

Dr. Ghali College, Gadhinglaj

Academic Year-2022-2023

Programme Outcomes [UG]

Sr. No.	Degree Programme	Programme Outcomes
1.	B.A.	<p>Student seeking admission for B.A. programme is expected to imbue with following quality which helps them in their future life to achieve the expected goals.</p> <ol style="list-style-type: none">Realization of human values.Sense of social service.Responsible and dutiful citizen.Critical temperCreative ability.
2	B.Com.	<p>Students who have taken admission to this program of B.Com are expected to concentrate upon the following outcomes.</p> <ol style="list-style-type: none">Commercial sense.Develop managerial skills.Entrepreneurial skill.Budgeting policy.Human Resources Management.Develop Numerical ability.Well versed with business regularity framework.
3.	B.Sc.	<p>Students taking admission to this program of B.Sc. are expected to get equipped with following outcomes:</p> <ol style="list-style-type: none">Explaining the basic scientific principles and methods.Inculcating scientific thinking and awareness among the student.Ability to communicate with others in regional language and in English.Ability to handle the unexpected situation by critically analyzing the problem.Understanding the issues related to nature and environmental contexts and sustainable development.

4	B.B.A.	<p>Students who take admission to the program of B.B.A. are expected to acquire the following outcomes:-</p> <ol style="list-style-type: none"> a. Acquire fundamental education in management and business principles. b. Acquire professional skills as a management profession. c. Deep understanding and development of important business skills such as leadership communication skills, critical thinking and decision making. d. Buildup self confidence and competency to take up self employable business ventures. e. Inculcate Entrepreneurship skills.
	B.Com. (IT)	<ol style="list-style-type: none"> 1. To introduce the basic knowledge of Computers among students 2. To introduce the computer software and hardware to the students. 3. To develop the skill in handling of application software's to the students. 4. To enable the students to get a basic & proper knowledge in the field of Information Technology.

Dr. Ghali College Gadhinglaj

Programme Specific Outcomes

Sr. No.	Degree Programme	Programme Specific Outcomes
1.	B.A. (MARATHI)	<ol style="list-style-type: none">a. Creating an interest in literature.b. Availing the job opportunities in translation, transformation and media.c. Developing language.d. Increasing the critical attitude about literary studies.e. Imbuing the literary research attitude.
2	B.A. (HINDI)	<ol style="list-style-type: none">1. Developing reading, writing, speaking and listening skills.2. Availing the job opportunities in translation.3. Increasing the critical attitude about literary writing.4. Creating an interest in literature.5. Imbuing the literary research attitude.
3.	B.A. (ENGLISH)	<p>A student, who has taken admission into this program of B.A with English as specific subject of study, is expected to target on following outcomes.</p> <ol style="list-style-type: none">a. Basic knowledge of English as Language.b. Major knowledge of English as Literature.c. Basic knowledge of English Grammar.d. Critical study of English Literary studies.e. Relation between pleasure of literature and real life.
4	B.A. (ECONOMICS)	<ol style="list-style-type: none">a. Understanding how different degrees of competition in a market affect pricing and output.b. Understanding the efficiency and equity implications of market interference, including government policy.c. Developing research knowledge in economics.d. Developing the skill of data collection & use of sampling techniques in research.e. Developing the knowledge about theories of economic growth & Development and issues

		<p>of economic planning.</p> <p>f. Creating awareness about changing macro-economic policies and theories.</p>
5.	(B.A.) SOCIOLOGY	<p>a) Acquaintance with social transactions, social relations, social formations, social control, social values and culture.</p> <p>b) Knowing the significance of social institution, caste system, religion, nationalism, integrity, equality and justice.</p> <p>c) Getting the knowledge of the works of social reformers all over the nation.</p> <p>d) Ability to follow new stream of thoughts and theories of social thinkers.</p> <p>e) Getting the deep knowledge about various social groups like tribal community, women bulk etc.</p> <p>f) Ability to deal with research in sociology.</p>
6.	(B.A.) (POLITICAL SCIENCE)	<ol style="list-style-type: none"> 1. Knowledge about political system of the nation. 2. Study of national and international political affairs. 3. Study from competitive examination point of view. 4. Understanding the government mechanism, its functions, duties and responsibilities. 5. Creating appropriate and efficient political leaders. 6. Getting knowledge of political law. 7. Getting knowledge of Constitution of India.
7.	(B.A.) PSYCHOLOGY	<ol style="list-style-type: none"> 1. Enhancement of stress management skills. 2. Enhancement of coping skill with different problems in life. 3. Enabling to measure attitude, aptitude, interest, adjustment, skills etc. within the people. 4. Introduction to counseling process and techniques. 5. Illustration of mental disorder and treatment.

8.	(B.COM) ACCOUNTANCY	<ol style="list-style-type: none"> 1. Understanding basic concepts of accountancy, principles of accountancy and accounting cycle to maintain accounts of trading & non-trading organizations. 2. Getting acquainted with the procedure of preparation of income statements, retained earnings, balance sheet and statement of cash flows which are required for external users and more useful to managers for managerial decisionmaking. 3. Inculcating different skills for analysis and interpretation of financial data to understand financial health of an organization and ensure that resources are being used to achieve the organizations objectives. 4. Developing knowledge about cost ascertainment and fixation of selling price and cost control. 4. Obtaining the knowledge of various provisions of Income Tax Act and <u>their</u> applications in computations of taxable income of an individual under different heads of income. 5. Getting working knowledge of generally accepted auditing procedure, techniques and skills.
9.	B.Sc. (CHEMISTRY)	<ol style="list-style-type: none"> 1. Creating interest in environmental issue. 2. Increasing working knowledge of instruments. 3. Obtaining the knowledge of pharmaceutical tables 4. Social awareness about the quality of water. 5. Increasing the practical skill of the students 6. Awareness about plastic garbage.
10.	B.Sc. (MICROBIOLOGY)	<ol style="list-style-type: none"> 1. Understanding about cultivating the pure bacterial cultures 2. Ability to use laboratory instruments like spectrophotometer, colorimeter, LAF, PH meter, Electrophoresis, Compound microscope, Centrifuge. 3. Preparing for a career in a pharmacy and medical related business or industries. 4. Ability to plan the small-to-mid-size laboratories and industries of their own.

		<p>5 Effectively utilizing the knowledge of microorganisms to develop sustainable solutions to current and future environmental problems.</p> <p>6 Developing and implementing solution based systems and/or processes that address issues and/or improve existing systems within in a microorganism based industries.</p>
11.	B.Sc. (Computer Science)	<p>A. Effectively communicating computing concepts and solutions to bridge the gap between computing industry experts and business leaders to create and initiate innovation.</p> <p>B. Ability to use approximately system design notations and apply system design engineering process in order to design, plan and implement software systems.</p> <p>C. Preparing for a career in an information technology oriented business or industry or for graduate study in computer science or other scientific or technical fields.</p> <p>D. Ability to complete successfully to program small –to-mid-size programs on their own.</p> <p>E. Effectively utilizing the knowledge of computing principles and mathematics theory to develop sustainable solutions to current and future computing problems.</p> <p>F. Developing and implementing solution based system and/or process that address issues and/or improve existing systems within a computing based industry.</p>
12.	B.Sc. Mathematics	<p>1 Ability to calculate and reason to design complex and critical financial models for Bank and Insurance Companies.</p> <p>2 Ability to understand both concrete and abstract problems.</p> <p>3 Ability to make critical observations.</p> <p>4 Ability to accurately organize, analyze and interpret data.</p> <p>5 Develop the mathematical logic which</p>

13.	B.Sc. (STATISTICS)	<ol style="list-style-type: none"> 1. Application of statistics in various walks of life. 2. Ability to apply various statistical tools to research problem. 3. Understanding how to collect, present, analyze and interpret the data. 4. Ability to analyze the data by using MS-Excel. 5. Knowing the statistical organization in India and Abroad. 6. Ability to build statistical knowledge. 7. Application of various distributions to real life situation.
14.	B.Sc. (PHYSICS)	<ol style="list-style-type: none"> 1 Identifying and describing physical systems with their professional knowledge. 2 Developing their scientific intuition, ability and techniques to tackle problems either theoretical or experimental in nature. 3 Knowledge of general physics like sound, wave, friction, forces and laws of motion and use of mathematics. 4. Information of electrical current, circuits, construction and their use. 5. Learning about concepts of nuclear physics and nuclear energies and importance of their use for mankind. 6. Knowing about the light and its importance in life, its characteristics, properties and use in various instruments
15.	B.Sc. BOTANY	<ol style="list-style-type: none"> 1. Identifying different resources helpful for human life. 2. Identifying different groups of plants 3. Acquiring knowledge about inheritance, biochemical and metabolic activities. 4. Development of horticultural skill. 5. Acquiring knowledge about importance of environment.
16.	B. Sc. ZOOLOGY	<ol style="list-style-type: none"> 1. Improving the knowledge about criteria for animal classification. 2. Study of salient features of chordates and non-chordates.

		<ol style="list-style-type: none"> 3. Improving the knowledge of animals about their special adaptations and evolutionary relationship. 4. Scientific study of their nature of habitat with environment. 5. Improving information about external morphology and anatomy of animals including human being.
17.	BBA	<p>Students who take admission to the program of B.B.A. are expected to acquire the following outcomes:-</p> <ol style="list-style-type: none"> A. Acquire fundamental education in management and business principles. B. Acquire professional skills as a management profession. C. Deep understanding and development of important business skills such as leadership communication skills, critical thinking and decision making. D. Buildup self confidence and competency to take up self employable business ventures. E. Inculcate Entrepreneurship skills.
18.	B.Com. IT	<ol style="list-style-type: none"> 1. Acquire the managerial professional attributes and be able to understand Financial Accounting, Corporate accounting and Cost Accounting. 2. To impart the basic knowledge of various IT Concepts and application software as well as technical capabilities required for IT industries. 3. Design, implement and evaluate a computer-based system, or process component, to meet the desired need of business applications. 4. Apply the knowledge of Commerce and Information Technology principles to manage business processes effectively in diverse environments as a member or a leader in the team. 5. Develop effective and oral communication and technical writing especially in business applications, with the use of information technology 6. To develop Information Skills among the students so that their employability enhance

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Course Outcomes

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1	B.A. MARATHI	First Year (NEP)	<p>(CGE-1) (Sem. 1 and 2) Shabdasanhita:</p> <ol style="list-style-type: none"> 1) To create the interest among the students about Marathi literature and Language 2) To aware students about national unity, mother tounge, higher human values and ethics 3) To develop their conversation skills through essay competition 4) To avail the opportunities of employment by developing skills of listening, reading, speaking and writing 5) To develop the skills of event management
			<p>(DSCA-1) (Course-1 Sem 1 & 2) Aksharbandh:</p> <ol style="list-style-type: none"> 1) To familiar with Marathi literature Authors and Poets 2) To prepare students for competitive exam and personality development 3) To inculcate skill of film production profession
		Second Year (CBCS)	<p>(DSC-C1) Drama</p> <ol style="list-style-type: none"> 1. To comprehend the genre of drama. 2. To promote the students for acquiring knowledge of enacting drama 3. To boost national unity, courtesy culture and brotherhood. 4. To create the employment by conversation skill.
			<p>(DSC-C2) Kavyagandh</p> <ol style="list-style-type: none"> 1. To introduce Marathi tradition and various flows. 2. To study various poetic devices. 3. To nurture the relationship between

			<p>between man and society expressed in the work of art.</p> <p>4.To inculcate composing poetry through practicals.</p>
			<p>(DSC –C25) Autobiography</p> <p>1. To introduce students to autobiography.</p> <p>2. To study autobiography and other genre.</p> <p>3. To understand autobiography and its relevance to the contemporary era.</p>
			<p>(DSC-C26) Novel</p> <p>1. To introduce novel.</p> <p>2. To understand contemporary novel and conflict in them.</p> <p>3. To aware human values through novel.</p> <p>4. To inculcate report writing.</p> <p>5. To make report writing of picnics.</p>
		Third Year (CBCS)	<p>साहित्यविचार</p> <p>उद्दिष्टे :</p> <p>१. पौराणिक, पाश्चात्य व आधुनिक भारतीय साहित्यशास्त्राचे स्वरूप समजून घेणे.</p> <p>२. ललित व ललितेतर साहित्याचे स्वरूप समजून घेणे.</p> <p>३. साहित्य प्रयोजनांचे आकलन करून घेणे.</p> <p>४. साहित्याची निर्मितप्रक्रिया आणि त्याचे स्वरूप आकलन करून घेणे.</p>
			<p>मराठी भाषा व भाषाविज्ञान</p> <p>उद्दिष्टे :</p> <p>१. भाषोत्पत्तीचा अभ्यास करणे.</p> <p>२. भाषाविज्ञानाचा परिचय करून घेणे.</p> <p>३. भाषाविज्ञान आणि मराठी भाषा यांचा सहसंबंध जाणून घेणे.</p> <p>४. स्वनविचार, रूपविचार व वाक्यविचारांचा परिचय करून घेणे.</p>
			<p>मध्ययुगीन मराठी वाङ्मयाचा इतिहास</p> <p>उद्दिष्टे :</p> <p>१. मध्ययुगीन मराठी वाङ्मयाचा कालिक अभ्यास करणे.</p> <p>२. मध्ययुगीन मराठी वाङ्मयाचा स्थूल परिचय करून घेणे.</p> <p>३. मध्ययुगीन मराठी वाङ्मयाचे स्वरूप, वैशिष्ट्ये अभ्यासणे.</p>

			<p>मराठी भाषा व अर्थार्जनाच्या संधी</p> <p>उद्दिष्टे :</p> <ol style="list-style-type: none"> १. सर्जनशील लेखनप्रक्रिया समजून घेणे. २. वैचारिक लेखनाचे स्वरूप अभ्यासणे. ३. शोधनिबंध व प्रकल्पलेखन कौशल्य समजून घेणे. ४. आंतरजालावरील मराठी लेखनपद्धती अभ्यासणे.
			<p>वाङ्मय प्रवाहाचे अध्ययन : मध्ययुगीन</p> <p>उद्दिष्टे :</p> <ol style="list-style-type: none"> १. मध्ययुगीन महाराष्ट्र व महानुभाव पंथ यांचा परिचय करून घेणे. २. महानुभाव वाङ्मयाच्या प्रेरणा व स्वरूप समजून घेणे. ३. महानुभावीय ग्रंथकार केसोबास यांचा परिचय करून घेणे. ४. दृष्टांतपाठातील आशयस्वरूप व अभिव्यक्ती विशेष अभ्यासणे.
2	B.A. (Hindi)	First Year (NEP)	<p>Paper No. & Name – १, साहित्य जगत</p> <p>Course Outcomes</p> <p>CO 1- छात्रों में हिंदी साहित्य के प्रति रूची बढ़ाना !</p> <p>CO 2- छात्रों में श्रवण पठण एवं लेखन की क्षमता विकसित करना !</p> <p>CO 3 छात्रों में नैतिक मूल्य, राष्ट्रीय मूल्य के प्रति आस्था बढ़ाना !</p> <p>CO 4 राष्ट्रभाषा हिंदी का प्रचार प्रसार करना !</p>
			<p>Paper No. & Name – २, हिंदी गद्य साहित्य</p> <p>Course Outcomes</p> <p>CO 1- छात्रों को हिंदी की विविध विधाओं से परिचित करना !</p> <p>CO 2- छात्रों को प्रमुख गद्यकारों का परिचय करना !</p> <p>CO 3 विविध विधाओं के माध्यम से छात्रों का भावात्मक विकास करना !</p> <p>CO 4 छात्रों की विचारक्षमता और कल्पनाशीलता को बढ़ावा देना !</p>
		Second Year (CBCS)	<p>Paper- Sahitya Vividha</p> <ol style="list-style-type: none"> 1. To familiar with various lives of writers 2. To understand various aspects of life through different stories 3. To acquaint with male dominancy and family 4. To learn different elements to understand healthy family life

			5. To familiar with various disciplines in Hindi Literature
			<p>Paper- Syllabus : Modern and Mediaeval Poetry</p> <ol style="list-style-type: none"> 1. To create interest among students about Archaic Poetry. 2. To explain the relevance of mediaeval poetry to the students 3. To interpret some problems of mediaeval era. 4. To aware the women problem of family Independence, self-reliance etc. 5. To acquaint with the dirty politics through political drama 6. To write stories 7. To write dialogues 8. To participate in play 9. To study comparatively
		Third Year (CBCS)	<p>विधा विशेष का अध्ययन</p> <p>उद्देश्य :</p> <ol style="list-style-type: none"> 1. नाटककार कुसुम कुमार की बहुमुखी प्रतिभा से परिचित कराना। 2. नाटककार कुसुम कुमार के साहित्य से परिचित कराना। 3. नाटककार कुसुम कुमार की विचारधारा से परिचित कराना।
			<p>साहित्यशास्त्र</p> <p>उद्देश्य :</p> <ol style="list-style-type: none"> 1) साहित्य निर्मिति की प्रक्रिया का बोध कराना। 2) साहित्य / काव्य के विभिन्न अंगों, भेदों से परिचित कराना। 3) साहित्य / काव्य की नवीन विधाओं से परिचित कराना। 4) समीक्षा सिद्धांतों से परिचित कराना।
			<p>हिंदी साहित्य का इतिहास</p> <p>उद्देश्य :</p> <ol style="list-style-type: none"> 1. हिंदी भाषा तथा साहित्य की विकास यात्रा से अवगत कराना। 2. हिंदी साहित्य की विकास यात्रा में हिंदी भाषा के माध्यम से अलग-अलग विचारधारा और प्रवृत्तियों से अवगत कराना। 3. छात्रों में साहित्य समझने तथा उसका आस्वादन, मूल्यांकन करने की दृष्टि को बढ़ाना।

			<p>प्रयोजनमूलक हिंदी</p> <p>उद्देश्य :</p> <ol style="list-style-type: none"> 1.हिंदी में कार्य करने की रुचि विकसित करना। 2.रोजगार उन्मुख शिक्षा एवं कौशल्य प्रदान करना 3.पारिभाषिक शब्दावली से परिचित करना। 4.सरकारी पत्राचार के स्वरूप का परिचय कराना।
			<p>भाषा विज्ञान और हिंदी भाषा</p> <p>उद्देश्य :</p> <ol style="list-style-type: none"> 1) भाषा के विविध रूपों का परिचय कराना । 2) भाषा विज्ञान का सामान्य परिचय कराना। 3) हिंदी भाषा एवं लिपि के उद्भव और विकास का परिचय कराना 4) भाषा की शुद्धता के प्रति छात्रों को जागृत करना ।
3	B.A. English	First Year (NEP)	<p>Compulsory English (Paper I): Ability Enhancement Compulsory Course:</p> <ol style="list-style-type: none"> 1) To acquaint students with four skills of language 2) To make them know about basic structure of English Grammar 3) To develop interest among students for spoken English 4) To create positive approach among students towards communicative English 5) To develop personality of students
			<p>Compulsory English (Paper II): Ability Enhancement Compulsory Course:</p> <ol style="list-style-type: none"> 1)Acquaintance with four skills of language 2)Knowing basic structure of English Grammar 3) Developing interest among students towards spoken English 4) Creating Positive approach towards Communicative English 5) Developing personality of students with knowledge of English language

			<p>Modern Indian Writing in English Translation (Sem I & II): Optional English Paper I & II :</p> <ol style="list-style-type: none"> 1) Knowledge of Translation literature 2) Knowledge of short story in Translation 3) Creating interest in studying poetry in translation 4) Developing literacy approach 5) Acquainting with literacy forms 6)
		Second Year (CBCS)	<p>Literature and Cinema</p> <ol style="list-style-type: none"> 1. To know theory of Application, interpretation, Transformation and Transposition. 2. To understand the influential relation between play and film, as well as novel and film. 3. To study play the comedy of Errors and novel five points someone as well their filming into 'Angeer' and 'Three Idiots'
		Third Year (CBCS)	<p>(Optional & special English)</p> <ol style="list-style-type: none"> 1. Enjoyment of literature 2. Pleasure of literacy forms such as novel, poem, play, and essay. 3. Critical understanding of literature. 4. Relation between literature and real life. 5. Emotional development of human mind.
4	B.A. (Economics)	First Year (NEP)	<p>Indian Economy I</p> <ol style="list-style-type: none"> 1. Acquaint the students with Structure of the Indian economy and changes taking place therein. 2. Understanding population Problem of Indian Economy 3. Awareness regarding challenges before the Indian economy. 4. Able to formulate the strategy for economic development
			<p>Indian Economy II</p> <ol style="list-style-type: none"> 1. Acquaint with the policies and

			<p>performance of major sectors in Indian Economy.</p> <ol style="list-style-type: none"> 2. Understanding the nature, scope, challenges and opportunities of economic reforms. 3. Awareness regarding causes of agrarian distress and remedies. 4. Understanding policy reforms regarding the industry and service sector.
		Second Year (CBCS)	<p>Banks and Financial Markets</p> <ul style="list-style-type: none"> <input type="checkbox"/> Understanding the meaning, function and role of commercial banking. <input type="checkbox"/> Comprehending the procedure of an account opening, operating and closing. <input type="checkbox"/> Knowing the structure, function and <input type="checkbox"/> Judging the progress of financial inclusion. <input type="checkbox"/> Evaluating the importance, characteristics and components of the financial market. <input type="checkbox"/> Understanding the role and types of development banks and Non banking financial intermediaries. <input type="checkbox"/> Realizing the banking reforms and Basel norms-I and II. <input type="checkbox"/> Identifying recent trends in Indian Banking such as E- Banking, MICR Clearing, ATMs, Credit cards and Debit Cards, Travelers Cheques, Gift Cheques, Demat Account.
			<p>Macro Economics</p> <ul style="list-style-type: none"> <input type="checkbox"/> Identifying the basic concepts and theories of Macroeconomics. <input type="checkbox"/> Awareness about changing macro economics policies and theories. <input type="checkbox"/> Understanding various concepts such as; GDP, GNP NNP, Personal

			<p>Income, Disposable Income, Per Capita Income, and National Income.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Identifying the factors determining gross domestic product, employment, the general level of prices, and interest rates. <input type="checkbox"/> Realizing the law of markets, consumption function and investment function. <input type="checkbox"/> Judging the role of fiscal policy and monetary policy in a Developing economy. <input type="checkbox"/> Knowing features, phases and theories of trade cycles. <input type="checkbox"/> Evaluating types, merits and demerits of taxes. <input type="checkbox"/> Comprehending the role of public finance in developing economy.
		Third Year CBCS	<p>Principles of Micro Economics I & II Students will be able to understand</p> <ul style="list-style-type: none"> <input type="checkbox"/> Explain what economics is & why it is important <input type="checkbox"/> Understand consumer decision making & consumer behavior <input type="checkbox"/> Define the concept of utility & satisfaction <input type="checkbox"/> Understand producer decision making & producer behavior <input type="checkbox"/> Identify the market structure <input type="checkbox"/> Understand the factor pricing
			<p>Research Methodology in Economics –I & II</p> <ul style="list-style-type: none"> <input type="checkbox"/> Select & define appropriate research problem and parameters <input type="checkbox"/> Understanding the basic framework of research process. <input type="checkbox"/> Defining various research designs and techniques. <input type="checkbox"/> Identifying various sources of

			<p>information for literature review and data collection.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Discussing the ethical dimensions of conducting applied research. <input type="checkbox"/> Write a research report & thesis <input type="checkbox"/> Write a research proposal
			<p>History of Economic Thoughts I & II</p> <ul style="list-style-type: none"> <input type="checkbox"/> Acquaintance with the economic thoughts of Classical, Nationalist and Socialist Thinkers. <input type="checkbox"/> Judging the development of economic thoughts. <input type="checkbox"/> Realizing the economic concepts and theories of Neo-classicals and Indian thinkers. <input type="checkbox"/> Evaluating the development of Indian economic thoughts.
			<p>International Economics I & II</p> <ul style="list-style-type: none"> <input type="checkbox"/> Explain international trade <input type="checkbox"/> Understand the measurement of gains from international trade <input type="checkbox"/> Measure the terms of trade <input type="checkbox"/> Evaluating various types of exchange rates and its merits and demerits. <input type="checkbox"/> Discussing the types and effects of tariffs and quotas. <input type="checkbox"/> Judging the function, merits and demerits of Foreign Capital, and International Corporation (IMF, IBRD, WTO and SAARC). <input type="checkbox"/> Realizing the volume, composition and direction of Balance of trade and Balance of payments.
5	B.A. (Sociology)	First Year (NEP)	<p>Paper No. I – INTRODUCTION TO SOCIOLOGY 1) The student learns to apply to sociological perspective in understanding how society</p>

			<p>shapes our individual lives.</p> <ol style="list-style-type: none"> 2) It also provides a foundation for the other more detailed and specialized course in sociology. 3) The student learns how to read and interpret complex ideas and texts and to present them in a cogent manner. 4) The student can able to understand the concept of culture & socialization.
			<p>Paper No. II – Principles of Sociology</p> <ol style="list-style-type: none"> 1) The course is intended to introduce the student to a sociological way of thinking. 2) It also provides a foundation for the other more detailed and specialized course in sociology. 3) The course provide competitive atmosphere for the student.
			<p>Scientific Method (Compulsory subject)</p> <ol style="list-style-type: none"> 1. To implement of the scientific approach in the student. 2. To introduce the various scientific methods in the students. 3. To develop the research attitude in student 4. To enhance scientific attitude among the students.
		Second Year (CBCS)	<p>Semester III:- Paper No. III SOCIAL ISSUES IN INDIA</p> <ol style="list-style-type: none"> 1. To acquaint the students to major social problems & challenges the problem of the Indian society. 2. Awareness created in the student of contemporary social problems in India. 3. To understand the Socio-Legal Issues.

			<p style="text-align: center;"><u>Paper No. IV</u></p> <p style="text-align: center;">Social Movements in India</p> <ol style="list-style-type: none"> 1. To acquaint the student to concept, element & Importance of Social Movement. 2. To understand the various social movements & its impact on society. 3. To draw attention to the variety of ideas & debates about India.
			<p style="text-align: center;">IDS PAPER I : SOCIAL REFORMS IN INDIA</p> <p>Course Outcomes :</p> <ol style="list-style-type: none"> 1. Understand the salient features of prominent socio-religious reform movements. 2. Explain the thought and work of Mahatma Phule for radical transformation of Indian Society. 3. Know the measures taken by Rajashri Shah Maharaj for emancipation of lower classes and women. 4. Understand the thoughts of Ambedkar on the annihilation of the caste system and untouchability in India. 5. Know how the Indian constitution embodies the values of social justice and equality.
			<p style="text-align: center;">IDS PAPER II : SOCIAL REFORMS IN MAHARASHTRA</p>

			<ol style="list-style-type: none"> 1. Know about the beginnings of social reforms in Maharashtra by the ParamhansaMandali and PrarthanaSamaj. 2. Understand the contribution of women reforms. 3. Explain the contribution of Social reformers in the fight for social justice. 4. Explain the role played by educational reforms in transformation of society.
			<p style="text-align: center;"><u>Semester IV – Paper No. V</u> GENDER & VIOLENCE</p> <ol style="list-style-type: none"> 1. This course attempts to provide an understanding of the logic of the violence. 2. To acquaint the students awareness of its most common forms & tries to equip the students with a sociologically informed basis for making pragmatic, ethical & effective choices while resisting or intervening in the context of gendered violence.
			<p style="text-align: center;"><u>Semester IV – Paper No. VI</u> SOCIOLOGY OF HEALTH</p> <ol style="list-style-type: none"> 1. The course introduces students to the sociology of health, illness & medical practice by highlighting the significance of socio-cultural dimensions in the construction of illness & medical knowledge.

			<p>2. To understand the theoretical perspectives examine the dynamics shaping these constructions.</p> <p>3. To understand the Negotiations of health & illness are explored through ethnographies.</p>
		Third Year CBCS	<p>Paper No. VII Western Sociological Thinkers</p> <p>1. Acquaintance with the sociological thought of the Pioneers of Sociology.</p> <p>2. Making awareness of the perennial of structure versus agency.</p>
			<p>Paper VIII Methods Of Social Research (Part I)</p> <p>1) Thrust of the course is on empirical reasoning, understanding and analysis of social reality.</p> <p>2) Introduction to various steps in conducting research.</p> <p>3) Acquaintance with different types of research and issues in research.</p> <p>Paper No - IX Political Sociology</p> <p>1. An ability to comprehend the embeddedness of political and the social in each other.</p> <p>2. Be able to understand the relationship between state and society in shaping politics in India both historically & analytically</p>
			<p>Paper No. X Human Rights</p> <p>1. Students will be able to conceptual understanding about human rights.</p> <p>2. Understand the nature and role of human rights in India.</p>

			<p>Paper XI Sociology of Religion</p> <p>1. Students will be able to make link between texts and paraphrase their arguments & use these to communicate their ideas in research papers, projects & presentations.</p> <p>2. By encompassing contemporary developments the course enables student to think about linkages between religion & society at various levels.</p>
			<p>Paper No. XII Indian Sociological Thinkers</p> <p>1. Introduction to the diversification in Indian society through the different ideologies given by various Indian Sociologists.</p> <p>2. Sensitization of the contemporary Indian issues different</p>
			<p>Paper XIII Methods of Social Research (Part-II)</p> <p>1) Imparting basic Research Skills</p> <p>2) Introduction to various steps in conducting research.</p> <p>3) Acquaintance with different types of research and issues in research.</p>
			<p>PAPER NO. XIV Social Anthropology</p> <p>1. Understanding the economic and developmental aspects of tribal's in India.</p> <p>2. Analysing the tribal problems</p>
			<p>PAPER NO. XV Rural Sociology</p> <p>1. Introduction the Indian Rural Social Structure</p> <p>2. Understanding the nature of village studies conducted by different</p> <p>3. Discussing the changing power structure in rural Community.</p>

			<p>PAPER XVI</p> <p>Urban Sociology</p> <p>1. To appreciate the significance of the city & the process of urbanization & its consequences across the globe</p> <p>2.To develop critical thinking among the students.</p>
6	B.A. (Political Science)	First Year (NEP)	<p>DSC (B4) Paper-I</p> <p>Introduction to Political Science</p> <p>1. Student become familiar with fundamentals of Political Science</p> <p>2. Helps to develop civic sense among students</p>
			<p>DSC (B18) Paper-II</p> <p>Indian Constitution</p> <p>1. Students become aware about fundamental rights and duties.</p> <p>2.Aware about Political System and Governmental Machinery</p> <p>3.Develop interest in Law and Legal System</p>
		Second Year (CBCS)	<p>CGE Paper I & II <u>Public Administration</u></p> <p>1. Students become familiar with administrative system.</p> <p>2. Students try to understand complexity of administration.</p> <p>3. Students attracted towards civil services like MPSC/UPSC/SSC etc.</p>

			<p>DSC D35 Paper V Local Self Government in Maharashtra</p> <ol style="list-style-type: none"> 1. Students take interest in Panchayat Raj and Municipal administration. 2. Helps to promote rural & urban development.
			<p>DSC D36 Paper VI Indian Political Thought Part- I</p> <ol style="list-style-type: none"> 1. Students starts critical thinking of Indian Political thoughts vis a vis western Political Thoughts 2. Reflects values among students.
			<p>DSC D7 Paper III Political Process in India</p> <ol style="list-style-type: none"> 1. Students become familiar with current political sinario. 2. Socio-Political Movements become active.
			<p>DSC D8 Paper IV Indian Political Thought Part- I</p> <ol style="list-style-type: none"> 1. Students starts critical thinking 2. Students start comparison among different political ideologies.
		Third Year CBCS	<p><u>Public Administration</u></p> <ol style="list-style-type: none"> 1. Study of the administrative system of thenation. 2. Getting information about various concepts in PublicAdministration. 3. Study of the mechanism for the solution of problems in PublicAdministration
			<p><u>Political Theory</u></p> <ol style="list-style-type: none"> 1. Getting basic knowledge of political theory 2. Understanding of approaches of political theory. 3. Knowing behavioral movement in Political science

			<p><u>Western Political Thoughts I & II</u></p> <ol style="list-style-type: none"> 1. Getting information about western political ideas 1. Getting information about western thinkers and their political thoughts. 2. Comparative study of the ancient thoughts and modern thoughts from Plato & Rousseau. 3. Understand political view of J. S. Mill, Karl Marx, Gramsci & Hannah Arendt
7	B.A. (PSYCHOLOGY)	First Year (NEP)	<p>Paper: I Foundations of Psychology</p> <ol style="list-style-type: none"> 1) Making familiar with the foundations of Psychology. 2) Acquaintance with cognitive process, states of consciousness and learning. 3) Acquaintance with memory processes.
			<p>Paper: II General Psychology</p> <ol style="list-style-type: none"> 1) Making familiar with the field of general Psychology. 2) Acquaintance with intelligence, motivation and emotions. 3) Acquaintance with Personality.
		Second Year (CBCS)	<p>Paper – III PSYCHOLOGY FOR LIVING</p> <ol style="list-style-type: none"> 1. They can understand use of psychology for living. 2. Students get knowledge about the concept of Stress and other stress related mental disorders. 3. Students become aware about various Psychotherapies and their uses in day to day life.
			<p>Paper – IV SOCIAL PSYCHOLOGY</p> <ol style="list-style-type: none"> 1. To acquaint the students with processes of Social Psychology 2. To introduce students the concept of Social Perception. 3. To make aware the students about the Self and self esteem.

			<p>4. To introduce students concept of attitude formation, persuasion and cognitive dissonance.</p>
			<p>Paper V MODERN SOCIAL PSYCHOLOGY</p> <ol style="list-style-type: none"> 1. To acquaint the students with processes of liking (attraction) and sources of liking. 2. To make students familiar with the concept of Social influence, Conformity and Compliance. 3. To acquaint the students with Understanding Prosocial Behavior. 4. To introduce students the concept of Aggression, its causes and control.
			<p>Paper – VI APPLIED PSYCHOLOGY</p> <ol style="list-style-type: none"> 1. To make familiar to students with processes of Personal control, Decision Making and Personal growth. 2. To introduce students the work, career, play and using leisure positively. 3. To acquaint the students with Making and keeping friends 4. To make aware students about the concept of Love and Commitment.
		Third Year CBCS	<p>Paper: VII Introduction to Cognitive Psychology</p> <p>Upon successful completion of the course students should:</p> <ol style="list-style-type: none"> 1. Gain an understanding of key concepts and research techniques in cognitive psychology. 2. Gain an understanding of the basic processes of sensation attention and perception. 3. Gain an understanding of the memory processes.

			4. Be able to broadening the horizons of cognitivepsychology.
			<p>Paper: VIII Cross Cultural Psychology</p> <ol style="list-style-type: none"> 1. To acquaint students with emerging field of Cross-Cultural Psychology 2. To make students aware of global v/s relativistic approaches to study human behavior 3. To sensitize students recognize cultural aspects of individual development and socialization 4. To understand socio-cultural influences in development of abnormality and its treatment
			<p>Paper : IX Introduction to Psychopathology</p> <ol style="list-style-type: none"> 1) To make the students familiar with the field of Psychopathology. 2) To acquaint students with various perspectives of Psychopathology. 3) To make the students understand Anxiety and Obsessive Compulsive Disorder. 4) To acquaint students with Mood Disorders and Suicide.
			<p>Paper: X Current Trends in Psychology</p> <ol style="list-style-type: none"> 1. To acquaint students with emerging new trends in Psychology 2. To make students aware of health risk behaviour and their causes 3. To sensitize students recognize developmental factors related to criminal behaviour 4. To understand psychological, family and social influences in development

			of criminality
			<p>Paper: XI Practical-Experiments</p> <ol style="list-style-type: none"> 1) Introducing Psychological experiments. 2) Imparting the knowledge and skills for conducting experiments and writing their reports. 3) Introducing some statistical methods
			<p>Paper No. : XII Psychological Testing</p> <ol style="list-style-type: none"> 1) Introduction to the field of psychological testing in general. 2) Acquaintance with the nature and uses of psychological test 3) Understanding the nature and other description of intelligence test, ability tests and personality tests.
			<p>Paper: XIII Counseling Psychology</p> <ol style="list-style-type: none"> 1. Introduction to the field of counseling Psychology. 2. Comprehending the applications of counseling Psychology in the fields of career, marriage, couple and family Counseling
			<p>Paper – XIV Personal Psychology</p> <ol style="list-style-type: none"> 1. Introducing the field of personal Psychology. 2. Acquaintance with study of communicating effectively valuing diversity and goal achievement.
			<p>Paper: XV Psychology of Organizational Behavior.</p> <ol style="list-style-type: none"> 1. Introducing the field of organizational Behavior. 2. Introducing study of personality, values, group Processes and changes in organization settings.

			<p>Paper: XVI Practical: Psychological Tests</p> <ol style="list-style-type: none"> 1. Introduction to Psychological tests. 2. Imparting the knowledge and skills for administering psychological tests and writing their reports. 3. Getting acquainted with some statistical methods.
8	B.Com. (CBCS)	First year (NEP)	<p>Marathi Paper I & II Shabhasahita</p> <ol style="list-style-type: none"> 1) To create the interest among the students about Marathi literature and Language 2) To aware students about national unity, mother tongue, higher human values and ethics 3) To develop their conversation skills through essay competition 4) To avail the opportunities of employment by developing skills of listening, reading, speaking and writing 5) To develop the skills of event management
			<p>English for Business Communication</p> <ol style="list-style-type: none"> 1) Acquaintance with four skills of language 2) Knowing basic structure of English Grammar 3) Developing interest among students towards spoken English 4) Creating Positive approach towards Communicative English 5) Developing personality of students with knowledge of English language
			<p>Financial Accounting</p> <ol style="list-style-type: none"> 1. To get an idea about the basic of accounting concept and conventions and accounting process. 2. To make use of knowledge and skill for accounting of professional. 3. To acquaint with skills of recording transaction related to single entry system.

			<p>4. To make use of knowledge and skill for accounting of branches.</p> <p>5. To understand the knowledge about computerized accounting.</p>
			<p><u>Management Principles and Applications</u></p> <p>1. To get an idea about the basic managerial process and planning works in real life.</p> <p>2. To develop decision making skills to evaluate various alternatives and situation.</p> <p>3. To get an idea about motivation concept and theories.</p> <p>4. To understand and utilize techniques of coordination and control.</p> <p>5. To understand various emerging issues in management like green management and to understand concept of Change.</p>
			<p><u>Principle of Marketing</u></p> <p>1. The student will know various marketing concepts, basis of marketing and students will be able to assess consumer behaviour.</p> <p>2. The students will understand rural market, consumer and student will also enlighten about various recent trends and development in marketing.</p> <p>3. The students will be aware with four basic element of marketing i.e.4Ps in detail and student will be arned with various Skills about branding, labeling ;and advertisement.</p> <p>4. The student will know about management of retailing operations and changing scenario of retail business in India.</p>
			<p><u>Insurance</u></p>

			<ol style="list-style-type: none"> 1. To enable the students to know the fundamentals of Insurance. 2. To give exposure to the student about life insurance products, procedural part and life insurance business in India. 3. To enable the students to know the fundamentals of General Insurance. 4. To give exposure to the students about general insurance, procedural part , general insurance business and FDI in Insurance in India.
			<p>Micro Economics</p> <ol style="list-style-type: none"> 1. Understanding the link between business economics and business decision. 2. Realizing the importance of demand forecasting and method of demand forecasting. 3. Justifying the demand function and production function. 4. Evaluating various production theories. 5. Clarifying the meaning of Marginal, average, total revenue, and Marginal, average and total cost and its implication. 6. Understanding different markets structure in marketing system
	B.Com.	Second year (CBCS)	<p>English for Business Communication [Compulsory English]</p> <ol style="list-style-type: none"> 1. To enable the students to develop communication skills in both oral and written. 2. To equip the students with the language skills for use in their personal, academic and professional lives. 3. To facilitate and help the students to acquire communication skills. 4. To encourage the active involvement of the students in learning.

			<p><u>Corporate Accounting</u></p> <ol style="list-style-type: none"> 1. Understand the accounting entries of issue and forfeiture of shares. Accounting treatment for redemption of preference shares & buyback of shares 2. Exposure to the issue of shares and debentures of the company. 3. Attainment of knowledge about accounting procedure of company final account. 4. Understanding the accounting procedure amalgamation and absorption of company 5. Ability to get the knowledge about valuation of shares. 6. Understanding the accounts procedure of liquidation of Ltd. company.
			<p><u>Business Economics</u></p> <ol style="list-style-type: none"> 1. Understanding the basic concepts and theories of Macroeconomics. 2. Awareness about changing macro economics policies and theories. 3. Justifying various concepts such as; GDP, GNP NNP, Personal Income, Disposable Income, Per Capita Income, and National Income. 4. Explanation of the factors determining gross domestic product, employment, the general level of prices, and interest rates. 5. Acquaintance with law of markets, consumption function and investment function. 6. Understanding monetary policy of Central Banks and its implications.
			<p><u>Money and Financial System</u></p> <ol style="list-style-type: none"> 1. Understanding the nature, functions and issues related to money, banking and

			<p>non banking financial intermediaries and financial system.</p> <ol style="list-style-type: none"> 2. Knowing about changing role of banking and financial intermediaries in the process of growth & development. 3. Realization of the term structure, role and functions of RBI, NBFIs, Development Banks, Commercial Banks, Money Market, Capital Market and Forex Market. 4. Getting knowledge about changing paradigms in Indian Banking (E-Banking, Mobile Banking Tele Banking, Core Banking – Retail Banking - ATM, Credit Card and Debit card, Kisan card).
			<p><u>Fundamentals of Entrepreneurship</u></p> <ol style="list-style-type: none"> 1. Motivating to acquire the skill to be an Entrepreneur 2. Creating Entrepreneurial skill among the students. 3. Creating awareness among students about self employment/ own business. 4. Providing various innovative business ideas to the society. 5. Developing a skill of stability in the business at critical situation.
			<p><u>Business statistics</u></p> <ol style="list-style-type: none"> 1. Making familiar with statistical tools which are relatively used in business. 2. Imparting the ability to collect present, analyze and interpret data. 3. Ability to predict trend values by using list square methods in regression.
	B.Com. ENVIRONMENTAL STUDIES		<ol style="list-style-type: none"> 1. Understanding environmental concerns by the students at the undergraduate level. 2. Understanding the relationship of man

			<p>with the environment and help them change his attitude for more positive, proactive, eco-friendly and sustainable lifestyles.</p> <ol style="list-style-type: none"> 3. Getting information about climate change, Global warming, Acid rain, Green house effect, Ozone, layerdepletion. 4. Cultivating attitudes to safeguard the environment built particularly with field experience. 5. Realization of the impact of human actions on the immediate environment and the linkage with the largerissues. 6. Getting information about Environment ProtectionActs.
	B.Com	Third year CBCS	<p><u>Modern Management Practices</u></p> <ol style="list-style-type: none"> 1. Knowing about the growing size and complexity of business. 2. Getting known with good working environment andconditions. 3. Explanation about how to reduce wastage and increaseefficiency. 4. Importance of research anddevelopment. 5. Knowledge about cut throat competition in themarket. 6. Acquaintance with the modern management practices being used by the corporateworld.
			<p><u>Business Regularity Framework</u></p> <ol style="list-style-type: none"> 1. Introduction to Business Law as well as otherLaws. 2. Achieving the knowledge ofLaw. 3. Knowing the rights and liability of every citizen regardingsociety. 4. Awareness of legalliability. 5. Welfare ofsociety 6. Creating legal awareness among thestudents. 7. Acquainting with the latest laws, governing business and commercialtransactions.

			<p>Business Environment</p> <ol style="list-style-type: none"> 1. Understanding business environment at national and international level. 2. Knowledge about agricultural development, industrial development and service sector development in India. 3. Discussing the problems of Indian economy. 4. Measuring implementation and impact of Liberalization, Privatization and Globalization on Indian Economy. 5. Justifying performance, role, function, merits and demerits of Foreign Capital, Multinational corporations and International Corporation (IMF, IBRD, WTO and SAARC).
			<p>Co-operative Development</p> <ol style="list-style-type: none"> 1. Understanding the principles of co-operation and co-operative movement in India. 2. Knowing the structure, types, functions, problems and remedies agricultural and Non-agricultural Credit Co-operative institutions. 3. Getting known with Co-operative credit movement in post- independence period. 4. Evaluating the impact of Globalization on co-operative Movement. 5. Getting basic knowledge of co-operative society and its administration. 6. Justifying the role of state and central government in development of co-operative sector. 7. Understanding New Economic Policy since 1991 and
			<p><u>Advanced Accountancy Paper I & IV.</u></p> <ol style="list-style-type: none"> 1. Knowledge about various provision of Banking 2. Knowledge about the accounting procedure of Hire purchase system of sales. 3. Calculation of fire insurance claim under loss of stock policy and loss of

			<p>profitpolicy</p> <ol style="list-style-type: none"> 4. Knowledge about the Firm Accountingprocedure. 5. Obtaining the knowledge about analysis and interpretation of financial statements. 6. Understanding the procedure of calculation of working capital requirement and preparation of funds flowstatement. 7. Exposure to cost accounting and managementaccounting.
			<p><u>Advanced Accounting Paper II (Auditing)</u></p> <ol style="list-style-type: none"> 1. Knowledge about auditing principles and techniques of auditing. 2. Getting knowledge of vouching of cash and credittransactions. 3. Knowing the appointment procedure of Auditor. 4. Acquiring the skills of Audit program of co-operative societies andbanks. 5. Knowledge about writing of auditreports.
			<p><u>Advanced Accounting Paper IV (Taxation)</u></p> <ol style="list-style-type: none"> 1 Understanding basic concepts in Indian TaxAct. 2 Obtaining the knowledge about tax freeincomes. 3 Acquiring the knowledge about general deductions fromincome. 4 Exposure to income taxplanning 5 Knowing the procedure of calculation of incometax 6 Understanding the procedure of e-filling of return and e-payment oftax. 7 Getting known with application of principles and provisions of direct tax laws in computation of taxable income under various heads ofincome.
			<p><u>Cost Accounting (Paper I and II)</u></p> <ol style="list-style-type: none"> 1. Creating logical thinkingpower. 2. Creating ability to take decision at

			<p>different level of production activity like make or buy, project launching etc.</p> <ol style="list-style-type: none"> 3. Developing knowledge among students about cost ascertainment and fixation of selling price and cost control. 4. Knowledge about presentation of cost accounting information for the purpose of decision making. 5. Determination of profitable or unprofitable activity in business by using different cost accounting tools.
			<p>Cost Accounting (Paper III & IV)</p> <ol style="list-style-type: none"> 1. Developing knowledge about preparation of tenders, quotations, etc. 2. Helping in determining the product total cost and fixation of selling price. 3. Creating skills about handling of various financial records, documentation, collection and classification of different costs. 4. Enhancing the knowledge of business project analysis and cost planning and procedure. 5. Getting known with how to publish information about production to management, consumer, Government, Employee at different levels for decision making purpose.
			<p>Advanced Banking Paper I, II, III & IV</p> <ol style="list-style-type: none"> 1. Introducing banking law and practice in relation to the banking system in India. 2. Developing the capability of students for knowing banking system, regulatory framework, banker- customer relationship and banking services. 3. Understanding the legal aspects of banking transactions and its implications as banker and customer. 4. Knowing the banking services and remittances. 5. Understanding electronic banking and IT in banks. 6. Knowing types of negotiable instruments.

			<ol style="list-style-type: none"> 7. Getting acquainted with banks and financial institutions. 8. Developing the capability of students for knowing bank nationalization, financial and business performance of banks, central banking and financial markets (Money Market, Capital Market, Spot and Derivative Market). 9. Explanation of regulatory and promotional role of central banking, and its role in economic development.
			<p><u>Industrial Management (Paper I&II)</u></p> <ol style="list-style-type: none"> 1. Understanding about work for maximum outputs. 2. Knowing about mobilization of best talents. 3. Motivation of employees 4. Improving standard of living. 5. Ample job opportunity. 6. Establishing sound industrial relations. 7. Achievement of goals. 8. Creating relationship between owners and workers. 9. Management provides innovation.
			<p><u>Industrial Management (Paper III&IV)</u></p> <ol style="list-style-type: none"> 1. Active cooperation of human being. 2. Industrial management aims of achieving Predetermine objectives. 3. It helps coordination and establishes team spirit 4. Basic of management and multidisciplinary teams.
9	B.Sc. CHEMISTRY	First Year (NEP)	<p>Paper I DSC-3A Inorganic Chemistry</p> <p>Student will be able to understand</p> <ol style="list-style-type: none"> 1) The size, shape, and electron distribution in shells and sub- shells of an atom. 2) The different types of bonds and nature of bonding in inorganic compound, Calculation of different energies associated with ionic bonding. 3) The knowledge of nature of bonding, geometry, stability, and magnetic

			<p>characters of covalent compounds by applying VBT.</p> <ol style="list-style-type: none"> 4) The role acids and bases in chemistry, the study is useful in all chemical areas. 5) The properties and uses of the compounds of p-block elements.
			<p>Paper II DSC-4A Organic Chemistry</p> <p>Student will be able to understand</p> <ol style="list-style-type: none"> 1) The fundamentals and basic principle involved in organic chemistry. 2) The spatial arrangements of atom of organic molecules and type of stereoisomer. 3) The general properties and fundamental reactions of aromatic compounds. 4) The basics of heterocyclic compounds along with their physical, chemical and synthetic properties.
			<p>Paper III DSC-3B Physical Chemistry</p> <ol style="list-style-type: none"> 1) Basic concepts and rules of logarithms, graphs, derivatives and integration. 2) The basic concept in thermodynamics. 3) Basic concept in kinetics and first order, second order reactions with characteristics and suitable examples 4) Basics in surface tension, viscosity and refractive index with examples. 5) Basic concept in electrochemistry, conductors, conductivity cells along with measurement of conductance with examples and numerical problems.
			<p>Paper IV DSC-4B Analytical Chemistry</p> <p>Student will be able to understand</p> <ol style="list-style-type: none"> 1) Analytical procedures and importance of sampling 2) Classical and industrial chemistry with their distinctions and basic concept and concentration term. 3) Chromatography separation technique and terms for paper and thin layer

			<p>chromatography.</p> <p>4) Type of titrations, neutralization curves and indicators.</p> <p>5) The chemical nature and cleaning action of soap</p>
		Second Year (CBCS)	<p>Paper V DSC-C3 Physical Chemistry</p> <p>1. Learning and understanding conductivity and transport number of the aqueous solutions with different applications</p> <p>2. Knowledge about surface tension, viscosity and refractive index will be gained by the student</p> <p>3. Learning and understanding surface phenomena at heterogeneous surfaces</p> <p>4. Learning the various Nuclear phenomena and measurement of nuclear radiations</p> <p>5. Learning and understanding the knowledge about third order reaction and theories of reaction rates</p>
			<p>Paper VI DSC-C4 Industrial Chemistry</p> <p>1. Learning and understanding basic concepts and concentration terms</p> <p>2. Knowledge of some unit operations</p> <p>3. Understanding the process of corrosion and Knowledge of prevention from corrosion</p> <p>4. Knowledge of Indian paper industry</p> <p>5. Knowledge about the chemical nature and cleansing action of soap</p>
			<p>Paper VII DSC-D3 Inorganic Chemistry</p> <p>1. Learning and Understanding basic concepts about coordination complexes</p> <p>2. Knowledge about application of chelates in analytical chemistry.</p> <p>3. Understanding the properties of P- block elements</p> <p>4. Student will be capable of Understanding the properties of 3d series elements</p> <p>5. Student will learn the basic knowledge about the qualitative analysis of inorganic compounds</p>
			<p>Paper VII DSC-D4 Organic Chemistry</p> <p>1. To impart knowledge about the synthesis reactivity and applications of carboxylic acids</p>

			<p>2. Knowledge about classification of amines and diazonium salts</p> <p>3. Understanding the classification, configuration and structure of carbohydrates</p> <p>4. Student will be capable of understanding the nomenclature and reactivity of aldehydes and ketones</p> <p>5. Student will learn the basic knowledge conformational analysis of organic compounds</p>
		Third Year CBCS	<p>Paper IX Inorganic Chemistry Student will be able to understand</p> <ol style="list-style-type: none"> 1) Pearson's HSAB Concept & Useful for the study of role of acids and bases in Chemistry. 2) CFT & MOT 3) Study of Inorganic Polymers 4) Semiconductors, Superconductors & their applications 5) Synthesis and structural study of Organometallic Compounds 6) Mechanism and applications of catalyst in industrial fields
			<p>Paper X Organic Chemistry</p> <ol style="list-style-type: none"> 1. Understanding of energy associated with electromagnetic radiation and its use in analytical technique. 2. Knowledge of chromophore, auxochrome and calculation of $\lambda_{\max.}$ 3. Knowledge of vibrational transitions, regions of IR spectrum, functional group recognition. 4. Understanding of magnetic-non magnetic nuclei, shielding-deshielding, chemical shift, splitting pattern 5. Knowledge of molecular ion, fragmentation pattern and different types of ions produced.
			<p>Paper XI Physical Chemistry</p> <ol style="list-style-type: none"> 1) To create knowledge regarding Atomic Structure

			<ol style="list-style-type: none"> 2) Enhancement of knowledge on phase diagram 3) Identification on types of solutions 4) Determination of type of electrodes
			<p>Paper XII Analytical Chemistry</p> <ol style="list-style-type: none"> 1. Learning and understanding the techniques of gravimetric analysis. 2. Knowledge of instrumental analysis of alkali and alkaline earth elements. 3. Understanding, working and applications of optical methods as an analytical tool. 4. Understanding theory and applications of potentiometric titrations.
			<p>Paper XIII Inorganic Chemistry Student will be able to understand</p> <ol style="list-style-type: none"> 1) Electronic configuration of 5f series elements and their properties 2) Nuclear reactions and study of radioisotopes as tracers 3) Thermodynamic and Kinetic aspects of Inorganic complexes 4) Bioinorganic Chemistry
			<p>Paper XIV Organic Chemistry</p> <ol style="list-style-type: none"> 1) Learning and understanding applications of Drug 2) Knowledge about reagent and its applications 3) To impart knowledge about the reactions and its mechanism 4) To study reactions of C=C
			<p>Paper XV Physical Chemistry</p> <ol style="list-style-type: none"> 1) To create interest among the students about Crystal Lattice 2) To impart knowledge on Adsorption and Absorption 3) To understand expression on Thermodynamics

			<p>Paper XVI Analytical Chemistry</p> <ol style="list-style-type: none"> 1) Learning and Understanding theory of Tritrimetric Analysis 2) Introduction of different types of Chromatographic Techniques 3) Impart knowledge about Colorimetry and Spectrophotometry 4) Learning and understanding Potentiometric Titrations
10	B.Sc. Microbiology	First Year (NEP)	<p>Paper I – DSC- 25A INTRODUCION TO MICROBIOLGY CO 1- To develop a good knowledge of the development of the discipline of Microbiology a and the contributions made by prominent scientists in this field CO 2- To develop a very good understanding of the characteristic of different types of Microorganisms, methods to organize/classify these into and basic tools to study these in the laboratory. CO 3- To explain the useful and harmful activities of the microorganisms and scope of different branches of Microbiology. CO 4-To describe characteristics of bacterial cells, cell organelles and various appendages like capsules, flagella or pili.</p>
			<p>Paper II - DSC- 26A Basic Techniques in Microbiology CO 1-To study the staining techniques for the observation of bacteria and bacterial cell components CO 2-To study the working principle, handing and use of microscopes for the study of microorganisms. CO 3-To understand the principles of sterilization and disinfection of culture media, Glassware and plastic ware and other objects to used for microbiological work</p>
			<p>Paper III - DSC- 25B BACTERIOLOGY CO 1- To describe the nutritional requirements of bacteria and other microbes which grow</p>

			<p>under extreme environments.</p> <p>CO 2-To understand the basic laboratory experiments to isolate, cultivate and differentiate bacteria.</p> <p>CO 3- To study the preservation of bacteria in the laboratory.</p>
			<p>Paper IV - DSC- 26B MICROBIAL BIOCHEMISTRY Course Outcome</p> <p>CO 1-To develop a very good understanding of various biomolecules which are required for development and functioning of a bacterial cell.</p> <p>CO 2-To develop the knowledge of how the carbohydrates make the structural and functional components such as energy generation and as storage food molecules for the bacterial cells.</p> <p>CO 3-To make well conversant about multifarious structures and functions of proteins, enzymes, lipids and nucleic acids.</p> <p>CO 4-To differentiate the concepts of aerobic and anaerobic respiration and how these are manifested in the form of different metabolic pathways in microorganisms.</p>
			<p>Practical-</p> <p>CO 1-To understand the basic techniques in Microbiology laboratory.</p> <p>CO 2- To study the working principle, handling and use of compound microbiology for the study of microorganisms.</p> <p>CO 3-To study the simple and special staining techniques for the observations of bacteria and bacterial cell components.</p> <p>CO 4-To understand the working principle and applications various equipment's in Microbiology laboratory.</p> <p>CO 5-To study the preparation, sterilization and use of various culture media.</p>
		Second Year (CBCS)	Paper V DSC-C25 Microbial Physiology and Metabolism:

			<ul style="list-style-type: none"> • Basic knowledge of metabolism and physiology. • Implement their knowledge in research. • Students get aware with applied topics in biochemistry.
			<p>Paper VI DSC-C26 Applied Microbiology</p> <ul style="list-style-type: none"> • Students are able to analyze problems and get aware about research • Understood all concepts of microbiology, developed their skills in their course work.
			<p>Paper VII DSC-D25 Microbial Genetics and Molecular Biology</p> <ul style="list-style-type: none"> • Students can work for enzyme production, production of pharmaceuticals such as insulin, Human growth hormone etc. • Able to do transformation, conjugation, transduction like gene transformation procedures .
			<p>Paper VIII DSC-D26 Basics in Medical Microbiology and Immunology</p> <ul style="list-style-type: none"> • Able to analyses & clarify laboratory practices in immunology interacts with clinical decisions making in the diagnosis of the diseases & there care of patients. • Students can apply immunology in tissue transplantation and immune therapy to treat diseases of immune system and cancers.
		Third Year CBCS	<p>Paper IX Virology</p> <ol style="list-style-type: none"> 1. Educating concepts in the area of Virology. 2. Getting the idea about structure and

			<p>reproduction of animal, plants and bacterial viruses.</p> <ol style="list-style-type: none"> Understanding the viral diseases to human animals and plants. Understanding the cause and characteristics of Cancer
			<p>Paper X Immunology</p> <ol style="list-style-type: none"> Recall advanced knowledge of the underlying principle of immunology Knowledge of Antigen, Antibody complex formation and its mechanism
			<p>Paper XI Food and Industrial Microbiology</p> <ol style="list-style-type: none"> Getting knowledge related to foodstuffs and contamination of food products. Understanding industrial use of microorganisms. Learning different topics of food poisoning, toxication and develop probiotics.
			<p>Paper XII Agricultural Microbiology</p> <ol style="list-style-type: none"> Developing necessary skills for microbial techniques in agriculture. Awareness about eco-friendly use of microbial source in human society.
			<p>Paper XIII Microbial genetics</p> <ol style="list-style-type: none"> Knowledge of microbial techniques. Knowledge of bacterial genome replication. Knowledge of creating and recombinant bacteria. Idea to Design the genetically modified organisms.
			<p>Paper XIV Microbial Biochemistry</p> <ol style="list-style-type: none"> Knowledge of basics in microbial biochemistry. Knowledge about application of

			enzymes, proteins in industries and pharmaceuticals.
			Paper XV Environmental Microbiology <ol style="list-style-type: none"> 1. Knowledge of environmental factors and pollution issues. 2. Recognize the polluted water and treatment using proper methods. 3. Awareness for hygienic practices
			Paper XVI Medical Microbiology <ol style="list-style-type: none"> 1) Students can deal with Medical and emerging areas in Medical microbiology 2) Knowledge of immune mechanism against different pathogens
11	B.Sc. Mathematics	First Year (NEP)	Paper I – <ol style="list-style-type: none"> 1. Evaluate the limit and examine the continuity of a function at a point. 2. Understand the consequences of mean value theorems for differentiable functions. 3. Apply Leibnitz theorem to obtain higher derivatives of product of two differentiable Functions.
			Paper II – <ol style="list-style-type: none"> 1. Understand types of differential equations. 2. Solve different types of ordinary differential equations. 3. Understand applications of differential equations.
			Paper III – <ol style="list-style-type: none"> 1. Learn conceptual variations while advancing from one variable to several variables in calculus. 2. Set up and solve optimization problems involving several variables. 3. Learn the concept of Jacobian of a transformation.

			<p>Paper IV-</p> <ol style="list-style-type: none"> 1. Use fundamental concepts in Mathematics like sets, relations and functions. 2. Use fundamental concepts in Number theory. 3. Solve examples on congruence. 4. Determine n th roots of unity.
		Second Year (CBCS)	<p>Paper V - DSC- 5C REAL ANALYSIS-I</p> <ol style="list-style-type: none"> 1) Describe the basic difference between the rational and real number. 2) Understand and perform simple proofs.
			<p>Paper VI DSC-6C ALGEBRA-I</p> <ol style="list-style-type: none"> 1) Understand the basic concepts of group actions and their applications in both algebraic and geometric contexts. 2) Use appropriate techniques and reasoning to derive the properties of groups defined by generators and relations.
			<p>Paper VII DSC- 5D REAL ANALYSIS-II</p> <ol style="list-style-type: none"> 1) Determine whether or not real series are convergent by comparison with standard series or using ratio test. 2) Evaluate the limits of wide class of real sequences.
			<p>Paper VII DSC- 6D ALGEBRA-II</p> <ol style="list-style-type: none"> 1) Comprehend axiomatic presentations of abstract data types and derive and prove their properties. 2) Understand the elementary concepts of rings and fields and appreciate the similarities and differences between these

			concepts and those of group theory.
		Third Year CBCS	Paper IX Mathematical Analysis <ol style="list-style-type: none"> 1. The integration of bounded function on a closed and bounded interval 2. Some of the families and properties of Riemann integrable functions 3. The applications of the fundamental theorems of integration 4. Extension of Riemann integral to the improper integrals when either the interval of integration is infinite or the integrand has infinite limits at a finite number of points on the interval of integration 5. The expansion of functions in Fourier series and half range Fourier series
			Paper X Abstract Algebra <ol style="list-style-type: none"> 1. Basic concepts of group and rings with examples 2. Identify whether the given set with the compositions form Ring, Integral domain or field. 3. Understand the difference between the concepts Group and Ring. 4. Apply fundamental theorem, Isomorphism theorems of groups to prove these theorems for Ring. 5. Understand the concepts of polynomial rings, unique factorization domain.
			Paper XI Optimization Techniques <ol style="list-style-type: none"> 1. Provide student basic knowledge of a range of operation research models and techniques, which can be applied to a variety of industrial and real life applications. 2. Formulate and apply suitable methods to solve problems. 3. Identify and select procedures for various sequencing, assignment, transportation problems.

			4. Identify and select suitable methods for various games .
			Paper XII Integral Transforms <ol style="list-style-type: none"> 1. Understand concept of Laplace Transform. 2. Apply properties of Laplace Transform to solve differential equations. 3. Understand relation between Laplace and Fourier Transform. 4. Understand infinite and finite Fourier Transform.
			Paper XIII (Metric Spaces) <ol style="list-style-type: none"> 1. Distinguish between open and closed balls in a metric spaces and be able to determine them for given metric space. 2. State the definition of continuity of a function between two metric spaces.
			Paper XIV (Linear Algebra) <ol style="list-style-type: none"> 1. Understand the combination of important results of linear Algebra 2. Linear Algebra includes the concept of vector spaces and linear transformations
			Paper XV (Complex Analysis) <ol style="list-style-type: none"> 1. Determine whether a given function is differentiable and if so find its derivative. 2. Use the residue theorem to compute several kinds of real integrals.
			Paper XVI Discrete Mathematics <ol style="list-style-type: none"> 1. Use classical notions of logic: implications, equivalence, negation, proof by contradiction, proof by induction, and quantifiers. 2. Apply notions in logic in other branches of Mathematics. 3. Know elementary algorithms : searching algorithms, sorting, greedy algorithms, and their complexity. 4. Apply concepts of graph and trees to tackle real situations.
12	B.Sc.	First Year	Paper I –Problem Solving Using Computer

	COMPUTER SCIENCE	(NEP)	<ol style="list-style-type: none"> 1) Demonstrate a familiarity of computer programming language concepts. 2) Understand to develop C programs on Linux platform. 3) Apply C programming control structures for problem solving. 4) Understand working and implementation of arrays.
			<p>Paper II - Database Management System</p> <ol style="list-style-type: none"> 1. Understanding Data Models 2. Understanding database architecture 3. Getting knowledge about use of database 4. Handling multiple tables using entities and attributes 5. Knowledge of constraints over the table.
			<p>Paper III - Programming Skills Using ‘C’</p> <ol style="list-style-type: none"> 1. Understanding concept of Pointer. 2. Understanding for Functional function in c. 3. Learn file handling in c. 4. Understanding concept of Structure and Dynamic Memory Allocation.
			<p>Paper IV - Relational Database Management System</p> <ol style="list-style-type: none"> 1) Understand the importance and working of database. 2) Demonstrate an understanding of the relational data model. 3) Understand the concept of normalization and apply such knowledge to the normalization of a database. 4) Apply SQL queries for database management.
		Second Year (CBCS)	<p><u>Paper V-DSC-11c</u> <u>PHP and MYSQL</u></p> <ol style="list-style-type: none"> 1. Understanding programming skill. 2. understanding working of Xampp server. 3. Getting knowledge about use of HTML concept. 4. Understanding how to develop web application in PHP using MY SQL.

			5 .To learn about how to work PHP that definitely meets the current industry.
			<p><u>Paper I-DSC-12C</u> <u>Object Oriented Programming Using C++</u></p> <ol style="list-style-type: none"> 1. To understand how C++ improves c with object oriented features. 2. How to learn overload functions and operators in C++. 3. To learn how to design C++ classes for code reuse. 4. To learn how inheritance promote code reuse in C++. 5. To learn virtual functions implement dynamic binding with polymorphism.
			<p><u>Paper I-DSC-11D</u> <u>Cyber Security Essentials</u></p> <ol style="list-style-type: none"> 1 .Understand concept if information security management. 2. Understand different access controls methods. 3. Understand wireless network. 4. Learn cyber securities laws. 5. Understand importance of security audit.
			<p><u>Paper I-DSC-12D</u> <u>Data Structure Using C++</u></p> <ol style="list-style-type: none"> 1. Understand the basic concepts of Data Structures using C++. 2. Getting knowledge about searching and sorting techniques. 3. Understanding the concept of time and space complexity algorithms. 4. Ability to design programs using variety of Data Structures
		Third Year CBCS	<p>Paper IX – Core Java</p> <ol style="list-style-type: none"> 1. Understanding the concepts, vocabulary and techniques currently used in the area of computer networks. 2. Getting known with wireless networking concepts. 3. Understanding classification of network, transmission impairments, Data transmission methodsetc. 4. Understanding installation of Windows

			Server 2008 and managing active directory.
			<p>Paper X C# Programming</p> <ol style="list-style-type: none"> 1. This course will cover the practical aspects C#. 2. NET framework. 3. The goal of this course is to introduce the students to the basics of OOPs and windows application program.
			<p>Paper XI Linux Part I</p> <ol style="list-style-type: none"> 1. Upon completion of this course, students should have a good working knowledge of Linux. 2. Allowing them to easily use any Linux distribution. 3. This course shall help student to learn advanced subjects in computer science practically.
			<p>Paper XII Pytho Part I</p> <ol style="list-style-type: none"> 1. To understand why Python is a useful scripting language for developers 2. To learn how to write loops and decision statements in Python 3. To learn how to use lists, tuples, and dictionaries in Python programs
			<p>Paper XIII Advanced Java</p> <ol style="list-style-type: none"> 1) The student will be able to develop distributed business applications, develop web pages Using advanced server-side programming through servlets and Java server pages. 2) Demonstrate approaches for performance and effective coding 3) To learn database programming using Java 4) To study web development concept using Servlet and JSP

			<p>Paper XIV – ASP.NET</p> <ol style="list-style-type: none"> 1. Introduction to Asp.Net an server Controls. 2. Understand concept of Asp.Net State Management
			<p>Paper XV – Linux Part II</p> <ol style="list-style-type: none"> 1. This course covers design principles of Linux Operating System Memory management. 2. Structure of File system and virtual file system is also elaborated. 3. This course contains details of shell programming and introduces System administration
			<p>Paper XVI Python Part II</p> <ol style="list-style-type: none"> 1. To learn how to write functions and pass arguments in Python 2. To learn how to build and package Python modules for reusability 3. To learn how to use exception handling in Python applications for error handling
13	B.Sc. PHYSICS	First Year (NEP)	<p>Paper I DSC-1A MECHANICS-I</p> <p>By the end of course students should be able to know about the following</p> <ol style="list-style-type: none"> 1) Different types of motions in nature 2) Vector and scalar quantities and their applications in physics 3) Differential equations and their applications in physics 4) Momentum and energy conservation rules and their importance.
			<p>Paper II DSC-2A MECHANICAS-II</p> <p>By the end of course students should be able to know about the following</p> <ol style="list-style-type: none"> 1) Oscillations and waves with applications in nature. 2) Property of Elasticity and use in

			<p>different applications.</p> <p>3) Surface tension its properties and applications.</p> <p>4) Simple concepts like weightlessness, Geosynchronous satellite and GPS</p>
			<p>Paper III DSC-B ELECTRICITY AND MAGNETISM-I</p> <p>By the end of course students should be able to know about the following</p> <p>1) All about electrostatics, field, flux, various theorems in dielectrics and their applications in capacitors.</p> <p>2) Vector analysis, Gauss's, Stokes's and Green's theorems and applications.</p> <p>3) Concept of energy density in electric field</p> <p>4) <i>Applying</i> above concepts to <i>Solve numerical exercise</i> in electrostatics</p>
			<p>Paper IV DSC- 2B ELECTRICITY AND MAGNETISM-II</p> <p>By the end of course students should be able to know about the following</p> <p>1) LCR circuit and analysis and its use in electrical and electronics devices.</p> <p>2) Various bridges and their applications to determine the unknown values of resistance, capacitance and inductances.</p> <p>3) Maxwell's equations and applications to solve problems in electromagnetic wave propagation.</p> <p>4) <i>State and apply</i> Network theorems to simple circuits</p>
		Second Year (CBCS)	<p>Paper V-DSC C1 THERMAL AND STATISTICAL MECHANICS –I</p> <p>By the end of course students should be able</p>

			<p>to know about the following</p> <ol style="list-style-type: none"> 1) Kinetics of gases and Maxwell's law of distribution of velocities and their use in transport phenomena in gases. 2) Various types of thermometers, their construction and working. 3) Thermodynamic processes and different laws with applications in development of Heat engine.
			<p style="text-align: center;">Paper VI -DSC C2 WAVES AND OPTICS -I</p> <p>By the end of course students should be able to know about the following</p> <ol style="list-style-type: none"> 1) Oscillations and their importance in physical world. 2) Harmonic, coupled oscillations and energy exchange processes. 3) Characteristics of sound and applications in Acoustic of building, data storage and recording and reproduction etc.
			<p style="text-align: center;">Paper VII-DSC D1 THERMAL AND STATISTICAL MECHANICS –II</p> <p>By the end of course students should be able to know about the following</p> <ol style="list-style-type: none"> 1) Various thermodynamic functions and their inter relations. 2) Blackbody radiations and its applications. 3) Classical and Quantum phenomena and theories related.
			<p style="text-align: center;">Paper VIII -DSC D2 WAVES AND OPTICS -I</p> <p>By the end of course students should be able to know about the following</p> <ol style="list-style-type: none"> 1) Study of Optics and use of cardinal points in lens system. 2) Prism, Grating and other optical instruments and their applications.

			3) Light its properties and applications in various new technologies.
14	B.Sc. BOTANY	First Year (NEP)	<p>Paper I</p> <ol style="list-style-type: none"> 1. To understand distinguishing characters of Viruses, Bacteria, Algae. 2. To understand economic and commercial importance of Viruses, Bacteriophages. 3. To understand various mode of reproduction and classifications in viruses, Bacteria and Algae. 4. To gain the knowledge about production of Biofertilizers & their applications in agricultures.
			<p>Paper II -</p> <ol style="list-style-type: none"> 1. Students will understand the structure and purpose of basic component of prokaryotic and eukaryotic cell especially macromolecules, membranes & organelles. 2. Students will understand the stages of mitosis and meiosis highlighting similarities and differences. 3. Students will gain knowledge about principles of microscopy and basics of light microscopy, fluorescent microscopy & electron microscopy. 4. Student will understand about principles, process and basics of paper chromatography & Thin Layer Chromatography.
			<p>Paper III -</p> <ol style="list-style-type: none"> 1. Students will gain basic understanding of classification & economic and ecological importance of Fungi. 2. Students will learn about various types of Lichens and their economic importance. 3. To study representative plant diseases such as viral, Bacterial, Fungal and mycoplasma plant diseases. 4. To develop skills of Mushroom cultivation and its marketing.
			<p>Paper IV -</p> <ol style="list-style-type: none"> 1. To understand classification & economic importance of Bryophytes, pteridophytes &

			<p>Gymnosperms.</p> <p>2. To learn methods of reproduction in Bryophytes, Pteridophytes and Gymnosperms.</p> <p>3. To distinguish characteristics of Bryophytes, Pteridophytes and Gymnosperms.</p>
		Second Year (CBCS)	<p>Paper V - DSC-C13 Embryology of Angiosperms Unit-I.Toacquire basic Knowledge of structure and development of Plants. Unit-II.To understand scientific terms,concepts,facts phenomenon among the plants.</p>
			<p>Paper VI DSC-C14 Plant Physiology Unit-I.To understand basic knowledge about Physiological mechanisms in Plants. Unit-II.To impart the knowledge about physiological relation among living organisms.</p>
			<p>Paper VII DSC-D13 Plant Anatomy Unit-I.Toacquire knowledge of internal organization of plants. Unit-II.To give idea about internal construction of the plant organs.</p>
			<p>Paper VII DSC-D14 Plant Metabolism Unit-I.Toacquire basic knowledge of biochemical metabolism in plants. Unit-II.To develop ability for the application of acquire knowledge.</p>
15	B.Sc. ZOOLOGY	First Year (NEP)	<p>Paper I – Animal Diversity-I</p> <ol style="list-style-type: none"> 1. Students will understand evolutionary history and relationships of different non- Chordates through functional and structural affinities. 2. Students will learn about importance of systematic, taxonomy, structural organization of the animals and will appreciate diversity of non-Chordates

			<ol style="list-style-type: none"> 3. Students will be able to critically analyze organization, complexity and characteristic features of non-Chordates. 4. Students will understand features, organs, pathogenesis, life history and significance of non-chordates.
			<p>Paper II – Cell Biology & Evolutionary Biology</p> <ol style="list-style-type: none"> 1. The present course has been devised to familiarize students with the structural and functional aspects of cell, the basic unit of life, and its different organelles. 2. Students will understand the basics of cell structure and organization cell organelles. 3. Students will demonstrate broad-based knowledge of the fundamentals of Evolution. 4. Evolutionary biology highlights the adaptive value within-species variability.
			<p>Paper III - Animal diversity and insect vector</p> <ol style="list-style-type: none"> 1. Students will able to understand systematic position, habit and habitat of the animal. 2. They will learn about rat anatomy 3. Students will acquire in-depth knowledge about insect vector biology. 4. The student will gain the knowledge of diseases caused by insects, epidemiology of disease and control measures of diseases.
			<p>Paper IV- GENETICS</p> <ol style="list-style-type: none"> 1. The student has a strong foundation on the Mendelian genetics, their principles and gene interactions. 2. The student will gain a basic understanding on human genetics and hereditary. 3. They will learn about mutation, types of

			<p>mutations and genetical syndromes.</p> <p>4. Students will understand the different theories and mechanisms of sex determination.</p>
		Second Year (CBCS)	<p>Paper V – Animal Diversity-II</p> <ul style="list-style-type: none"> • To Study The Animals And Type Of Animals With their Basic Information. • To Study The Classification Of Animals. • To Study the Nomenclature Of Animals. • To Study The Unknown Animals Spices.
			<p>Paper VI –Biochemistry.</p> <ul style="list-style-type: none"> • The study of Metabolisms With Food Componants. • The Study Of DNA. And RNA. • The study Of Enzymes. • The Study Of Vitamins. • Students got lots of information and knowledge about the subject and topic. For the use of daily life.
			<p>Paper VII- Reproductive Biology.</p> <ul style="list-style-type: none"> •The Study Of the Reproduction in animals. • The study of the Reproductive Physiology Of the human. • The Study of The how to form Embryo in Embryonic Sac. • The Study of the Reproductive Hormones. • The study of abnormalities in pregnancy.
			<p>Paper VIII- . Applied Zoology.</p> <ul style="list-style-type: none"> • The use of animals for the domestic purpose.

			<ul style="list-style-type: none"> • The Use Of the animals For Agriculture. • The Use of animals For Economic Purpose. • The Use of animals for Food purpose. • The Use of Animals for Ornamental Purpose. • The use of animals for industrial purpose. Dairy industries. Poultry Industries.
16	B.Sc. STATISTICS	First Year (NEP)	<p>Paper I – DSC-7A DESCRIPTIVE STATISTICS-I</p> <ol style="list-style-type: none"> 1. Acquaintance with some basic concepts in statistics. 2. Making familiar with some elementary statistical methods of analysis of data viz. Measures of Central Tendency, Dispersion, Moments, Skewness, and Kurtosis and to interpret them. 3. Analysis of data pertaining to attributes and to interpret the results.
			<p>Paper II – DSC-8A ELEMENTARY PROBABILITY THEORY</p> <ol style="list-style-type: none"> 1. Acquainting with some basic concepts of probability. 2. Ability to distinguish between random and non-random experiment. 3. Ability to find the probabilities of various events. 4. Ability to understand the concept of conditional probability and independence of events. 5. Ability to distinguish between univariate and bivariate probability distribution.
			<p>Paper III - DSC-7B DESCRIPTIVE STATISTICS-II</p> <ol style="list-style-type: none"> 1. Ability to understand the concept of

			<p>correlation and computation of correlation coefficient.</p> <ol style="list-style-type: none"> Interpreting the value of correlation coefficient and its use in regression analysis. Understanding the concept of multivariate distributions. Application of correlation and regression theory in various fields viz. Agriculture, Business, Medical Science, Industry etc.
			<p>Paper IV- DSC-8B</p> <p>DISCRETE PROBABILITY DISTRIBUTIONS</p> <ol style="list-style-type: none"> Applying discrete probability distribution in different situations. Ability to define discrete variable and study their distributions. Understanding some standard discrete probability distributions with real life situations. Understanding concept of bivariate distribution and computation of related probabilities.
		Second Year (CBCS)	<p>Paper V - DSC- 7C</p> <p>PROBABILITY DISTRIBUTIONS - I</p> <ol style="list-style-type: none"> Understanding discrete distributions based on countably infinite sample space. Application of various discrete distributions in real life situation. Knowing the difference between univariate and bivariate continuous probability distribution. Understanding transformation of

			continuous random variables and its application.
			<p>Paper VI DSC- 8C STATISTICAL METHODS-I</p> <ol style="list-style-type: none"> 1. Application of statistical methods in different fields viz. Business, Industry, Medical Science, Government Planning and Policies etc. 2. Knowing the collection of data with respect to time and techniques used in analysis and forecasting of time series. 3. Understanding the notion of quality and its importance in industry. 4. Ability to differentiate between process and product control and plotting of the various charts used in SQC. 5. Ability to understand vital statistics and computation of vital events. 6. Ability to understand index numbers and computation and utility in industry.
			<p>Paper VII DSC- 7D PROBABILITY DISTRIBUTIONS -II</p> <ol style="list-style-type: none"> 1. Understanding various continuous probability distributions theoretically. 2. Application of normal distribution in different fields. 3. Ability to relate gamma and beta distribution. 4. Ability to relate t, F and chi-square variates.
			<p>Paper VII DSC- 8D STATISTICAL METHODS-II</p> <ol style="list-style-type: none"> 1. Application of Chebychev's Inequality in finding lower and upper bound of the

			<p>data.</p> <ol style="list-style-type: none"> 2. Understanding the life cycle of a component or a unit and finding its reliability. 3. Ability to understand the difference between large and small sample and tests based on it. 4. Ability to understand the concept of hypothesis and its testing and application in various fields.
		Third Year (CBCS)	<p>STATISTICS – IX DSE-E13: Probability Distributions The students will acquire</p> <ol style="list-style-type: none"> a) knowledge of important univariate distributions such as Laplace, Cauchy, Lognormal, Weibull, Logistic, Pareto, Power Series Distribution. b) knowledge of Multinomial and Bivariate Normal Distribution. c) knowledge of Truncated Distributions. d) information of various measures of these probability distributions.
			<p>STATISTICS - X DSE-E14: Statistical Inference-I</p> <ol style="list-style-type: none"> a) knowledge about important inferential aspect of point estimation. b) concept of random sample from a distribution, sampling distribution of a statistic, standard error of important estimates such as mean and proportions. c) knowledge of various important properties of estimator, d) knowledge about inference of parameters of standard discrete and continuous distributions.
			<p>STATISTICS - XI DSE-E15: Design of Experiments</p> <ol style="list-style-type: none"> a) knowledge of basic terms used in design of experiments. b) concept of one-way and two-way analysis of variance. c) knowledge of various designs of

			<p>experiments such as CRD, RBD, LSD and factorial experiments.</p> <p>d) knowledge of using an appropriate experimental design to analyze the experimental data.</p>
			<p>STATISTICS - XII DSE-E16: R-Programming and Quality Management</p> <p>a) importance of R- programming b) knowledge of identifiers and operators used in R. c) knowledge of conditional statements and Loops used in R. d) knowledge of quality tools used in Quality management.</p>
			<p>STATISTICS - XIII DSE-F13: Probability Theory and Applications</p> <p>The students will acquire</p> <p>a) knowledge about order statistics and associated distributions b) concept of convergence and Chebychev's inequality and its uses c) concept of law large numbers and central limit theorem and its uses. d) knowledge of terms involved in reliability theory as well as concepts and measures.</p>
			<p>STATISTICS - XIV DSE-F14: Statistical Inference-II</p> <p>a) concept of interval estimation. b) knowledge of interval estimation of mean, variance and population proportion. c) knowledge of important aspect of test of hypothesis and associated concept. d) concept about parametric and non-parametric methods.</p>
			<p>STATISTICS - IX DSE-F15: Sampling Theory</p> <p>The students shall get</p> <p>a) basic knowledge of complete enumeration and sample, sampling frame sampling distribution, sampling and non-sampling errors, principle steps in sample surveys,</p>

			<p>sample size determination, limitations of sampling etc.</p> <p>b) concept of various sampling methods such as simple random sampling, stratified random sampling, systematic sampling and cluster sampling.</p> <p>c) an idea of conducting sample surveys and selecting appropriate sampling techniques.</p> <p>d) knowledge of comparing various sampling techniques.</p>
			<p>STATISTICS - XVI</p> <p>DSE-F16: Operations Research</p> <p>The students will acquire</p> <p>a) Concept of Linear programming problem.</p> <p>b) Knowledge of solving LPP by graphical and Simplex method.</p> <p>c) Knowledge of Transportation, Assignment and Sequencing problems.</p> <p>d) Concept of queuing theory.</p>
17	B.Sc. English	First Year (CBCS)	<p><u>Ability Enhancement Compulsory Course</u></p> <ol style="list-style-type: none"> 1. Acquaintance with four skills of language 2. Knowing basic structure of English Grammar 3. Developing interest among students towards spoken English 4. Creating Positive approach towards Communicative English 5. Developing personality of students with knowledge of English language
		Third Year CBCS	<ol style="list-style-type: none"> 1. Spoken communication and written communication. 2. Writing of Resume, letters of application, business letters. 3. Writing News-report, Essay, paragraph,, Review, etc. 4. Narration of experience, daily routine. 5. Interview Techniques. 6. Understanding and interpretation of poem, prose, essay, short stories, etc.

18	BBA	First year (NEP) Sem I	<p><u>Fundamentals of Business Management</u> <u>CC-A1</u></p> <ol style="list-style-type: none"> 1. Develop a working knowledge of fundamental terminology and frameworks in the four functions of management: Planning, Organizing, Leading and Controlling. 2. Analyse organizational case situations in each of the functions of management. 3. Identify and apply appropriate management techniques for managing contemporary organizations 4. Understand skills, abilities, and tools needed to obtain a job on a management track in an organization of their choice
			<p>Principles of MarketingCC-A2</p> <ol style="list-style-type: none"> 1. Understand the fundamentals of marketing. 2. Aware of the 4P's & 4C's of marketing mix. 3. Understand the consumer behavior and importance of market segmentation
			<p>Micro Economics CC-A3</p> <ol style="list-style-type: none"> 1. Explain meaning and scope of business economics 2. Apply the concept and theories of demand and consumer behaviour. 3. Apply concepts of factor pricing and production function in business practices 4. Understand different markets and its

			pricing practices.
			<p><u>Information Technology in Business Management Course Code: GEC-G1</u></p> <ol style="list-style-type: none"> 1. Understand basics of computer technology. 2. Identify software and networking technology for business. 3. Prepare documents, files and folders with the help of Ms-Words 4. Prepare power point presentations. 5. Analyse Business data using MS – Office.
			<p><u>Insurance and Banking GEC-G1</u></p> <ol style="list-style-type: none"> 1. Understand insurance concept and development in insurance sector 2. Differentiate different types of insurances 2. Know the relevance of Banking Sector in India 3. Understand different E-Banking and Legal Framework for Banking Sector
			<p><u>Accounting for Managers CC-A4</u></p> <ol style="list-style-type: none"> 1. Understand the concepts in accountancy. 2. Prepare ledger accounts, subsidiary books and trial balance. 3. Demonstrate calculations of depreciation. 4. Prepare statements of accounts.
			<p><u>Business Communication AECC-C1</u></p> <ol style="list-style-type: none"> 1. Apply business communication skills. 2. Develop vocabulary skills. 3. Develop effective writing skills. 4. Learn effective reading skills.

		Sem II	<p>Human Resource Management CC-A5</p> <ol style="list-style-type: none"> 1. Understand the basic concepts of HRM and its functions. 2. Gain the insight of Job Analysis concepts and writing job description and job specification 3. Develop an understanding of human resource planning at different levels and benefits of HR Planning 4. Develop the knowledge to identify effective recruitment sources.
			<p>Accounting for Managers</p> <ol style="list-style-type: none"> 1. Understand the basic concepts & principles of Financial Accounting. 2. Learn Depreciation Methods 3. Understand preparation of Final Accounts for sole proprietorship and partnership firm
			<p>Macro Economics CC-A7</p> <ol style="list-style-type: none"> 1. Understand concepts of national income and demand of supply of money 2. Apply the principles and theories of inflation and business cycle 3. Understand different concepts of public finance
			<p>Business Environment CC-A8</p> <ol style="list-style-type: none"> 1. Understand the concept of Business Environment and its elements. 2. Analysis Economic Environment and Technological Environment

			<ol style="list-style-type: none"> 3. Compare Social and Cultural Environment and Natural Environment 4. Analysis Political ,legal environment and Global Environment
			<p>Management Information System GEC-G2</p> <ol style="list-style-type: none"> 1. Understand basics Information System. 2. Understand working and applications of different information systems. 3. Learn study system development lifecycle. 4. Learn analyse the system requirement.
			<p>Soft Skills and Personality Development</p> <ol style="list-style-type: none"> 1. Understand the basics of soft skills. 2. Understand how to develop personality traits and Self-Management. 3. Improve critical thinking skills. 4. Learn about problem management and conflict resolution skills
		Second Year CBCS	<p>A) Fundamentals of Entrepreneurship CC-B1</p> <ol style="list-style-type: none"> 1. Have a fair idea about aspects of entrepreneurship development 2. Understand the role of entrepreneurs, and the importance of entrepreneurship with the challenges and opportunities. 3. Get acquainted with different theories of entrepreneurship 4. Understand the concept and role of woman entrepreneurs 5. Understand the concept of rural and social entrepreneurship
			<p>B) Cost Accountancy CC-B2</p> <ol style="list-style-type: none"> 1. Describe concepts in Cost Accountancy

			<ol style="list-style-type: none"> 2. Analyze methods of Costing, Cost Levels and methods of pricing material issues, Inventory Control Techniques 3. Define application of Marginal Costing Technique in decision making 4. Discuss Cost Audit and Cost Control Technique.
			<p>C) SERVICES MARKETINGCCB 3</p> <ol style="list-style-type: none"> 1. Illustrate Services- it's concept, classification and importance 2. Compare goods and services 3. Demonstrate 7 P's of service marketing 4. Application of 7 P's for various service organizations 5. Develop 7 P's of marketing for a service organization
			<p>D) Forms of Business Organization GEC-G3</p> <ol style="list-style-type: none"> 1. Understand different forms of business organization. 2. Classify different sources of finance available & its influence on business decisions. 3. Illustrate different combinations of business. Understand new trends in management.
			<p>E) STATISTICAL TECHNIQUES (AECC-C3)</p> <ol style="list-style-type: none"> 1. Define descriptive Statistical techniques 2. Describe applications of statistical techniques. 3. Apply suitable statistical formula and calculate result. 4. Conclude degree of relationship of two variables and estimate unknown variable.
			<p>F) Entrepreneurship and Project Management CC –B4</p> <ol style="list-style-type: none"> 1. Understand the process of project identification 2. have a fair idea about different institutions and schemes 3. Understand different methods of project

			<p>appraisal</p> <p>4. Understand the process of preparation of business plan</p>
			<p>G) Management Accounting CC-B5</p> <ol style="list-style-type: none"> 1. Understand Management Accounting and Reporting to management 2. Understand tools and techniques of Management Accounting 3. Understand Financial Statement Analysis
			<p>H) RURAL AND RETAIL MARKETING CC-B6</p> <ol style="list-style-type: none"> 1. Develop understanding of concepts of rural and retail marketing. 2. Understand the current situation of rural marketing. 3. Analyze the marketing of agricultural inputs and products. 4. Understand retail formats, retail buying behavior and retail marketing mix.
			<p>I) Research Methodology GEC-G4</p> <ol style="list-style-type: none"> 1. Define various terms used in research process 2. Describe research design, sample design and sampling methods 3. Apply appropriate methods for data collection for research work 4. Use appropriate statistical tools for data analysis and interpretation
			<p>J) STATISTICS FOR DECISION MAKING (AECC-C4)</p> <ol style="list-style-type: none"> 1. Define tools Statistics used for decision making 2. Describe applications of statistics for decision making. 3. Apply suitable statistical formula and estimate trend. 4. Construct control charts
	<u>BBA</u> <u>ENVIRONME</u> <u>NTAL</u>		<ol style="list-style-type: none"> 1. Understanding environmental concerns by the students at the undergraduate level.

	<u>STUDIES</u>		<ol style="list-style-type: none"> 2. Understanding the relationship of man with the environment and help them change his attitude for more positive, proactive, eco-friendly and sustainable lifestyles. 3. Getting information about climate change, Global warming, Acid rain, Green house effect, Ozone, layerdepletion. 4. Cultivating attitudes to safeguard the environment built particularly with field experience. 5. Realization of the impact of human actions on the immediate environment and the linkage with the larger issues. 6. Getting information about Environment Protection Acts.
		Third Year CBCS	A) Fundamentals of Business Laws CC-C1 <ol style="list-style-type: none"> 1. Have a fair idea about aspects of different business laws in India 2. Understand the salient features & importance of different business laws. 3. Get acquainted with different provisions of business laws.
			B) Human Skills CC-C2 <ol style="list-style-type: none"> 1. Develop different human skills among students 2. Enhance quality behavior. 3. To increase Emotional Quotient by learning values. 4. Understand about conflict management and stress management 5. Beneficial to cultivate professional skills among the management students and make them persons with empathy. 6. Understand about Career Management and career opportunities in Management.
			C) Management Historians CC-C3 <ol style="list-style-type: none"> 1) Understand evolutionary phases of management approaches 2) Understand contribution of management historians 1) Evaluate role of historian in developing

			science of management
			D) Digital Marketing DSE-A1 1. Learn the applications of Digital Marketing 2. Analyze the different digital marketing avenues. 3. Examine digital marketing tools. 4. Build real life problems in the domain digital marketing.
			E) Financial Management DSE B1 1. To understand the basic concepts Financial Management 2. To know about components of Working Capital Management 3. To understand Capital Structure ,Cost of Capital and Leverage
			F) Human Resource Planning DSE-C1 1. Understand the various functions of HRM. 2. Describe the Human Resource Planning Process. 3. Understand the Recruitment function in detail. 4. Describe the Selection process 5. Analyze the employee separation method.
			G) Mini-Project /Field Report DSE-A2/ DSE-B2/ DSE-C2 1. To identify the research problem and formulate objectives. 2. To choose appropriate methodology with proper tools and techniques. 3. To analyze and interpret the data collected from different sources. 4. To make decision or find out conclusions on the basis of data analysis.
			H) Fundamental of Taxation (Semester-VI) CC-C4 1. To understand the basic concepts in Taxation 2. To demonstrate the computation of income and tax liability 3. To understand concept of GST and its mechanism
			I) ORGANIZATIONAL BEHAVIOUR

			<p>CC-C6</p> <ol style="list-style-type: none"> 1. Understand the basic concepts of OB 2. Understand the principles of learning 3. Describe the importance of attitude and values 4. Implement the theories of Motivation and Personality. 5. Understand and implement causes of stress and coping strategies
			<p>J) International Marketing DSE A3</p> <ol style="list-style-type: none"> 1. Understand basics of international marketing. 2. To provide students with a perspective of International Marketing management, its environment and complexities. 3. Study international marketing strategies. 4. Study functions of international trade.
			<p>K) Business Finance (Semester-VI) DSE-B3</p> <ol style="list-style-type: none"> 1. To understand the basic concepts Business Finance 2. To recognize Financial Markets , Mutual Funds, Portfolio Management and Micro Finance 3. To understand Corporate Restructuring and its ways.
			<p>L) Human Resource Development DSE – C3</p> <ol style="list-style-type: none"> 1. Understand the difference between HRM & HRD Concepts. 2. Understand the various subsystems involved in Human Resource development. 3. Describe and differentiate Training & development function. 4. Understand the methods of performance appraisal 5. Analyze the career development techniques.
			<p>M) Major Project DSE-A4/ DSE-B4/ DSE-C4</p> <ol style="list-style-type: none"> 1. To identify the research problem and formulate objectives. 2. To choose appropriate methodology with proper tools and techniques. 3. To analyze and interpret the data collected from different sources.

			4. To make decision or find out conclusions on the basis of data analysis.
	B.Com. (IT)	First Year	<p>Accountancy Paper-I</p> <ol style="list-style-type: none"> 1. To know Financial Accounting principles and practice as applicable to Information Technology 2. To understand basic Accounting concepts, conventions and standards. 3. To understands basic Accounting terms-types of Accounts, its Rules and its Applications 4. To understands recording and postings of transactions and preparation of trial balance.
			<p>Principles of Business Management</p> <ol style="list-style-type: none"> 1. Understand the importance of Administration and Management. 2. Understand Principles of Management in Traditional and Modern scientific way. 3. Learn about Co-ordination & Control, Principles and Techniques. 4. View Management techniques to be adopted to run the organization effectively by using Principles of Management.
			<p>Business Economics Paper-I</p> <ol style="list-style-type: none"> 1. To understand meaning and scope of business economics 2. Apply concepts and theories of Demand and Consumer behavior. 3. To understand supply side and demand side of market throughout production. 4. To apply Consumer behavior and Firm theory to Business situation.
			<p>Impression Management-paper I</p> <ol style="list-style-type: none"> 1. To make students familiar with the concept and techniques of Impression Management. 2. To espouse the students to acquire the skills of Impression Management required improving their employability. 3. To increase Communication skills. 4. To learn Business Etiquettes.
			<p>Fundamentals of Information Technology</p> <ol style="list-style-type: none"> 1. To impart the basic knowledge of Information and application of software.

			<ol style="list-style-type: none"> 2. Prepare document files and folders with the help of MS-Word. 3. Identify the software and networking technology of business. 4. Analyze business data using MS-Office.
			<p>Lab-Course (Information Technology)</p> <ol style="list-style-type: none"> 1. To apply practical knowledge using Information Technology concepts. 2. To know how to use MS-Office suite i.e. MS-Word, MS-Excel, MS-Power point 3. To use and create Word document, Mail-Merge, PPT presentations and Excel formulas. 4. To develop the skills in handling of application software's to the students.
			<p>Accountancy Paper-II</p> <ol style="list-style-type: none"> 1. To know trading results of Non-Trading Concerns & preparation of Receipts and Payments accounts. 2. To understand basic Accounting concepts, conventions and standards. 3. To understand basic Accounting terms-types of Accounts, its Rules and its Applications 4. To understand features of Tally package.
			<p>Principles of Marketing</p> <ol style="list-style-type: none"> 1. To help the students to understand the concepts & principles of Marketing & their applications. 2. To provide basic knowledge of 7 P's of Marketing, retailing. 3. Learn about segmentations and E-Advertising Media's. 4. To know how to apply Marketing concepts in IT i.e. E-Marketing
			<p>Business Economics-Paper II</p> <ol style="list-style-type: none"> 1. To understand meaning and scope of business economics 2. Apply concepts and theories of Demand and Consumer behavior. 3. To understand supply side and demand side of market throughout production. 4. To apply Consumer behavior and Firm theory to Business situation.
			<p>Impression Management-paper II</p> <ol style="list-style-type: none"> 1. To make students familiar with the concept

			<p>and techniques of Impression Management.</p> <ol style="list-style-type: none"> 2. To espouse the students to acquire the skills of Impression Management required improving their employability. 3. To increase Communication skills. 4. To learn Business Etiquettes.
			<p>Database Management System</p> <ol style="list-style-type: none"> 1. To know and create awareness about Database Management System. 2. To store, retrieve & process the data with the help of MS-Access. 3. To know how to apply DBMS concepts in real life. 4. To knows the fundamentals elements of SQL & RDBMS.
			<p>Lab-Course (Database-MS-Access)</p> <ol style="list-style-type: none"> 1. To apply practical knowledge using MS-Access concepts. 2. To know how to use the basics of MS-Access i.e. creation of table, addition, retrieval, deletion of records. 3. To create simple queries, form and report design. 4. To develop the skills in handling Database to the students.
	B.Com. (IT)	Second Year	<p>Paper: 301 Accountancy Paper-III</p> <p>CO 1: Develop an understanding of understand Financial Accounting</p> <p>CO 2: Students will understand Corporate Accounting</p> <p>CO 3: Understand about Cost Accounting</p> <p>CO 4: Prepare final accounts of limited company</p>

COC/ Certificate Course / Short Term Course / Value Added Course

	BBA	Certificate Course in Share Market	<p>1) To provide fundamental knowledge of share market.</p> <p>2) To make aware students about investment.</p> <p>3) To inform students about basic aspects of investment.</p>
	Chemistry	Short Term Course in NMR interpretation	<p>1) This course helps for preparation of industrial interview.</p> <p>2) Students will get knowledge of problem solving ability.</p> <p>3) Able to crack competitive examination like M.Sc. Entrance.</p> <p>4) To build self confidence among the students to be conscious towards the career in R & D section in various industries.</p>
	Psychology	Basic Counselling Skills	<p>1) To familiarize students with the field of Counselling Psychology.</p> <p>2) To improve students interaction through the use of counselling psychology.</p> <p>3) Students will be introduced to the applications of counselling Psychology in the field of career, marriage couple, & family counselling.</p>
	English	English Basic Grammar	<p>Students will be able to</p> <p>1) Identify the verb & its form.</p> <p>2) Learn past, present & future tense with their types.</p> <p>3) Write sentences using appropriate tense.</p> <p>4) Speak English language using appropriate tense.</p>

	Economics	Certificate Course on Fundamental & Technical Analysis	<p>On successful completion of the course students will be able to</p> <ol style="list-style-type: none"> 1) Proper decision of investment. 2) Understanding financial data of various companies. 3) Understand various techniques use for financial statement. 4) Able to understand online trading. 6) Able to open D-mat account.
	Computer Science	Cyber Security	<p>Upon successful completion of this course, students will be able to</p> <ol style="list-style-type: none"> 1. understand the concept of information security management. 2. learn different access control methods. 3. understand wireless network security. 4. learn cyber security laws and the importance of security audit.

Dr. Ghali College Gadhinglaj
Academic Year- 2022-2023
Programme Outcomes [PG]

Sr. No.	Degree Programme	Programme Outcomes
1.	M.A.	<p>A student who has taken admission into this program is to be always aware of following outcomes:-</p> <ul style="list-style-type: none"> i Entire study of discipline. ii Mastery of subject knowledge. iii Mature personality for employability. iv Skills of employment. v Ability to work/serve. vi Critical thinking vii Sense of creativity. viii Language skills. ix Research talent/spirit. x Interview technique and team spirit.
2	M.Com.	<p>Students who have taken admission to this program of B.Com are expected to concentrate upon the following outcomes.</p> <ul style="list-style-type: none"> g. Commercial sense. h. Develop managerial skills. i. Entrepreneurial skill. j. Budgeting policy. k. Human Resources Management. l. Develop Numerical ability. ii. Well versed with business regularity framework.
3	M.Sc.	<ul style="list-style-type: none"> 1. Knowledge of the concepts through theoretical understanding of the principles of Chemistry and Microbiology 2. Basic understanding in the major area(s) of research and acquire basic tools needed to carry out minor research projects. 3. The ability to implement chemistry in an integral activity of social, economic and environmental problems. 4. Skills in problem solving, critical thinking and analytical reasoning in designing problems in research. 5. Knowledge of for safe handling of chemicals in

	research and applied chemical laboratory.
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Dr. Ghali College Gadhinglaj

Programme Specific Outcomes [PG]

Sr. No.	Degree Programme	Programme Specific Outcomes
1.	M.A. (Hindi)	<ol style="list-style-type: none">1. Job opportunities in language translation2. Job opportunities in Radio Jockey & Aakashvani sector as speaker3. Opportunities in news channels as anchor4. Platform to make career in competitive examinations
2	M.A. (English)	<p>A student, who is admitted to this program of M.A. with entire English as specific subject, the institute has set outcomes before the student as following:-</p> <ol style="list-style-type: none">1 Deep study of English as language and grammar.2. Vast knowledge of English literature3. Major and changing trends in world literatures in English language.4. Critical interpretation and Analysis of literature.5. Scholarship in English language and literature for his /her personality building
3	M.A (ECONOMICS)	<ol style="list-style-type: none">1. Job opportunity at Junior college/Senior college level lectureship2. Career in Banking/Finance/Co-operative sector.3. Required minimum qualification for M. Phil. and Ph.D.4. Understanding economic activities/planning/budget.
4	M.A (SOCIOLOGY)	<ol style="list-style-type: none">1) Getting the latest sociological knowledge pertaining to various sub-fields within the discipline of sociology.2) Orientation for comprehending, analyzing and critically assessing the social reality

		<p>from sociological perspective.</p> <p>3) Inculcating the analytical ability, research aptitude and relevant skills in the students useful for their social and professional life.</p> <p>4) Preparing for undertaking research, jobs in Colleges /Universities /Research Institutions, various Government Departments and Nongovernmental organizations as well as for various competitive examinations.</p>
5	M.COM.	<p>A student, who is admitted to this program of M.Com. with advanced Accounting as special subject, the institution has set outcomes before the students as follows</p> <ol style="list-style-type: none"> 1. Applying qualitative skills to help to analyze and solve business problems 2. In depth study of accounting transactions of profit and non-profit making organizations. 3. Ability to analyse financial data for managerial decisions 4. Knowledge of Auditing Principles & techniques. 5. Ability to compute taxable income of partnership firm and HUF. <p>Knowledge about Cost Accounting Procedure and technique</p>
6	M. Phil. (English)	<p>The candidates shall take up three out of many specific papers on advanced topics and on research methodology and submit a dissertation.</p> <p>The first year of the course shall be devoted to course studies and second year of the course will be devoted for dissertation.</p>
7	M. Sc. (Analytical Chemistry)	<ol style="list-style-type: none"> 1. Aptitude and skill necessary to pursue research as a career. 2. Skill necessary to be employed in the various sectors like chemical, Pharmaceutical, food and materials industries. 3. Competency to clear competitive examination.

8	M. Sc. (General Microbiology)	<ol style="list-style-type: none"> 1. It also envisages that the students read original research publications and develop the ability of critical evaluation of study. 2. In the core courses, the students study the basics of Microbiology along with the basics of subjects allied to and useful in Microbiology (Techniques, Biostatistics, Computer handling and Bioinformatics, Scientific Writing and pharmaceutical) 3. During this program students undertake a Research Project/ Industrial Training in which the student is expected to study research methodology through experimental work, literature survey and report writing. 4. In Industrial training and Educational tour help students to study Microbiological aspect in the Industry and provide actual microbiological applications in various fields respectively.
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Dr. Ghali College Gadhinglaj

Course Outcomes [PG]

Sr. No.	Degree Programme	Year of Programme	Course Outcomes
1.	M.A. (Hindi)	First Year (CBCS)	Paper-I Ancient Poems <ul style="list-style-type: none"> ➤ To acquaint with ancient or medieval poems ➤ To familiarize with the poems of present era and its significance.
			Paper -2 History of Hindi Literature <ul style="list-style-type: none"> ➤ To familiarize & introduce the significance & essence of history of literature ➤ To learn various medieval poem
			Paper -3 Linguistic <ul style="list-style-type: none"> ➤ To introduce various various forms & nature of language in g

			<ul style="list-style-type: none"> ➤ To introduce Hindi language in general
			Paper -4 History of Hindi Short Story <ul style="list-style-type: none"> ➤ To familiarize with dramatist writers & their artifacts ➤ To know about dramatists & writers & importance of their work in present era
			Paper- 5 Modern Hindi Poetry <ul style="list-style-type: none"> ➤ Adunik Hindi kavyakerupmainavinBhavbhumi or Vaicharikgatishilatako explain karana ➤ To explain that different forms of modern Hindi poetry is source of inspiration & energy
		Second Year (CBCS)	Paper-1 Criticism <ul style="list-style-type: none"> ➤ To explain the relevance & reality of literature ➤ To study literature in contest of society & culture
			Paper-2 History of Hindi Literature <ul style="list-style-type: none"> ➤ To study the psyche of human beings & explain their forms of sensitivities. ➤ To understand & consider changed process of development through history of literature
			Paper-3 Translation Theory & Practical <ul style="list-style-type: none"> ➤ To acquaint the translation to open the various platforms of foreign language ➤ To explain the language of social media for sake of employment
2	M.A. (English)	First Year (CBCS)	Poetry in English- Major poets and their poetic writings with changing trends.
			Fiction in English- Major novelists and their writings with changing trends of world literature.
			Modern Linguistics- Major Concepts and usages of English language.
			British Literature-

			Chief Developments of English literature from Renaissance to Romantic Age.
		Second Year (CBCS)	Drama in English- Main Dramatists and their contribution to English literature.
			Critical Theories- Critical Theories and Modern criticism, application of these critical theories to literary writing.
			British Literature From Pope to the end of 19th Century- Major features of British literature in the Augustan Age, Neo-classical Age & Romantic Age.
			Modern and post modern British Literature –Main tendencies of British Literature in modern and post modern era.
3	M.A. (Economics)	First Year (CBCS)	<p><u>MICRO ECONOMIC ANALYSIS EC-1 (Core/ Compulsory Paper)</u></p> <p>1. To equipping the students in a rigorous and comprehensive manner with the various aspects of consumer behavior and demand analysis, production theory and behavior of costs, the theory of traditional markets and equilibrium of firm in modern non-profit maximizing framework in theory and applications as well.</p> <p>2. Deals with the micro theories of distribution, welfare economics, and general equilibrium in</p>

			closed and open systems and analysis of economic behavior under uncertainty.
			<p><u>MONETARY ECONOMICS EC – 2</u> <u>(Core/ Compulsory Paper)</u></p> <ol style="list-style-type: none"> 1. It provides essential and thorough knowledge to the economics students relating to the theoretical aspects of money. 2. It covers various approaches towards evolution of money, demand for money, supply of money, and rate of interest, inflation, agencies which create and supply money and operate monetary policy. 3. The paper also deals with Keynesian and post-Keynesian economics, which is a most essential part of the monetary economics.
			<p><u>Agricultural Economics EO- 2 (Elective / Optional Paper-)</u></p> <ol style="list-style-type: none"> 1. To provide a detailed treatment of issues in agricultural economics to those intending to specialize in this area. 2. It intends to familiarize students to analyze the issues related with agricultural and economic development, agricultural production function, agricultural demand and supply,

			<p>farm management and agricultural riskmanagement.</p> <p><u>EO 4– (Elective / Optional Paper)</u> <u>PRINCIPLES AND PRACTICE OF CO-OPERATION</u></p> <ol style="list-style-type: none"> 1. To know cooperative movement has a long history of more than hundred years. 2. To study Indian cooperative structure is one of the largest networks in the world. 3. The paper deals with structure of cooperatives, different types of credit and non credit cooperatives. It also covers various cooperative institutions operating at the national level.
			<p>PUBLIC ECONOMICS (EC – 3 Core / Compulsory Paper)</p> <ol style="list-style-type: none"> 1. Role and functions of the Government in a neconomy have been changing with the passage of time. 2. This course/paper combine a thorough understanding of fiscal institutions with a careful practical analysis of the issues which underline budgetary policies.
			<p>ECOLOGICAL AND RESOURCE ECONOMICS EC – 4 (Core/ Compulsory Paper)</p> <ol style="list-style-type: none"> 1. To study new branches of Economics such as Resource Economics, Environmental

			<p>Economics, Ecological Economics have been merged.</p> <p>2. To study the efforts being undertaken for rapid and all round development which is contributing to rapid deterioration of quantity and quality of the natural resources as a result, there is much discussion going on the planned use of the natural resources.</p>
			<p>AGRICULTURAL DEVELOPMENT IN INDIA EO- 11 (Elective / Optional)</p> <p>1. The paper analyses the development of India agriculture after the independence.</p> <p>2. To study the efforts made by the Government in the five year plans are included in this course.</p> <p>3. To study the role of technology, bio - technology, trade, agricultural marketing and price policy has to be studied with reference to Indian economy.</p>
			<p>Financial Markets and Institutions EO-15 (Elective/Optional Paper)</p> <p>1. To study the positive and significant role of financial institutions in the process of growth and development has been very well recognized in the literature.</p> <p>2. To indeed has become more important during</p>

			<p>helasttwodecadesasthefinancialsystems ofdifferentcountrieshavebecomeintegrated intheprocessofglobalization.</p>
		Second Year (CBCS)	<p>STATISTICS IN ECONOMIC ANALYSIS EC -5 (Compulsory Paper)</p> <ol style="list-style-type: none"> 1. To train the students to use the techniques of statistical analysis, which are commonly applied to understand and analyze economic problems. 2. To emphasis of this paper is on understanding economics with the help of quantitative techniques. 3. Students will be initiated into various economic concepts, which are amenable to mathematical treatment.
			<p>MACRO ECONOMIC ANALYSIS EC – 6 (Compulsory Paper)</p> <ol style="list-style-type: none"> 1. To study functional relationship between the large aggregates. 2. To equip the students at the postgraduate level to understand systemic facts and latest theoretical developments for empirical analysis.
			<p>INDIAN PUBLIC FINANCE EO –22 (Elective paper)</p> <ol style="list-style-type: none"> 1. To analyze important issues in Indian public finance in the context of the India's economic

			<p>conomic development.</p> <ol style="list-style-type: none"> 2. It deals with the effectiveness of public finance in India. 3. To provide a detailed treatment of issues in Indian public finance to those intending to specialize in this area. 4. Student will know the public revenue, public expenditure, debt, budgets and federal finance system in India. This paper also intends to familiarize students to analyze the issues related with tax system, expenditure programs and debt issues, deficit financing, federal finance and stabilization instruments.
			<p>ECONOMICS OF TRANSPORT AND COMMUNICATION EO-23 (Elective Paper)</p> <ol style="list-style-type: none"> 1. To study efficiency, spread and its access to productive agents of such facilities determine the competitiveness of the industrial sector. 2. To study role of communication in economic development is also equally important. 3. To study modern communication means like internet, telephone and TV are now

			<p>converging into one mega and multifaceted tool which may have long term impact.</p>
			<p>INTERNATIONAL ECONOMICS EC-7 (Compulsory Paper)</p> <ol style="list-style-type: none"> 1. Provides a deep understanding about the broad principles and theories, which govern the free flow of trade in goods, services and capital—both short term and long term—at the global level. Besides, preparing the students about the relevance and limitation of these principles. 2. The contents of the papers spread over different units, lay stress on the theory and nature of the subject which, in turn, will greatly help them to examine the impact of the trade policies followed both at the national and international levels as also their welfare implications at macro level and the distribution of gains from trade to North and South. 3. To train the students about the various issues of trade and likely consequences on income, employment and social standards and possible policy solutions as the world will move into the 21st century.
			<p>ECONOMICS OF GROWTH AND DEVELOPMENT EC -8 (Compulsory paper)</p> <ol style="list-style-type: none"> 1. To study theories of growth and development, social and sectorial aspects of develop

			<p>ment, importance of agriculture and industry, the rationale and pattern of industrialization in developing countries.</p> <ol style="list-style-type: none"> To study important issues related to development such as policy environment, infrastructure –linkages, role of international trade, role of monetary and fiscal policies, investment criteria and relevance for planning have been included. This paper deals with the theoretical aspects of the process of growth and development including the role of agriculture and industry as well as the role of the state.
			<p>CO-OPERATIVE THOUGHTS AND ADMINISTRATION EO – 32 (Elective Paper)</p> <ol style="list-style-type: none"> To Study Co-operative movement, now-a-days has become a part of total economic activities. It will study not only an economic movement, but also social, political and ethical movement, enriching total human life. Helps to proper understanding of co - operative thoughts and administration is a prerequisite for study of co-operative movement.
			<p>ADVANCED BANKING EO – 36 (Elective paper)</p> <ol style="list-style-type: none"> This paper provides detailed information about the Advancement in Indian banking system.

			<ol style="list-style-type: none"> 2. Though this paper we intended to aware the students about banking technology, recent trends in banking sector. 3. Provided the opportunity to the students to achieve a specific skills which are required for working banking sector.
4.	M.A. (SOCIOLOGY)	First Year (CBCS)	<p style="text-align: center;"><u>CLASSICAL SOCIOLOGICAL TRADITIONS :</u></p> <p style="text-align: center;"><u>MARX, DURKHEIM AND WEBER</u></p> <ol style="list-style-type: none"> 1. To equip the students with an understanding of historical, socio-economic and intellectual forces in the rise of sociological theory. 2. To make the students understand the sociological theories of Karl Marx, Emile Durkheim and Max Weber.
			<p style="text-align: center;"><u>UNDERSTANDING INDIAN SOCIETY</u></p> <ol style="list-style-type: none"> 1. To make the students understand the diversity and unity in Indian Society. 2. To familiarize the students about the major segments in society, the traditions, continuities and changes taking place in Indian society.
			<p style="text-align: center;"><u>RURAL SOCIETY IN INDIA</u></p> <ol style="list-style-type: none"> 1. To provide sociological understanding of rural social structure, change and development in India. 2. To develop skills among the students for contributing to the reconstruction of rural institutions/rural development programmes in terms of planning and

			critically evaluating the same.
			<p><u>EDUCATION AND SOCIETY</u></p> <ol style="list-style-type: none"> 1. To orient the students to the sociological perspective to education. 2. To introduce students to inter-relationships between educational system and other aspects of society.
			<p><u>CLASSICAL SOCIOLOGICAL TRADITIONS :</u></p> <p><u>PARETO, COOLEY AND MEAD</u></p> <ol style="list-style-type: none"> 1. To introduce the students to major ideas of Vilfredo Pareto, C.H. Cooley, and G. H. Mead. 2. To develop insights for understanding the later developments in sociological Theory.
			<p><u>PERSPECTIVES ON INDIAN SOCIETY</u></p> <ol style="list-style-type: none"> 1. To sensitize the students to diverse as well as the interconnections of theoretical perspectives on Indian Society. 2. To introduce the contributions of select Indian Sociologists to the students.
			<p><u>URBAN SOCIETY IN INDIA</u></p> <ol style="list-style-type: none"> 1. To acquaint the students with basic concepts in urban sociology and urban ecological theories. 2. To make students understand the process of urbanization, its social consequences and different urban problems in India.

			<p style="text-align: center;"><u>POLITICAL SOCIOLOGY</u></p> <ol style="list-style-type: none"> 1. To introduce the students to the basic concepts in and field of political sociology. 2. To orient the students to the various theoretical approaches in Political Sociology and political processes in India.
		Second Year (CBCS)	<p style="text-align: center;"><u>MODERN SOCIOLOGICAL THEORIES</u></p> <ol style="list-style-type: none"> 1. To acquaint the students with the concept of theory and relationship between theory and research. 2. To introduce the students to the schools of thought that dominated sociology in the later half of the 20th century.
			<p style="text-align: center;"><u>METHODOLOGY OF SOCIAL RESEARCH (WITH PRACTICAL)</u></p> <ol style="list-style-type: none"> 1. To impart knowledge to the students regarding the fundamentals of methodology of social research. 2. To give practical training in use of research techniques by assigning project work.
			<p style="text-align: center;"><u>SOCIOLOGY OF MIGRATION</u></p> <ol style="list-style-type: none"> 1. To orient the students to various aspects of migration. 2. To make the students understand the importance of migration in the process of social change and development.
			<u>HUMAN RIGHTS AND SOCIETY</u>

			<ol style="list-style-type: none"> 1. To acquaint the students with the conceptual, philosophical, theoretical aspects of Human Rights and Duties; and 2. To familiarize the students with the Human Rights and Constitution of India.
			<p style="text-align: center;"><u>RECENT TRENDS IN SOCIOLOGICAL THEORY</u></p> <ol style="list-style-type: none"> 1. To acquaint the students with some of the recent theoretical perspectives in sociology. 2. To develop analytical skills among the students through the study of theoretical perspectives.
			<p style="text-align: center;"><u>DATA COLLECTION AND ANALYTICAL PROCEDURES (WITH PRACTICAL)</u></p> <ol style="list-style-type: none"> 1. To give knowledge to the students regarding techniques of data collection. 2. To give practical training regarding use of techniques of data collection, analytical procedures, statistical measures and computers.
			<p style="text-align: center;"><u>RURAL DEVELOPMENT IN INDIA</u></p> <ol style="list-style-type: none"> 1. To enrich students' understanding about the changing nature of rural development in India. 2. To study critically the impact of various developmental schemes/programmes introduced for rural development.
			<p style="text-align: center;"><u>SOCIOLOGY AND SOCIAL WORK</u></p>

			<ol style="list-style-type: none"> To orient the students to the field of social work education. To make clear the relevance of sociology to social work practice.
5	M.Com.	First year	<p>BUSINESS MANAGEMENT COURSE OUTCOMES:</p> <ol style="list-style-type: none"> Understand the theoretical aspects of management and strategic management. Describe the theoretical aspects of management and strategic management. Understand the contemporary issues in management.
			<p>MANAGERIAL ECONOMICS COURSE OUTCOMES:</p> <ol style="list-style-type: none"> Understand the variables and components of Managerial Economics. Study the applications of demand analysis and concepts relate Consumer Behaviour. Get awareness regarding production, price determination and pricing practices and They should able to apply these in business decision making policies. Understand the business cycle phenomenon and inflation for business decision making.
			<p>ADVANCED ACCOUNTANCY PAPER No.-I COURSE OUTCOMES :</p> <ol style="list-style-type: none"> Understanding concept of accounting standards and practical Implication of AS-1 and AS-2 Familiarity with preparing final accounts of service industries. Perfection in preparing the consolidated financial statements of holding company and its subsidiaries. Understanding of preparation of financial statements of Insurance companies with schedules.
			<p>ADVANCED ACCOUNTANCY PAPER NO. – II (Auditing) COURSE OUTCOMES:</p> <ol style="list-style-type: none"> Understand the basic concepts and objectives of audit. Gain working knowledge of generally accepted auditing procedures . Identify the skills and techniques of conducting audit of various entities. Know the recent trends in practice of audit
		Second Year	<p>ORGANIZATION BEHAVIOUR COURSE OUTCOMES:</p> <ol style="list-style-type: none"> Describe theoretical concepts of organizational Behaviour. Classify types of personalities

			<p>3. Summarize types of conflicts.</p> <p>4. Summarize adoption of organizational culture.</p>
			<p>RESEARCH METHODOLOGY COURSE OUTCOMES :</p> <ol style="list-style-type: none"> 1. Understand the basics of research. 2. Design research protocol for research problem. 3. Prepare the instruments for data collection. 4. Analyse and interpret the data.
			<p>RESEARCH PROJECT COURSE OUTCOMES :</p> <ol style="list-style-type: none"> 1. Identify the research problem and formulate objectives 2. Choose appropriate methodology with proper tools and techniques 3. Analyze and interpret the data collected from different sources. 4. Make decision or find out conclusions on the basis of data analysis
			<p>INTERNSHIP / APPRENTICESHIP COURSE OUTCOMES :</p> <ol style="list-style-type: none"> 1. Expose the students to the real life situation. 2. Develop an ability of critical thinking. 3. Analyse the problem in an organisation and suggest remedial actions. 4. Gain working knowledge of the job/profession to get insights of the business.
6.	M.Phil. (English)		<p><u>Research Methodology (Theory)</u></p> <ol style="list-style-type: none"> 1. Fundamentals of research, objectives, process methods and methodology, criterion of good research. 2. Types of research, Research Degree, Presentation.
			<p><u>RECENT TRENDS IN ENGLISH STUDIES</u></p> <p>The student should acquaint with the latest approaches to language and literature. He/she should enable to apply these approaches to literary works and/or language. Then the students have to declare the habit of making background reading with the help of various conventional and technological sources.</p>
		<u>ELECTIVE PAPER (One</u>	<p>i) Modern British Literature (1980-2000) A study of major trends and literary movements in modern British Literature and in depth study of these major writers- a poet, a</p>

		out of four)	novelist and adramatist
			ii) <u>New Literature in English</u> A study of the major trends and movements in African , Caribbean, Australian, Canadian and IndianLiterature.
7.	M.Sc. CHEMISTRY	First Year (SEM I) (CBCS)	<p>Inorganic Chemistry The students learns about</p> <ol style="list-style-type: none"> 1) Chemical Bonding and formation of complexes. 2) Molecular Symmetry and Group Theory , 3) Solid state Chemistry and 4) Nanomaterials, its characterization & applications. <p>Inorganic Chemistry Practical The student learns to analyze the ores and alloys sample and handle different types of instrument.</p>
			<p>Organic Chemistry The students learn about</p> <ol style="list-style-type: none"> 1) Thermodynamic and kinetic requirement and mechanism of a reaction, 2) Acid Base reaction, 3) Nucleophilic substitution reaction and 4) Aromaticity, Stereochemistry, and oxidation and reduction. <p>Organic Chemistry practical The student learn to setup one step reaction and short preparation of organic compounds and check purity by TLC.</p>
			<p>Physical Chemistry To understand the concept of</p> <ol style="list-style-type: none"> 1) Thermodynamics, 2) Quantum Chemistry, 3) Chemical Dynamics, and

			<p>4) Electrochemistry.</p> <p>Physical Chemistry practical</p> <p>The student will be skilled in handling the different types of instrument practically.</p> <p>E.g. to find out pka values, activity coefficient, solubility product etc.</p>
			<p>Analytical Chemistry</p> <p>The student learn about</p> <ol style="list-style-type: none"> 1) language and quality of analytical chemistry, 2) lab safety, preparation of solutions numerically, 3) optical and thermal methods etc. <p>Analytical Chemistry practical</p> <p>The students learn to prepare resin Column, NaCl in saline by Volhard,s” method.</p>
		SEM II (CBCS)	<p>Inorganic Chemistry</p> <p>The student learn about</p> <ol style="list-style-type: none"> 1) Inorganic Reaction Mechanism, 2)Organometallic Chemistry of Transition metals, 3) Environmental Chemistry and 4) Bioinorganic Chemistry. <p>Inorganic Chemistry practical</p> <p>The student learns to prepare the different types of complex and handling of the instrument.</p>
			<p>Organic Chemistry</p> <p>The student learn about</p> <ol style="list-style-type: none"> 1) Different types of reaction mechanism and rearrangement, 2) Introduction to Molecular Orbital Theory for Organic Chemistry, 3) NMR spectroscopy and

			<p>4) Mass spectroscopy etc.</p> <p>Organic Chemistry practical</p> <p>The student learns practically Separation of Binary mixture using micro-scale technique and identification.</p>
			<p>Physical Chemistry</p> <p>The student learn about</p> <ol style="list-style-type: none"> 1) Chemical Thermodynamics (Real gases), 2) Quantum Chemistry, 3) Chemical Kinetics and Molecular Reaction Dynamics, 4) Solid State Chemistry and Phase Equilibria etc. <p>Physical Chemistry practical</p> <p>The student learns practically about phase diagram, polar plot of atomic orbitals and handling different types of instrument.</p>
			<p>Analytical Chemistry</p> <p>The student learns about</p> <ol style="list-style-type: none"> 1) Different types of Chromatography, 2) Spectroscopy, 3) Surface Analytical Techniques, 4) Electroanalytical Methods. <p>Analytical Chemistry Practical</p> <p>The student will be skilled in handling the different types of instruments practically.</p> <p>e.g. purity of washing soda, pH metry, conductometer, potentiometer etc.</p>
		Second Year (SEM III) (CBCS)	<p>ACH-3.1 Advanced Analytical Techniques</p> <p>CO1: Develop knowledge of fundamental, instrumentation and working of state of art instrumental analytical techniques, effective use</p>

		<p>and choice of technique, written and/or oral communication of the concepts of analytical chemistry which will be useful as analytical chemist and R&D. CO2: Acquire knowledge of mass spectrometry, type of MS, ionization types and specific practical applications of MS.</p> <p>CO3: Acquire knowledge of basics of nanochemistry, nanomaterials and nanotechnology and application orientated synthesis and characterization of nanomaterials.</p> <p>CO4: This course gives wide understanding about the instrumental analytical techniques (SEM, TEM, EDS, STM, AFM, Raman, XFS, ESR, XPS, AES, SIMS etc.) employed for qualitative and quantitative analysis for contemporary research.</p>
		<p>ACH-3.2 Organic Analytical Chemistry</p> <p>CO 1:</p> <p>Students will gain knowledge of the instruments used at the interface of Analytical-Organic chemistry useful for R&D and structural elucidation using UV-Visible, IR, ¹H & ¹³C NMR, Mass spectrometry data and interpretation of the same.</p> <p>CO 2:</p> <p>Students will acquire knowledge about the drug, their classification, sources of impurities (chemical,</p>

		<p>atmospheric and microbial contamination) in pharmaceutical raw materials and analysis of the same.</p> <p>CO 3: Students will gain knowledge about the conventional and advanced analytical approaches for analysis of drug, vitamin, body fluids and clinical samples.</p> <p>CO 4: Students will have an idea of commonly used pesticides and their analysis and also about forensic science and forensic sample analysis.</p>
		<p>ACH- 3.3 Electroanalytical Techniques in Chemical Analysis</p> <p>CO1: Fundamental knowledge of electrochemistry, electrodes, types of electrodes, its construction will lay foundation for the course.</p> <p>CO2: Students will gain knowledge and skill in electroanalytical techniques like cyclic voltammetry and its types, polarography, coulometry and dynamic light scattering technique for qualitative and quantitative analysis.</p> <p>CO3: Students will be familiar with the advanced electrodes used for chemical analysis,</p>

			liquid-liquid membrane electrodes, enzymes and gas electrodes. CO4: Students will learn about electrophoretic techniques, advances in electrophoresis techniques and its analytical applications.
			<p>ACH-3. 4 Environmental Chemical Analysis & Control</p> <p>CO1: Students will acquire knowledge about sampling, criteria of good sampling, handling, preservation and storage of the samples, pretreatment and post treatment of samples.</p> <p>CO2: Students will acquire knowledge of conditions and strategies required during sampling and electrochemical and spectral methods for analysis of environmental samples.</p> <p>CO3: Students will learn about the air and water pollution, sources of pollution, typical parameters and properties (physical, chemical and biological) to be measured in air and water pollution with relevance to specific case studies.</p> <p>CO4: Students will be acquainted with organic</p>

			<p>pollutants and their analysis with special reference to pesticide analysis.</p>
			<p>Practical V</p> <p>CO1: In-depth training on laboratory solution preparations on all concentration scales</p> <p>CO2: Training on laboratory safety and lab ethics in scientific work</p> <p>CO3: Training on planning, design and execution of experiments</p> <p>CO4: Training on uncertainty estimations for experimentally measured and derived properties of solutions</p>
			<p>Practical VI</p> <p>CO1: Training on scientific literature search, defining the objective of the work, research skills, data representation in tabular and graphical form etc.</p> <p>CO2: Training on experimental verification of fundamental theories, comparison of data with literature and scientific discussion on any deviation of data from expected theoretical values or reported literature.</p> <p>CO3: Developing analytical skills</p> <p>CO4: Training on qualitative and quantitative analysis of analyte.</p>

		<p>Second Year (SEM IV) (CBCS)</p>	<p>4.1 (Modern Separation Method in Analysis)</p> <p>CO1: Students will learn about modern separation and chromatographic used for analysis of different type of samples.</p> <p>CO2: The student will understand instrumentation and mechanism of various separation techniques.</p> <p>CO3: Student will acquire knowledge regarding various choice of instrument and detectors to be used for analysis depending on the sample and matrix.</p> <p>CO4: Student will learn fundamentals of extractive chromatography, types of extraction techniques, advances in extraction methods and their hyphenations with chromatography leading to addressing challenging problems in analytical chemistry.</p>
			<p>Organic Industrial Analysis</p> <p>CO1: Acquire knowledge of handling and investigating the characteristics of the oils, fats, detergents and soap samples and analysis of the same providing opportunity in cosmetic, pharmaceuticals, dyes and polymers industries.</p> <p>CO2: Student will gain knowledge and importance of food quality, probe for food adulteration and adulterants, food preservative, food flavors and analysis of their components.</p> <p>CO3: Students will also gain knowledge about the animal food stuff and the additives added in</p>

			<p>the animal food stuff as antibiotics, dietary supplements and growth promoting drugs, preservatives etc. and analysis of the same.</p> <p>CO4: Student will learn about the analysis of cosmetics, face powder, hair dyes and hair care products, types of cosmetics, precautionary measures and composition of the cosmetics and specific roles of the ingredients. Will acquire knowledge about the paints, pigments and petroleum products, composition and analysis of the same using conventional and instrumental techniques.</p>
			<p>Advanced Methods in Chemical Analysis</p> <p>CO1: Students will be skilled in the techniques like fluorescence, phosphorescence, types of quenching, FRET and applications of the same in Analytical Chemistry and for addressing research problems.</p> <p>CO2: Students will gain knowledge of the kinetic methods of analysis supporting the analysis and data procured in research.</p> <p>CO3: The students will acquire the knowledge of advanced method of chemical analysis XPS, XRF, fluorescence and phosphorescence spectroscopy which will be beneficial in research.</p> <p>CO4: Students will acquire knowledge of identifying types of plastic and will also be able to and determination of metallic impurities in plastics.</p>

			<p>IndustrialAnalytical Chemistry</p> <p>CO1:</p> <p>The students will acquire knowledge of analysis of metals, alloys, minerals and ores commonly used in the industry.</p> <p>CO2:</p> <p>The students will be acquainted with the analysis of real samples like cement, plaster of Paris, different commercial ores, soil composition, soil fertility, fertilizers etc using conventional and instrumental methods of analysis.</p> <p>CO3:</p> <p>Students will also gain the knowledge of analysis of commercial materials, explosives, polymers, resins, rubber, luminescent paints, lubricants and adhesives. CO4:</p> <p>These would offer opportunity to the students to get employment in industries for quality assurance and quality control (QA-QC) of the product.</p>
			<p>Quality Assurance and Accreditation</p> <p>CO1:</p> <p>Students will acquire knowledge of QA-QC which is essential for analytical chemist, This covers a variety</p>

			<p>of chemical fields and this knowledge would help students working on various materials, understanding the basics of samples, sampling, sample storage, and pre-post treatment of samples.</p> <p>CO2:</p> <p>Students will acquire knowledge of good laboratory practices, professional ethics, and instrumental analytical chemistry, awareness of health hazards, remedial measures, analytical method development and validation.</p> <p>CO3:</p> <p>The students would be aware of the importance of documentation for raw materials and finished products, their monitoring, maintenance and management. World-wide agencies involved in regulating the analytical protocols and establishing standards.</p> <p>CO4:</p> <p>Students will gain knowledge about the quality assurance and accreditation, evolution and significance of quality management, available accreditation agencies and advantages of accreditation.</p>
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			<p>Practical-VIII</p> <ol style="list-style-type: none"> 1. The students will acquire hands on training for conducting the representative experiments for the analysis of wide variety of samples of inorganic, organic and physical approaches by qualitative and quantitative analysis. Demonstrate professional and ethical attitude to serve the society 2. Students will have knowledge of safety signs on container of chemicals, safety in handling of chemicals, MSDS sheets, learn sample preparation and characterization for confirming the purity. 3. Students would acquire knowledge about the separation and estimation of amount of metal, metal ions, organic compounds etc. in given samples. <p>Based on the experience of project work, students will have ability to start their R & D laboratory.</p>
	<p>M. Sc. (General Microbiology)</p>	<p>First Year (SEM I) (CBCS)</p>	<p>TAXONOMY AND MICROBIAL DIVERSITY</p> <ol style="list-style-type: none"> 1. The students learn about Plant and bacterial classification from kingdom to Species. <p>Taxonomy and microbial diversity Practical</p> <ol style="list-style-type: none"> 1. The student learns to Isolation techniques of fungus Characterization of different bacterial species and handles different

			types of instrument.
			<p>VIROLOGY</p> <p>1. The students learn about The Viruses and their life cycle. And transmission of viral diseases.</p> <p>Virology practical</p> <p>1. The student learns about Mutation effect and virus isolation techniques.</p>
			<p>GENETICS AND MOLECULAR BIOLOGY</p> <p>1. To understand the concept of Molecular biology of cell, Origin of life, evolution on molecular basis.</p> <p>Genetics and molecular biology practicals practical</p> <p>1. The student learn about Isolation and transformation techniques of DNA and RNA</p>
			<p>IMMUNOLOGY</p> <p>1. The student learns about Immunological techniques in disease diagnosis, transplantation process.</p> <p>Immunology practical</p> <p>1. The students learn about antigen antibody testing.</p>
	M. Sc. (General	SEM II (CBCS)	<p>Techniques In Microbiology</p> <p>1. The students learn the theory behind the</p>

	Microbiology		<p>techniques as well as analysis of the resulting data. This course integrates theory and practice and to ensure the students understand why and how each technique is used.</p> <p>Tools and techniques practical</p> <p>Students learn practically about various techniques in microbiology to enhance practical skill in microbial techniques used in research and industries.</p>
			<p>Microbial Physiology, Biochemistry and Metabolism</p> <p>1. The student learns about molecular mechanisms involved during growth with respect to biochemical approaches.</p> <p>Microbial Physiology, Biochemistry and Metabolism</p> <p>1. The student learns practically about determination of bimolecular as well as effect of hypertonic and hypotonic solution on cell growth.</p>
			<p>Medical Microbiology</p> <p>1. The student learns about basics of disease of causing process. Students are provided with the knowledge of necessary informatics for diagnosis, therapy and prevention of the infectious diseases.</p>

			<p>Medical Microbiology Practical</p> <p>1. The student learn practically about water, air, skin microflora as well as study about microbial interaction, detection of siderophores, and isolation of ruminant bacteria from animal gut.</p>
			<p>Microbial Ecology</p> <p>1. The student learns about global ecosystem. This course creates a platform for students to investigate</p> <p>2. and explore microbial activities for welfare of human being.</p> <p>Microbial Ecology Practical</p> <p>1. Students learn practically about identification of bacteria by using Bergey's Manual of Systematic Bacteriology as well as isolation of various microorganisms from urine.</p>
	<p>M. Sc. (General Microbiology</p>	<p>SEM III (CBCS)</p>	<p>Paper IX CC301 Biostatistics, Bioinformatics & Scientific writing</p> <p>CO 1- To understand how to apply biostatics in their research, statistical methods applicable in Biology collection and presentation and different evaluator</p> <p>CO 2- To study cross checking of experimental data using different methods of biostatics & Understand ANOVA, CRD, RBD, other general methods</p>

			<p>CO 3- To describe the computer applications softwares and tools in the biological experiment studies and analysis of data</p> <p>CO4- To study scientific writing, types, preparation, presentation,& publication of scientific writing</p>
			<p>Paper X CCS 301 Enzymology & Enzyme Technology</p> <p>CO 1- To study history and special properties of enzyme, specificity of enzymes, structure of Enzyme- monomeric & oligomeric, Co-factors of enzymes.</p> <p>CO 2- To study kinetics of single-substrate enzyme reactions, kinetics of multisubstrate reaction,Haldanes relationship, Sigmoid kineics, and enzyme inhibition.</p> <p>CO 3- To understand multienzyme systems, Isoenzymes.</p> <p>CO4- To describe applications of enzymes in various industries.</p>
			<p>Paper XI CCS303 Fermentation Technology</p> <p>CO 1-To understand basic functions, design of fermentation vessels. sterilization of fermentation Equipment, air & media.</p> <p>CO 2- To study types of fermentation media, fermentation economics, patents.</p> <p>CO 3-To describe computer applications in fermentation technology</p> <p>CO4- To describe production of vaccines.</p>

			<p>Paper XII CCS304 Quality Control Microbiology I</p> <p>CO 1-To understand design of basic laboratories, equipment, training and waste handling</p> <p>CO 2-To study Good microbiological techniques, safe handling, standard precautions.</p> <p>CO 3- To study sterilization-Physical & chemical method ,experimental parameters, sterility Assurance.</p> <p>CO4-To describe biosafety guidelines-microbiological risk assessment, safety equipment, Homogenizers,shakers, micro incinerator</p>
		SEM IV (CBCS)	<p>Paper XIII CC401 Food & Dairy Microbiology</p> <p>CO 1- To understand general principles of microbial spoilage of food, meat, fruits & vegetables,General principles of preservations of foods, methods of preservations.</p> <p>CO 2- To study nutritive values of milk, microbiology and biochemistry of fermented foods.</p> <p>CO 3- To study food borne diseases, their prevention and control.</p> <p>CO4-To know enzymes in food processing and their sources and to study food safety and Standards.</p>
			<p>Paper XIV CCS402 Industrial Waste Management</p> <p>CO 1-To learn characteristics of industrial waste their types and effects of industrial waste on Aquatic life.</p>

			<p>CO 2-To study microbiology and biochemistry of waste water</p> <p>CO 3-To study various biological methods of industrial waste treatment</p> <p>CO4-To describe biomanagement of industrial waste and zero waste discharge in industries.</p>
			<p>Paper XV CCS403 Recombination DNA Technology</p> <p>CO1-To understand basic tools of rDNA technology,cloning vehicals,plasmids/cosmids, artifial Chromosomes, gene probe</p> <p>CO2- To study basic cloning strategies, construction and screening of genomic libraries.</p> <p>CO 3-To study cloning in eukaryotes, animals, plants and vector system.</p> <p>CO4-To describe application of rDNA technology.</p>
			<p>Paper XVI CCS404 Quality Control Microbiology II</p> <p>CO 1-To understand pharmaceutical drug regulatory affairs-USFDA, EMA, CDSCO, MHRA</p> <p>CO 2-To understand cleanroom and environmental monitoring, classification, HEPA and ULPA Filters.</p> <p>CO 3-To study total microbial count, traditional methods, non sterile products and microbial limits Testing,</p> <p>CO4-To study quality management system in pharmaceutical manufacturing-SOP, validation, Inspection, HACCP, Auditing in microbiological</p>

			laboratory and record keeping.
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