make-up, costumedesigning, and background music
PSO5: Learn the culture of various great masters in dramatics
PSO6: Study the various aspects of Dramatists like, farce, melodrama,absurd, comedy, tragedy etc.
PSO7: Study various dramas like EkachPyala, RaygadalaJevhaJaagYete,Hyvadan, Raja Odious, and Mahanirvan.
PSO8: Develop the skills like Dance, Drama, and Music.

B.A. Travel & Tourism Management

PSO1: The student will be able to understand the nature, scope and values and basic concepts in Travel and tourism management.
PSO2: The student will be able to analyze the relationship among the world tourism
PSO3: The student will be able to understand comparatively study in various countries tourism.
PSO4: The student will be able to study in the Tourist and Travel Management of India.

B.Com. Commerce

PSO1: Be proficient in the use of appropriate informationtechnologies.
PSO2: Understand the nature and basic concepts of management and its applications in business.
PSO3: Analyze microeconomics and macroeconomics policiesincluding production, rent, labor, capital, land, entrepreneurand international business.
PSO4: To Understand the behavior of financial and money marketsand perform cost benefit analysis for making investmentdecision.
PSO5: To know more about Contract act, Sale of goods act, Companyact, Partnership act.
PSO6: To cultivate new trends in banking, insurance and finance.
PSO7: To reveal various innovations in entrepreneurship and itsapplication in current scenario.
PSO8: To demonstrate the practical knowledge of accountancy,taxation and marketing.

B.Sc. Physics

PSO1: Understand the basic concept of various physics branches such as Classical mechanics, Quantum Mechanics, Nuclear Physics, Statistical Mechanics and Electrodynamics.
PSO2: Analyses the relationships between different instruments used for same measurements.
PSO3: Perform experiment according to laboratory standard in the area of Classical Mechanics, Quantum Mechanics, Nuclear Physics and Electronics.
PSO4: Understand the application of Nuclear Physics, Spectroscopy and Electronics in field of Medical, Industry, Agriculture and daily life.

B.Sc. Chemistry

PSO1: Classification of organic compound in three dimensional way.
PSO2: Identification of acidic, basic radicals.
PSO3: Classification as organic or inorganic compounds.
PSO4: Nomenclature of organic and inorganic compounds.

PSO5: Identification of acidic, basic & neutral compounds.
PSO6: Determination of hardness of water and total dissolve solids.
PSO7: Determination of physical properties of matter such as viscosity, surface tension, magnetic susceptibility, boiling point, melting point, optical density.

B.Sc. Botany

PSO1: Understand and apply the basic principles and rules of botanical nomenclature, and use of taxonomic literature.
PSO2: Be familiar with methods of systematics, both traditional and modern.
PSO3: Apply for working vocabulary used in description of plant structures.
PSO4: Understand the history of classification, and recognize various systems of classifying angiosperms.
PSO5: Use dichotomous keys for the identification of Pacific NW plant species.
PSO6: Recognize representatives of local flora; applying floral formulas and descriptions of major plant families and representative species found here in Central Oregon.
PSO7: Apply proper herbarium methods - collecting, mounting, and keeping records.
PSO8: Analyze the scientific evidence for the explanations of the origin of life.
PSO9: Apply for understanding of the cell cycle to cellular abnormalities such as cancer.
PSO10: Explain the mechanisms for new genetic information.
PSO11: Define characteristics, importance and applications of plants in agriculture, horticulture and environmental ecology.
PSO12: Demonstrate knowledge of taxonomy and classification to identify unknown plants to genus or species level.
PSO13: Recognize and identify relevant structures for vegetative growth and reproduction for the purposes of classification, identification and industrial applications.

B.Sc. Zoology

PSO1: To understand the nature and basic concept of genetics, cell biology biochemistry, taxonomy ecology etc.
PSO2: Analyze the relationship among animals, plants, and microbes.
PSO3: Perform practical in the area of biochemistry, bioinformatics, ecology, and taxonomy.
PSO4: Understand the application of biological science in apiculture, aquaculture, agriculture and medicine.

B.Sc. Mathematics

PSO1: The student will be able to know the different branches of science and mathematics.
PSO2: Provide effective and efficient real time solutions using acquired knowledge in various domains.

PSO3: Ability to apply the acquired scientific and mathematical knowledge for the advancement of society and self.

PSO4: Ability to implement the learned principles of science and mathematics to analyze, evaluate and create more advanced systems or processes.

Computer Science (BSc-CS)

PSO1: After completing. computer science a student becomes competent for handling responsibilities of networking, web designing and development, software development and testing, multimedia and designing.

PSO2: After completing B.C.S. student has career in different fields of management.

PSO3: Students have knowledge of programming languages, hardware and software, computer networks, World Wide Web, database management, logic multimedia etc.

PSO4: After completing Computer Science, student may take admission to master degree programs like MCS, IT, MCA or MBA in information technology and others.

PSO5: Computer Science students have chances to work in following areas: Networking, Web designing and development, Software development and testing, Multimedia and designing.

Computer Science (M.Sc-CS)

PSO1: As a Computer Science student always has a wide range of option in career.

PSO2: A computer science student has lot of exposure to programming and logic building, so field like software development, software testing, application developer are open for them.

PSO3: If a student focuses on hardware and microprocessors in particular, they make great advances in technology and robotics

PSO4: Fields like Artificial Intelligence, Database management, Network Administrator, Software Engineer, Game Designer, data miners, data storage centre managers are some of the few options which are open for them.

PSO5: Student can opt for developing mobile applications, teaching, developing software for government and other MNC.s.

PSO6: Cyber security and network security are the latest booming field at the edge for students who are good in computers.

B.Sc. Biotechnology

PSO1: Use of biological processes, organisms, or systems to manufacture product intended to improve the quality of human life.

PSO2: To performs procedures as per laboratory standards in the areas of Biochemistry, Microbiology, Genetic Engineering, Tissue Culture technology, Immunology, Fermentation technology, etc.

PSO3: To understand the applications of biotechnology in medicine, environment, food processing, agriculture, marine biotechnology etc.

PSO4: To carry out quantitative and qualitative tests and analysis.

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Course Outcomes (CO)

Marathi

B. A. Marathi F.Y B.A, B.Sc. Marathi Paper I & II (S.L) Gadya Padya Upyojit Marathi

CO1: To introduce learners to the literature of the writers from medieval and modern time.

CO2: To make learners aware of social, political, cultural and economic conditions of the times.

CO3: To introduce the style of prose, fiction and poetry.

CO4: To understand Marathi grammar and punctuations.

CO5: To develop language skills for media.

F.Y. B.Com Marathi Paper I (S.L.) Gadya Padya Ani Upayojit Marathi

CO1: To introduce learners to poetry.

CO2: To understand real facts in dialogue, sentence and phrases.

CO3: To understand philosophy of Marathi literature.

CO4: To develop and enhance thinking, reasoning and communications skills.

CO3: To develop writing and expressing the views.

F.Y.B.A Marathi Paper I (Opt.) Kavytmak Sahitya

CO1: To introduce students to Marathi Poetry.

CO2: To understand Marathi poetry & connect it to real life.

CO3: To understand various ideologies, movements in the history of Marathi poetry.

CO4: To study the importance of literature.

F.Y.B.A Marathi Paper II (Opt) NATYATMAK WANGMAY

CO1: To understand Marathi language and drama.

CO2: To acquire and understand realistic view of life.

CO3: To express the fabulous dramatics.

CO4: To enhance expression, thoughts, ideas and all characteristic of human humanities through drama.

CO5: To correlate drama with our life and to know the social religious issues.

F.Y. BA Marathi Paper III (Opt.) Kathatmak Sahitya

CO1: To introduce students to Marathi story literature.

CO2: To enhance learner's interest in Marathi stories & connect it to real life.

CO3: To understand ideologies and movements in the history of Marathi language & literature.

CO4: To understand importance of literature in life.

F.Y. B.A. Marathi Paper IV (Opt) MUDRIT MADHAMASATHI LEKHAN KAUSHALUA

CO1: To understand communication skills.

CO2: To acquire realistic view in Marathi literature.

CO3: To understand the importance of language sources like television, mobile, newspaper and magazine.

CO4: To know the outer world.

CO5: to provide opportunities in services in mass media.

S.Y. B.A, B.Sc. Marathi Paper III&IV (Gadya Padya Upyojit Marathi)

CO1: Students will get introduced to thoughtful writings.

CO2: To create awareness about meaning and history of folk culture.

CO3: To introduce different trends in literature.

CO4: To understand of literary analysis.

CO5: To apply literary syntax of Marathi language.

CO6: To enhance interest of learner in Marathi literature, different Ideology and types.

CO7: To introduce information technology and social news in media.

CO8: To develop art of living through literature.

CO9: To understand literature, science, official transactions.

S.Y.B. COM Marathi Paper II (S.L) Marathi bhasha ani vanijya vhavhar

CO1: To impart knowledge of Marathi language of commerce & business.

CO2: To understand use of language in offices, commerce field and business sector.

CO3: To understand the need and structure of language.

CO4: To develop writing skill of commerce language.

CO5: To enhance competency through reading culture.

S.Y. B.A. Marathi Paper V (Opt.) Aadhunik Marathi vangmayacha itihas. (1800-1920)

CO1: To study literature history after 1800.

CO2: To correlate social, cultural, social movement ideology during 1800-1920 on literature.

CO3: To understand the background, inspiration, importance of authors & their literary work in 1800-1920.

CO4: To study translated literature & different types of literature including periodic, story, poetry, novel, biography, autobiography.

S.Y.B.A, Marathi Paper Paper VI, VIII (Druk shravya Madhyamansathi lekhan kaushalya)

CO1: To introduce functioning and structure of radio language.

CO2: To acquire skills of radio anchor.

CO3: To understand production of different programmes on radio.

CO4: To know different websites and webpages for media purposes.

CO5: To develop critical thinking.

S.Y.B.A. Marathi Paper VII (Opt.) Aadhunik Marathi vangmayacha itihas. (1800-1920)

CO1: To introduce learners to theatre culture, tradition, development and emergence of Marathi theatre.

CO2: To familiarize with Annasaheb kirloskar and his contribution.

CO3: To study translated literature & different types of literature such as periodic, story, poetry, novel, biography and autobiography.

CO4: To study poetry, biography, autobiography and their specialty. Keshavasut (Father of modern Marathi poetry) and his contemporary.

T.Y.B.A. Marathi Paper IX & XIII (OPT) (Bhartiy aani pashchimatya sahitya vichar)

CO1: To introduce students with basic scientific - Indian and foreign literature.

CO2: To understand types of literature.

CO3: To develop clear concepts in literature.

CO4: To learn conveying of message through Marathi literature.

CO5: To learn various forms of realistic human character.

T.Y.B.A, Marathi Paper, X, XIV (Opt.) (Bhasha Vidnyan: Vyakran v Nibandha)

CO1: To create awareness about the structural patterns of sounds in Marathi.

CO2: To inculcate ideas about history and development of Marathi language and its spoken forms.

CO3: To understand Marathi grammar.

CO4: To enhance pronunciation skill.

CO4: To understand Marathi grammar in various forms - word formation, suffix & prefixes.

CO5: To introduce learners to dialects of Marathi language

T.Y. B.A. Marathi Paper XI (MAIN) Madhyayugin Marathi vangmayacha itihas. (Start to 1600)

CO1: To understand different ages of Marathi.

CO2: To understand Mahanubhav Sect and their contribution in Marathi literature.

CO3: Specialty of ideology, philosophy of mahanubhav sect & their literary work.

CO4: To understand contribution of Varkari sampraday (sects) and their literary work.

T.Y. B.A. Marathi Paper XI (MAIN) Madhyayugin Marathi vangmayacha itihas. (1601 - 1818)

CO1: To understand Panditi sahitya and their inspiration, specialty and structure.

CO2: To know pandit kavi and his literature.

CO3: To understand contribution of Shahiri literature, inspiration, structure and specialty.

T.Y.B.A. Marathi Paper XII & XVI (Main Project)

After completion of the course, learners will be able to …..

CO1: Convey massage or motto with a story.

CO2: To think independently.

CO3: To apply logic.

CO4: To enhance thinking ability and create interest in Marathi language.

Hindi (UG)

Sr. No.	Paper No.	Paper Name	Semester	Outcomes	Program Specific outcomes (Psos)
बी.ए., बी.एस्सी. व बी.कॉम. प्रथम वर्ष					
1	I-SL	सामान्य हिंदी - 1	I	1) साहित्य संवदेनाओं का विकास करना 2) हिंदी कहानी का समान्य परिचय 3) कहानी का रस्वादन एवंम् समता का विकास करना	कहानी साहित्य के तत्व का परिचय हुआ साहित्य में छात्र की रुची बढी
2	II-SL	सामान्य हिंदी- 2	II	1) हिंदी कहानी का समान्य परिचय 2) कहानी का रस्वादन एवंम् समता का विकास करना 3) भाषा कौशल्य का विकास करना	भाषा कौशल्य का विकास हुआ साहित्य संवेदना का विकास हुआ
बी.ए. प्रथम वर्ष ऐच्छिक (Opt.)					
3	I (OPT)	उपन्यास साहित्य	I	1. साहित्य आस्वादन और अभिरुची परिसंस्कार करना 2. उपन्यात साहित्य से अवगत करना 3. लेखन तथा भाषण कौशल्य का विकास करना	हिंदी उपन्या साहित्य से परिचय हुआ उपन्यास साहित्य विधा की जानकारी प्राप्त हुई
4	II (OPT)	नाटक साहित्य	II	1. हिंदी नाटक तथा रंगमंच का अध्यायन करना 2. संवेदना का विकास नाटय स्वादन तथा नाटय लोचन समता का विकास	नाटक विधा के माध्यम से रंगमंच कि जानकारी प्राप्त हुई
5	III (OPT)	हिंदी गद्य साहित्य	III	1.व्यंग साहित्य से परिचय 2. साहित्य आस्वादन तथा मुल्यांकन क्षमता का विकास 3. काहनी विधा से परिचय	मानवीय मुल्यों के प्रति छात्रो मे आस्था का निर्माण हुआ छात्रों को हिंदी मे कार्य करने तथा विचार क्षमता के साथ कल्पना शक्ती का विकास हुआ
6	IV (OPT)	एकांकी साहित्य	III	1. हिंदी नाटको के नये भेदों का अध्ययन से अवगत कराना 2. नाटय स्वादन तथा नाटय आलोचन क्षमता का विकास	छात्रो मे हिंदी भाषा एवंम् साहित्य आस्वादन के अभिरुची में वृध्दी हुई

बी.ए., बी.एस्सी. व्दितीय वर्ष (SL)					
7	II-SL	सामान्य हिंदी - III	III	1. साहित्य आस्वादन अभिरुची का परसंस्कार करना 2. अत्याधुनिक इलेक्ट्रानिक माध्यमों का परिचर कराना	इलेक्ट्रानिक माध्यमो का परिचय हुआ
8	II-SL	सामान्य हिंदी ३ IV	IV	1. भाषा प्राद्यौगिकी जानकारी प्राप्त करना 2. विद्यापन कला का ज्ञान प्राप्त करना	जन संचार और नव इलेक्ट्रानिक माध्यमों की जानकारी प्राप्त हुई
बी.ए. व्दितीय वर्ष ऐच्छिक (Opt.)					
9	V (OPT)	कथेत्तर गद्य साहित्य	V	1. हिंदी गद्यत्तर संवेदना का परंपरा का परिचय 2. यात्रा साहित्य की जानकारी	साहित्य विधा ओ की जानकारी प्राप्त हुई
10	VI (OPT)	प्रयोजन मुलक हिंदी -1	III	1.प्रयोजन मुलक हिंदी से परिचय कराना 2. मानक भाषा की जानकारी प्राप्त करना	हिंदी भाषा के विविध रुपो का परिचय प्राप्त हुआ
11	VII	आधुनिक हिंदी कविता	VI	1. हिंदी पद्य संवेदना की परंपरा से परिचय 2. लेखन पठन कौशल्य वृध्दी का विकास	हिंदी कविता की जानकारी प्राप्त हुई मानवी मुल्यों के प्रति आस्था निर्माण हुई
12	VIII	प्रयोजन मुलक हिंदी - 2	VI	1. हिंदी भाषा के विविध रुपो का परिचय 2. राजभाषा हिंदी के विभिन्न पहलुओ का परिचय 3.प्रयोजन मुलक भाषा तथा अनुवाद की भुमिका का परिचय	हिंदी भाषा के विविध रुपों का परिचय प्राप्त हुआ राजभाषा हिंदी की जानकारी प्राप्त हुई
बी.कॉम. व्दितीय वर्ष (SL)					
13	III	सम्प्रेषण मुलक व्यावसायिक हिंदी	III VI	1.प्रयोजन मुलक भाषा का अध्ययन करना 2. वाणिज्य भाषा कौशल्य का विकास 3. व्यावसायिक लेखन कौशल्य	छात्रो में विभिन्न भाषाई कौशल्य का विकास हुआ हिंदी में रोजगार के अवसर की जानकारी प्राप्त हुई
बी.ए. तृतीय वर्ष					
14	IX	प्रादेशिक भाषा साहित्य	V	1. साहित्य आस्वादन अभि रुची का परिसंस्कार 2.प्रादेशिक साहित्य ज्ञान प्राप्त करना 3. भारतीय साहित्य अध्ययन	प्रादेशिक भाषा तथा प्रादेशिक साहित्य की जानकारी प्राप्त हुई प्रादेशिक भाषा में रुची उत्पन्न हुई
15	X	आदि तथा मध्य कालिंन हिंदी साहित्य का इतिहास	V	1. हिंदी साहित्य की परंपरा से परिचय 2. हिंदी साहित्येतिहास लेखन के प्रमुख स्त्रोत की जानकारी 3. हिंदी साहित्य का काल विभाजन से परिचय	हिंदी साहित्य के परंपरा से परिचय हुआ हिंदी साहित्य लेखन के स्त्रोत की जानकारी प्राप्त हुई

16	XI	साहित्यशास्त्र - 1	V	1. साहित्य चिंतन का अध्ययन करना 2. साहित्यालोचन क्षमता का परिचय कराना 3. साहित्य सृजन के संस्कार	हिंदी साहित्य में अनुसंधानात्मक तथा आलोचनात्मक क्षमता का विकास हुआ
17	XII	प्रकल्प कार्य	V	1. पठन लेखन कौशल्य का विकास 2. आलोचनात्मक क्षमता का विकास 3. अनुसंधानात्मक दृष्टिका विकास	छात्रों मे संशोधन प्रविधि के प्रति रुचि बढ़ी
18	XIII	मध्य कालीन काव्य	VI	1. भारतीय भक्ति आंदोलन का अध्ययन करना 2. रीतिकालीन संवेदना का अध्ययन 3. कविता के माध्यम से मध्यकालीन सांस्कृतिक संवेदना का अध्ययन	छात्रों मे हिंदी भाषा साहित्य आस्वादन की अभिरुचि में वृध्दी हुई मानवीय मुल्यों के प्रति छात्रों में आस्था निर्माण हुई
19	XIV	आधुनिक हिंदी साहित्य का इतिहास	VI	1. साहित्य आस्वादन अभिरुचि का परिसंस्कार 2. जीवन मूल्यों के प्रति आस्था 3. आधुनिक हिंदी साहित्य का इतिहास का परिचय	हिंदी भाषा ज्ञान से साहित्य सृजन कौशल्य का विकास हुआ आधुनिक हिंदी साहित्य की जानकाकारी प्राप्त हुई
20	XV	साहित्यशास्त्र - 2	VI	1. साहित्य सृजन के संस्कार करना 2. आलोचना से परिचय 3. साहित्य विधा की जानकारी	हिंदी भाषा के विविध रुपों का परिचय प्राप्त हुआ

Hindi (PG)

M.A.F.Y Hindi semester - I		
After completion of these courses students should be able to :-		
Subject Title	Core Course No	Course outcomes
हिंदी साहित्य का इतिहास (आदिकाल तथा भक्ति काल	HIN - 401	1. इतिहास दर्शन और साहित्य इतिहास परंपरा का ज्ञान अवगत हुआ। 2. साहित्य अध्ययन की ऐतिहासिक दृष्टि का विकास हुआ। 3. साहित्य के विभिन्न काल खंडों की जानकारी प्राप्त हुई।
भारतीय साहित्य शास्त्र	HIN 402	1. भारतीय साहित्य चिंतन का परिचय हुआ। 2. साहित्य सृजन, आस्वादन तथा मूल्यांकन क्षमता का विकास हुआ। 3. समीक्षात्मक दृष्टि का विकास हुआ।
आदि तथा मध्यकालीन काव्य	HIN 403	1. आदि तथा मध्यकालीन काव्य और युगबोध की जानकारी प्राप्त हुई। 2. आदि तथा मध्यकालीन काव्य आस्वाद और आलोचना क्षमता का विकास हुआ।

हिंदी कथा साहित्य	वैकल्पिक प्रश्न पत्र विधा विशेष -HIN - 407	1. हिंदी कथा साहित्य का विकासात्मक परिचय प्राप्त हुआ। 2. उपन्यास एवं कहानी विधा का परिचय हुआ। 3. कहानी आंदोलन की भूमिका स्पष्ट हुई। 4. आंचलिक एवं ग्रामीण साहित्य का परिचय हुआ।
भारतीय संविधान	अनिवार्य HIN- 413	1. भारतीय संविधान की जानकारी प्राप्त हुई। 2. भारतीय कानूनी धारा का परिचय हुआ।

M.A.F.Y – Hindi semester - II

आधुनिक हिंदी साहित्य का इतिहास	HIN -404	1.इतिहास लेखन और साहित्यिक इतिहास की समझ विकसित हुई। 2. आधुनिक हिंदी साहित्य की जानकारी प्राप्त हुई। 3. हिंदी कविताओं के आरंभिक पढ़ाओ का परिचय हुआ। 4.गद्य विधाओं की जानकारी प्राप्त हुई
पाश्चात्य साहित्य शास्त्र	HIN -405	1. पाश्चात्य साहित्य शास्त्र का संक्षिप्त इतिहास की जानकारी प्राप्त हुई। 2. प्राचीन दार्शनिकों के साहित्य सिद्धांत का परिचय हुआ 3. पत्थर से साहित्य शास्त्र की कतिपय अवधारणाएं की जानकारी प्राप्त हुई।
आधुनिक कालीन हिंदी काव्य	HIN - 406	1. आधुनिक हिंदी कविता का विश्लेषणात्मक ज्ञान प्राप्त हुआ। 2. समकालीन कविता का परिचय प्राप्त हुआ।
संत कबीर	वैकल्पिक प्रश्न पत्र मध्यकालीन कवि HIN -414	1. हिंदी साहित्य के भक्ति कालीन भक्ति परक तथा सामाजिक काव्य की जानकारी प्राप्त हुई। 2. हिंदी साहित्य के भक्ति काल के प्रमुख कवि कबीर का समग्र परिचय प्राप्त हुआ।
पुस्तक परीक्षण तथा सृजनात्मक लेखन	अनिवार्य HIN - 420	1. वाचन संस्कृति का विकास हुआ। 2. समीक्षात्मक दृष्टि का विकास हुआ।

English (UG)

BA/B.COM/B.SC First Year: **A Course in Communicative English- I**

1) The students will be aware of basic language skills.
2) The students will train them to read and write in English.
3) The students will become competent speakers and listeners of English.
4) The confidence level of the students for application of English will increase.

5) The word power of the students will enhance.

BA/B.SC Second Year: *A* **Course in Communicative English- II**

1) The students' linguistic skills will becomes advanced.
2) The communicative competence level of students will enhance.
3) The course will help the students to become good communicators.
4) The students will understand basic grammatical concepts and their use in day today communication.
5) The students will be able to understand and appreciate the literary qualities of prose and poetry.
6) This course will strengthen students ability in listening, speaking, reading and writing both at practical and theoretical level.
7) The students will be able to understand the grammatical properties in order to write and speak English consciously.
8) This course will help to train the students both in precision and inappropriate use of language through prose reading.

BCom SY compulsory English. English for Entrepreneurs.

1) This course will help the students to achieve excellent business communication skills for better employment.
2) The students will learn multi business communication skills.
3) The students will inspire for enterprise through prose reading.
4) The writing skills of the students will strengthen through grammar.

English Optional

BA FY optional English paper I: The Structure of English.

1) This course will give students advance knowledge of English in speaking and writing.
2) This course will help students towards better pronunciation.

3) The students will be able to acquire the structure of English language
4) The students will be able to analyze the semantic and grammatic aspects of English language
5) The students will understand the basic tense patterns in English and its practical use in day to-day affairs

BA FY Optional English paper II-Reading Literature.

1) This course will enable the students to read and appreciate various forms of literature and critically interact with them from different perspectives.
2) This course will introduce students to appropriate literary strategies to read literature.
3) The students will be able to unravel meanings in a literary text.
4) The students will be able to identify and appreciate the various genres of literature

BASY Optional English Paper III: Literature in English 1550-1750

1) The students will become aware of literature in English.
2) The students will become familiar with diverse cultures presented in literature.
3) The course will develop their ability to compare and analyze different literary works.
4) The students will be able to understand the basic forms of literature

BASY Optional English Paper IV: Literature in English 1750-1900

1) The students will learn about the development of British literature.
2) The students will come to know about the socio-political conditions of the neo- classical era of English literature
3) The students will be able to identify the contemporary social issues reflected in the literary creations.
4) The students will be familiar with the age of Dr. Johnson, the Romantic Revival, the Victorian period and the Age of Tennyson

BATY Optional English Paper V: Twentieth Century English Literature

1) The course will help the students to understand modern English literature.

2) This course will help the students to approach and appreciate Indian literature in English and make them see its place among the world literature in English.
3) This course will make the students able to understand the background of English literature and will help them to write on development.
4) The students will become familiar with modern writers like WB Yeats and TS Eliot

BATY Optional English Paper VI: Introduction to Literary Criticism and Terms

1) The student will familiarize with the literary terms and with the various streams in literary criticism.
2) The course will help to develop their skills for literary evaluation.
3) The students will develop critical acumen to analyze different literary texts
4) The students will become familiar with various schools of literary criticism.
5) The will become familiar with the various Eras and Traditions in the arena of literary criticism

BATY Optional English Paper VII (B): Indian Writing in English

1) It will also help to understand the students that how the literature of modern period relates to the important trends of the period.
2) This course will make the students aware of the fact that all reader circuits and introduce them to basic text in criticism while developing critical thinking in them.
3) This course will also introduce the students to the thematic concerns genres and trains of both Indian writing in English and American literature.
4) This course will lead the students to see how text are affected by the context.

BATY Optional English Paper VIII: Project

1) The course will help to develop the writing skills of the students
2) The course will develop the interpretation skills of the students
3) The students will be able to understand the basic methods of research
4) The students will be able to understand the referencing methods in research

English (PG)

MAFY Paper No. – I Literature in English – 1550 to 1798

1) Students will understand the Shakespearean Plays, its plot, characters and contemporary social issues
2) The students will understand the Elizabethan dramas.
3) The students will understand the Restoration Age
4) The students will know the Social, Political and Literary history of the period.
5) The students will with acquaint the students with culture, thought, literary trends and movements of the period through the prescribed texts.

MAFY Paper No. – II Literature in English (1800 – 2000)

1) This paper will help to enhance the understanding of literary works of the students in English within a specific literary period (1800 – 2000) including theory and major genres of Literature.
2) The students will able to differentiate and understand the various elements and features of poetry, prose, fiction and Drama
3) The students will understand the literary movement like Romanticism, modernism and post-modernism

MAFY Paper No. III Structure of Modern English

1) The students will understand the different types of the sentences and clauses.
2) The students will understand the word formation in English
3) The students will understand Pronunciation and the study of languages, Spoken English in India, standards of pronunciation.
4) The students will learn about different types of phrases, grammar and structure of English language.

MAFY Paper No. IV - H STUDY OF AN AUTHOR William Shakespeare

1) This course will make the students proficient in their understanding of the periods proceeding and following Elizabethan Era.

2) This course will also provide the students an opportunity to fully comprehend Shakespeare's creative genius as projected in his plays and poetry.

MASY paper V- Critical Theory:

1) The students will learn about the major model critical schools which have been influencing literary production and immensely contributing to the various branches of knowledge to render the multidiscipline face to the literary and cultural studies
2) It will enhance students understanding of multi dimensional and multi disciplinary nature of literary text in the recent time
3) The course will sharpen the intellectual sensibility of the students with the confrontation of the multifaceted critical and intellectual positions of the theoreticians.
4) It will acquaint the students with the intrinsic and extensic complexities and the sharp dichotomy in socio political and cultural situations and the corollaries of the various shifts in literary and cultural directions and connotations in contemporary time

MASY paper VI Indian writing in English.

1) The students will become familiar with the tradition of Indian English writing.
2) students will become familiar with the history of Indian Writing in English and the major literary figures in Indian writing
3) Students will able to compare Indian Writing in English with the world literature
4) Students will able to identify and appreciate the distinctiveness of Indian English literature.
5) The learners will be familiarised with the text and its nuances to study critically .

MASY paper VII English Language Teaching.

1) The course will enhance the learners' community with the learning process, the nature and structure of language.

2) To acquired the learners' community with a brief history of language teaching and retail knowledge of the methods and grammatical aspects of English language teaching and learning.
3) The students will learn about different methods and disciplinary techniques with distinct focus on learners' community.
4) The course will focus on classroom management, lesson planning, material handling and rich learning experience through various presentations and interactions specially classroom interactions.
5) The course will enable the learners' community to develop their communicative and study skills.

MASY paper VIII Major Forms Fiction.

1) The students will femiliarize with various trends and moments in fiction.
2) The course will reflect the society and shapes the society.
3) Study of fiction will develop the basic understanding of the genres literary history.
4) The students will understand the important shifts in styles and themes in case of fiction.
5) The novel can encourage the students to think about different ways to life

History (UG)

B. A. History Shivaji and His Times (1630-1818)

CO1: To introduce leaners about the innovative study techniques in the of History of Marathas.

CO2: To provide value based conceptual and thought provocative.

CO3: To provide insights into the Mughal rulers and the Maratha Empire.

CO4: To introduce international elements in the study of Marathas to facilitatecomparative analysis of the history.

CO5: To highlight the importance of past in exploration of present context.

CO6: To understand the socio-economic, cultural and political background of17th century of Maharashtra.

CO7: To provide spirit of healthy Nationalism & Secularism among the learners.

History of Modern Maharashtra (1818-1960)

CO1: To familiarize students to the study of Maharashtra.

CO2: To acquaint learners with the basic understanding of developmentalstage of Maharashtra.

CO3: To impart high quality education to the students with reference to Maharashtra.

CO4: To prepare the students for a variety of challenging careers through innovation in teaching and research.

CO5: To develop comprehensive understanding of interdisciplinary issues of the society.

History of Early India (up to B.C. 300)

CO1: To understand the ancient Indian history.

CO2: To understand the nature of races and tribes intermingled in early India.

CO3: To evaluate Hinduism, Jainism, and Buddhism in ancient times.

CO4: To understand the nature of past and obstacles that impedes India's progress as a nation.

History General Paper-VIII History of Mughal India (A.D. 1526- A.D. 1757)CO1: To understand the Mughal contribution to the Indian history.

CO2: To know the Mughal period.

CO3: To study Persian art and culture amalgamated with native Indian art andculture.

CO4: To study the political unity provided by the Mughal rulers.

History General Paper – IX Historiography

CO1: To understand and evaluate the development of history as a discipline.

CO2: To understand writing of historical accounts.

CO3: To highlight the significance of thinking "historiographically".

CO4: To provide new angles to research and interpretations.

History General Paper-X History of Indian national Movement (A.D. 1885-

A.D. 1947)

CO1: To provide a comprehensive understanding of the transformations in theeconomy of colonial India.

CO2: To introduce land and agrarian policies under the British rule.

CO3: To develop nationalism in learner's mind.

CO4: To understand the British economic policy and Indian revolts.

CO5: To understand the British parliamentary acts that led to the foundationfor the Indian constitution.

History (PG)

M. A. History Course Code- HIS-401: History of India up to 300 B.C.

CO1: To understand the stage wise development of civilization, morals, ethicsand culture.

CO2: to know the progression of cultural history in India.

CO2: To provide a broad overview of proto-historic developments in India.

CO3: To understand historic cultural heritage of our country through archaeological context.

CO4: To provide details of the Harappan urbanism and other Chalcolithic cultural developments in India followed by the Megaliths and their cultural background in peninsular India.

CO5: To learn developments of architecture and iconography in the early historic period.

CO6: To introduce students to archaeology and the methods used by archaeologists.

M.A. History- I year Course Code- HIS-402 Course Title- Twentiethcentury world (up to end of World War II)

CO1: To understand and critically analyze the nature and political discoursesof the twentieth century world war.

CO2: To understand the trends in history during the first and second worldwar.

CO3: To study the historical perspectives of the developed, developing and underdeveloped nations.

M.A. History- I year Course Code- HIS-421 Course Title- Socio-ReligiousMovements in Maharashtra (1200-1700 A.D.)

CO1: To study approaches of Bhakti movements by modern thinkers.

CO2: To understand the ideology and protests of religious sections towards social structure of medieval Indian society.

CO3: To provide insights into religious ideas, forms, nature of language and literature during ancient time.

CO4: To understand the rise of religious movements.

M.A. History Course Code- HIS-423 Course Title- History of the Marathas 1600 to 1707

CO1: To understand political history of Chhatrapati Shivaji.

CO2: To orient learners to acquire proper understanding of Shivaji's administration and importance of his politics regarding agriculture, trade and religion.

M.A. History Course Code- HIS-424 Course Title- Nineteenth century India CO1: To understand the nature of politics, society, culture in India prior and

after the entry of British.

CO2: To study the policies of British East India Company.

CO3: To evaluate the impact of British East India Company on Indian society.

CO4: To evaluate political cultural circumstances during the nineteenth century in India.

Course Code- HIS-403 Course Title- State, Society and Culture of India (300 B.C. - 500 A.D.)

CO1: To inculcate skills among students regarding politics, economy and society.

CO1: To understand the past of 300 B.C. - 500 A.D.

Course Code- HIS-404 Course Title- Polity in Medieval India

CO1: To understand polity in Medieval Indian history.

CO2: To understand sources and historiography of medieval Indian history.

CO3: To evaluate the approaches of medieval Indian History by modern historians.

CO4: To understand the perspectives in Medieval administrations.

CO5: To evaluate the administration in Medieval Indian history.

Course Code- HIS-429 - Polity in Medieval India

CO1: To understand the development of political and social ideas in history of India from ancient times to the colonial era.

CO2: To study the development of ideas that enables students to undertake the critically evaluation of political and social ideas through historical process.

Course Code- HIS-430 Course Title- History of the Marathas (1707-1818)

CO1: To understand the 18th century political development of India and particular of Deccan.

CO2: To study the social and economic institutions expanded in Maharashtra.

CO3: To provide brief information about the political economy and architecture of the Marathas.

Sociology

Introduction to sociology

CO1: Students know about the origin and development of sociology.
CO2: Familiarize with basic concepts of sociology.
CO3: Understand significance of sociology and to study approach, principles, concepts, methods and history of sociology.
CO4: Students acquire knowledge about analysis of social problem, social policy & action

Individual & Society

CO1: Understand the scope and importance of sociology, its origin and development.
CO2: Understand human Society and institutions and other structural elements.
CO3: Students know about social structure and social stratification.
CO4: Learners will be aware of social change and social control.

Introduction to Subfields of Sociology

CO1: Students acquire knowledge to understand the scope of sociology & its wideness.

CO2: To understand relation between sociology and other social sciences.
CO3: To understand broad segments of Indian society.
CO4: This course will also help to carry interest in the sociology as general and its subfields.

Indian Social Composition

CO1: Students understand about features of Indian society.
CO2: Students understand about Democracy, Secularism, social justice and Indian Constitution.
CO3: To understand India's geographical ethnic and religious distinctiveness.
CO4: Learners will be made aware of rural and agrarian structure

Problems of Rural India

CO1: Learners will be made aware of changing scenario of Rural India and the contemporary problems of rural development.
CO2: Students know about Institutional Issues.
CO3: Learners will understand about Education and Health.
CO4: To understand about major issues in development

Problems of Rural India

CO1: Learners will be made aware of changing scenario of Rural India and the contemporary problems of rural development.
CO2: Students know about Institutional Issues.
CO3: Learners will understand about Education and Health.
CO4: To understand about major issues in development

Contemporary Urban Issues

CO1: Learners are inculcated with analytical and thinking about urbanization and urban Planning.
CO2: To create understanding about urban communities and urban problems.
CO3: Learners will be made aware about globalization and urban issues.

Population in India

CO1: This course is designed to understand the dynamics of population.
CO2: Students understand about basic concepts of Population
CO3: To understand causes, consequences and changes of Indian population.
CO4: To provide the basic understanding of how to control population growth.

Sociology of Development

CO1: To provide an overview of development Issues in India.
CO2: Students will understand about developmental approaches.
CO3: Students will know about Govt. Scheme of development.
CO4: To provide the students basic conceptual perspectives on development.

Sociological Tradition

CO1: To provide information to the students with the understanding of historical, socio-economic and intellectual forces of the rise of sociological theories.
CO2: To provide the students with basic understanding of emergence of sociological thoughts.
CO3: To develop sociologists with their contributions to sociology.

Introduction to Research Methodology

CO1: Students understanding of application of research methodology in sociology.
CO2: To provide and equip the students with the procedures. Tools and techniques of social research.
CO3: Students will be made aware about basic concepts in research methodology.
CO4: To Provide the students scientific research process.

(Main) Urban Sociology

CO1: To focus attention towards increasing urbanization.
CO2: Students know about nature and scope of urban sociology.
CO3: Students will be aware about process of urban development
CO4: To understand the students about urban sociological theories.

Practical work

CO1: To understand research methodology, field work and project writing

Sociological Theories

CO1: To understand students basic theoretical approaches and develop their sociological thinking power.
CO2: Students will be made aware about functionalism theory.
CO3: Students will be made aware about conflict theory.
CO4: students will be made aware about symbolic interaction theory.

Social Research Methods

CO1: the course can serve as a helping hand to students to understand primary technique and the use of social research.
CO2: the course is designed in the view of increasing use of computers and statistical tools in social research.
CO3: student know about utility of social research
CO4: students understand about techniques of sociological investigation.

Urban Society in India

CO1: students analyse critically social problems of urban India.

CO2: to understand about impact of modernization and industrialization on Indian Urban sphere.
CO3: students will be aware about social problems of urbanization.
CO4: students will be aware about growth of urban population in India.

Practical work

CO1. To understand research methodology, field work and project writing

Political Science (UG)

Course -I: Basic Concepts of Political Science (I & III)

1) The students will be knowledge of state.
2) Understand & explain to the students about theories of origin of state.
3) To the students will be aware Sovereignty, Citizenship, Rights & Justice.
4) To the students will be aware Democracy & Welfare State.

Course -II: Government and Politics of Maharashtra (II& IV)

1) The students will be aware of Historical and Political Background of Maharashtra State.
2) Understand & explain to the students about Sanyukt Maharashtra Movement & State Reorganization Commission.
3) Understand to the students about Organs of Government.
4) To the students will be knowledge of Movements: Cooperative, Peasant, Dalit, Feminist movements and functions.
5) Motivate to the students about Panchayat Raj & Political Parties in Maharashtra.

Course-III: Indian Government and Politics (V & VII)

1) To the students will be aware Indian Constitution., Budgetary Process and Parliamentary Committees.
2) To the students will be knowledge about Union Government.
3) Explain to the students about Attorney General, Comptroller and Auditor General.
4) The students will be aware Supreme Court and its power & functions.
5) To the students explain political parties in Indian & Election Commission and Challenges before Indian Democracy (Corruption, Casteism, Communalism, Regionalism).

Course-IV: International Relations (VI & VIII)

1) To the students will be able to understand International Relations and Approaches.
2) Information to the students about India's Foreign Policy, National Interest, National Power and Balance of Power.
3) To the students will be aware about Collective Security and UN, Deterrence, Major Issues.
4) To the students will be aware about regional organizations and Non- Alignment Movement its role of International Relations.

Course-V: Indian Political Thinkers (IX & XII)

1) To the students will be aware about of Raja Ram Mohan Roy and Dayanand Saraswati.
2) The students will be able to understand Gopal Krishna Gokhale and Lokmanya Tilak.
3) To the students will be aware about of Mahatma Gandhi and Maulana Azad.
4) The students will be able to understand Jawaharlal Nehru and MN Roy.
5) To the students will be aware about of Babasaheb Ambedkar and Jayaprakash Narayan.

Course-VI: Western Political Thinkers (X & XIII):

1) The students will be aware of Plato, Aristotle Niccolo Machivelli.
2) The students will be aware of Thomas Hobbes, John Locke, Jean Jacques Rousseau.
3) The students will be aware of John Stuart Mill, Jeremy Bentham
4) Understand to the students of Karl Marx, Harold Laski.

Course-VII: Political Ideology (XI & XIV):

1) The students will be able to understand Nationalism, Liberalism, Democracy and Imperialism concepts of ideology.
2) The students will be able to the students will be aware of Feminism and Socialism ideology.
3) Communism and Fascism, Anarchism and Environmentalism of ideology.

Course-VIII: Project Work -XV:

1) The concern subject teacher should provide outline of the project work to the students.
2) Title of the project and Introduction to the students.
3) Objectives and Hypothesis, Importance, Analysis and Data Collection about information to the students.
4) Conclusion and References, Project Workbook completion in the research activity of the students.

Political Science (PG)

Course-I: Western Political Theory (401)

1) The students will become significance of Political Theory.
2) To the students will be able to Normative, Empirical, Decline of Political Theory.
3) To the students' knowledge about Revival of Political Theory- Arendt, Herbert Marcuse, Leo Strauss, Berlin's, John Rawls, Oakeshot its thoughts.
4) To the students' knowledge about Recent Trends: - Social justice, Feminist Theory, Liberalism, Communalism, Rational Political Theory etc.

Course-II: Theories of International Relations (402)

1) The students introduce about Scope Utility and importance of International Relations.
2) To the students will be able Theories: Marxist Theory, Pluralist Theory, Game Theory, Idealist-Realist theory -Debate.
3) To the students' knowledge about NAM its origin, evolution, relevance and problems.
4) The students provide knowledge of Basic Concepts: National Power, National Interest, Human Rights, Collective Security and Balance of Power.

Course III: Comparative Politics: Theoretical Perspective (403)

1) The students will understand Meaning, Scope and Emergence of Comparative Politics, Modern Approaches: Political System - David Easton and Gabriel A Almond.
2) The students will become about Structural Functionalism: Analyses of Mitchell, Apter and Almond, Political Economy, Constitutionalism: Development, Meaning and constitutional government, A brief study of in UK and USA.
3) The students will be able Political Development: -Lucian W Pye, Views of Fred W.Rigg , Samuel P Huntington E: Sensate , David E Apter and Mare Political Modernization Approaches – Fascist, Evolutionary, Dialectical Revolutionary and Liberal etc.

Course IV- State Politics in India: A Theoretical Prospection (432)

1) The students provide knowledge about Theoretical Framework of Study, Pre –Independence Pattern of States and States Reorganization.
2) To the students will be able Canter- State Relations: State Autonomy, Role of Governor, and Sarkariya Commission, Communalism, Regionalism, Language and Caste in the state.
3) To the student's information of Elections and Political Parties in India.

Course- V: Modern Political Ideology (404)

1) The students will be able Meaning, Origins & Development of Political Ideology, Elements, Types and Liberalism.
2) The students will understand about Elements and Types of Conservatism, Ideology, Socialism, Marxism, Orthodox Communism, Social Democracy.
3) The students will be information Ideological Traditions: Anarchism, Fascism and Fundamentalism etc.

Course- VI: World Polities: Issues and Debates (405)

1) The students will be knowledge of Disarmament and Arms Control: NPT, CTPT and PNE its Meaning and difference between.
2) The students will be knowledge regional Organizations: SAARC, ASEAN, OPEC and Group of 77 its concepts.
3) The students will be information Issues in International Terrorism, International Inequality, Dependence Theory, New International Economic and Environmental Issues.
4) The students will be able New Economic Policy: L.P.G. Its' Impact. Cold War and its impact on World Politics.

Course-VII: Western Political Thought (406)

1) This though will be able to students Plato, Aristotle, Thomas Aquinas thought of social & political issues.
2) This though will be able to students Nicolo Machiavelli Social Contact Thinker- Hobbes, Locke and Rousseau and its concepts.
3) The students will be able about thoughts Jeremy Bentham, Karl Marx & Hegel.

Course-VIII: Public Administration (435)

1) The students will be importance Public Administration and New Pub- Administration.
2) The students will be able to Approaches, Chief Executive, Cabinet secretariat
3) The students provide knowledge Globalization, Liberalization & PPP, Good Govern Transparency: Right to Information, Ombudsmen, Lokpal & Lokayukta its functions.

Course -IX: Research Methods in Social Science (407)

1) Provie to the knowledge of Social Research, Research Design, Objective, Hypothesis, Data Collection to students.
2) The students will be aware Meaning, sources, Types, Importance and Limitations of the sources, Quantities and Qualitative Methods, Observation, Interview, Questionnaire and schedule, Survey and Sampling, Case Study and content analysis.
3) The students will be aware Report writing: - Coding, Classification, Tabulation. Notes, Annexure and Bibliography. Characteristics of good research report.

Course-X: Indian Political Thought (408)

1) The students will be knowledge to the students of British impact on Indian society.
2) The knowledge provide to the students of Dadabhai Navroji , G.K.Gokhale ,M.G.Ranade, Mahatma Gandhi , J.P.Narayan and Vinoba Bhave its social, economic & politics.
3) The knowledge provide to the students of Pt.Jawaharlal Nehru, Ram Manohar Lohiya and S.A.Dange its concepts of its social & politics.
4) The students will be able Aurbindo Ghosh, B.G.Tilak , V D.Savrkar and Golwalkar concepts of Hindu Nationalism.

Course -XI: India's Foreign Policy (409)

1) The policy will be able to students about Historical, Ideological and Analytical of foreign policy.
2) The students will be able Determinants of foreign policy, Making Process: Governmental Non- governmental agencies.
3) The student’s information about Principle objective of foreign policy, India and Neighbours Relations: - Indo-Pak, Sino-Indian, and other South Asian countries, India and the United Nations. India’s role in U.N. action in foreign policy.

Course-XII: Modern Trends in Political Theory (437)

1) The students provided to knowledge of Social Justice –Rawls and his critics, Theory of Rights- Current debates.
2) The students will be impartment of Feminist Political Theory Libertarianism, Communitarianism, Theory of Welfare State.

Course-XIII: Constitutional Process in India (410)

1) The students will be able Indian constitution, Preamble, Fundamental Rights and Directive Principles.
2) The students gave information of Central-State relations, Sarkariya Commission's. President and Prime Minister, concept of parliamentary sovereignty etc.

3) The students will be able Independence of Judiciary high and supreme court, Power of Judicial Review and Local Self-Government Impact of 73th and 74th Constitutional Amendments.

Course-XIV: Political Analysis (411)

1) The importance of Liberal Approach, Marxist perspective, Behaviouralism and Post-Behavioural Revolution provided to the students.
2) The students will be able that Theory of Institutionalism and Rational Choice Theory.

Course-XV: South Asia and The World (412)

1) The students will be able South Asia Conceptual framework, South Asian Strategic Environment related to (U.S.A, Russia and China).
2) The students' knowledge provided of Regional Co-operation and Confidence building measures and Security Issues in South Asia.
3) The students will be able Nuclear Issues - Weapons Programme in south Asia and India.
4) India and South Asia etc.

Course- VXI: Dr.Babasaheb Ambedkar on Caste :A Study of His Text; Annihilation of Caste

1) To knowledge students about Dr. Ambedkar's Understanding of Varna, Caste, Untouchability & Annihilation of Caste etc.
2) The students will be able to Social Vs Political Reforms, Hindu Aboriginal Tribes and Hindu Society, Religions- Caste Exclusion and Liberty.
3) Dr. Ambedkar's vision of an ideal society concepts to the students.

Course: Service Course (01) Human Rights in India

1) The students will be able Human Rights, Reflection of Human Rights, Problems of Human Rights
2) To knowledge about problems of Human Rights and Marginalized groups: Minorities in India, Human Rights and Dalits, Human Rights and women and children.
3) National and State Human Rights Commission introduction to the students.

Economics (UG)

BA First Year, Ist Sem- Subject Code: Eco- 101 Micro Economics

1) To provide foundations of economics.

2) To understand scope of micro-economics, the behavior of an economic agents - namely, a consumer, a producer, a factor owner and the price fluctuation in a market.

3) To study behavior of a unit and analysis.

BA First Year, Ist Sem- Subject Code: Eco- 102 Indian Economy:

1) To study analytical factor of the students, by highlighting an integrated approach to be functioning aspects of the Indian economy, keeping in view the scope for alternative approaches.

2) To study social, political and economic environment influencing policy decisions.

3) To develop specific modules.

BA First Year, IInd Sem- Subject Code: Eco- 103 Price Theory:

1) To understand different components regarding price determination undervarious types of markets.

2) To understand theory of production, cost and revenue analysis, forms ofmarket and factor pricing the

BA First Year ,IInd Sem- Subject Code: Eco- 104 Money Banking and Finance:

1) To understand role of money and banking as the components of moderneconomy.

2) To understand the operations of money and banking.

3) To study interaction of money and banking with the rest of the economy.

4) To understand monetary and banking systems in India.

BA Second Year, IIIrd Sem Subject Code: Eco- 105 Macro Economics:

1) To create awareness of basic theoretical frameworks underlying the field of Macro economics.

BA Second Year, IIIrd Sem : Subject Code :Eco- 106 Development Economics:

1) To understand theoriesand developments underlying the field of development economics

BA Second Year, IVth Sem Subject Code: Eco- 107 Public Finance:

1) To study the significance and scope of Public Finance.

2) To provide detailed information about the fiscal policy, public revenue, public debt and public expenditure.

BA Second Year, IVth Sem Subject Cod : Eco- 108 Statistical Methods:

1) To understand techniques of statistical analysis which are commonly applied to economic problems.
2) To study the tools and techniques of statistical methods.
3) To understand data collection, its presentation, analysis and making inferences.

BA Third Year, Vth Sem Subject Code : Eco- 109 International Economics:

1) To understand the basic principles that trend to govern the free flow oftrade in goods and services at global level.
2) To understand and analyze the difference between various economies ofthe world.

BA Third Year, Vth Sem Subject Code : Eco- 110 Agricultural Economics:

1) To study the treatment of issues in agriculture economics to thoseintending to specialize in the area.
2) To familiarize students with policy issues those are relevant to Indianagricultural economics.
3) To analyze the issues using basic micro economics.

BA Third Year, Vth Sem Subject Code : Eco- 111 History of Economic Thought:

1) To understand the basic ideas of classical, new classical and marginalityeconomist.
2) To compare the basic economic ideas of various economic thinkers of theworld.

BA Third Year, VIth Sem Subject Code : Eco- 113 Research Methodology:

1) To understand the concept of social science research.

2) To know the importance of social research, design of research problem,data collection and presentation of data.

3) To understand the idea of research in social sciences.

BA Third Year VIth Sem Subject Code: Eco- 114 Industrial Economics:

1) To understand basics of industrial economics.

2) To study globalization and liberalization in contemporary world.

BA Third Year, VIth Sem Subject Code : Eco-115 Indian Economics Thinker

1) Understand the importance of Economics thought

2) Identify the Marxian Economics theories

3) Describe the classical theory of value and capital

4) Recognize the Economic theories

BA Third Year,Vth & VIth Sem Subject Code : Eco-112 & 116 Project Work

1) The concern subject teacher should provide outline of the project work to the student
2) Title of the project and introduction
3) Objectives and hypothesis.
4) Importance, Analysis and data collection
5) Conclusion and reference
6) Project work book completion in the research activity.

Economics (PG)

MA First year, Ist & IInd Sem Course Code: Eco 401 & 403 Micro Economics (I & II)

1) Student will be acquainted with the various markets from the point of view of competition.
2) The acquisition of knowledge about providing share of different factors of production.
3) This course will be helpful to realize the actual market through competitive point of view.
4) To study the concept and theories of production .

MA First year, Ist & IInd Sem Course Code : Eco 402 & 404 Macro Economics (I & II)

1. Student would able discuss scope and importance of macroeconomics , circular flow of aggregate income and expenditure ,the measurement of national product short run economic fluctuation and the Keynesian principle of effective demand.
2. Identify types of bank explain the meaning and function of commercial banks. Illustrate how banks create credit , and suggest the instruments to control credit.
3. Explain economics growth and development illustrate Harrod Domar and Solow's growth model distinguish between economic growth and technical.

4. Analyze different phases of trade cycle , demonstrate various trade cycle theories ,understand the impact of cyclical fluctuation on the growth of business and policies to control trade cycle.

MA First year, Ist Sem Course Code: Eco 422 International Economics

1) Expalin theory of International trade with theory of absolute and comparative advantage.
2) To understand the basic principle that trend to govern the free flow of trade in good service at global level.
3) To understand and analyze the difference between various economic of the world.
4) Creating awareness among the student about the role of International economics on National welfare.

MA First Year, Ist Sem Course Code Eco- 424 Agriculture Economics

1) Understand the Agriculture policies and its effect on sustainable agriculture development.
2) To study the treatment of issues in agriculture economics to those in tending to specialize in the area.
3) Learn and Indentify the opportunities open /avallable in those flourishing sectors such as horticulture , floriculture and forestry. Find new investment opportunitles to add income and employment.

MA First Year, Ist Sem Course Code Eco- 428 History of Economics Thought

1) Develop a chronological understanding of the development of economics thought relate the developments in different school of thought contemporary.

MA Second Year,IIrd & IVth Sem Course Code: Eco- 501 &503 Indian Economic Policy (I&II)

1) Student will learn how to think critically about public policy issues.
2) It will help in understanding how microeconomics concepts can be applied to the analysis of a variety of public policy issues.
3) The course will help in anticipating aggregative economics analyses and establishing the functional relationship between the large aggregates

MA Second Year, IIIrd Sem Course Code: Eco- 502 Public Economics I

1) It will help in understanding and analyzing the impact of public policy on the allocation of resources and the distribution of income in the economy and also analysis of public expenditures, taxation , budgetary procedures , stabilization instruments , debt issues.
2) It will helps students to critically analyse the fiscal reforms and policy choices of the government in develop and developing countries .

MA Second Year, IIIrd Sem Course Code: Eco- 522 Banking

1) Student will get detailed information about Bank transactions.
2) This course will job opportunity to the student in the Bank

MA Second Year, IIIrd Sem Course Code: Eco- 524 Growth Economics

1) Student would be acquainted with various perspectives of economics growth and its relevance.
2) Students would become familiar with factors affecting economics growth and development.
3) Student would understand the conceptual bases of income measurement ,physical quality of life index , inequality and development gap and role of various institutions in economic growth and development.

MA Second Year, IVth Sem Course Code: Eco- 503 Indian Public Finance II

1) To study the significance and scope of Public Finance
2) To provide detailed information about the fiscal policy, public revenue,public debt and public expenditure

MA Second Year, IVth Sem Course Code: Eco- 527 Financial Markets

1) Students would have knowledge regarding money market , capital market , stock exchange i e Indian financial system which is the backbone of the country .
2) To familiar students about the relationship between financial development and Economics Development.

MA Second Year, IVth Sem Course Code: Eco- 529 Development Economics

1) To explain development economics growth theories , international trade development theories , and related economics development theories .
2) Learn hardcore economic prescriptions to development , concerns hitherto relegated to background like education , health , sanitation and infrastructural development, have found a place proud in explaining the preference of various economics.

Dramatics

B.A. DRAMA B.A. First Year First Semester Paper- I

C01: To understand expressing ideas through Drama.

CO2: To understand apply different arts of culture.

CO3: Deep understanding of poetry, stories, novels in literature.

C04: To understand history of theatre.

C05: Introduction to Sanskrit theatre and it importance.

B.A.FIRST YEAR SEMESTER-II PAPER-III

C01: To know the development of old theatre tradition around the world.

CO2: To create awareness and understand developments in the history of theater.

CO3: To understand structural analysis of play.

C04: To writing story play.

CO5: To understand regional theater, understanding play and structure.

C06: To apply acting techniques.

B.A.SECOND YEAR SEMESTER-III PAPER-III (THEORY)

C01: Deep understanding of Sanskrit theatre and drama.

CO2: Understanding of developments in architecture and stage.

CO3: Understanding of religious cultures in India.

C04: Understanding various types of drama.

CO5: Introduction to Indian folk culture.

C06: Studying folk art in Maharashtra.

C07: Studying folk art and folk culture in the western country.

B.A.SECOND YEAR SEMESTER-HI PAPER-IV

(PRACTICAL) C01: To study different arts of color.

CO2: To introduce elements of lighting in the play.

CO3: To study enhancement of secrecy, concentration, and body language.

C04: To understand personality development.

CO5: To develop cowardice and storytelling skills.

CO6: To enhance communication skills.

B.A.SECOND YEAR SEMESTER-IV PAPER-IV (PRACTICAL)

C01: Personality development, command on self-voice, communication skill of language.

CO2: Details study of lighting, color effects.

CO3: Study make up, knowledge of colors and personality development. **C04:** Creation of learner's interest in reading, singing.

C05: Improvement in body language and thinking power of learner.

B.A.THIRD YEAR SEMESTER-VI (SPECIAL) THEORY

C01: Deep knowledge of European theatre, various types of drama school and their technique.

CO2: Understanding of play production technique and production planning.

CO3: Introduction to the development of various folk forms.

C04: Understanding of folk plays.

C05: Introduction and understanding of various actors and their techniques.

B.A. SECOND YEAR SEMESTER-VI PAPER-III (THEORY) C01:

Understanding the features of personality development.0O2: Enhancing observation ability of the learner.

CO3: Understanding of costumes and the sense of development. **C04:** Applying knowledge of makeup, lighting, music in Drama. **C05:** To inculcate the skills of director in the leaners.

B.A.THIRD YEAR SEMESTER-V PAPER-IX COMMON PAPER (THEORY)

C01: To understand play production procedure, rehearsal technique development and theatre management development.

CO2: To understand different acting developments.

CO3: To set designing of knowledge development and perfection in set designing,

C04: To develop costume designing knowledge in costume designing.

B.A.THIRD YEAR SEMESTER-VI PAPER-XI COMMON PAPER (THEORY)

C01: Understanding of modern Marathi theatre.

CO2; Understanding of types of theatres and their development.

CO3: To apply skills of a stage manager.

C04: Understanding knowledge development in play.

C05: Introduction to gramin and dalit literature.

C06: Introduction to street play.

B.Voc Theatre & Stage Craft Semester I History of Theatre (TH):CO1: Introduction to theatre and drama.

CO2: Introduction to the origin of Sanskrit theatre.

CO3: Introduction to regional theatre.

C05: To understand the forms of various plays and drama. **C06:** Introduction to folk theatre in Maharashtra.

Acting (TH) 1. Basic concepts of acting

C01: To understand acting

CO2: To understand the concept of acting.

CO3: To study types of acting

C04: To study actor and acting

C05: To understand the actor's place in theatre

Theatre techniques (stage craft)

C01: To introduce leaners to theatre techniques.

CO2: To understand scenic design.

CO3: To study costume design.

C04: To understand make up and its significance. C05: To understand light design.

C06: To learn background music.

Semester II History of Theatre (TH):

After studying the course, learners will be able to understand …….

C01: Basic concepts of theatre

CO2: Origin of theatre and difference between theatre and drama

CO3: Eastern theatre, Japanese theatre, Chinese theatre, Indian theatre and Russian theater.

C04: Indian contemporary theatre

Acting (TH):

Students will be able to understand

C01: Voice modulation and speech story telling. CO2: Qualities of an actor.

CO3: Mechanism of voice production. C05: Actor and Acting.

C06: Applying the skills of an actor.

Theatre techniques (stage craft) (TH): C01: To set design, lights, costumes.

CO2: To design for play.

CO3: To utilize team in play.

Semester III Indian theatre.

C01: To understand Marathi theatre: its history, origin, various trends.

CO2: To understand Sanskrit theatre, Bengali theatre, Kanada theatre etc.

Folk theatre of Maharashtra

C01: Basic knowledge of folk theatre.

CO2: Students will understand different folk arts including Bharud, Kirtan, Tamasha, Songa Gondhal, Dashavtaar, Lahlit, Jagran etc.
CO3: To acquire the skills of folk arts.

Acting theory

Learners will understand C01: Bharatmuni

CO2: Stanislawski

CO3: Meyer hold

C04: Badal sarkar

C05: Rattan thiyam

CO6:Uttpal dutta

Semester IV Indian theatre

C01: Understanding of history of Marathi Theatre (1843 to 1920).

CO2: Understanding of developements in Marathi theatre.

CO2: Types.of play: Detailed study of forms of Comedy, Tragedy Tragic Comedy, Farce, Melodrama absurd.

Indian Folk Theatre:

Students will learn in brief about

C01: Tamasha

CO2: Jatra Bhavai, Nautanki, Ramleela, Yakshagana

CO3: A study of Two Plays.

C04: Study of Musical Marathi Theatre

Folk theatre of Maharashtra

After completing the course, students will be able to understand

C01: Difference between modern Marathi Theatre and Folk theatre.

CO2: Modern experimental plays, techniques, acting styles, new subjects and different styles of drama.
CO3: Basic language of folk theatre and folk style.

C04: Traditional artist in Maharashtra. C05. Folk literature of theatre.

C06: Contribution of folk theatre for India. C07: Some Marathi folk plays.

C08: Theatrical languages.

Acting theory

Students will understand….

C01:Fundamental of Acting

CO2: Study of Yoga

CO3: Interpretation and Planning. of Acting C04: Study of Great Actors

C05: Acting Techniques

Physics

Course Code	Course Title	On completion of this course the Learners/ students will be able ….
B.Sc. F.Y. SEMESTER-I		
Physics:101	**Mechanics, Properties of Matter and Sound**	1. To understand Newton's law and apply them in calculations of the motion of the simple pendulum 2. To get the knowledge of various types of Pendulum 3. To understand the concept of friction and the concept of elasticity 4. To know the basic concept of stress and strain, coefficient of elasticity
Physics:102	**Heat and Thermo-dynamics**	1. To apply the laws of thermodynamics to formulate the relations necessary to analyze thermodynamic process 2. Solving the problems on reversible and Irreversible process, Carnot's cycle 3. To explain Carnot's cycle and work done of efficiency 4. To find the applications of the physical quantities
Physics:103	**Practical**	1. To apply the knowledge of Vernier Caliper, Micrometer Screw Gauge, Travelling Microscope 2. To calculate acceleration due to gravity by Kater's pendulum 3. To calculate the surface tension by Jaeger's method and viscosity by Poisseuille's method 4. To measures various physical quantities in various systems of units 5. To develop skill of handling the instrument
B.Sc. F.Y. SEMESTER - II		
Physics:104	**Geometrical and Physical Optics**	1. To understand the concept of physical and geometrical optics 2. To understand polarization of light and RP prism and grating 3. To discuss Laurent's half shade polarimeter 4. To comprehend interference and diffraction of light

Physics:105	**Electricity and Magnetism**	1. To know the concept of the electric field, electric potential, potential and field due to electric dipole 2. To understand the dielectric phenomena and relation between D, E and P 3. To learn magnetic field for study current using Biot-Savart's and Ampere's circuital law 4. To demonstrate quantitative problem solving skills in all the topics covered
Physics:106	**Practical**	1. To get the knowledge of B.G. and C.R.O. 2. Get the use of dark room in Physics laboratory 3. Use the standard method for calibration of spectrometer. 4. To study how to use the multimeter for measuring voltage, current and resistance?
B.Sc. S.Y. SEMESTER-III		
Physics:201	**Mathematical & Statistical Physics and Relativity**	1. Solution of homogeneous equation inhomogeneous equation. 2. To learn a variety of B.E., M.B. & F.D. distribution law 3. To recognize basic terms in statistical basis and classical statistics such as probability, macro state and microstate 4. To understand the fundamentals and concepts in length of contraction, time dilation & theory of special relativity
Physics:202	**Modern and Nuclear Physics**	1. To understand the concept of Photoelectric effect, photo-emissive cell & photo voltaic cell. 2. To understand the relationship between Bragg's & Snell's law 3. To acquire the knowledge of linear acceleration, GM counters 4. To development familiarity with the vast areas of absorption of X-Ray and main features of continuous x-ray spectra
Physics:203	**Practical**	1. Student would have developed skills and enthusiasms to the best of their potential 2. To read, understand & interpret the graphical representations and mathematical calculations. 3. To perform experiments & interpret the results of observations.

Physics:204	**Practical**	1. Develop experimental, computational and skills of students. 2. To carry out experiment to understand the Helmholtz resonator and Surface Tension by Ferguson method. 3. Student would have developed skills to the best of their potential.
B.Sc. S.Y. SEMESTER- IV		
Physics:205	**General Electronics**	1. To get basic knowledge of PNP and NPN transistor 2. To understand the C.E., C.C. & C.B. transistor biasing and working principle of amplifier 3. To explain feedback of Phase shift oscillator and Hartley oscillator 4. To get idea about Amplitude Modulation and phase modulation
Physics:206	**Solid State Physics**	1. Understand Basic concept of crystal lattice, plane lattice & space lattice 2. To practice problem solving by using selected problems in bonding and band theory of solids 3. To explore important connections between classical theory of lattice heat capacity & Debye lattice theory 4. To develop basis for future learning and work experience.
Physics:207	**Practical**	1. To understand the central concept of electronic component 2. To understand the concept of physical significance of various practical phenomena such as full wave & Half wave rectifier 3. To get depth of knowledge of Physics in day to day life
Physics:208	**Practical**	1. To get the knowledge of basic principles and applications of Electronics such as CE, CB configuration. 2. To get the ability to identify almost all electronic components and circuit components and their working principle 3. This course will definitely able the student to service or repair electronic equipment

B.Sc. T.Y. SEMESTER - V		
Physics:301	**Classical and Quantum Mechanics**	1. To have a deep knowledge of mechanics of particle and virtual work. 2. To understand the fundamentals of the simple pendulum and Atwood machine 3. To solve the Planck's Radiation Law, Wein's law & Rayleigh law in Q.M. 4. To solve the Schrodinger's time dependent & time independent equation and their applications
Physics:302	**Electrodynamics**	1. To know the application of Gauss law and divergence E, curl of E. 2. To have deep understanding the theoretical, fundamentals of electromagnetic induction and self induction 3. To have understand the interaction of electromagnetic waves with matter and the boundary of the non conducting media
Physics:303	**Practical**	1. To create the curiosity to know the basic idea of laser 2. To understand the working of LDR and B.G. by standard condenser method 3. To develop the creativity in physics experiments and write the experimental manual 4. To know the basic concept of function generator
Physics:304	**Practical**	1. To familiar with techniques used in applications of Diode laser 2. To perform basic experiments of He-Ne laser and optical fiber 3. To carry out experiments to understand the concept of Physics 4. To write down the analysis of an experimental technique

B.Sc. T.Y. SEMESTER - VI		
Physics:305	**Atomic, Molecular Physics and LASER**	1. To know the basic concept of Thomson atom model, Nuclear atom model & Bohr atom model 2. To developed the experimental idea with the help of LS coupling and JJ coupling scheme and intensity rules and interval rules 3. To gain the knowledge of Raman effect and its application s 4. To learn the concept of laser and their applications
Physics:306	**Non-conventional energy sources and Optical fiber**	1. To study the knowledge of wind energy, Ocean energy Geo- thermal energy, etc. 2. To study non conventional energy sources 3. To understand the concept of Optical Fiber, fiber cables and fabrication 4. Able to design and use of solar cell/photovoltaic cell
Physics:307	**Practical**	1. To perform basic experiment such as thermal conductivity by Frobe method 2. To perform statistical analysis of observed data with the help of Excel sheet 3. To write down the results of an experiment in proper style
Physics:308	**Practical**	1. To perform basic experiments on Semiconductor and Bridge rectifier 2. To perform experiment of Hartmann's dispersion formula using spectrometer 3. Able to do analysis of statistical data obtained by experiments.

Chemistry (UG)

Course Code	Course Title	On Compilation of this course the Learner students will be able to understand
B.Sc. F. Y. SEMESTER- I		
Chemistry: Paper- I	**Inorganic Chemistry**	**1.** Learn the basic concept like Atomic orbitals, Quantum numbers, Electronic Configuration and Bohr's Atomic model. **2.** Become familiar with different periodic properties, their trends in periodic table and able to predict and explain their chemical behavior. **3.** Understand the diagonal relationship, study their hydrides which extended to study their role in biosystem.
Chemistry: Paper- II	**Organic Chemistry**	**1.** Apply the concepts of bonding, resonance, Inductive effect, steric effect, hyperconjugation and tautomerism to higher organic compounds.. **2.** Predict the products, identify reaction intermediates and propose suitable mechanism for organic reactions.. **3.** Identify stereogenic centres, recognize enantiomers, diastereomers, meso compounds, draw stereochemical structures, and provide R/S designations of stereocenters. **4.** Understand the Alkane and Alkene Chemistry **5.** Predict the aromaticity using Huckel's rule and able to differentiate between aromatic, anti- aromatic and non-aromatic compounds.
Lab course:I Paper- III	**Practical**	**1.** Prepare reagents required for analysis. **2.** Carry out qualitative tests and identify inorganic radicals in a salt mixture. **3.** Able to determine viscosity and surface tension of any liquid. **4.** Understand the kinetics of the reaction
B.Sc. F. Y. SEMESTER- II		
Chemistry: Paper- IV	**Physical Chemistry**	**1.** Recall and explain why certain factors such as concentration, temperature, medium and the presence of a catalyst will affect the speed of a chemical reaction. **2.** Use kinetic data to check the viability of a mechanism. **3.** Develop in-depth understanding of different states of matter including Solid, Liquid, Gaseous and Colloidal State. **4.** Interpret rate law for Zero, First, Second, Pseudo Second order reaction and gathered knowledge of Catalysis.
Chemistry: Paper- V	**Inorganic Chemistry**	**1.** Learn the Xenon chemistry. **2.** Understand the different theories of chemical bonding and be able to apply these theories to solve structures **3.** Acquire the knowledge of fundamentals of Nuclear Chemistry with real life applications. **4.** Calibration of pipette & burette, gathered knowledge

		of indicators and oxidizing agents in the titrations.
Lab course:II Paper- VI	**Practical**	1. Prepare reagents required for analysis. 2. Carry out qualitative tests and identify organic Compound.
B.Sc. S. Y. SEMESTER- III		
Chemistry: Paper- VII	**Organic Chemistry**	**1.** Understand the different functional groups like phenol, carboxylic acid, aldehydes, ketones, alcohols along with their preparation and chemical reactions. **2.** Detailed study of some Name Reactions.
Chemistry: Paper- VIII	**Physical Chemistry**	1. Understand the Laws of Thermodynamics andconstruct problem solving skills. 2. Learner will know and understand the world of Chemical Equilibrium and its importance
Lab course:III Paper- IX	**Practical**	**1.** Carry out acid base reactions and determine heat of Neutralization. **2.** Demonstrate proficiency in Gravimetric Estimations and Complexometric Titrations skills.
B.Sc. S. Y. SEMESTER- IV		
Chemistry: Paper- X	**Inorganic Chemistry**	**1.** Understand various concept of acid and bases. **2.** Acquired knowledge of coordination compounds. **3.** Learn transition elements along with Lanthanides and Actinides.
Chemistry: Paper- XI	**Physical Chemistry**	**1.** Know the meaning of phase, components anddegree of freedom. **2.** Interpret Raoult's law and Henry's law. **3.** Able to explain fundamental aspects of electrochemical reaction in terms of thermodynamics and kinetics.
Lab course:IV Paper- XII	**Practical**	**1.** Developed skills in procedures and instrumental methods applied in practical task of Physical Chemistry. **2.** Skill development in preparation, derivitization and purity check by TLC of Organic compounds. **3.** Proficiency in Organic estimations. **4.** Able to determine normality and strength of solutions using instruments.
B.Sc. T. Y. SEMESTER- V		
Chemistry: Paper- XIII	**Physical Chemistry**	**1.** State postulates of Quantum Mechanics, able to solve Schrodinger wave equation for particle in 1D and 3D Box. **2.** Realize the importance of spectroscopy in structural elucidation. **3.** Able to explain photochemical reaaction. **4.** Know different physical and chemical methods for nanomaterial synthesis and extended knowledge about use of plants and microorganism in nanoparticle synthesis.

Chemistry: Paper- XIV	**Organic Chemistry**	**1.** Combine, evaluate and interpret information from the various spectroscopic techniques in determination of molecular structures. **2.** Design the synthesis of organic molecules through enolates. **3.** Demonstrate advanced level knowledge in Organometallic Chemistry using Organomagnesium, organozinc and organolithium compounds.
Lab course:V Paper- XV	**Practical**	**1.** Determine the functional group of the unknown compounds by systematic analysis in a semi-micro scale. **2.** Carryout effective separation (pilot and bulk) of mixture of organic compounds. **3.** Research skill development via Inorganic qualitative analysis (Semi-Micro Analysis).
B.Sc. T. Y. SEMESTER- VI		
Chemistry: Paper- XVI	**Inorganic Chemistry**	**1.** Know the limitations of Valence Bond theory, Detail understanding of Crystal field theory with Crystal field splitting. **2.** Enriched the knowledge of electronic Spectra of transition metal Complexes. **3.** Introduced to principle of Chromatographic technique of separation of mixture of compounds.
Chemistry: Paper- XVII	**Organic Chemistry**	**1.** Classify heterocyclic compounds based on the characteristics of the heteroatom and explain their reactivity and properties. **2.** Use of corresponding information in synthesis of biologically and clinically active drugs. **3.** Understand the various structure of carbohydrates like glucose, fructose, sucrose maltose and lactose.
Lab course:VI Paper- XVIII	**Practical**	**1.** Synthesize organic compounds and their purity check by TLC. **2.** Use of Conductometer in titration method to determine strength of given mixture or compound. **3.** Developed skill development for use of Potentiometer and Refractometer to find out concentration of given compound in unknown solution.

Chemistry (PG)

Course Code	Course Title	On Compilation of this course the Learner students will be able to understand
M.Sc. F. Y. SEMESTER- I		
CHE-101	Analytical Chemistry	1. Separation of liquid by various distillation method. 2. Understand the different chromatographic technique for the separation and purification of organic compounds.
CHE-102	Inorganic Chemistry	1. Basic concepts of group theory and its applications. 2. Fundamental aspects of classifying molecules based on various symmetry elements, point groups and constructing character table. 3. Understand the inorganic reactions and factors affecting on it of transition metal complexes.
CHE-103	Organic Chemistry	1. Predict the products, identify reaction intermediates and propose suitable mechanism for organic reactions. 2. Identify stereogenic centres, recognize enantiomers, diastereomers, meso compounds, draw stereochemical structures, and provide R/S designations of stereocenters. 3. Understand the neighbouring group mechanism in organic reaction.
CHE-104	Physical Chemistry	1. Account for the physical interpretation of partition functions and be able to calculate thermodynamic properties of model systems with using Boltzmann -, Fermi-Dirac and Bose-Einstein statistics. 2. Understand the concept of activation energy and its calculation from kinetic data 3. Define and explain surface and interfacial phenomenon.
M.Sc. F. Y. SEMESTER- II		
CHE-205	Spectroscopic methods of analysis	1. Combine, evaluate and interpret information from the various spectroscopic techniques in determination of molecular structures.
CHE-206	Inorganic Chemistry	1. Use electronic spectroscopy as an analytical tool in the structural elucidation of complexes 2. Interpret the magnetic properties of transition metal complexes based on magnetic measurements
CHE-207	Organic Chemistry	1. Explain the mechanistic pathway for aromatic electrophilic and nucleophilic substitutions reactions 2. Understand the addition reactions to C-C multiple bond. 3. Able to write mechanism of rearrangement reactions.
CHE-208	Physical Chemistry	1. Show an understanding of wave mechanics in three dimensions. 2. Describe and adopt suitable chromatography separation techniques.

		3. Able to explain fluorescence and phosphorescence phenomenon using jablonski diagram.
CHE-209	Laboratory Course (General & Analytical)	1. Understand the different analytical techniques. 2. Separation of a liquid by distillation method.
CHE-210	Laboratory Course(Inorganic)	1. Carry out qualitative tests and identify inorganic radicals in a salt mixture. 2. Separation and estimation of metal ion from the binary mixture solution. 3. Synthesis of metal complexes.
CHE-211	Laboratory Course(Organic)	1. Separation of organic compound from binary mixture and identification of organic compound. 2. Various methods of preparing organic compounds.
CHE-212	Laboratory Course(Physical)	1. Able to determine strength of halides in a mixture potentiometrically. 2. Able to determine strength of strong and weak acid in a given mixture conductometrically.
M.Sc. S. Y. SEMESTER- III		
CHE-313	Structural Elucidation by Spectral methods	1. Combine information from experimental NMR, IR, UV, and MS spectra and elucidate the structure of unknown organic compounds. 2. Argue for a suggested molecular structure from analysis of the spectral data. 3. Predict the NMR, IR, UV-Vis and MS spectra from a given molecular structure.
CHE-314	Organic Synthesis	1. Design the synthesis of industrially important compounds. 2. Design chemical processes and products that eliminate the use or generation of hazardous substances. 3. Use ultrasound, microwave, ionic liquids, phase transfer catalysts, polymer supports and multi-component reactions for various organic transformations.
CHE-315	Asymmetric Synthesis and Bio-Organic Chemistry	1. Understand the importance of asymmetric synthesis and propose syntheses of molecules with control of the stereochemistry.
CHE-316	Photochemistry, Free Radicals and Pericyclic Reactions	1. Describe and explain photochemical and photophysical processes with mechanisms, and apply established experimental methods for the investigation of these processes. 2. Predict and rationalise the outcomes of pericyclic reactions with stereochemistry.
M.Sc. S. Y. SEMESTER- IV		
CHE-417	Organic Synthesis: Retrosynthetic Approach	1. Analyse target compounds by retrosynthetic strategy and devise suitable anionic, cationic and radical synthons. 2. Apply the knowledge and understanding of essential facts, concepts, principles and theories relating to

		retrosynthetic analysis for the synthesis of organic target molecules.
CHE-418	Advanced Organic and Heterocyclic Chemistry	1. Classify heterocyclic compounds based on the characteristics of the heteroatom and explain their reactivity and properties. 2. Understand the name reactions and rearrangement reactions.
CHE-419	Chemistry and Natural Products	1. Understand extraction and purification methods of natural compounds from available sources. 2. Familiarize with various types of natural products from different sources and their applications.
CHE-420	Medicinal Chemistry	1. Use of the knowledge gained for the development of biologically and clinically active drugs. 2. Describe the current challenges and opportunities in medicinal chemistry in light of contemporary developments in the field of drug discovery.
CHE-421	Laboratory Course (Organic)	1. Carryout effective separation of ternary mixture of organic compounds and analysis.
CHE-422	Laboratory Course(Organic)	1. Design and carry out multistep preparation using suitable techniques, accurately record and analyze the results, calculate overall yield of the final product and check the purity.
CHE-423	Laboratory Course(Organic)	1. Carry out spectral analysis and confirmation of structure of organic compounds.
CHE-424	Project work (Organic)	1. Apply skills and knowledge acquired through the course in a real-life environment. 2. Identify skills and capabilities that intersect effectively with the needs of industry enhancing employ ability. 3. Communicate research findings efficiently in written (report) and verbal (viva-voce) forms.

Botany (UG)

SEMESTER-I

Course Code	Course Title	On completion of the course, the learner will be able to understand
Course – I	Diversity of Cryptogams-I (Theory)	1. Classify, develop an understanding regarding Viruses, Bacteria, Lichens, Algae, Fungi based on their characteristics and structures. 2. Examine the general characteristics of Mycoplasma, Viruses, Bacteria, Lichens, Algae, Fungi and their reproduction. 3. Identify, Demonstrate the principle and applications of Viruses, Mycoplasma, Bacteria, Lichens, Algae and Fungi. 4. Increase the awareness and appreciation of human friendly Viruses, Bacteria, Algae and their economic importance.
Course- II	Morphology of Angiosperms (Theory)	1. To understand different types of plant habits. 2. To study various vegetative and reproductive parts of Angiospermic plant body. 3. To study parts of flower. 4. To study types of modifications in flower parts with its Purpose.
Course -III	Diversity of Cryptogams-I (Practical)	1. Demonstrate proficiency in the experimental techniques. 2. Analysis of thallophytes like Algae, Fungi, Lichens and Mycoplasma. 3. To understood the lower plants. 4. To observe disease symptoms in host plants. 5. To study different parts of flower and their structure.

SEMESTER -II

Course-IV	Diversity of Cryptogams-II (Theory)	1. To understand Bryophytes and Pteridophytes 2. To understand morphology, anatomy and reproduction in Bryophytes and Pteridophytes. 3. To understand plant evolution and corelation to land Habit.
Course- V	Histology, Anatomy and Embryology (Theory)	1. To understand basic concept of Histology, Anatomy and Embryology. 2. To understand different types of tissues with their Functions. 3. To understand mechanism and various types of Pollination. 4. To understand basic procedure of fertilization. 5. To study structure of Embryo and types of seeds.
Course- VI	Histology, Anatomy and Embryology (Practical)	1. To understand the concept of Tissues, Primary and Secondary growth in plants. 2. To study structure of types of seeds.

SEMESTER – III

Course-VII	Taxonomy of Angiosperms (Theory)	1. To understand the basic concept of Taxonomy. 2. To understand Identification, Nomenclature and Classification as basic functions of Taxonomy. 3. To learn about diverse angiospermic families and their Economic importance. 4. To understand regarding modern concepts in Taxonomy
Course- VIII	Plant Ecology (Theory)	1. To understand plant ecology with biotic and abiotic factors. 2. To classify soils on the basis of various properties. 3. To understand the structure and functions of ecosystem 4. To understand Adaptations of plants in relation to Environmental factors.
Course-IX	Taxonomy of Angiosperms (Practical)	1. To understand diverse Angiospermic families with the help of plant specimens.

Course-X	Plant Ecology (Practical)	1. To understand interactions of plants with biotic and Abiotic environment. 2. Students can understand morphological, anatomical And physiological adaptations in plants. 3. Students can identify the types of soils with their Properties.

SEMESTER- IV

Course- XI	Gymnosperms and Utilization Of Plants (Theory)	1. To learn about structure and reproduction of species of Gymnosperms. 2. Students learn about fossil forms. 3. To study about economically important plants with Their uses. 4. To understand utilization of plants with their uses to Human beings.
Course- XII	Plant Physiology (Theory)	1. To know scope and importance of plant physiology 2. To understand water relation of plants in relation to Various physiological processes. 3. Students should understand the process of Photosynthesis with light reaction, dark reaction, C3 And C4 plants. 4. To understand the respiration in higher plants with Types.
Course – XVI	Practical	1. For all physiological experiments, students will be able To demonstrate proficiency in the experimental Techniques and methods of analysis. 2. To apply knowledge in real sense of life.

SEMESTER - V

Course- XV	Cell Biology and Molecular Biology	1. Identification of concept which explains structure and Chemical composition of cell wall and membrane. 2. Explaination of development of cells and comparis-

	Son of the structure and function of cell organelles. 3. To understand the cell division processes like Mitosis and Meiosis, the cell cycle. 4. Students should know the structure and chemical Properties, Replication of DNA and RNA with types.
Course- XVI Biodiversity of Angiosperms-I	1. Learner students will be aware about concept of Biodiversity, its exploration, estimation and Conservation. 2. To understand various Angiospermic families with Their economic values. 3. To understand modern trends related with Taxonomy. 4. To understand plants with classification systems. 5. To aware about conservation of biodiversity.
Course- XVII Cell biology and Molecular Biology Practical	1. Students will be able to demonstrate proficiency in the experimental techniques. They will be able to understand methods concerned with cell biology and biotechnology.
Course- XVIII Biodiversity of Angiosperms-I Practical	1. To learn diverse Angiospermic families with the help of plant species.

SEMESTER – VI

Course- XIX Genetics and Biotechnology- Theory	1. To learn about hereditary characters. 2. To understand laws of inheritance. 3. To understand sex linkage. 4. To learn about applications of Genetic Engineering.
Course- XX Biodiversity of Angiosperms-II Theory	1. To educate students about concepts of Biodiversity, its conservation. 2. To understand diverse angiospermic families With economic importance.

	3. To understand modern trends in Taxonomy of Plants and classification systems.
Course-XXI Genetics and Biotechnology Practical	1. Students will be able to understand, to solve problems of genetic interaction, incomplete Dominance, co-dominance, allelic, multiple Alleles and inheritance.
Course- XXII Biodiversity of Angiosperms-II Practical	1. To learn about different Angiospermic Families
	2. To learn about tools for identification like Keys And Floras.

Botany (PG)

SEMESTER - 1

Course Code Course Title On completion of the course, the learner will be able to under

Course - 1

Code BOT- 401 Cell and Molecular biology (Theory)

Unit 1 Cell Organelle

1. Plasma membrane; Identify and classify cell organelles.
2. Examine the general characteristics of plasmodesmata.
3. To study of vacuoles.

Unit 2. Cellular Organelles;

1. To study the structure and functions of Golgi bodies, Lysosomes.
2. To study the Nucleus.

Unit 3. To Create **interest** research among the students.

BOT-402 Plant Biotechnology (Theory)

1. To understand different types of discoveries of Plant growth Hormones
2. Introduction of Laboratories.
3. Equipment handling to students, demonstration of sterilization.
4. Students understand basic concept of tissue culture.
5. Students will understand the practical skill In various aspects.

Course code- BOT-403 Biology and Diversity of Algae and Bryophytes

(Theory)

Unit-1

1 An introduction of algal members to students.
2 Students will understand diversified habitats in fresh water and marine water algae.
3 students know the classification of algal members.
4 Students understood the external and internal morphology, life history of Bryophytes.

Course code-BOT-404 Taxonomy of Angiosperms (Theory)

1 Students will understand the flowering plants regarding families.
2 students learned benitoites Theory',caytoniales theory;etc.
3 To study major and minor plant
4 To study the taxonomic evidences 'morphology Anatomy; embryology, palynology etc.
5 Students learned the various flowering plants. Related to families.
1.Family-Nympheaceae
2.Family-Magnoliaceae
3.Family- Malvaceae
4 Family-Solanaceae
5 Family-Liliaceae

Zoology

B.Sc. (Zoology) First Year (I - Semester)

Paper I

Course Name: -Protozoa to Annelida-(ZOL-101)

- To create awareness among the students about basic fundamental characteristic of lower invertebrate animals.
- To describe and explain classification, characters and life function of lower invertebrate animals.
- To explain the ecological role and diversity of lower invertebrate animals.

Paper II

Course Name: - Cell Biology -(ZOL-102)

- To study in detail of animal cell structure and the process of cell division.
- To understand detail structure and functions of cell organelles in animal cells.
- To understand the role of cell and its organelles.

Paper III

Course Name: -Protozoa to Annelida and Cell Biology - Practical (ZOL-103)

- To observe and understand the nature, classification of phylum system anatomy and development of lower invertebrate animals.
- To enhance the ability of students with life science fundamental practical skills.
- To observe and understand structure of animal cells.
- To observe and understand structure of various cell organells.

B.Sc. (Zoology) First Year (II - Semester)

Paper IV

Course Name: - Arthropoda to Echinodermata and Protochordata-(ZOL-201)

- To introduce learners to higher invertebrates, morphological features, evolutionary development and adaptations.
- To describe and explain classification, characters and life function of higher invertebrate animals.
- To explain the ecological role and diversity of Arthropoda to Protochordata.

Paper V

Course Name: - Genetics-I-(ZOL-202)

- To understand important terminology in genetics, laws, and its applications.
- To explain the role of genetics in evolutionary biology.
- To describe and explain the heredity and variations in genetics.

Paper VI

Course Name: - Arthropoda to Echinodermata and Protochordata and Genetics-I - Practical (ZOL-203)

- To identify the animals by observing the specimens.
- To observe the characteristics of animals with their morphology.
- To observe and understand various physiological system in the body of animals.
- To observe and calculate probabilities in cross, heredity and genetics problems.

B.Sc. (Zoology) Second Year (III - Semester)

Paper VII

Course Name: - Vertebrate Zoology-(ZOL-301)

- To explain classification, anatomy and development of vertebrate animals.
- To explain various physiological systems in the body of vertebrate animals.
- To describe in detail the embryological process of development.

Paper VIII

Course Name: - Genetics-II-(ZOL-302)

- To explain the important terminology in genetics, laws, and its applications.
- To describe in detail the mechanism of protein synthesis, DNA fingerprinting and DNA technology.
- To understand the problems in genetics.

Paper VIX

Course Name: - Vertebrate Zoology-Practical- (ZOL-303)

- To observe and understand classification, morphology, identification of specimens and anatomy of some vertebrate animals.
- To observe and understand embryological process of development.
- To enhance the ability of students with fundamental practical skills.

Paper X

Course Name: - Genetics II- Practical- (ZOL-304)

- To create awareness of mechanism of protein synthesis, DNA fingerprinting and DNA technology.
- To observe and understand mechanism of protein synthesis and solve problems in genetics.

B.Sc. (Zoology) Second Year (IV- Semester)

Paper XI

Course Name: - Animal physiology-(ZOL-401)

- To study in details about animal different processes.
- To explain various life processes of mammals.
- To describe various physiological process in mammals.

Paper XII

Course Name: - Biochemistry and Endocrinology- (ZOL-402)

- To explain the biochemical processes including metabolism.
- To explain in detail carbohydrate, protein and fat.
- To describe structure and function of endocrine glands.

Paper XIII

Course Name: - Animal physiology-Practical- (ZOL-403)

- To study animal physiological processes by observing charts.
- To obsreve and understand life processes through various experiments.

Paper XIV

Course Name: - Biochemistry and Endocrinology- Practical- (ZOL-404)

- To develop skill on laboratory technique in biochemistry.
- To understand biochemical reactions and uses of instruments during experiment.
- To obsreve structure of endocrine glands.

B.Sc. (Zoology) Third Year (V - Semester)

Paper XV

Course Name: - Ecology-(ZOL-501)

- To study basic terms of ecology.
- To explain basic information of ecosystems and its components.
- To describe in detail about biotic, abiotic factors and animal interactions.

Paper XVI

Course Name: - Entomology-I - (ZOL-502)

- To explain terminology, biodiversity of insects, and their classification.
- To describe morphology, economic importance and anatomy of insects.
- To explain usefulness of insect and their role in agro based industries.

Paper XVII

Course Name: - Ecology-Practical- (ZOL-503)

- To study basic terms in ecological systems.
- To obsreve types of ecosystems with different charts.
- To analyze biotic, abiotic factors and animal interactions in nature.

Paper XVIII

Course Name: - Entomology-I –Practical- (ZOL-504)

- To understand basic terminology, biodiversity of insects, and their classification.
- To understand usefulness of insect and their role in agro based industries.
- To enable students to participate in field collection and their identification to understand insect ecology.

B.Sc. (Zoology) Third Year (VI- Semester)

Paper XIX

Course Name: - Evolution-(ZOL-601)

- To study basic terms of evolutionary biology.

- To understand evolution of man and origin of species.
- To enhance the knowledge of evolution through various examples.

Paper XX

Course Name: - Entomology-II- (ZOL-602)

- To study and understand the useful and harmful insects.
- To study the terminology and damage caused by pest and their control measure.
- To study the life cycles of various insects.

Paper XXI

Course Name: - Evolution-Practical- (ZOL-603)

- To observe and identify the applications of evolution in life sciences.
- To obsreve and understand the evolutionary changes through laboratory experiments.
- To obsreve and understand basic principles of evolution through models and charts.

Paper XXII

Course Name: - Entomology-II- Practical- (ZOL-604)

- To obsreve and understand the useful and harmful insects.
- To obsreve the damage caused by pest and its control measures.
- To identify and classify pest and life cycles through specimens.

Dry Land Agriculture

SEMESTER-I (2014-2015)

Paper No.	Course Title	On completion of the course, the learner will be able to understand
Paper – I	Dryland Agriculture Technology (Theory)	1. Students will understand the concept of Dryland Agriculture in detail. 2. Climatic characteristics of rainfed area and Relation of DLA with national economy will be Understand. 3. Agroclimatic zone of Maharashtra will be understood.
Paper- II	Climates and Vegetation Resources (Theory)	1. Students will able to understand basic climatic parameters and meteorological instruments. 2. They will know monsoon circulation in India. 3. Crop weather calendar will be known to students.
Paper -III	Dryland Agriculture Technology, Climates and Vegetation Resources (Practical)	1.Identification of Plant species, crops, trees, Grasses and shrubs. 2. Analysis of Rainfall data.

SEMESTER -II

Paper-IV	Dry Land Agriculture Technology (Theory)	1. Students will understand choice of crops and varieties. 2. Students will do crop planning and Fertilizer

		Applications.
Paper- V	Climates and Vegetation Resources (Theory)	1. Students will be familier with Agricultural seasons. 2. To understand types of droughts, managem-Ent strategies. 3. To understand Afforestation programe, Deforestation.
Paper- VI	Climates and vegetation Resources (Practical)	1. Methods of Fertilization applications. 2. To know methods of weed Management. 3. Students will be able to understand IMD.

SEMESTER – III (2015-16)

Paper VII	Soil Conservation (Theory)	1. To understand the concept of soil fertility. 2. To understand soil forming process, soil profile, Soil taxonomy. 3. To learn soil properties, types and problems.
Paper VIII	Rain water Management (Theory)	1. To study water harvesting. 2. To understand Rainwater distribution, water Conservation. 3. To study cropping systems, mulching.
Paper IX	Soil conservation (Practical)	1. To understand use of farm implements. 2. Fertilizer placement.
Paper-X	Rain water Conservation (Practical)	1. To understand design of soil conservation stru. 2. Preparation of water shade model.

SEMESTER- IV

Paper- XI	Soil Conservation	1. To learn about Soil related problems.

(Theory)	2. Students learn about soil erosion. 3. To study about soil and water conservation.
Paper- XII Rainwater Management (Theory)	1. Students will able to know water storage systems. 2. Able to know rainwater recycling techniques.
Paper – XIII Soil Conservation (Practical)	1. To study soil moisture. 2. To understand selection of crops. 3. To identify types of soil erosion.
Paper- XIV Rain water Management (Practical)	1. Design of storage structures. 2. Planning of water shade. 3. To understand problems on drainage.

SEMESTER - V

Paper- XV Crop Management (Theory)	1. Identification of types of fertilizer. 2. To understand role of livestock. 3. To know use of natural resources. 4. To understand tillage, Choice of crops, weed Management, length of growing season.
Paper- XVI Transfer of Technology (Theory)	1. Learner students will be aware about concept of Technology transfer. 2. To understand role of KVK, Lab to land programmes 3. Methods of harvesting and threshing of crops.
Paper- XVII Crop Management (Practical)	1. Students will be able to plan for cropping systems 2. To identify various diseases of imp. Crops. 3. To identify breeds of cattle, sheep and goat.
Paper- XVIII Transfer of Technology (Practical)	1. Identification of Kharif crops and varieties. 2. To know harvesting of oil seeds and pulses.

SEMESTER- VI

Paper- XIX Crop Management (Theory)	**1. Students will understand Agro- eco concept.** **2. Understand Green manuring, Drought Management, Crop choices, Hi-tech drip irrigation, IPM.**
Paper- XX Transfer of Technology (Theory)	**1. Students will understand Allied industries.** **2. To know subsidies, women in Agriculture, Role of N.G.O.s.**
Paper- XXI Crop Management (Practical)	**1. Students will understand control methods of Insect pest.** **2. To study Drought tolerant crops.**
Paper- XXII Transfer of Technology (Practical)	**1. To study Rabbi crops.** **2. To study threshing equipments.**

Mathematics (UG)

B. Sc. Mathematics Differential Equations

CO1: To understand homogeneous and separable first order differentialequations.

CO2: To understand the exact differential equations.

CO3: To understand homogenous linear equations with constant coefficientand variable coefficients.

CO4: To find the solution of non-homogenous first order differential equations.

CO5: To find the solution of Bernoulli's equation.

Geometry

CO1: To understand geometrical terminology for plane, right line, sphere,cylinder and cone.

CO2: To know the geometrical results to find center and radius of the circle.

CO3: Students will be able to find equation of lines and planes in space.

CO4: Student will be able to find angle between two planes and length ofperpendicular from a given point to a given line.

CO5: Students will be able to identify parallel and perpendicular lines.

Differential and Integral Calculus

CO1: To develop the concepts of limit, function, continuity, discontinuity andderivative.

CO2: Students become familiar with hyperbolic functions, inverse hyperbolicfunctions, derivatives, and higher order differentiation.

CO3: Students understand the consequences of Rolle's Theorem and meanvalue theorem for differentiable function.

CO4: Students understand definite integrals as the limit of a sum.

CO5: Student will be able to understand the concept of divergence, curl,gradient and it's applications.

Number Theory

CO1: Students will be able to find quotient and remainders from integerdivision.

CO2: Students apply Euclid's algorithm and backward substitutions.

CO3: Students understand the concept of congruence, residue classes andleast residue.

CO4: Student will know the concepts - addition and multiplication of integersmodulo.

CO5: Students will be able to solve linear congruence.

Numerical Methods.

CO1: Student becomes familiar with numerical solutions of nonlinearequations in a single variable.

CO2: Students will know the concepts - numerical interpolation andapproximation of functions.

CO3: Student can solve first order initial value problem using Euler's method.

CO4: Student can solve first order initial value problem using a second orderRunge-Kutta Method.

CO5: Students will be able to find numerical solution of ordinary differentialequations.

Integral Transform and Partial differential Equations

CO1: Students understand the concept of beta and gamma functions and theirapplications.

CO2: Students are able use to Laplace transform to solve ordinary and partialdifferential equations.

CO3: Students can apply properties of Laplace transform to solve examples.

CO4: Students will know the difference between linear and nonlinear partial differential equations.

CO5: Student will be able to solve the linear and nonlinear partial differential equation by various methods like Lagrange's, Charpit's, Jacobi's, Monge's method.

Mechanics (I & II)

CO1: Students understand the concepts - particle, rigid body, force, equilibrium etc.

CO2: Students can find the components of velocity & acceleration in a givendirection.

CO3: Students follow the concepts momentum, angular momentum, work,energy and points functions in mechanics.

CO4: Students will know the concept of projectile and motion of projectile.

CO5: Students will know differential and pedal equations of central orbits andtheir applications.

Abstract Algebra (I & II)

CO1: Students will understand the number systems and algebraic structures.

CO2: Students will understand the concept of ring and special types of rings.

CO3: Students can identifythe difference between homomorphism andisomorphism of a group.

CO4: Students will know and apply the concepts of linear dependence andlinear independence of vectors.

CO5: Students will be able to give the examples of inner product space.

Ordinary Differential Equations (I & II)

CO1: Students will know the difference between equation and differentialequation.

CO2: Students will be able to find the solution of linear differential equation offirst and second order.

CO3: Students will understand the initial value problem and its solutions.

CO4: Students will be able to understand the concept Wronskian of solution.

CO5: Students can find singular point and regular singular points of thedifferential equation.

Real Analysis (I & II)

CO1: Students become familiar with terminology sets, elements, operations onsets, functions, operations on functions.

CO2: Students can define & recognize basic properties of field of real numbers.

CO3: Students can understand the concept of series of real numbers,convergence and Divergence.

CO4: Students can understand metric space, continuous function on metricspace and difference between open sets and closed sets.

CO5: Students will be able define Riemann integral, Fourier series and theirapplications.

Mathematics (PG)

M. Sc. Mathematics M.Sc. F. Y. (Mathematics) Abstract Algebra I & II CO1: Students can solve a wide variety of problems based on Sylow theorems.

CO2: Students can understand fundamental theorem of finitely generatedAbelian group.

CO3: Students can find order of a group and an element.

CO4: Students can evaluate basis and dimension of vector spaces.

CO5: Students can understand Galois theory.

Real Analysis I & II

CO1: Students will be able to know the extension of a measure.

CO2: Students can use technology tools to solve the problems of Riemann andLebesgue integrals.

CO3: Students will be able to apply analytical and theoretical skills to modelsand solve problems based on measure spaces.

CO4: Students understand findings of derivatives.

CO5: Students can solve examples of general integral.

Topology (I & II)

CO1: Students will know the difference between open and closed sets ondifferent topological spaces.

CO2: Students can know indiscrete and discrete topologies.

CO3: Students can understand when two topological spaces are Homeomorphic.

CO4: Students can identify the concept of connectedness, compactness andseparation axioms.

CO5: Students can understand concepts of Bases, Sub-bases, Nets, Filters andUltra filter.

Complex Analysis I & II

CO1: Students will know the basic concept of complex numbers.

CO2: Students can follow metric spaces and topology with respect to complexplanes.

CO3: Students can learn the topics of Power series, Cauchy-Riemannequations and harmonic functions.

CO4: Student can understand complex integrations.

CO5: Students can learn the functions like Gamma function, Riemann Zetafunction together with Weistrass factorization theorem.

Differential Equations (I & II)

CO1: Students will understand linearly dependence or independence of functions by using Wronskian of the functions.

CO2: Students can solve simple harmonic motion problems and dampedmotions problems.

CO3: Students can understand the concept of existence and uniqueness ofsolutions.

CO4: Students can solve the initial value problems and boundary valueproblems.

CO5: Students can apply the concept of maximum and minimum principle.

Functional Analysis

CO1: Students can apply many principles of real-analysis.

CO2: Students understand reflexivity of a Hilbert Space.

CO3: Students are able to learn projection and self-adjoin operators.

CO4: Students can define inner-product spaces and solve problems on it.

CO5: Students know normed linear spaces and Banach spaces.

Partial Differential Equations

CO1: Students can classify whether the second order partial differential equation is elliptic, hyperbolic or parabolic.

CO2: Students understand the concept of four fundamental equations. i. e. Laplace equations, transport equations, heat equations and wave equations.

CO3: Students understand mean value theorems, Green's theorem and Poison's equation.

CO4: Students can find solution of heat equation and wave equation.

CO5: Students can understand the Burger equation.

Numerical analysis

CO1: Students can apply the numerical methods. i.e. Bisection, False position,Newton-Raphson to solve nonlinear equations.

CO2: Students are able to find the errors and the rates of convergence.

CO3: Students can recognize iterative methods i.e. Jacobi- Gauss Seidelmethods.

CO4: Students can understand numerical differentiation and numericalintegration.

CO5: Students can apply the interpolation methods for solving the problemsnumerically.

CO6: Students will know the concepts of generalized co-ordinates and generalized momentum.

CO7: Students can find the isoperimetric problems and geodesic.

CO8: Students understand the planar and spatial motion of a rigid body.

CO9: Students understand the motion of a mechanical system using Lagrange-Hamiltonian Formulae.

Fuzzy Mathematics

CO1: Students know the concepts of Crips set and Fuzzy set theory.

CO2: Students understand the methods of fuzzy logic.

CO3: Students can recognize Fuzzy logic membership functions.

CO4: Students know the concepts of alpha- cuts and strong alpha- cuts.

CO5: Students understand the first and second characterization theorems.

Linear Integral Equations

CO1: Students can find solutions to initial value problems and boundary valueproblems.

CO2: Students can distinguish between point wise and uniform convergence.

CO3: Students can find derivatives of higher order.

CO4: Students can apply Laplace & Fourier transforms.

CO5: Students can identify whether given kernel is symmetric or separable.

Fluid Mechanics I & II

CO1: Students will know the types of fluids and Euler's equation, equation ofcontinuity and Bernoulli's equation.

CO2: Students will understand the sources and sink.

CO3: Students can learn Blasius and Milne Thomson circle theorem.

CO4: Students can understand viscous flows.

CO5: Students will learn Navier-Stokes equations and its applications.

Operation Research I & II

CO1: Students can learn simple methods.

CO2: Students can handle transportations and assignments of problems.

CO3: Students will understand game theory.

CO4: Student can understand the sequencing problems of different types.

CO5: Students will be able to learn non-linear programming problems.

B.Sc (Optional) - Computer Science

B.Sc. (Optional) First Year

Course Name : - Computer Fundamental

- Knowledge of Computer Fundamental, CPU & it's functionalities
- Understanding of block diagram of hardware peripherals
- Understanding the concepts of software and it's types
- Understanding the computer based application such as e mail, video conferencing

Course Name : - Digital Electronic

- Understanding the Number system & it's Conversion
- Computer system architecture, the structure of computer, working gates and it's functionality
- Understanding basic knowledge in digital logic and circuits.
- Introduce basic concepts of Data communications.

Course Name : - Operating System

- Introduce the basic functioning of operating system as resource manager and it's feature
- Understanding process states, CPU Scheduling
- Understanding Memory Management system like paging.
- Understanding Inter Process Communication, Deadlocks, Synchronization.

Course Name : - Programming in C

- Understanding Algorithm Thinking, Problem solving
- Impart modern skill in C language in an Industry standard.
- Understand basic features, create, execute simple C program using conditional statement, loop and array.
- Understand & Store different data types in the same memory

B.Sc. (Optional) Second Year

Course Name : - Advanced C Programming

- Develop modular programs using control structures, pointers, arrays, strings and structures
- Manage & Handle File I/O operations in your C program.
- Understand different Library function in C, Storage Classes & Conversion Function
- Understand C – Graphics Library and develop program.

Course Name : - Data Structure

- Understand the concept of Dynamic memory management, data types, algorithms, Big O notation.
- Understand basic data structures such as arrays, linked lists
- Apply Algorithm for solving problems like sorting, searching, insertion and deletion of data
- Solving problem involving STACK & QUEUE

Course Name : - Programming in CPP

- Understanding Object Oriented Programming with concepts of streams, classes, function, data and object
- Understand dynamic memory management techniques using constructors, destructors
- Students will be able to implement relationships between classes.
- Students will be able to create and user interfaces and packages
- Understand the concept of function overloading, operator overloading, virtual functions and polymorphism.

Course Name : - DBMS using SQL

- Design E-R Model for given requirements and convert the same into database tables
- Use database techniques such as SQL & mysql.
- Explain transaction Management in relational database System.
- Use advanced database Programming concepts & Commands in sql, MS –ACCESS

B.Sc. (Optional) Third Year

Course Name : - Software Engineering

- Understand Students will be able to choose appropriate process model depending on the user requirements.
- Students will be able perform various life cycle activities like Analysis, Design, Implementation, Testing and Maintenance.
- Students will be able to know various processes used in all the phases of the product.
- Students can apply the knowledge, techniques, and skills in the development of a software product.

Course Name :-Web Designing

- Understand does web works really, what makes web sites work.
- Impressive design techniques using HTML, JavaScript
- Understand where to Applying CSS technique & it's properties.
- Understanding where to start Analysis, planning for website & actually build excellent web sites.
- To create web elements like buttons, banners

Course Name : - Data Communication & Networking

- Understand different transmission media and Cables for establishing a network
- Understanding Generation of Mobile
- Implement any topology using network devices
- Understand the TCP/IP configuration for Operating System.
- Device sharing on network like printer

Course Name : - Ethics & Cyber Law

- Student will be able to understand Cyber Crime, Cyber Laws, E- Governance.
- Student will be able to understand Act 2000 Cyber Law
- Student will be able to understand issues in E- Business Management.

Course Name : - Major Project

- Express technical ideas, strategies and methodologies in written form.
- Prepare and conduct oral presentations.
- Understand new tools, algorithms, and techniques that contributesto the software solution of projects.

Course Name : - Seminar

- Acquire new technologies while searching the topic.
- To enhance presentation skills of the learner.

B.Sc (Computer Science)

B.Sc. (Computer Science) First Year (I - Semester)

Course Name : - Computer Fundamental

- Students will be able to Knowledge of Computer Fundamental, CPU & it's functionalities
- Students will be able to Understand of block diagram of hardware peripherals
- Students will be able to Understand the concepts of software and it's types
- Students will be able to Understand the computer based application such as email, video conferencing

Course Name : -Digital Electronic

- Students will be able to understand the Number system & it's Conversion
- Students will be able to Computer system architecture, the structure of computer, working gates and it's functionality
- Students will be able to understand basic knowledge in digital logic and circuits.
- Students will be able to introduce basic concepts of Circuit.

Course Name : - Microprocessor – I

- Understand the architecture of 8085
- Impart the knowledge about the instruction set, DATA Addressing
- Understand the basic idea about the data transfer schemes and its applications.
- Develop skill in simple program writing for 8085

Course Name : - C Programming - I

- Students will be able to understanding Algorithm Thinking, Problem solving
- Students will be able to impart modern skill in C language in an Industry standard.
- Students will be able to understand basic features, create, execute simple C program using conditional statement, loop and array.
- Students will be able to understand & Store different data types in the same memory

Course Name : - Communication Skill - I

- Understand different types of Communication,
- Successfully confront the different barriers of communication.
- Understand Reading Comprehension & Vocabulary
- Become self-confident and develop strong determination.

Course Name : -Mathematical Foundation

- Students will be able to use logical notation to define and reason about fundamental mathematical concepts such as sets, relations, and functions.
- Students will be able to formulate problems and solve recurrence relations.
- Understand Boolean Algebra concept

B.Sc. (Computer Science) First Year (II - Semester)

Course Name : - Data Structure

- Students will be able to understand the concept of Dynamic memory management, data types, algorithms, Big O notation.
- Students will be able to understand basic data structures such as arrays, linked lists
- Students will be able to apply Algorithm for solving problems like sorting, searching, insertion and deletion of data
- Students will be able to solving problem involving STACK & QUEUE

Course Name : - Operating System

- Students will be able to handle basic functioning of operating system as resource manager and it's feature
- Students will be able to basic Command of DOS
- Understanding process states, CPU Scheduling
- Understanding Memory Management system like paging.
- Understanding Inter Process Communication, Deadlocks, Synchronization.

Course Name : - Microprocessor – II

- Understand the architecture of 8086.
- Impart the knowledge about the instruction set.
- Understand the basic idea about the data transfer schemes and its applications.
- Develop skill in simple program writing for 8086

Course Name : - C - Programming – II

- Develop modular programs using control structures, pointers, arrays, strings and structures
- Manage & Handle File I/O operations in your C program.
- Understand different Library function in C, Storage Classes & Conversion Function
- Understand C – Graphics Library and develop program.

Course Name : - Communication Skill – II

- Understand Written Communication Reports
- Successfully confront the different barriers of communication.
- Understanding problem of Group Communication & Interview
- Become self-confident and develop strong determination.

Course Name : - Numerical Computation Methods

- Students will be able to understand Matrices & Determinants
- Understand Interpolation formulas
- Understand Elimination Methods for Solving Simultaneous Equations

B.Sc. (Computer Science) Second Year (III - Semester)

Course Name : - Advanced Data Structure

- Basic ability to analyse algorithms and to determine algorithm correctness and time efficiency class.
- Understanding Different Types of Tree, Graph & it's Operation.
- Understanding Different Types of Sorting Algorithm technique.
- Understand a variety of advanced abstract data type (ADT) and data structures and their implementations.

Course Name : - UNIX Operating System

- Introduce the basic functioning of UNIX operating system as resource manager and it's feature
- Understanding the Basic Commands of UNIX Operating System
- Understanding Shell Scripting & Kernel

Course Name : - P C Maintenance

- Students will be able to identify the essential components of a computer
- Students will be able to recommend hardware
- Students will be able to troubleshoot hardware components
- Students will be able to assemble a computer with essential components

Course Name : - Programming in CPP

- Understanding Object Oriented Programming with concepts of streams, classes, function, data and object
- Understand dynamic memory management techniques using constructors, destructors
- Students will be able to implement relationships between classes.
- Students will be able to create and user interfaces and packages
- Understand the concept of function overloading, operator overloading, virtual functions and polymorphism.

Course Name : - Database Management System

- Design E-R Model for given requirements and convert the same into database tables
- Use database techniques such as SQL & mysql.
- Understand transaction Management in relational database System.
- Use advanced database Programming concepts & Commands in mysql, MS –ACCESS

Course Name : - Statistical Method

- Understand the various approaches dealing the data using theory of probability.
- Analyze the different samples of data at different level of significance using various hypothesis testing.
- Understand error, source of error and its affect on any numerical computation and also Analyzing the efficiency of any numerical algorithm.
- Solve system of linear equations numerically using direct and iterative methods.

B.Sc. (Computer Science) Second Year (IV - Semester)

Course Name : - Software Engineering

- Students will be able to choose appropriate process model depending on the user requirements.
- Students will be able perform various life cycle activities like Analysis, Design, Implementation, Testing and Maintenance.
- Students will be able to know various processes used in all the phases of the product.
- Students can apply the knowledge, techniques, and skills in the development of a software product.

Course Name : - Fedora

- Understand the basic commands of Linux operating system and can write shell scripts.
- Create file systems and directories and operate those using programs.
- Understand the processes background and foreground by process and signals system calls.
- Understand installing & deleting software packages

Course Name : - Basic of Networking

- Understand different transmission media and Cables for establishing a network
- Understanding Generation of Mobile
- Implement any topology using network devices
- Understand the TCP/IP configuration for Operating System.
- Device sharing on network like printer

Course Name : - Core JAVA

- Use an integrated development environment to write, compile, run, and test simple object-oriented Java programs
- Designs will demonstrate the use of good object-oriented design principles including encapsulation and information hiding.
- Demonstrate the use of a variety of basic control structures including selection and repetition
- Understanding JAVA API Packages

Course Name : - Advanced Database Management System

- Students will be able to database techniques such as SQL
- Understand transaction Management in relational database System.
- Understand Data storage like RAID, Tertiary

Course Name : - Web Fundamental

- Understand does web works really, what makes web sites work.
- Impressive design techniques using HTML, JavaScript
- Understand where to Applying CSS technique & it's properties.
- Understanding where to start Analysis, planning for website & actually build excellent web sites.
- To create web elements like buttons, banners

- **B.Sc. (Computer Science) Third Year (V - Semester)**

Course Name : - Software Cost Estimation

- Students will be able to Decomposition Techniques
- Students will be able to Estimation for Web Projects
- Students can apply the knowledge, techniques, and skills in the development of a software product.

Course Name : - Basic of Android

- Students will be able to build enterprise level mobile applications with Android
- Understand the basic concepts of Android Event Handling
- Understand why use Android over Java
- Install and configure Android Studio

Course Name : - Core Java – II

- Use an integrated development environment to write, compile, run, and test simple object-oriented Java programs
- Designs will demonstrate the use of good object-oriented design principles including encapsulation and information hiding.
- Demonstrate the use of a variety of basic control structures including selection and repetition
  Understanding JAVA API Packages

Course Name : - Basic of Computer Graphics

- Understand the basics of computer graphics, different graphics systems and applications of computer graphics.
- Understand algorithms for (Line, Circle) scan conversion and filling of basic objects and their comparative analysis.
- Use of 2 -D geometric transformations on graphics objects and their application in composite form.

Course Name : - Beginners Prog. With PHP

- Students will be able to PHP on windows and Linux, Configuring
- Students will be able to install Apache & PHP
- Students will be able to Control statement & Looping in PHP, Objects in PHP

Course Name : - Advanced Networking

- Students will be able to Understand TCP/IP model
- Students will be able to Understand IP 4 / IP 6 Protocol, Address
- Students will be able to Understand SMTP, FTP, UDP ,TCP Protocols

B.Sc. (Computer Science) Third Year (VI - Semester)

Course Name : - Software Quality & Testing

- Students will be able to Software Testing Strategies like verification, validation

- Students will be able to ISO 9000 Quality Standards
- Students will be able to Testing Conventional Applications like Black box, White box Testing

Course Name : - Android Application Development

- Build enterprise level mobile applications on Android
- Understand advanced concepts of Android
- Understand Data Storage, Retrieval & Sharing in Android

Course Name : - Theory of Computation

- Construct the abstract machines including finite automata, pushdown automata, and Turing machines from their associated languages and grammar.
- Make use of pumping lemma to show that a language is not regular / not context-free
- Solve computational problems regarding their computability and complexity and prove the basic results of the theory of computation

Course Name : - Advanced Computer Graphics

- Understand the Advanced computer graphics, Curve, Fractals
- Understand Color Model
- Understand Projection & it's types
- Use of 3 -D geometric transformations on graphics objects and their application in composite form.

Course Name : - Advanced Prog. With PHP

- Students will be able to creating HTML Form
- Students will be able to Introducing Database and SQL, MySql
- Students will be able to Manipulating data from SQL with PHP
- Students will be able to Create a Website by using PHP Language

Course Name : - Ethics & Cyber Law

- Students will be able to understanding the Technology of Internet, Scope of Cyber Laws
- Students will be able to Cryptography Technique
- Students will be able to understand issues in E-Business Management

M.Sc (Computer Science)

M.Sc. (Computer Science) First Year (I - Semester)

Course Name: - Constitution of India

- Students will be able to Knowledge of Constitution of India
- Understand and explain the significance of Indian Constitution as the fundamental law of the land

- Exercise his fundamental rights in proper sense at the same time identifies his responsibilities in national building.
- Analyse the Indian political system, the powers and functions of the Union, State and Local Governments in detail

Course Name: - Research Methodology

- Students will be able to identify and discuss the role and importance of research in the social sciences.
- Students will be able to identify and discuss the issues and concepts salient to the research process
- Students will be able to identify and discuss the complex issues inherent in selecting a research problem, selecting an appropriate research design, and implementing a research project.
- Students will be able to explain key research concepts and issues
- Students will be able to read, comprehend, and explain research articles in their academic discipline.

Course Name: - Core Java

- Use an integrated development environment to write, compile, run, and test simple object-oriented Java programs
- Designs will demonstrate the use of good object-oriented design principles including encapsulation and information hiding.
- Demonstrate the use of a variety of basic control structures including selection and repetition
- Understanding JAVA API Packages

Course Name: - Introduction to Algorithm

- Basic ability to analyse algorithms and to determine algorithm correctness and time efficiency class.
- Understanding Different Types of Tree, Graph & its Operation.
- Understanding Different Types of Sorting Algorithm technique.
- Understand a variety of advanced abstract data type (ADT) and data structures and their implementations.

Course Name: - Relational Database Management of System

- Design E-R Model for given requirements and convert the same into database tables
- Use database techniques such as SQL & MySQL.
- Understand transaction Management in relational database System.
- Use advanced database Programming concepts & Commands in MySQL, MS –ACCESS

Course Name: - Mathematical Foundation & Statistical Methods

- Students will be able to use logical notation to define and reason about fundamental mathematical concepts such as sets, relations, and functions.
- Students will be able to formulate problems and solve recurrence relations.
- Understand Boolean Algebra concept

Course Name: - Advanced Operating System

- Students will be able to handle basic functioning of operating system as resource manager and it’s feature
- Students will be able to basic Command of DOS
- Understanding process states, CPU Scheduling
- Understanding Memory Management system like paging.

- Understanding Inter Process Communication, Deadlocks, Synchronization.

M.Sc. (Computer Science) First Year (II - Semester)

Course Name: - Technical Report Writing

- Importance of technical writing skills necessary in a professional context
- Understand the stages in the preparation process of technical reports
- Understand the ability to pitch technical reports at the level appropriate to the intended audience/reader

Course Name: - Advanced JAVA

- Use an integrated development environment to write, compile, run, and test simple object-oriented Java programs
- Designs will demonstrate the use of good object-oriented design principles including encapsulation and information hiding.
- Demonstrate the use of a variety of basic control structures including selection and repetition
- Understanding JAVA API Packages

Course Name: - Data Communication

- Understand different transmission media and Cables for establishing a network
- Understanding Generation of Mobile
- Implement any topology using network devices
- Understand the TCP/IP configuration for Operating System.
- Device sharing on network like printer.

Course Name: - Software Engineering

- Students will be able to choose appropriate process model depending on the user requirements.
- Students will be able perform various life cycle activities like Analysis, Design, Implementation, Testing and Maintenance.
- Students will be able to know various processes used in all the phases of the product.
- Students can apply the knowledge, techniques, and skills in the development of a software product.

Course Name: - Image Processing

- Review the fundamental concepts of a digital image processing system.
- Analyse images in the frequency domain using various transforms.
- Evaluate the techniques for image enhancement and image restoration.
- Categorize various compression techniques.
- Interpret Image compression standards.
- Interpret image segmentation and representation techniques.

Course Name: - Artificial Intelligence

- Understand the informed and uninformed problem types and apply search strategies to solve them.
- Apply difficult real life problems in a state space representation so as to solve them using AI techniques like searching and game playing.
- Design and evaluate intelligent expert models for perception and prediction from intelligent environment.

- Formulate valid solutions for problems involving uncertain inputs or outcomes by using decision making techniques.
- Demonstrate and enrich knowledge to select and apply AI tools to synthesize information and develop models within constraints of application area.
- Examine the issues involved in knowledge bases, reasoning systems and planning

M.Sc. (Computer Science) Second Year (III - Semester)

Course Name: - Java Network Programming

- Use an integrated development environment to write, compile, run, and test simple object-oriented Java programs.
- Read and make elementary modifications to Java programs that solve real-world problems.
- Validate input in a Java program.
- Identify and fix defects and common security issues in code.

Course Name: - Advanced Software Engineering & Technology

- Students will be able to choose appropriate process model depending on the user requirements.
- Students will be able perform various life cycle activities like Analysis, Design, Implementation, Testing and Maintenance.
- Students will be able to Estimation for Web Projects
- Students can apply the knowledge, techniques, and skills in the development of a software product

Course Name: Computer Vision

- Understand colour technique, Projection types,
- Build computer vision systems to solve real-world problems.
- Properly formulate problems with the appropriate mathematical and computational tools.
- Understand the building blocks of classical computer vision techniques

Course Name: Mobile Computing

- Student will able to get familiar with various generations of mobile communications
- Understand the concept of cellular communication
- Understand the basics of wireless communication get the Knowledge of GSM mobile communication standard, its architecture
- Understand data dissemination & Broadcasting system

M.Sc. (Computer Science) Second Year (IV - Semester)

Course Name: Pattern Recognition

- Summarize the various techniques involved in pattern recognition
- Categorize the various pattern recognition techniques into supervised and unsupervised.
- Understand Illustrate the artificial neural network based pattern recognition
- Discuss the applications of pattern recognition in various applications

Course Name: Decision support & Intelligence System

- Understand detailed information reports by gathering and analysing data
- Understand Essentials of Business Intelligence

- Understand Warehousing Process & data development
- To evaluate models of OLAP and data pre-processing

Course Name: Major Project

- To develop a design solution for a set of requirements.
- To test and validate conformance of the developed prototype against the original requirements of a problem.
- To work as a responsible member and a leader of a team in developing software solutions.
- To express technical, behavioural ideas and thought in oral settings.
- To participate in and possibly moderate, discussions that lead to make decisions.
- To express technical ideas, strategies and methodologies in written form.
- To prepare and conduct oral presentations.

Course Name: Seminar

- To acquire new technologies while searching the topic.
- To enhance presentation skills of the learner.

B.Sc (Biotechnology)

B. Sc. First Year, Semester I

I- PCH Physical Chemistry and LC-I Organic and Inorganic ChemistryLearner can able to understand the basic concept like-

- Structure of atom : introduction, subatomic particles, quantum theory
- Chemical bonding
- Thermochemistry
- Thermodynamics

II- OIC Organic and Inorganic Chemistry
Learner can able to understand the basic concept like-

- Alkanes: methods of preparation, source- petroleum and coal
- Alkenes: methods of preparation
- Alkyl and aryl halides
-

III- MCD Microbial Cell and Diversity LC-II Microbiology
Learner can able to understand the basic concept like

- Student can identified and isolate various microbes
- Isolate various microbes in a proper way
- characteristic and importance of micro-organisms
- Negative staining,
- Monochrome staining

IV- BST Biostatistics

Learner can able to understand the basic concept like

- Introduction to Biostatistics: Basic definitions, notations and applications. Sampling:Representative sample, sample size
- Measures of Variability: Standard deviation, standard error, Range Chi square test, t-test,F-test, Z-test.

I- NS Instrumentation and LC-III Instrumentation and techniquesLearner can able to understand the basic concept like

- Student can Handel and use various laboratical Instruments in industries
- Basic Laboratory Instruments: Principle and working
- Microscopy: Microscope Types: Light and electron, Resolving

VI- BML Biomolecules

Learner can able to understand the basic concept like

- Basic Concepts:- Introduction to Biochemistry, its significance, scope and application.
- Classification of hormones, regulation of secretion and metabolic role

B. Sc. First Year, Semester II

VII- OIC Organic Chemistry and LC-IV Inorganic and Physical ChemistryLearner can able to understand the basic concept like

- Covalency, Oxidation Number and Oxidation state.
- Difference between oxidation number and valency
- Physiosorption, chemisorption, surface area,
- Industrially important process. Theories of catalysis

I- PC Inorganic and Physical Chemistry

Learner can able to understand the basic concept like

- Classification of stereomers, diastereomers, separation of enentiomers.
- Systematic IUPAC nomenclature of different classes of compounds including aromatic,bicyclic and polyfunctional compounds

IX- MGC- Microbial growth and control

Learner can able to understand the basic concept like

- Student can construct various mediums in Research and development department inindustries
- microbial nutrition
- Major and Micro bio elements and growth factors
- Methods of sterilization of micro-organisms

X- BMT Biomathematics and LC-V Biostatistics and MathematicsLearner can able to understand the basic concept like

- Determinants and Matrices
- Differential Calculus

XI- Integration

XII- MML Macromolecules and LC-VI Biomolecules and MacromoleculesLearner can able to understand the basic concept like

- Students can study rapid changes that have an impact on the homeostasis of biochemicaland molecular biological systems
- Students can study a source of stored fuel, the ability to store and retrieve geneticinformation, and the ability to speed biochemical reactions.

XIII- BTC Biotechniques

Learner can able to understand the basic concept like

- Student can know the principle and working of devices used in industries
- Students can apply various techniques in industries

B. Sc Second Year, Semester III

XIV-BIM Basics of Immunology and LC-VII Immunology and VirologyLearner can able to understand the basic concept like

- Types of immunity: innate, acquired, active and passive. Elements of immune system
- Cellular and molecular aspects
- Hypersensitivity
- Immunotechniques

XV- GVG General Virology

Learner can able to understand the basic concept like

- Classification and nomenclature of viruses in general, their properties, morphology andultrastructure typical bacteriophage
- Classification plant viruses, life cycle and pathogenicity of important viruses
- Structure and organization of bacteriophages

XVI- DVB Developmental Biology

Learner can able to understand the basic concept like

- Introduction of animal development
- Gametogenesis, Fertilization, Embryo sac development and double fertilization in plants,blastula formation
- Types of Cleavage Cell aggregation and differential in *Dictyostelium;* axes and patternformation in *Drosophila,* organogesis

XVII- CSI Chromosome structure and Inheritance and LC-VIII Inheritances andDevelopmental Biology

Learner can able to understand the basic concept like

- Genetic material: structural organization
- Chromosome: Structure of a typical circular and linear chromosomes
- Transmission and Dominance of Genetic Material
- Sex determination and cytoplasmic heredity
- Quantitative Inheritance and linkage

XVIII- BEZ Basics of Enzymology and LC-IX Enzymology and Animal physiologyLearner can able to understand the basic concept like

- Introduction to enzymes
- Definition of enzymes, importance of enzymes
- Concept of activation energy, active site of an enzyme, Enzyme specificity
- Types of Enzymes
- Monomeric Enzymes (Serine Proteases) Oligomeric Enzymes
- Co–Enzymes & Co-factors

XIX- APL Animal physiology
Learner can able to understand the basic concept like

- Physiology of digestion and excretion
- Types of respiration – external and internal respiration
- Physiology of muscle contraction and nerve impulse
- General structure and types of muscles

B. Sc. Second Year, Semester IV

XX- CBG Cell Biology and LC-X Cell biology and Plant PhysiologyLearner can able to understand the basic concept like

- Cell Structure and organelles
- Cell theory. Organisation- prokaryotic and eukaryotic cells.
- Structure and Functions of Organelles
- Membrane Structure Membrane models

XXI- PPL Plant Physiology
Learner can able to understand the basic concept like

- Plant water relations :
- Cell as a physiological unit. Osmosis, Imbibition
- Significance, site of photosynthesis, pigments, photochemical phase
- Phases of growth, growth curve. Plant growth regulators

XXII- GEN Genetics
Learner can able to understand the basic concept like

- Genes and Mutation
- The enzyme cannot make enzyme paradox, The one gene –one enzyme hypothesis
- Biological mutable agents: viruses, transposons
- Repair and genetic recombination, complementation
- Genetic Code
- Amino acid replacements, artificial messenger

XXIII- CDG Central Dogma and LC-XI Genetics and central dogmaLearner can able to understand the basic concept like

- Perpetuation and its connection with cell division
- Replicon: Definition, types of bacterial replicon, eukaryotic replicon
- Prokaryotic transcription
- Eukaryotic transcription
- RNA polymerases Pol I, Pol II and Pol III

XXIV- AEZ Advanced Enzymology and LC-XII Enzymology and ImmunologyLearner can able to understand the basic concept like

- Extraction & Purification of Enzymes
- Different sources of enzymes, Extraction of soluble enzymes Physical
- Enzyme Kinetics
- Applications of Enzymes
- Uses of enzymes in food and beverages, textile industries

XXV- AIG Advanced Immunology

Learner can able to understand the basic concept like

- Graft and its fate: Types of graft, mechanism of graft rejection, prevention of graftrejection.
- Foetus as graft Synthetic vaccines, automatically, hper- sensitivity, tumor immunityProduction of monoclonal antibodies.
- Chimeric antibody

B. Sc. Third Year, Semester VXXV-REG Regulation of gene expression

Learner can able to understand the basic concept like

- Basics of Gene Expression
- Regulatory elements/ factors: Inculcate concepts with suitable examples for; Cis
- Acting elements, Trans-acting factors.
- Bacterial Gene Expression
- Concept of Operon, Regulation of gene expression
- Eukaryotic Gene Expression

XXVI-I TB Introduction to Bioinformatics and LC-XIII Gene Expression and BasicBioinformatics

Learner can able to understand the basic concept like

- The Internet and Biologist: Internet basics, FTP, Gopher, World wide web.
- The Gen Bank Sequence Database
- Information Retrieval from Biological Databases: Retrieving database entries,
- Integrated information retrieval: The entries system, sequence databases beyond
- NCBI
- Multiple Sequence Alignment

XXVII- PGE Principles of Genetic Engineering

Learner can able to understand the basic concept like

- DNA modifications and DNA cutting
- Systems safeguarding DNA –in detail. Concept of restriction endonuclease action withreference to DNA modification.
- Concept and types of vectors for genetic engineering,
- Shotgun cloning; with reference to use of plasmid as vector, mean of cloning foreignpiece of DNA

XXVIII- FDP Fermentation Design and Process and LC-XIV Genetic Engineering andFermentation

Learner can able to understand the basic concept like

- The isolation, preservation and improvement of industrially important micro-organisms
- The isolation of industrially important micro-organisms
- The use of recombination systems for the improvement of industrial micro-organismsbasic design of fermenter downstream processing

XXIX- PTC Plant Tissue Culture and LC-XV Plant tissue culture and clinical BiochemistryLearner can able to understand the basic concept like

- Terminology- Totipotency, Competency, Determinism, Requirements of tissue culturefacilities, surface sterilization of materials, Basic procedure for Aseptic
- Tissue transfer, Culture media
- Culture Media: Natural media –Plasma Clot, biological fluids tissue extract,
- Importance of Serum in media.

- Chemically defined media

XXX- CBC Clinical Biochemistry

Learner can able to understand the basic concept like

- Basic concepts of clinical biochemistry, scope of clinical biochemistry in Diagnostics
- Antibiotic sensitivity testing.

B. Sc. Third Year, Semester VI

XXXII- GNP Genomics and Proteomics and LC-XVI RDT & Fermentation TechnologyLearner can able to understand the basic concept like

- Protein structure, secondary structure and super-secondary structure.
- Mechanisms of protein folding,
- The structure, function and evolution of the human genome

XXXIII- RDT Recombinant DNA technology

Learner can able to understand the basic concept like

- Isolation, Identification, and Characterization of DNA Fragments:
- Nucleic Acid Purification methods, Yield Analysis
- Molecular Tools and Applications:
- Polymerase Chain Reaction
- Gene Cloning strategies and analysis

XXXIV- FTC Fermentation Technology

Learner can able to understand the basic concept like

- Media formulation, Industrial production
- Downstream processing
- Biosynthesis, Regulation and metabolic control
- Modern trends in Microbial Production Media formulation
- Industrial production, Downstream processing

XXXV –BET Bioethics

Learner can able to understand the basic concept like

- Biotechnology and Society
- Introduction to science, technology and society, biotechnology and social responsibilityBiotechnology
- Bioethics IPR, IPR

XXXVI- Metabolism of Macromolecules and LC-XVII Metabolism, Ecology and EvolutionLearner can able to understand the basic concept like

- Importance of glucose in metabolism, glucose transport Fatty acid are activated andtransported in Mitochondria
- Metabolic fates of amino groups, Deamination, Decarboxylation

XXXVII- Ecology and Evolution

Learner can able to understand the basic concept like

- Introduction: Definition of ecology, branches of ecology
- Environment: Definition, types, Abiotic and biotic factors
- Evolution: Introduction, theories of organic evolution

Commerce (UG)

Sr. No	Course Code	Name of the Course	Course Outcomes
1	**COM 132**	**I.T. Application in Business-I&II**	1. To enable the students to learn principles and concepts of Accountancy. 2. Students are enabled with the Knowledge in the practical applications of accounting. 3. To enable the students to learn the basic concepts of Partnership Accounting, and allied aspects of accounting. 4. The student will get thorough knowledge on the accounting practice prevailing in partnership firms and other allied aspects. 5. To find out the technical expertise in maintaining the books of accounts. To encourage the students about maintaining the books of accounts for further reference.
2	**COM 133** **COM 234**	**Business & Industrial Economics-III** **Business Organization & Management-IV**	1. To provide students knowledge of Industrial Economic concepts and inculcate an analytical approach to the subject matter. 2. To arouse the students interest by showing the relevance and use of various economic theories. To apply economic reasoning to solve business problems 3. To make familiar the students with the emerging changes in the modern office environment and to develop organizational skills. 4. To build up the conceptual , analytical , technical and managerial skills of students efficient office organization and records management 5. To understand the concept & functions and importance of management and its application. 6. To make the student understand principles, functions and different management theories. .
3	**COM134**	**Business Mathematics & Statistics –I & II**	1. To use and understand useful functions in business as well as the concept of EMI. 2. To understand the different concept of population and sample and to make students familiar with Calculation of various types of averages and variation.

			3. To learn the applications of matrices in business. 4. To understand the students to solve LPP to maximize the profit and to minimize the cost. 5. To use regression analysis to estimate the relationship between two variables and to use frequency distribution to make decision. To understand the techniques and concept of different types of index numbers.
4	**COM135**	**Financial Accounting I & II**	6. To enable the students to learn principles and concepts of Accountancy. 7. Students are enabled with the Knowledge in the practical applications of accounting. 8. To enable the students to learn the basic concepts of Partnership Accounting, and allied aspects of accounting. 9. The student will get thorough knowledge on the accounting practice prevailing in partnership firms and other allied aspects. 10. To find out the technical expertise in maintaining the books of accounts. To encourage the students about maintaining the books of accounts for further reference.
5	**COM 201**	**Entrepreneurship Development I & II**	1 To make the students aware about the Business and Business Environment. 2. To develop entrepreneurial awareness among students. To motivate students to make their mind set for thinking Entrepreneurship as career.
7	**COM 303**	**Corporate Account –I &II**	1. This course aims to enlighten the students on the accounting procedures followed by the Companies. 2. Student's skills about accounting standards will be developed. 3. To make aware the students about the valuation of shares. To impart knowledge about holding company accounts, amalgamation, absorption and reconstruction of company.
8.	**COM 304**	**Cost Account I & II**	1. To keep the students conversant with the ever – enlarging frontiers of Cost Accounting knowledge. 2. Students can get knowledge of different methods and techniques of cost accounting. To impart Knowledge about the concepts and principles application of Overheads.
9	**COM 305**	**I.T. Application in Business I & II**	**1**. To develop computer codes codes & Languages i.e. source code , machinery, BCD EBCDIC, ASCII, 2. To make Preparing presentation slides , fonts drawings inserting Tables, images Texts, symbols,

			Media Design, Translations, animations, and using above facilities.
10	**COM 306**	**GST Account I & II**	1. Familiarizes the students with the basic GST principles and techniques of preparing and presenting the accounts. Provides the underlying framework and concepts of GST accounting in the context of how accounting fits into overall business environment of contemporary Business and Economy.
11	**COM 304** **COM 408**	**Marketing Management –I** **Human Resource Management -I**	1. To provide the knowledge of marketing. 2. Introduction of Human resource management, Features, Importance of HRM, issues in HRM. Human Resource planning and procurement.
12	**COM 501**	**Advance Financial Accounting –I &II**	1. To provide the knowledge of various accounting concepts 2. To impart the knowledge about accounting methods, procedures and techniques. To acquaint students with practical approach to accounts writing by using software package and by learning various accounts
13	**COM 502**	**Management Accounting I & II**	1. Imparts conceptual knowledge of various a Inculcates knowledge about accounting methods, practices and techniques particularly pertaining to joint stock companies
14	**COM 503** **COM 603**	**Auditing** **Direct Tax**	1. Students will be versed in the fundamental concepts of Auditing and different aspects of tax. Students can understand Income Tax system properly, and can get the knowledge of different tax provisions.
15	**COM 504**	**Business Regulatory Frame Work-I & II Computerized Accounting I &II**	1. The student will well verse in basic provisions regarding legal frame work governing the business world. 2. To know the students with the basic concepts, terms & provisions of Mercantile and Business Laws. To develop the awareness among the students regarding these laws affecting trade business, and commerce.

16	**COM 507**	**Advertising & Salesmanship**	1. To develop essential skill & types of salesmanship, Values of salesmanship. 2. To understand the role of salesman in the changing scenario in global marketing. **3.** To know the various types of Customers, salesman & skill of successful salesman.

Commerce (PG)

Sr. No	Course Code	Name of the Course	Course Outcomes
1	**COM401**	**Modern Management & Practices**	• To provide knowledge about management concept, valuation of management thought. • To aware the students away functions fo management planning, organization controlling co-ordination. • To explain about motivation, importance types of management approaches to motivation theory.
2	**COM402**	**Managerial Economics**	• To learn the basic concepts of Managerial Economics. • To Study the Problems and significance of Managerial Economics. • To the impact of Industrialization on managerial Economics.
3	**COM403**	**Corporate Financial Accounting**	• To develop the knowledge about general accepted Accounting principles. • Indian Accounting standards & Internal Accounting standards. • To make students aware about the preparation & Analysis of financial Accounts & Financial Statements of

			Companies.
4	**COM 421**	**Business Environment (Opt.)**	• To lean theoretical frame work of Business Environment • To study economic environment of business. • To aware the students planning, Government Policy.
5	**COM 404**	**Advanced Cost Accounting**	• To up-date the students with recent development s in the subjects. • To study concept & features budget & forecast types of budget & Process Prerequisites of budgetary control systems. • To understand the break-even & cost value profit analysis.
6	**COM 405**	**Marketing Management**	• To provided understanding of concept, Nature, Scope & important evolution of Marketing. • To learn the strategic marketing • To make aware marketing environment • To aware the communication process advertising.
7	**COM 406**	**Financial Management**	• To develop knowledge about business finance & the background of accounting & Management • To make students aware about the challenges & Opportunities of financial management.

8	**COM 423**	**Strategic Management (Opt)**	• To provide understanding of the tasks functions & skills of strategic management & latest development. • To aware the students about principals & functions of strategic management • To impart knowledge of a theoretical foundation for the preparation & presentation of new business models.
9	**COM 501**	**Research Methodology**	• To explain the students with the arrears of business Research activities. • To enhance capabilities of students to conduct the research in the field of social science of Business. • To facilitates students, in developing the most appropriate methodology for their research studies.
10	**COM 502**	**Human Resource Planning and Development**	• To explain the students with in-depth knowledge of HRPD. • To develop among students various practices followed by HRP&D. • To create understanding about recent trends & innovations in HRPD.
11	**COM 503**	**Business Legislation**	• To explain the students within the company act 1956 • To create understanding about share certified membership, meeting & Resolutions. • To aware the students about security markets SEBI Act 1992 & relevant provisions.
12	**COM 521**	**International Marketing (Opt.)**	• To develop knowledge about international marketing environment

			foreign market selection. • To provide knowledge of the students • To make aware about the product decision, product planning for global markets.
13	**COM-SC-600**	**Entrepreneurship Development**	• To make the students aware about the Business and Business Environment. • To develop entrepreneurial awareness among students. • To motivate students to make their mind set for thinking Entrepreneurship as career.
14	**COM 504**	**Quantitative Techniques**	• To explain the students with the area of operational Research Basic, application in business decision making. • To understand the knowledge transportation problems, methodology solving transformation problems. • To make aware students about decision.
15	**COM 505**	**Security Analysis**	• To acquaint the students with current trends in security pricing. • To develop among the students trading securities future trading. • To create understanding about portfolio management.
	COM 506	**Research Project**	• To aware students about undertake the project work based on practical

16			training in a business firm for the period of six weeks.
17	**COM 523**	**Advertising& Media Management (Opt.)**	• To provide understanding of the definition advertising as a tool of marketing advertising effects. • To aware the student about print media broadcasting media, mass media advertising on internet. • To develop an understanding of the conceptual of the building of advertising programme..

Travel and Tourism Management

CO1. Display an understanding of the production, implementation, and impacts of tourism development locally, nationally, and internationally.
CO2. Demonstrate cultural and environmental sensitivity through an appreciation for various forms of diversity in our worlds.
CO3. Conduct research ethically, as evidenced through effective research design and implementation.
CO4. Write clearly and concisely in the conventions of tourism studies.
CO5. Exhibit effective oral communication through personal interaction as well as classroom presentations, individually or as part of a group, to a larger audience.
CO6. Demonstrate critical thinking and analytical skills through writing and verbal assessments
CO7. Possess skills and experience relating to the management and production of tourism in a professional setting.

Yeshwantrao Chavan Arts, Commerce & Science College

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