SATPUDA EDUCATION SOCIETY, JALGAON JAMOD'S

Arts & Commerce College

Warwat Bakal Tq. Sangrampur Dist - Buldhana (M.S.)

NAAC Reaccredited with 'B' Grade

College Code : 327

- Principal -
Dr. Shriram Yerankar
M.A., M.Phil, Ph.D.
9423722316

- President -
Shri. Krushnarao Ingle
(Ex. M.L.A.)
07266-221449

Website : www.acscwb.co.in

E-mail : 327accwb@gmail.com

Criterion II: Teaching- Learning and Evaluation

2.6 Student Performance and Learning Outcome

Session-2023-2024

Supporting Documents

Metric No.	Sr. No.	Content / File Description	Document Link
2.6.1.	A	Teachers and students are aware of the stated Programme & Course outcomes of the Programme offered by the institution.	

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CERTIFICATE

This is to certify that the documents attached as supporting documents for Criterion II: Teaching, Learning and Evaluation are verified from the college record and found to be correct to the best of my knowledge.

Principal
Arts & Commerce College,
Warvat Bakal Dist.Buldana

Principal
Arts & Commerce College
Warvat Bakal Dist- Buldana

Arts & Commerce College ★ Warvat Bakal ★

2.6.1 Program & course outcomes for all programs offered by the Institution are stated & displayed on website & communicated to teachers & Students.

The website link For Program & course outcomes For All Programs	https://acscwb.co.in/wp-content/uploads/2023/06/PO-PSO-CO.pdf

The institution emphasizes outcome-based education, fostering critical thinking, problem-solving skills, experiential, and participative learning. Aligned with Sant Gadge Baba Amravati University's syllabi, the university frames learning outcomes (PO, PSO, and CO) for its undergraduate and postgraduate programs and are mentioned in prescribed syllabus of the respective course and program. These outcomes are prominently displayed on the college website and departmental notice boards. They are communicated to students during the annual induction program by the Principal, IQAC coordinator, and senior faculty members. Subject teachers also share these outcomes during classroom sessions, and they are accessible in departments and the library.

ARTS & COMMERCE COLLEGE, WARVAT BAKAL

BA COURSE OUTCOMES (COs) old syllabus

B.A. Part I (English Compulsory)	B.A. Part II (English Compulsory)	B.A. Part III (English Compulsory)
By completion of this course students will be able – 1) To understand the use of parts of speech and tenses 2) To write personal, business letters. 3) To write Curriculum Vitae properly. 4) To construct sentences of English Language. 5) To able to use verb forms properly. 6) To construct story Building. 7) To compose Fax and Email. 8) To write notices, Agendas and Minutes.	By completion of this course students will be able – 1) To construct and use of simple, complex and compound sentences. 2) To employ interpersonal conservations. 3) To employ casual conversations.	By completion of this course students will be able – 1) To develop reading skills. 2) To develop speaking skills. 3) To develop listening skills. 4) To develop writing skills.
B.A. Part I (History) By completion of this course students will be able – 1) To understand the genesis of history and the development of history writing in India. 2) To understand the sources of ancient India and the Civilizations like Indus and Aryan. 3) To understand the history of Ancient India. 4) To understand the roles of Mourya, Gupta and Vardhana Empires in India.	**B.A. Part II (History)** By completion of this course students will be able – 1) To understand the formation, expansion and consolidation of *Sultanet Shahi* and Mughal Empire. 2) To understand the formation, expansion and consolidation of British Empire in India under East India Company. 3) To understand the consequences of national Movement in India.	**B.A. Part III (History)** By completion of this course students will be able – 1) To understand the changes of Europe after the French Revolution and Political changes in Asian and African Countries. 2) To understand the causes of I and II World War. 3) To understand the formation of UNO to maintain peace around the world. 4) To understand the conflict of democracy and Socialism after Second World War. 5) To understand the emergence of Cold War. 6) To understand the World History.
B.A. Part I (Political Science) By completion of this course students will be able- 1) To understand the rights of the President and the Governors 2) To understand the principles of the different Political Parties. 3) To understand the duties of Prime ministers and Cabinet. 4) To understand the function of opposite Parties. 5) To understand the duties and rights of the parliament and Supreme Court.	**B.A. Part II (Political Science)** By completion of this course students will be able- 1) To understand the administration and laws of England, America and China. 2) To understand the Presidential and Parliamentary Democracy. 3) To understand the political happening of SAARC and Other countries. 4) To understand the structure and function of united nation Organizations (UNO).	**B.A. Part III (Political Science)** By completion of this course students will be able- 1) To understand Ways to make the democracy successful. 2) To understand Western and Indian Political thoughts. 3) To understand the concept of state of Mahatma Gandhi and Aristotle 4) To understand the nationalist thought of Vivekananda. 5) To understand the principles of democracy of Bejhot, Abraham Lincoln and Dr. B.R.Ambedkar.
B.A. Part I (Economics) By completing this course, students will be able 1) To get the knowledge of the basic principles of Economics. 2) To get the knowledge of the basic concepts in Economics. 3) To get the knowledge of the demand supply and market structure. 4) To learn the nature of Maharashtra Economy.	**B.A. Part II (Economics)** By completing this course, students will be able 1) To know the basic concept and theories of Macro Economics. 2) To learn the structure of Indian Banking System. 3) To get the information of the role of RBI in Indian economy. 4) To learn the information of the role IMF, World Bank, WTO in Indian Economy. 4) To get the knowledge of the employment and inflation theories.	**B.A. Part III (Economics)** By completing this course, students will be able:- 1) To learn the basic concept and theories in Demography Science. 2) To get the knowledge of Indian Population issues. 3) To learn the structure of Indian Economy. 4) To get the knowledge of the basic economic problems and their solution in Indian Economy. 5) To learn the concept of Environment.

B.Com. PROGRAM OUTCOMES (POs)

After the completion of B. Com. program the students are able to:

PO1. Acquire basic and fundamental knowledge and skills for doing business and commercial activities of their choice.
PO2. To develop Numerical ability.
PO3. Acquire the accounting knowledge, management principles, retail trading, banking and insurance transactions, business economics and financial management.
PO4. Acquire knowledge in the field of management accounting, corporate accounting, statistical and mathematical techniques and knowledge relating to corporate law and business laws.
PO5. Do a business of their choice or choosing a profession or can become employees having basic knowledge and skill required for such activities.

B.Com. PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO 1: The students can get the knowledge, skills and attitudes during the end of the B.com degree course.
PSO 2: By goodness of the preparation they can turn into a Manager, Accountant, Management Accountant, Cost Accountant, Bank Manager, Auditor, Company Secretary, Teacher, Professor, Stock Agents and Government employments and so on.
PSO 3: Students will prove themselves in different professional exams like C.A., C S, CMA, MPSC, UPSC as well as other courses.
PSO 4: The students will acquire the knowledge, skill in different areas of communication, decision making, innovations and problem solving in day to day business activities.
PSO 5: Students will gain thorough systematic and subject skills within various disciplines of finance, auditing and taxation, accounting, management, communication, computer.
PSO 6: Students can also get the practical skills to work as accountant, audit assistant, tax consultant, and computer operator as well as other financial supporting services.
PSO 7: Students will learn relevant Advanced accounting career skills, applying both quantitative and qualitative knowledge to their future careers in business.
PSO 8: Students will be able to do their higher education and can make research in the field of finance and commerce.

B.Com. COURSE OUTCOMES (COs)

SEM I COMPUTER FUNDAMENTAL AND OPERATING SYSTEM –I
To impart basic knowledge about Computer, Word Processing, Fundamentals of Computer, Computer Organization, Memory organization of Computer, Concept, Types, Input / Output Devices, Word Processing Formatting Document.

SEM I PRINCIPLES OF ECONOMICS
To impart Economic Laws , Nature, Characteristics, Limitation & Importance, Utility Approach, Elasticity of Demand, Production Function, Cost and Revenue.

SEM I ADVANCED ACOOUNTANCY
To impart basic Accounting Knowledge as applicable to business, Accounting Transactions, Rectification of errors, Sub-sidiary Book, Cash Book, Depreciation Methods, Bank Reconciliation statement.

SEM I PRINCIPLES OF BUSINESS ORGANIZATION
To impart Commerce and Industry, Business, Merger and Acquisition, New Enterprises, Trade In India.

SERM II COMPUTER FUNDAMENTAL AND OPERATING SYSTEM –II
To impart basic knowledge about

SEM - III COMPANY ACCOUNTS
This course enable the students to develop awareness about company account, Issue, forfeiture and Re-issue of Shares, Final Accounts of company, Profit prior to Incorporations, Amalgamation of Company, Absorption of Company

SEM - III BUSINESS MATHEMATICS
The objective of this course is to enable the students to have such minimum knowledge of Mathematics, Natural Numbers, Integers H.C.F. & L .C.M. , Linear Equation , Percentage, Discount, Commission and Brokerage, Average, Profit and Loss Mathematics of Finance, Simple Interest, Compound Interest, Ratio and Proportion, Ratio and percentage, Concept of proportion, Simple and Compound proportion, Direct and inverse proportion.

SEM-III AUDITING
To impart Meaning of Auditing, Objectives & Advantages, Types of Audit, commencement of business audit, Internal Check system, Audit program, Routine checking and Vouching, Verification and Valuation of Assets and liabilities, Company Auditor, Appointment, Power, duties, Liabilities, Audit of Divisible Profit, Dividend, Audit Report, Types of Report, Audit of Banking, Insurance &

SEM V COST ACCOUNTING
This course exposes the students to the basic concepts and tools used in Cost Accounting and provide an understanding of the applications of Cost Accounting techniques for determination of cost of production.

SEM V BUSINESS ENVIRONMENT
The contents herein intend to develop the ability to understand and interpret sector wise business environment of India.

SEM V BUSINESS REGULATORY FRAMEWORK
To help the students to understand the concept of business Laws and it's applications in business regulation.

SEM V PROCESS BUSINESS I
The course aims to educate the students with the different factors which effect business. This course aims to develop ability to understand and scan business environment as well as process in order to analyses the opportunities and take decisions under the uncertainty.

SEM V CO-OPERATIVE BUSINESS I
To grasp the historical development of Co-operatives in India. To Understand and appreciate theoretical development of the co-operative enterprises in India. To appreciate role and relevance of co-operatives in the present economic

Computer, MS-Word Processing 2007 and MS-PowerPoint 2007, Operating System Basics, Operating System [Advance], Modern communications, Word Processing working with Table and Graphics, PowerPoint Presentation

SEM II BUSINESS ECONOMICS

To impart Business and Managerial Economics, Market Structure, Factors Pricing.

SEM II FINANCIAL ACCOUNTING

To develop conceptual understanding of fundamentals of financial accounting system and to impart skills in accounting for various kinds of business transaction, Accounts of Non-trading Institutions, Special Accounting Areas : Accounts of Co-operative societies, Accounting for Agriculture Farms, Hire purchases & Installment purchase Accounts, Insolvency Account of and Individuals, Laws of insolvency- Provisions for preferential creditors, Meaning of insolvency, Procedure of insolvency, Problems on Insolvency Accounts.

SEM II PRINCIPLES OF BUSINESS MANAGEMENT

To impart Management Concept, Planning, Organizing, Directing, Controlling.

Educational Institutions.

SEM-III MONETARY SYSTEM

To impart Barter System of Exchange and its Problems, Definition and Nature of Money, Functions and Importance of Money, Kinds of Money, Price Fluctuations, Money Market and Capital Market.

SEM-III Information Technology & Business Data Processing-I

The objective of this course is to familiarize with basics of Information Technology and use of Spreadsheet Package for Business Data Processing

SEM- IV CORPORATE ACCOUNTING

This course enable the students to develop awareness about corporate accounting.

SEM IV BUSINESS STATISTICS

The objective of this course is to enable the students to have such minimum knowledge of Statistics.

SEM IV INCOME TAX

To know Basic concepts, Computation of Income, Income from other sources, Income Tax Authorities and Return of income.

SEM-IV Information Technology & Business Data Processing-II

The objective of this course is to familiarize with basics of Database, Database management System and use of Accounting Package for Business Data Processing.

environment. To develop understanding and insight in co-operative development.

SEM V INTERNET WORLD WIDE WEB I

The course aims at familiarizing the students with the basic concepts and ground rules of Internet and the various services it offers including designing of website and how to access information from depositories in the world wide web.

SEM V E-COMMERCE

The objective of the course is to familiarize the students with the essentials of internet based e-commerce and to make them comprehend its practical aspects as well as growth potential of ecommerce in India.

SEM VI MANAGEMENT ACCOUNTING

This course exposes the students to the basic concepts and tools used in Management Accounting. To provide an understanding of the applications of Management Accounting techniques for management decision making.

SEM VI ECONOMICS OF DEVELOPMENT

To provide an insight into various growth models and their applicability in present scenario.

SEM VI COMPANY LAW

The course exposes to Incorporation of company, Share capital of company, Securities Market, Company Secretary and Company meetings.

SEM VI INTERNET AND WORLD WIDE WEB II

The course aims at familiarizing the students with the basic concepts and ground rules of Internet and the various services it offers including designing of website and how to access information from depositories in the world wide web.

SEM VI E-COMMERCE II

The objective of the course is to acquaint the students with the internet-based e-commerce business models, internet marketing and e-governance.

B.Sc. PROGRAM OUTCOMES (POs)

After the completion of B. Sc. program the students are able to:

PO1. Develop scientific temperament and attitude.

PO2. Inculcate the qualities like observation, precision, analytical mind, logical thinking, clarity of thought and expression, systematic approach.

PO3. Handle the unexpected situation by critically analyzing the problem.

PO4. Extract information, formulate and solve problems in a systematic and logical manner.

PO5. Perform the jobs in diverse fields such as science, engineering, industries, survey, education, banking, development-planning, self-business etc. efficiently.

B.Sc. PROGRAM SPECIFIC OUTCOMES (PSOs)

B.Sc. (Chemistry)

A student of B.Sc. studying Chemistry is expected to:

PSO1: Acquire basic knowledge of chemistry.

PSO2: Gain knowledge of various principles governing chemical reactions which are important in industry and daily life.

PSO3: Understand fundamental and basic concepts of organic, in-organic, physical and analytical chemistry.

PSO4: Acquire knowledge of mechanistic approach of various organic and inorganic reactions.
PSO5: Be competent to apply practical aspects of chemistry by means of qualitative, quantitative and instrumental methods.

B.Sc. (Botany)

A student of B.Sc. studying Botany is expected to:
PSO1: Be able to develop knowledge about Characteristics of bacteria, viruses, and fungi.
PSO2: Be able to identify the major groups of organisms with an emphasis on plants.
PSO3: Be able to compare and contrast the characteristics of plants, algae, fungi, Bryophyte
PSO4: Be able to explain how organisms function at different levels.
PSO5: Be able to explicate the ecological interconnectedness of life on earth.

B.Sc. (Zoology)

A student of B.Sc. studying Zoology is expected to:
PSO1: Acquire knowledge about various Phyla in animal kingdom.
PSO2: Gain knowledge of life and diversity of nonchordata and chordata. **PSO3**: Acquire knowledge of basics of cell and developmental biology.
PSO4: Understand the concepts in animal physiology and animal ecology.
PSO5: Acquire knowledge of an essence of molecular biology and biotechnology

B.Sc. (Physics)

A student of B.Sc. studying Physics is expected to:
PSO1: To acquire core knowledge of major topics of physics.
PSO2: Gain competence in communication skills for communicating physics phenomenon and basic principles.
PSO3: Gain knowledge of the ways and methods to design and conduct an experiment demonstrating various physics concepts.
PSO4: To realize impact of physics and science on overall development of the society and develop an understanding of the impact of physics and science on society.
PSO5: To apply the conceptual understanding of the physics to general real world situations.

B.Sc. (Computer Science)

A student of B.Sc. studying Computer Science is expected to:
PSO1: Acquire fundamentals of Computer Science, Component of Computer, generation of computer, types of computer.
PSO2: Learn web page design using HTML.
PSO3: Learn programming languages such as C, C++, vb to design small application programmes.
PSO4: Learn various database, design of database, Structure query language.
PSO5: Learn concepts of programming in PL/SQL.

B.Sc. COURSE OUTCOMES (COs)

SEM I PHYSICS

1. Able to understand the terminology used in Classical Mechanics, Planetary motion, Gravitational laws, Simple harmonic motion, wave motion, Elasticity & Kinematics of moving fluids.
2. Ability to employ conceptual understanding to make predictions, and then approach the problem mathematically.
3. Ability to understand the important connections between theory and experiment.

SEM I CHEMISTRY

1) Ability to understand periodicity in properties of main group elements and ionic bonding
2) Ability to understand electronic displacement effects, reactive intermediates and chemistry of aliphatic and aromatic hydrocarbons 3) Knowledge of the fundamentals of thermodynamics and Kinetic theory of gases.
4) Knowledge of phase rules and its application to one component system.

SEM I BOTANY

After completion of this Course, the student are able to develop the following outcomes:
1. Students are expected to familiarize

SEM III PHYSICS

1. Knowledge of the concepts in Mathematical Physics and Elecrostatics, Magnetostatics and Electrodynomics (Maxwell's Equation, Solid State Electronics Devices- Physics of semiconductors, Electronic devices- like: BJT, FET, Op-Amp etc., Special Theory of Relativity, Atmosphere and Geophysics.
2. Understanding importance of these concepts and phenomena in real life practices.

SEM III CHEMISTRY

Knowledge of - 1) Postulates and application of MO theorist application of MO theory for simple homonuclear and hetero-nuclear diatomic molecules.
2) Metallic bonding and VSEPR theory for molecular structure.
3) Theory of volumetric and gravimetric quantitative analysis.
4) Organic chemistry of aldehydes, ketones, and carboxylic acids.
5) Stereochemistry of organic compounds especially optical, geometrical and conformational isomerism.
6) Thermodynamic equilibrium with reference to Gibbs and Helmholtz free energy.
7) Phase equilibria for partially

SEM V PHYSICS

1. Knowledge of the basics of the Origin of Quantum Mechanics, Development of Schrödinger's equation, Atomic and Molecular Spectroscopy, Nuclear Physics, introduction to Hybrid parameters and Amplifiers, feedback and oscillators.
2. Understanding importance of these concepts and connection between theory & practical and applications to practical devices & systems.

SEM V CHEMISTRY

Knowledge of - 1) Various theories of bonding for coordination compounds like Werners, VBT, CFT
2) Isoemrism and electronic spectra of complexes.
3) Chemistry of heterocyclic and organometallic compounds.
4) Chemistry of dyes, drugs and pesticides.
5) Principles of photochemistry, quantum yield and luminescence.
6) Principles of molecular spectroscopy.

SEM V BOTANY

1. Advance knowledge about plant water relation, physiology, metabolism and ecology.
2. Understanding about the plant response to different stimuli and plant

with the morphological and systematic knowledge about different plant groups including Algae, fungi, Bryophyte and Pteridophyte etc. They are be able to make use of this knowledge for detailed study in other disciplines.
2. The study are able to know about different algal and fungal groups around them, their symbiotic association, and economic importance.
3. Students are able to distinguish between different Taxa of Mastigomycotina, Ascomycota, Basidiomycota and Deuteromycotina. They will be become familiar with edible and poisonous fungi and their association with trees. 4. Understanding the role of microbes in different field. 5. Industry, Food and Agriculture etc. 6. The students are able to understand the vast diversity of bacteria and Viruses in relation to Structure, nutrition and Reproduction

SEM I ZOOLOGY

Knowledge of the basic knowledge of Animal Kingdom through its classification and evolution of life. They will also learn various systems organized through a well-controlled and developed mechanism.

SEM I COMPUTER SCIENCE

Knowledge of the fundamentals of Computer such as Block Diagram of Computer, I/O devices, Memory and its types and basics of OS, Network, types of Network, Network Topology, Internet and fundamentals of programming languages, types of languages, executable statements. They are able to write the algorithms, draw flowcharts and develop programs in c.

SEM II PHYSICS

1. Knowledge of the concepts in Kinetic theory of Gases, Thermodynamics, Liquefaction of Gases, Motion of Charged Particles in Electric and Magnetic fields, Electrical Network Theorems & ac current.
2. Understanding importance of these topics in real world.

SEM II CHEMISTRY

Knowledge of - 1) rules of polarizability and concept of covalent bonding. 2) Theories of acids and bases.
3) Chemistry of p-block elements
4) Chemistry of non-aqueous solvents
5) Chemistry of organic compounds conating halogen and oxygen like alkenyl and aryl halides, alcohols, ethers, epoxides and phenol.
6) Physical properties and relation to molecular structure.
7) Fundamentals of chemical kinetics.

SEM II BOTANY

1. After studying this course students develop better understanding of the Concept of Fossilization. Students will be expected to know about the general characteristics of Gymnosperms and their affinities with Pteridophyte and Angiosperms.
2. Through this course students will get the better opportunity to understand the plants taught in theory, their miscible and immiscible liquids
8) Surface tension, Viscosity and electrolytic conductance measurements and application.

SEM III BOTANY

1. Knowledge of the history of Plant Systematics and its role in classification. They are able to make use of this knowledge for the identification and grouping of different plants based on the anatomy.
2. Knowledge of classification on the basis of anatomical difference into different groups.
3. Knowledge of the basic anatomical concepts of Primary Structure of Root, Stem, Leaf and Flower. They will be able to discuss the idea of secondary growth.
4. Ability to understand the Tissues Arrangement in Root, Stem, Leaf and Secondary Plant Body.
5. Knowledge about formation of male and Female gametes, their fusion, development of embryo, formation of seed and endosperm.

SEM III ZOOLOGY

Life And Diversity Of Chordata And Concept. In addition to this, To learn evolution of life from a unicellular life to a multicellular organism.

SEM IV PHYSICS

1. Knowledge of the concepts in Geometrical optics and interference, Diffraction, Polarization.
2. Knowledge of conceptual ideas of Laser, fiber optics & basics of the Renewable Energy Source.

SEM IV CHEMISTRY

Knowledge of - 1) Chemistry of d-block and f-block elements.
2) Principles involved in extraction of elements and general principles of metallurgy
3) Chemistry of poly-nuclear hydrocarbon, reactive methylene compounds and carbohydrates
4) Chemistry of nitro and amino compounds
5) Colligative properties and Crystal state.

SEM IV BOTANY

1. On successful completion of this course students are able to describe, apply and integrate the basic concepts of Cell Biology Genetics and Biochemistry, Structure and Functions of different Organelles.
2. Understanding the structure, types and aberration of chromosome.
3. Understanding gene interaction and develop skill to solve genetic problem
4. Knowledge about gene mutation, linkage and crossing over etc.
5. Understand different types of enzyme and their mechanism of action.
6. Awareness about Structural and Functional Strategies of Biomolecule like Carbohydrate.

SEM IV ZOOLOGY

Ability to understand modern and advance developments in the field of genetics; biotic and abiotic factors with their interaction to ecosystem. movement.
3. Understanding plant growth mechanism, role of growth hormones in plant development.
4. Knowledge of various factor of environment and their impact on plant growth and development.
5. Understanding the structure and function of ecosystem.

SEM V ZOOLOGY

Animal Physiology And Economic Zoology. Mechanism of working. They will also learn applied and economic aspects of modern zoology by studying various cultures in the field of agriculture and aquaculture.

SEM VI PHYSICS

1. Understands the basics of the Statistical Mechanics, MB, BE & FD Statistical distributions, Crystallography, Electrical properties & magnetic properties of the materials, Nanoscience & nanotechnology and Superconductivity.
2. Understanding connection between theory & practical. 3. Competence regarding practical applications of these concepts in real world.

SEM VI CHEMISTRY

Knowledge of - 1) Kinetic Aspects of Metal Complexes
2) Spectrophotometry, Calorimetry and chromatographic analytical methods.
3) Chemistry of metal carbonyls, inorganic polymers and essential elements.
4) UV, IR, NMR and Mass spectroscopy for structure elucidation of organic compounds.
5) Elementary quantum mechanics and Schrodinger wave equation.
6) Electrochemical Cells and principles of nuclear chemistry.

SEM VI BOTANY

1. Knowledge about genetic material i.e. DNA, RNA etc.
2. Understanding about the recombinant DNA technology, protein synthesis, protein sorting, cloning techniques to construct genomic libraries and a broad view about cloning vector types and strategies.
3. Knowledge about parameters involved in gene transfer techniques. 4. Ability to understand the different techniques used in Plant Tissue Culture including Plant Micro propagation, Callus and Suspension Culture and their Applications.
5. Understanding about the functioning of various equipment's used in Tissue Culture Work.

SEM VI ZOOLOGY

Ability to
1. Have knowledge about genetic material i.e. DNA, RNA etc.
2. to have an understanding about the recombinant DNA technology, protein synthesis, protein sorting, cloning techniques to construct genomic libraries and a broad view about cloning vector types and strategies.
3. Have knowledge about parameters involved in gene transfer techniques. 4. Know the different techniques used in Animal Tissue Culture and their

morphological features through preserved specimens and slides. 3. Students would get the knowledge about all morphological parts of the plant. 4. Students also get knowledge about utilization of plants in spices, timber. **SEM II ZOOLOGY** Ability to understand basics and fundamentals of life by studying cell, its organelles and their functions. They will also learn preliminary ideas of fertilization and development of life.		Applications. 5. Understand the functioning of various equipment's used in Tissue Culture Work.

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Program Outcomes

Contents

Redefined Course Outcomes, by the Affiliated University Sant Gadge Baba Amravati University – (2022-23) (CBCS)

The Programme Outcomes UG/PG (POs)

Program Outcomes (POs) of various programs/subjects/Department run by the college.
Faculty of Arts, Commerce & Science (UG/PG)

Program Name	Subject	Program Specific Outcomes (POs
B.A.-1	Marathi Compulsory/Marathi literature/AEC	PO1: मातृभाषा मानवी जीवनाचा पाया आहे आत्मप्रगटीकरण, आत्मचिंतन, विचारांची देवाणघेवाण, संस्कृतीची जोपासना, समाजातील आर्थिक, राजकीय व्यवहार, व्यक्तिमत्वाचा विकास या सर्व गोष्टी साठी भाषेची आवश्यकता आहे.
		PO2: मातृभाषेच्या सामर्थ्यावर अभ्यासकाला कोणत्याही विषयाच्या आवश्यक असलेल्या आकलन शक्ती व कौशल्य यांचा विकास होण्यास मदत होते.
		PO3: सध्या श्रावण भाषण कौशल्यापासून ते प्रतिभा संपन्न सृजनशीलतेपर्यंत प्रत्येक क्रियेत मात्र भाषेची आवश्यकता आहे.
		PO4: मातृभाषेतूनच कोणत्याही क्षेत्रातील ज्ञान मिळवणे सुलभ जाते.
		PO5: मराठी भाषा अतिशय समृद्ध अशी भाषा आहे. समाजाचा सर्वांगीण विकास हा भाषेच्या माध्यमातून होतो.
		PO6: त्या माध्यमातून विद्यार्थ्यांच्या सर्वांगीण व्यक्तिमत्वाचा विकास होतो. भाषिक संवेदना, भावना, विचारशीलता, भाषेच्या विविध प्रवाहाची अभिवृद्धि समाजाच्या विकासाकरिता महत्त्वाचा असतो.
		PO7: मराठी अनिवार्य अभ्यासक्रमातून वैचारिकता समृद्ध होण्यासाठी मदत होते. तसेच ललित साहित्यातून जीवनानुभवाची नवी दृष्टी प्राप्त होते. काव्य प्रकारातून सामाजिक अस्मिता अभिव्यक्त होते. मराठी भाषा विद्यार्थ्यांना नव्या जाणिवा, नव्या प्रेरणा देणारा विषय आहे.
B.A.-1	History, Economics	PO1 Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
		PO2 Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
		PO3 Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.
		PO4 Effective Citizenship: Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
		PO5 Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
		PO6 Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.
		PO7 Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes

B.A.-1	Political Science	PO1: Understanding of constitution, government institutions, electoral processes and policies.
		PO2: Knowledge of some of the philosophical underpinnings of modern politics and government.
		PO3: Develop the ability to make logical inferences about social and political issues on the basis of comparative and historical knowledge.
		PO4: Knowledge of key theories and concepts, political thoughts, organization, and modern issues in international relations.
		PO5: Develop the analytical abilities, observational skills and decision-making abilities of the students so that they will be able to face different challenges of life.
		PO6: Equip students with the concepts, principles, theories and processes studied in Political Science, so as to facilitate their career choices and employment.
		PO7: Aim at shaping the students' perception and outlook on social, economic and political environment of India and beyond.
B.COM-1	Commerce	PO1: To impart the basic knowledge of Economics.
		PO2: To impart basic knowledge of Accountancy & Statistics. To impart knowledge of creating a cash book and ledger books.
		PO3: To impart the basic knowledge of management, planning, organizing, directing and controlling
		PO4: To impart the basic knowledge of application of computers and its development.
		PO5: To impart the knowledge of business sectors, firms, e-commerce, cashless transaction
		PO6: To impart the knowledge of local and global enterprises and trade.
		PO7: To develop presentation skills and ability of goal setting.
		PO8: To bring about the holistic development of the students.
		PO9: To develop ethics of life.
		PO10: To inculcate Environmental awareness.
		PO11: To impart the fundamental knowledge of Computer.
B.SC-1	Chemistry, Botany, Zoology, Physics & Computer Science	PO1 Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
		PO2 Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
		PO3 Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.
		PO4 Effective Citizenship: Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
		PO5 Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
		PO6 Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.
		PO7 Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes

B.SC-1	English	PO1: To facilitate the learners in acquiring listening and speaking competence.
		PO2: To assist the learners in independent language comprehension and production.
		PO3: To make the students aware about the different communicative functions of English.
		PO4: To improve skills and proficiency for being employed as teachers, state government employees, civil aviation, engineering and medico-related industry, defence, commerce and taxation sector.
		PO5: To be able to speak, write, read and listen flawlessly in person and through the electronic mode in English
		PO6: To understand views of others, mediate contradictory views/ disagreements, reaching conclusion in groups / group discussions.
		PO7: To understand and use basic skills of the English language for applying it in the job assigned / employment accepted / profession undertaken.
B.SC-1	Marathi	PO1: भाषेचा आकलनाबरोबरच विद्यार्थ्यांमध्ये समाजातील उच्चकोटीची मानवी मूल्य वृद्धिंगत व्हावी, राष्ट्रीय एकात्मता, सामाजिक बांधिलकी, मानुषता, राष्ट्रप्रेम, राष्ट्रभक्ती, वैज्ञानिक दृष्टिकोन, पर्यावरण- संरक्षण संवर्धन भूतदया इत्यादींची पेरणी व्हावी.
		PO2: विद्यार्थ्यांची मातृभाषा आणि वाङ्मयविषयक अभिरुची वाढीला लागावी, त्यांना दर्जेदार व व्यावसायभिमुख शिक्षण मिळावे याकरिता केंद्र सरकारच्या मानवसंसाधन आयोगाने जी धोरणे निश्चित केली आहेत त्या अनुषंगाने हा अभ्यासक्रम नवीन शैक्षणिक धोरणाच्या परीक्षेत निश्चित करण्याचे धोरण संत गाडगे बाबा अमरावती विद्यापीठाने अत्यंत विचारपूर्वक स्वीकारलेले आहे.
M.A.-1	Political Science	PO1: Familiarity with different approaches to the study of Political Science and an ability to apply this to contemporary political problems.
		PO2: An ability to formulate and construct logical argument about political phenomena.
		PO3: Comprehend the basic structure and functions of government systems and theoretical understandings.
		PO4: Analyse political problems, argument, information, theories.
		PO5: Apply methods appropriated for accumulating and interpreting data applicable to political science.
		PO6: An ability to analyse the election data and to develop leadership qualities among students.
M.A.-1	Economics	PO1: To analyse the Economic Issues related to local to global scenarios.
		PO2: This programme helps to understand the various Social, Political and Economic Institutions.
		PO3: Applying their knowledge to assess issues in fields of agriculture, industry, banking and finance, environmental, and societal issues to provide practical solutions.
		PO4: Formulate and execution of field study, and an industrial visit to get practical exposure to the latest issues.
		PO5: To understand how economic policies affect the common people through interactions.
		PO6: To utilize the research spheres of Economics.
		PO7: The students should be able to find a career in Economics.
M.COM-1	Commerce	PO1: To enable the student to acquire the process of managerial economics, demand analysis, production theory, price determination and pricing practices, etc.
		PO2: To acquaint the student with basic issues in services marketing and customer relationship management.
		PO3: To enable the student to understand & master the accounting concepts as well as tools and techniques used for taking managerial decisions.

		PO4: To impart the knowledge of ratio analysis, cash flow and budgetary control.
		PO5: To enhance decision making abilities of students in situation of uncertainty in dynamic business environment.
		PO6: To help the student to understand and master the conceptual framework of Management and organizational behavior.
		PO7: To provide understanding of computer operating system and application of relevant software's in managerial decision making
		PO8: To impart the knowledge of commercial banks and its transactions, nature and scope of insurance and its kinds.
M.SC-1	Chemistry, Botany	PO1: Deep subject knowledge & intellectual breadth-Apply the subject knowledge to the solution of real-world problems.
		PO2: Professional Ethics -Apply ethical principles and commit to professional ethics and responsibilities and norms of standard practises
		PO3: Creative And Critical Thinking- Take informed action after identifying the assumptions that frame our thinking and actions checking out the degree to which these assumptions are accurate and valid and looking at our ideas and decisions intellectual organisational and personal from different perspectives.
		PO4: Innovation Research and Problem Solving-Identify formulate, review research literature, and analyse complex problems reaching substantiated and innovative conclusions. Design solutions for complex problems with appropriate consideration for the public health and safety, and the cultural societal and environmental considerations. Use a research-based knowledge and research methods to provide valid conclusions. Demonstrate the knowledge of, and need for sustainable development.
		PO5: Teamwork And Communication Skills functional effectively as an individual and as a member or leader in diverse teams and in multidisciplinary settings present communicate research at national international level write effective articles reports and design documentation make effective presentation and give the receive clear instructions communicate disciplinary knowledge to the community and broader public.
		PO6: Professionalism And Leadership Readiness- Demonstrate personal accountability and effective work habits e.g. punctuality, working productivity with others, and time as well as workload management. Demonstrate integrity and ethical behaviour, acts responsibly with the interest of the larger community in mind, and to learn from his/her mistakes. Use the strengths of others to achieve common goals, and use interpersonal skills to coach and develop others. Assesses and manage his/her emotions and those of others; use empathetic skills to guide and motivate; and organise, priorities, and delegate work.
		PO7: Lifelong Learning-Recognise the need for, and have preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.
		PO8: Competence For Digital World- Prepare well for living, learning and working in digital society. Create, select, and apply appropriate techniques, resources, and modern ICT tools to complex, activities with an understanding of limitations. Use existing digital technologies ethically and efficiently to solve problems, complete task, and accomplish goals. Demonstrate effective adaptability to new and emerging technologies.

		PO9: Global citizenship – Act with an informed awareness of global issues. Engage in an initiatives that encourage equity and growth for all.
M.SC-1	Zoology	PO: The post graduate course of Zoology will provide theoretical as well as experimental knowledge as per the courses included under the syllabi by which build up creativity in students will lead towards thorough learning and development of ideas of research work and will become ready to face recent challenges. Students can attain the employability skills through the experiences based on their practical knowledge.

Arts & Commerce College ★ Warvat Bakal ★

Principal
Arts & Commerce College,
Warvat Bakal Dist.Buldana

SATPUDA EDUCATION SOCIETY, JALGAON JAMOD'S

Arts & Commerce College

Warwat Bakal Tq. Sangrampur Dist - Buldhana (M.S.)

NAAC Reaccredited with 'B' Grade

College Code : 327

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Program Specific Outcomes

Contents

Arts & Commerce College, Warwat- Bakal

Redefined Course Outcomes, Program Specific Outcomes by the Affiliated University Sant Gadge Baba Amravati University – (2022-23) (CBCS)

Program Specific Outcomes (PSOs) of various programs/subjects/Department run by the college.
Faculty of Arts, Commerce & Science (UG/PG)

Program Name	Subject	Program Specific Outcomes (PSOs
B.A.-1	English	PSO1: Comprehend various forms of literature like Prose, Poetry, Drama and Fiction.
		PSO2: Develop the knowledge of grammatical system.
		PSO3: Develop four language skills LSRW
		PSO4: Widen scope of employability and Entrepreneurship viz Teaching, Civil Services and Creative Writing.
B.COM-1	English	PSO1: To impart the basic knowledge of Economics.
		PSO2: To impart basic knowledge of Accountancy & Statistics. To impart knowledge of creating a cash book and ledger books.
		PSO3: To impart the basic knowledge of management, planning, organizing, directing and controlling
		PSO4: To impart the basic knowledge of application of computers and its development.
B.SC-1	English	PSO1: Understand nature and nuances of English Language used in prose lessons and poetic passages.
		PSO2: Apply the knowledge of English to communicate with others on personal, social, literary and interdisciplinary topics.
		PSO3: Compare the structure of English language to use LSRW.
		PSO4: Formulate the sentences as per situational requirement.
		PSO5: Differentiate between acceptable and unacceptable sentences in English.
		PSO6: Create appropriate, grammatically correct and acceptable sentences in English
		PSO7: Create appropriate, grammatically correct and acceptable sentences in English
B.SC-1	Marathi	PSO1: मराठी भाषा हा केवळ शिकण्याचा आणि शिकवण्याचाच विषय नाही तर ते आत्मप्रकटीकरणाचे एक प्रभावी माध्यम आहे. तास व्यक्तिमत्व घडविणारा तो संस्कारही आहे.
		PSO2: बहुविध अंगाने तो बहुविध अंगाने व्हायला हवा त्याच बरोबर भाषेच्या सर्वांगीण अभ्यासाची दिशा विद्यार्थ्यांना सूचित व्हावी , साहित्य सरितेतील विविध वाङ्मय प्रकाराची आणि प्रवाहाची ओळख व्हावी हा उद्देश प्रामुख्याने ठेवला आहे.
B.A.-1	Marathi	PSO1: संत गाडगे बाबा अमरावती विद्यापीठाच्या मानव विज्ञान विद्या शाखेतील बीए मराठी हे आवश्यक अभ्यासक्रमाच्या अध्ययनामुळे विद्यार्थ्यांची साहित्य ही संकल्पना स्पष्ट ओळ मराठी भाषाविषयक अभिरुची विकसित होईल.
		PSO2: मराठी साहित्य परंपरा लेखक कवी विचारवंत यांचा परिचय होईल त्यांच्या, लेखनातून आलेल्या सामाजिक एकात्मता सर्वधर्म समभाव राष्ट्रीय एकात्मता आणि भारतीय राज्यघटनेचे अधिष्ठान असलेल्या मानवी मूल्यांची विद्यार्थ्यांमध्ये रुजवणूक होईल.
		PSO3: विद्यार्थ्यांमध्ये मराठी, भाषा, साहित्य, कला या विषयी आवड निर्माण होईल. त्याची चिकित्सा, तुलना, समीक्षा करण्याची दृष्टी विकसित झाल्यामुळे विविध साहित्यप्रकारांतील लेखनाचे योग्य ज्ञान संशोधन आणि सर्जनशील निर्मिती करतील.
		PSO4: भाषा आणि साहित्याचा सामाजिक तसेच कलात्मक पातळीवर अभ्यास केल्याने विवेकपूर्ण तर्कसंगतता आणि कारुण्यपूर्ण संवेदनशीलता निर्माण होऊन साहित्याचे भाषेचे व्यावहारिक उपयोजन करता येईल.
		PSO5: कला शाखेच्या विद्यार्थ्यांमध्ये मराठी भाषेच्या तांत्रिक अभ्यासा सुरू प्रतिष्ठा पूर्ण रोजगार मिळवण्यासाठी भाषिक कौशल्य प्राप्त होतील.
		PSO6: मराठी भाषेच्या माध्यमातून विविध क्षेत्रात लागणारे व्यावहारिक कौशल्याचे उपयोजन विद्यार्थी करतील.
		PSO7: रोजगार निर्मितीसाठी लागणारे विविध कौशल्य निर्मितीचा दृष्टिकोन विद्यार्थ्यांमध्ये निर्माण होईल
B.A.-1	Marathi Literature	PSO1: संत गाडगे बाबा अमरावती विद्यापीठाच्या मानवविज्ञान विद्या शाखेतील मराठी वाङमय (ऐच्छिक) विषय अभ्यासक्रमाच्या अध्ययनामुळे विद्यार्थ्यांची साहित्य ही संकल्पना स्पष्टः ओळ मराठी भाषाविषयक अभिरुची विकसित होईल.
		PSO2: मराठी साहित्य परंपरा लेखक कवी विचारवंत यांचा परिचय होईल, त्यांच्या लेखनातून आलेल्या सामाजिक एकात्मता, सर्वधर्म समभाव, राष्ट्रीय एकात्मता आणि भारतीय राज्यघटनेचे अधिष्ठान असलेल्या मानवी मूल्यांची विद्यार्थ्यांमध्ये रुजवणूक होईल.

		PSO3: विद्यार्थ्यांमध्ये साहित्य व कला या विषयी आवड निर्माण होईल. त्याची चिकित्सा, तुलना, समीक्षा करण्याची दृष्टी विकसित झाल्यामुळे विविध साहित्यप्रकारांतील लेखनाचे योग्य ज्ञान संशोधन आणि सर्जनशील निर्मिती करतील.
		PSO4: भाषा आणि साहित्याचा सामाजिक तसेच कलात्मक पातळीवर अभ्यास केल्याने विवेकपूर्ण तर्कसंगतता आणि कारुण्यपूर्ण संवेदनशीलता निर्माण होऊन साहित्याचे भाषेचे व्यावहारिक उपयोजन करता येईल.
		PSO5: साहित्याच्या विद्यार्थ्यांमध्ये मराठी साहित्याच्या अभ्यासासह प्रतिष्ठा पूर्ण रोजगार मिळवण्यासाठी भाषिक कौशल्य प्राप्त होतील
		PSO6: रोजगार निर्मितीसाठी लागणारे विविध कौशल्य निर्मितीचा दृष्टिकोन विद्यार्थ्यांमध्ये निर्माण होईल.
B.A.-1	History	PSO1: Analyze the Socio-Political and Cultural background of the Indian History.
		PSO2: Examine various perspectives of history and historiography.
		PSO3: Prepare for Competitive Examinations like UPSC, MPSC, and SET/NET etc.
		PSO4: Compare various concepts in Social Studies through the Indian History.
		PSO5: Describe the developments of mankind.
B.A.-1	Economics	PSO1: Problem analysis: recognize formulate and study the problems of various sectors of the Indian economy, regional economy and the global economy with the help of the economic ways of thinking, theories, concepts and laws.
		PSO2: Apply the knowledge of economic concepts, laws and theories, for a better economic environment for the society at large.
		PSO3: Communicate effectively on the economic activities with the community and the society through the acquiring knowledge of the national and the global economy.
		PSO4: To build on these concepts to develop deeper understanding of Economy in the future.
		PSO5: Explain the basic concepts, laws and theories related to the economic behavior of the human being.
		PSO6: Graduates from our department are effectively taught and explained the cause with the help of visual aids like white board and PowerPoint Presentation.
		PSO7: They will be able to visualize the real-world situation and enhance them to initiate the programmers for pursuing studies and be alert with the importance of entrepreneurial skills for their self-employment, to improve the general attitudes and living conditions of the masses.
B.A.-1	Political Science	PSO1: To understand the basic structure of Indian political system
		PSO2: To Inculcate interest in political field.
		PSO3: To create the leadership qualities in students.
		PSO4: To understand Indian governing system.
B.COM-1	Commerce	PSO1: Attain requisite skills and knowledge after the completion of the Programme.
		PSO2: Achieve the basic knowledge of Economics.
		PSO3: Assimilate basic knowledge of Accountancy & Statistics.
		PSO4: Efficiency in reading and writing skill.
		PSO5: Achieve requisite skills and knowledge of preparing cashbook, leader books and balance sheet of Company.
		PSO6: Become knowledgeable about marketing.
		PSO7: Create a self-employment.
		PSO8: Assimilate ethics of life.
		PSO9: Achieve Environmental awareness.
		PSO10: Attain fundamental knowledge of Computer.
B.SC-1	Chemistry	PSO1: Understand the scope, methodology and application of modem chemistry.
		PSO2: Apply theoretical and practical concepts of instruments that are commonly used-in most chemistry field.
		PSO3: Plan and conduct scientific experiments and record the results of such experiments.
		PSO4: Get acquainted with safety of chemicals, transfer, and measurements of chemicals, preparation of solutions, and using physical properties to identity compounds and chemical reactions.
		PSO5: Describe how chemistry is useful to solve social, economic and environmental problem and issues facing our society in energy, medicine, and health.
B.SC-1	Zoology	PSO1: Develop a deeper sense with respect to phylum Protozoa to Echinodermata relation to taxonomy, classification, body organization and general characteristics this strengthens students' capability in basic zoology.
		PSO2: Grasp various the Systematic positions from Protozoa to Echinodermata their pathogenicity and its epidemiology.
		PSO3: Describe unique characters and recognize life functions of Protozoa, Porifera, Coelenterate, Helminthes, Arthropoda, Annelida, Mollusca and Echinodermata.

		Improve ability and apply Knowledge of No chordates for its execution in Agriculture especially with the phylum Arthropoda.
		PSO4: Implement an extensive idea about economic and ecological significance of various non-chordates phylum's in human life.
B.SC-1	Botany	PSO1: Identify major groups of plants and compare the characteristics of lower (microbes, algae, fungi, bryophytes and pteridophytes) and higher (Gymnosperms and angiosperms).
		PSO2: Use evidence based comparative botany approach to explain the evolution of organism and understand the genetic diversity.
		PSO3: Explain various plant processes and functions, metabolism, concepts of gene, genome and how organism's function is influenced at the cell, tissue and organ level.
		PSO4: Understand adaptation, development and behaviour of different forms of life.
		PSO5: Demonstrate the experimental techniques and methods of their area of specialization in Botany.
B.SC-1	Physics	PSO-1 Recall basic facts about statistics and should be able to display knowledge of conventions such as notations, terminology. 2. 3. 4. 5. 6. acquire basic knowledge of diagrammatic & graphical representation of Data with and without software.
		PSO2: Get adequate exposure to global and local concerns that explore them many aspects of mathematical sciences.
		PSO3: Be equipped with statistical modelling ability, problem solving skills, creative talent and power of communication necessary for various kinds of employment.
		PSO4: Apply their skills and knowledge that is translate information presented verbally into statistical form, select and use appropriate statistical formulae or techniques in order to process the information and draw the relevant conclusion.
		PSO5: Develop a positive attitude towards statistics as an interesting and valuable subject of study.
		PSO6: Acquire basic knowledge of diagrammatic & graphical representation of Data with and without software.
B.SC-1	Computer Science	PSO1: Understand the computer hardware and software.
		PSO2: Use the knowledge of software installation.
		PSO3: Select modern computing tools and techniques for programming task.
		PSO4: Identify, analyse, formulate and develop computer-based solutions to meet desired needs within realistic constraints.
		PSO5: Develop databases and perform operations on them.
		PSO6: Identify research and development areas in multiple disciplines.
		PSO7: Design and develop the small web applications.
M.A.-1	Economics	PSO1: Familiarity with different approaches to the study of Political Science and an ability to apply this to contemporary political problems.
		PSO2: An ability to formulate and construct logical argument about political phenomena.
		PSO3: Comprehend the basic structure and functions of government systems and theoretical understandings.
		PSO4: Analyse political problems, argument, information, theories.
		PSO5: Apply methods appropriated for accumulating and interpreting data applicable to political science.
		PSO6: An ability to analyse the election data and to develop leadership qualities among students.
M.A.-1	Political Science	PSO1: Ability to discuss about Indian Constitution and Political process. student to grasp knowledge of provisions in constitution of India regarding fundamental rights, Directive principles, Parliament, judiciary and executive body at centre and state.
		PSO2: Learn about the various Political thought in Maharashtra like Dr. B.R. Ambedkar, M. G. Ranade, Dr. Punjabrao Deshmukh, and Mahatma Phule etc.
		PSO3: Student are acquainted with the Indian political thought and western political thought various ideologies like Feminism, liberalism, socialism, Environmentalism etc.
		PSO4: Student are acquainted with the Theories and aspects of international relations, nonalignment movement, new world economic order etc.
		PSO5: Learn about the political process in India and acquainted with Governance and public policy in India.
		PSO6: Students are able to develop leadership qualities and Election analysis.
		PSO7: Understanding & analysing the nature and developments in national and international politics.

M.COM-1	Commerce	PSO1: To acquire a job as an Economist, Market Research Analyst, a banker, management consultant, stockbroker/trader, Actuary, Financial analyst, Financial advisors or Advisor to Tax Law Court etc.
		PSO2: To acquire the process of managerial economics, demand analysis, production theory, price determination and pricing practices, etc.
		PSO3: To acquire proficiency in the accounting concepts as well as tools and techniques used for taking managerial decisions.
		PSO4: To master the knowledge of ratio analysis, cash flow and budgetary control.
		PSO5: To achieve decision making abilities in the situation of uncertainty in dynamic business environment.
		PSO6: To master the conceptual framework of Management and organizational behaviour.
		PSO7: To attain understanding of computer operating system and application of relevant software's in managerial decision making.
		PSO8: To gain the knowledge of commercial banks and its transactions, nature and scope of insurance and its kinds.
MSC-1	Chemistry	PSO1: Observe, analyze and interpret chemical phenomena and process.
		PSO2: Design and develop new molecules/processes with industrial and societal applications
		PSO-3: formulate new ideas/concepts in chemical sciences and test them.
		PSO-4: communicate effectively the principles and practice of chemical sciences
		PSO-5: address issues of environment, health and development from a chemical perspective.
		PSO-6: follow professional ethics in all spheres of activity.
		PSO-7: function effectively as a member/leader in diverse teams/groups.
		PSO-8: engage in independent learning in the broadest context of scientific advancement
MSC-1	Botany	PSO1: Explore the cutting-edge technologies and skills currently used in plant sciences. 3. 4. 5. 67
		PSO2: Be aware of social, environmental issues and plant significance in natural interest.
		PSO3: Create interest in nature conservation and save the natural resources.
		PSO4: Study the concepts of genetics, plant breeding and their applicability.
		PSO5: Understand and correlate the various biochemical and physiological processes in plants.
		PSO6: Study the evolutionary process in Bryophytes and Pteridophytes.
		PSO7: Study the bioactive principles in plants and their defence mechanisms.
MSC-1	Zoology	PSO1: Learn to Prepare the checklist and inventories through the identification of the fauna in local areas being Melghat Tiger Reserve and Pohra Forest are very nearer to survey.
		PSO2: Gain comprehensive knowledge about different animals and develop confidence to handle them during research work.
		PSO3: Interpret metabolic pathways, their correlation in concern with prokaryote and eukaryotes.
		PSO4: Compare genetic aspects, genetic traits, diseases and their specific causes.
		PSO5: Survey and analyse data of the various kinds of diseases in the locality.
		PSO6: Understand the various strategies and phenomena related to animal reproduction and their development.
		PSO7: Get acquainted with conservation strategies and environmental threats to reduce and save energy through Wildlife Week Celebration.
		PSO8: Compare the different developmental events during embryogenesis of different animals.

Arts & Commerce College ★ Warvat Bakal ★

Principal
Arts & Commerce College,
Warvat Bakal Dist.Buldana

SATPUDA EDUCATION SOCIETY, JALGAON JAMOD'S

Arts & Commerce College

Warwat Bakal Tq. Sangrampur Dist - Buldhana (M.S.)

NAAC Reaccredited with 'B' Grade

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Course Outcomes

Contents

Redefined Course Outcomes, Program Specific Outcomes & Program Outcomes by the Affiliated University Sant Gadge Baba Amravati University – (2022-23)

The Course Outcomes UG (COs)

COs of B.A. Programmes

Name of Program	Subject & Course Code	COs	After completing the course, students will be able to
B.A.-1 Semester 1 & 2	English Compulsory (DSC ENG 1.1) Theory	CO-1	Understand the basic knowledge of English language and literature
		CO-2	Understand the relation between literature and real life.
		CO-3	Understand and interpret the prose, poem, short stories
		CO-4	Write the News Report, Letter, Essay, Paragraph etc.
		CO-5	Avail the pleasure of literary forms such as Novel, Poem, Play etc.
		CO-6	Develop interview technique, Reading Skills, Writing Skills and Speaking Skills.
		CO-7	Enhance the interest in English Language.
B.A.-1 Semester-1	English Compulsory (DSC ENG 1.1) SEM	CO-1	Read speedily and fluently.
		CO-2	Develop understanding of the passage
		CO-3	Enrich their vocabulary.
		CO-4	Summaries a paragraph
B.A.-1 Semester-1	English Compulsory (AEC ENG 1.7) SEM	CO-1	Communicate effectively in different real-life situations.
		CO-2	Register complaints, make enquiries and give opinions.
		CO-3	Make proper self-introduction.
		CO-4	Respond well to questions at an interview.
B.A.-1 Semester-2	English Compulsory (DSC ENG 1.1) SEM	CO-1	Understand various types of application.
		CO-2	Understand the structure of application.
		CO-3	Write various applications.
B.COM-1 Sem-I & II	English compulsory	CO-1	Able to communicate skillfully in Business correspondence
		CO-2	Acquaint with the work culture in corporate world
		CO-3	The life of great personalities will motivate them to toil to be successful
		CO-4	Learn and gain fluency in the English language and conversation.
		CO-5	Become efficient in reading and writing skills.
		CO-6	The drafting skills of the learners will be honed through grammar and writing skills
		CO-7	Become proficient in the language and to eventually inculcate professional skills.
B.COM-1 Sem-I & II	English compulsory AEC (Business Communication Skills in English)	CO-1	The learners will learn to understand and interpret any text they are reading from different perspectives
		CO-2	The interest of learners in listening to and watching good quality audio and visual media will be aroused.
		CO-3	Learners will acquire proficiency in the skills of listening, speaking, reading and writing that will help them meet the challenges of the world.
		CO-4	The learners will develop good oral and written skills of communication in the English language.
		CO-1	Understand the paragraph, prose, poetry and communication skills
		CO-2	Apply the four skills of language in his daily routine.

B.SC-1 Sem-I & II	English compulsory Theory	CO-3	Formulate/ compose his own sentences and able to speak English Language
		CO-4	Collaborate with others students in English.
		CO-5	Communicate properly their ideas and concepts in English
B.A.-1 Semester 1 & 2	Marathi Compulsory	CO-1	नेमलेल्या साहित्यातून जीवनदर्शन समकालीन व्यवहार जाणिवा यांची माहिती होईल
		CO-2	वैचारिक, ललित, कविता या विविध वाङमय प्रकारांचे ज्ञान होईल या वाङमय प्रकाराचे वेगळेपण जाणून घेतील तथा यामधील साम्यभेदाचे आकलन होईल.
		CO-3	वैचारिक गद्यातून भाषेच्या सर्जनशील रूपांचे विद्यार्थ्यांना आकलन होईल तसेच चारित्र्याविषय असलेल्या थोर व्यक्तींच्या जीवन कार्यातून विद्यार्थ्यांना प्रेरणा मिळेल आणि संकटावर मात करून जीवनात यशस्वी होता येते हा विचार त्यांच्या मनी रुजेल
		CO-4	ललित कलाकृतीच्या वाचनातून आनंद, बोध, ज्ञान इत्यादींची प्राप्ती होऊन विद्यार्थ्यांच्या जीवनविषयक जाणिवा समृद्ध होतील.
		CO-5	वैचारिकता , सात्विकता, काव्यात्मकता भावनात्मकता, सामान्य गोष्टीतील असामान्यत्वाचे दर्शन यातून विद्यार्थ्यांचा दृष्टीकोण संपन्न होईल.
		CO-6	विविध प्रकारच्या साहित्याचे आकलन, वर्णन, आस्वादन विश्लेषण आणि मूल्यमापन करण्याची क्षमता वाढवून विद्यार्थ्यांची अभिरूची विकसित होईल.
		CO-7	या वाङमय प्रकारातून विविध प्रकारचे नीतिमूल्ये, जीवनमूल्ये, यांची शिकवण विद्यार्थ्यांना मिळेल, त्याचा उपयोग उत्तमरीतीने जीवन जगण्यासाठी होईल.
		CO-8	"उपयोजित" घटकाच्या माध्यमातून विविध प्रकारची कौशल्य त्यांच्यात निर्माण होतील वते रोजगारक्षम होतील.
		CO-9	विचारवंत, लेखक, कवी होण्यासाठी हे अध्ययन प्रेरक ठरेल, सहाय्यभूत ठरेल. यातून विद्यार्थी भाषेचा सर्जनशील वापर कसा करावा हे समजून घेतील व विविध प्रकारातील साहित्य निर्मिती करतील तसेच व्यावहारिक उपयोजन करून रोजगारक्षम होतील.
B.A.-1 Semester 1 & 2	Ability Enhancement Course-I (AEC-I) & Skill Enhancement Course-II **विषय : मराठी भाषिक कौशल्ये : संभाषण कौशल्ये**	CO-1	संभाषण कौशल्य विकासाला सहाय्य होईल.
		CO-2	मराठी भाषा क्षमतेच्या वाढीस मदत होईल
		CO-3	संभाषण क्षेत्राची दारे खुली होतील.
		CO-4	विविध व्यवसाय क्षेत्रात संधि उपलब्ध होईल.
B.A.-1 Semester 1 & 2	Marathi literature	CO-1	कादंबरी या वाङ् मय प्रवाहातून सामाजिक प्रश्नांची जाणीव निर्माण होऊन सामाजिक मूल्यांची जाणीव होईल
		CO-2	धूळपावलं या कादंबरीतून समाजातील विविध व्यक्तिरेखा तथा ग्रामीण संस्कृतीचे दर्शन होईल.
		CO-3	नेमलेल्या कादंबरीमध्ये पात्रांच्या नात्यांची गुंतागुंत आणि भावनिक आंदोलनाचा शोध घेता येईल.
		CO-4	भाषिक व वाङ् मयीन मूल्यांचा अभ्यास होईल.
		CO-5	कादंबरी लेखनाचे तंत्र अवगत करता येईल.
		CO-6	कादंबरी स्वरूप घटक समजून घेतल्यामुळे जीवन व्यवहाराच्या केंद्रस्थानी असणाऱ्या मनुष्य व इतर घटकांवर आधारित कादंबरीलेखनाचा प्रयत्न करता येईल.
		CO-7	"काव्य सरिता" च्या माध्यमातून विविध प्रकाराच्या रचनांचा अभ्यास करता येईल.
		CO-8	सामाजिक जाणिवा राष्ट्रीय एकात्मता, प्रेमविषयक भावना, भावनिकता या विचारांची बांधिलकी निर्माण होईल.
		CO-9	काव्याच्या विविध प्रवाहांचा परिचय होईल व त्यातून काव्यनिर्मितीची प्रेरणा विकसित होईल.
B.A.-1 Semester I & II	History (History of India from Early to 700 A.D) & (History of India from 700 A.D to 1525 A.D.)	CO-1	Survey the sources of History of Ancient India.
		CO-2	Describe the social, economic, religious and institutional bases of Ancient India.
		CO-3	Analyze development of the concept of Nation- State background of political history.
		CO-4	Study ancient Indian Art & Architecture
		CO-5	Learn the socio-political and cultural background of the Ancient Indian History.
		CO-6	Learn various Ancient Indian History Tourist places and Guide Tourist.
		CO-7	Prepare for Competitive Examinations like UPSC, MPSC, and SET/NET etc.

		CO-8	Understand various concepts in Social Studies through the Ancient Indian History.
		CO-9	Learn developments of mankind.
		CO-10	Prepare the students for employability.
		CO-11	Study of Tourism in Sultanate Period's Indian Art & Architecture
		CO-12	Students are aware and able to describe tourist places.
B.A.-1 Semester I	Political Science (Indian Political System)	CO-1	Understand and explain the significance of Indian constitution as the fundamental law of the land.
		CO-2	To know the making process of the constitution and salient features of Indian constitution.
		CO-3	Exercise the fundamental rights in proper sense at the same time identifies his responsibilities in national building.
		CO-4	Analyze the Indian Political System, the powers and functions of the Union, State Government in detail.
		CO-5	Critically analyzing the important institutions of Indian Union: The Executive: President, Vice-President, Prime Minister, Council of Ministers, State Executive: Governor, Chief Minister, Council of Ministers, The Legislature: Rajya Sabha, Lok Sabha, State Legislature, The Judiciary: Supreme Court and High Court: Composition and jurisdictions.
		CO-6	To make conscious of the social, cultural, economic and political environment that affects politics in India, at the national as well as regional levels.
B.A.-1 Semester II	Political Science (Indian Political System)	CO-1	Understand and explain the significance of Election Commission of India
		CO-2	know the powers and role of Governor, Chief Minister & Council of Minister
		CO-3	Understand structure & powers of Legislative Assembly and Legislative Council
		CO-4	Explain the structure and jurisdiction of High Court and District Court
		CO-5	Know the Composition Function and Powers of Gram panchayat& Gram Sabha
B.A.-1 Semester I	Micro Economics	CO-1	Apply knowledge and skill in the field of Economics and will be able to have the employability in these areas
		CO-2	Describe and apply the methods for analysing consumer behaviour through demand and supply, elasticity.
		CO-3	Perform analysis to analyse the impact of economic events on Markets,
		CO-4	To create a new approach towards the study of Economics.
		CO-5	The course will illustrate how microeconomic concepts can be applied to analyze real-life situations
		CO-6	Analyse the performance of firms under different market structures,
		CO-7	Evaluate the factors affecting firm behaviour, such as production and costs
		CO-8	To have better awareness regarding different Factors Pricing Rent, Wages, Interest, and Profit.
B.A.-1 Semester II	Economy of Maharashtra	CO-1	Develop ideas of the basic characteristics of Maharashtra's economy and its potential for natural resources.
		CO-2	Understand agriculture as the foundation of economic growth and development, analyse the progress and changing nature of the agricultural sector and its contribution to the economy as a whole.
		CO-3	Understand the role of Agriculture in Economy of Maharashtra.
		CO-4	Study the issue of farmers suicide in Maharashtra.
		CO-5	Study the concept of FDI and its trends in Maharashtra
		CO-6	Consider the role of Industry and Service sector in Economy of Maharashtra.
B.COM-1 Sem-I	Principle of Accountancy	CO-1	Student important basic accounting knowledge at applicable to business i.e. meaning of accountancy.
		CO-2	Able to handling account transaction.
		CO-3	Maintaining sub subsidiary books and all types of cash books.

		CO-4	Calculation of depreciation method of assets.
		CO-5	Preparation of all types of final account.
B.COM-1 Sem-I	Principle of Business Economics	CO-1	Application of Micro &Macroeconomic Concepts
		CO-2	Application of Utility & Indifference Curve Analysis
		CO-3	Application of Demand Pattern
		CO-4	Application of Supply and Production Pattern
		CO-5	Application of Cost & Revenue Pattern
B.COM-1 Sem-I	Principle of Business Management	CO-1	With this course, students will be able to have clear understanding of managerial functions.
		CO-2	Students will have the knowledge of planning process in the organization.
		CO-3	Students will be able to demonstrate the ability to directing, leadership and communicate effectively.
		CO-4	Students able to analyze isolate issues and formulate best control tools and techniques.
B.COM-1 Sem-I	Computer Fundamental And Operating System-I	CO-1	Get information about evolution and application of computer & its development.
		CO-2	Know about different elements of computer system.
		CO-3	Aware about different types of memory.
		CO-4	Get to know about different input devices and output devices.
		CO-5	Learn to prepare a text document with complete formatting and page setting.
B.COM-1 Sem-I	Computer Fundamental And Operating System-I (Practical)	CO-1	Prepare new document using Templates.
		CO-2	Change font size & font color.
		CO-3	Change line spacing of Paragraph.
		CO-4	Change case of Paragraph
		CO-5	Create Bullets, Numbering list.
		CO-6	Create Subscript & Superscript.
		CO-7	Decrease and Increase of Paragraph indent.
		CO-8	Insert Header & Footer in document.
		CO-9	Page Setup of Document.
		CO-10	Insert Page break, Section break, Columns.
		CO-11	Students will learn to final Proofing and printing documents.
B.COM-1 Sem-II	Financial Accounting	CO-1	Rectification of Journal entry.
		CO-2	Student acquire the knowledge of nonprofit organization.
		CO-3	Prepare the all types of cooperative society account.
		CO-4	Students should be acquired partnership farm accountancy.
		CO-5	The bill of exchange contest and unconditional order to pay a create amount on as agree day.
B.COM-1 Sem-II	Business Economics	CO-1	Examine the difference between business and managerial economics.
		CO-2	Application of Discriminative nature of monopolist.
		CO-3	Application of monopolistic competition, oligopoly, and perfect competition
		CO-4	Application of demand and supply pattern of rent and wage.
		CO-5	Application of the theories of interest and profit.
B.COM-1 Sem-II	Principle of Business Organization	CO-1	To Familiar with business organization.
		CO-2	Understand the concepts related to Business policies.
		CO-3	Demonstrate the roles, skills and functions of management.
		CO-4	To diagnose and solve organizational problems and develop optimal managerial decisions.
B.COM-1 Sem-II	Computer Fundamental And Operating System-II	CO-1	Get basic introduction of Computer and mobile operating systems.
		CO-2	Know concept of windows versions.
		CO-3	Create and delete file in File Explorer.
		CO-4	Know concept of modern communication and network topologies.
		CO-5	Create e-mail account and compose e-mail massage.

		CO-6	Create table, utilizing existing Template provided by Microsoft and add customization on Template according to user needs.
		CO-7	Identify steps in the process and complete an activity to create a mail merge.
		CO-8	Develop the skill of power point programs.
		CO-9	Insert various graphical object on slide.
		CO-10	Add different Transition, Animation, Sound and Timing effect to Slide.
		CO-11	Run a presentation on computer screen.
B.COM-1 Sem-II	Computer Fundamental & Operating System II (Practical)	CO-1	Know how to organize files/folder in File Explorer
		CO-2	Understand different customization setting in windows 10.
		CO-3	Create windows login Account which is necessary for Windows 10
		CO-4	Create table, utilizing existing Template provided by Microsoft and add customization Template according to user needs.
		CO-5	Add header and footer to long list of pages which is crucial.
		CO-6	Complete Mail Merge process.
		CO-7	Change layout of pages
		CO-8	Create Presentation, designing slides and add different Transition and Animation effect to objects and Slide
B.SC-1 Sem-I	Chemistry (Theory)	CO-1	Solve the conceptual questions using the knowledge gained by studying periodicity in atomic radii, ionic radii, ionization energy and electron affinity of elements.
		CO-2	Apply concepts of acids and bases as well as non-aqueous solvents and their industrial usage.
		CO-3	Compare different reaction intermediates, functional group chemistry through the study of methods of preparation, properties and chemical reactions with underlying mechanism.
		CO-4	Choose correct synthetic approach to prepare derivatives of industrially important molecules.
		CO-5	Solve different numerical problem of varying difficulty associated with gaseous and liquid state.
		CO-6	Apply the concepts from advanced mathematics to solve the derivation of different chemical formulae.
B.SC-1 Sem-I	Chemistry (Module)	CO-1	Create models associated with periodic table.
		CO-2	Associate reaction intermediates and functional group chemistry with different types of reaction mechanisms.
		CO-3	Solve numerical problem associated with gaseous and liquid state
B.SC-1 Sem-I	Chemistry (Practical's)	CO-1	Synthesise different types of organic compounds.
		CO-2	Perform the process of filtration, crystallization, melting point, waste management.
		CO-3	Understand the effect of orientation effect of a group.
		CO-4	Skilfully determine the surface tension, viscosity of liquid.
		CO-5	Predict the endothermic or exothermic process from heat of solution of a salt.
B.SC-1 Sem-II	Chemistry (Theory)	CO-1	Apply the knowledge gained by studying types of bonding, solvation, hybridization and molecular geometries.
		CO-2	Draw the correct molecular structures, bond order and bond length.
		CO-3	Synthesize commercially important compounds of varying carbon backbone.
		CO-4	Choose correct synthetic approach to prepare derivatives of industrially important molecules.
		CO-5	Solve numerical problems related to crystalline state.
		CO-6	Acquire skills to use chemical kinetics to develop mechanism of chemical reactions.
B.SC-1 Sem-II	Chemistry (Module)	CO-1	Create models associated with molecular geometries, hybridization, MO diagrams.
		CO-2	Develop synthetic routes for halobenzene's and benzyl halides.
		CO-3	Solve numerical problems associated with crystalline state and chemical kinetics.
		CO-1	Analyse the given organic compound qualitatively by different tests.
		CO-2	Prepare the derivative of the provided substance.

B.SC-1 Sem-II	Chemistry (Practical's)	CO-3	Illustrate the practical skills in volumetric analysis.
		CO-4	Differentiate types of titrations e.g., acid-base, redox, etc.
		CO-5	Comprehend the kinetics of reactions and interpret the experimental data.
		CO-6	Calculate, communicate and analyse the result.
B.SC-1 Sem-I	Botany (Theory)	CO-1	Understand microbial diversity, reproduction and economic importance.
		CO-2	Differentiate the microbes, algae and fungi on the basis of morphology, cellular organization, nutrition and metabolic activities.
		CO-3	Classify and identify the various algal genera.
		CO-4	Classify and identify the various fungal genera.
		CO-5	Systematize the plant diseases and their pathogens.
		CO-6	Apply understanding of microbial diversity, phycology and mycology for teaching primary to high school students
B.SC-1 Sem-I	Botany (Module)	CO-1	Acquire skill of isolation of Arbuscular Mycorrhizal Fungal and also able to classify the various species of mycorrhiza.
		CO-2	Evaluate the AMF spore in the soil sample of crop plants.
		CO-3	Establish own production unit of mushroom cultivation.
		CO-4	Asses the economy of mushroom cultivation.
		CO-5	Diagnosed the local crop diseases.
		CO-6	Advise the proper fungicides or other measures to prevent crop diseases.
B.SC-1 Sem-I	Botany (Practical's)	CO-1	Identify and classify the algae on the basis of morphology and other characters.
		CO-2	Create monograph of Algae and Fungi.
		CO-3	Demonstrate the structural details of viruses and bacteria included in practical work.
		CO-4	Evaluate the plant diseases of local plants and diagnosed the diseases on the basis of somatology.
B.SC-1 Sem-II	Botany (Theory)	CO-1	Demonstrate an understanding of Archegoniate, Bryophytes, Pteridophytes and Gymnosperms, morphology of angiosperm and medicinal plants.
		CO-2	Identify and classify plants from Bryophytes, Pteridophytes and Gymnosperms.
		CO-3	Develop critical thinking on morphology, anatomy and reproduction of Bryophytes, Pteridophytes and Gymnosperms and on morphology of angiosperm.
		CO-4	Acquire skill of collection and preservation of Bryophytes, Pteridophytes and Gymnosperms
B.SC-1 Sem-II	Botany (Module)	CO-1	Understand the herbal technology.
		CO-2	Develop the skill for cultivation of plants.
		CO-3	Acquire the skill of morphological and microscopic examination of herbal plants.
		CO-4	List the major herbs, their Botanical names and chemical constituent's.
B.SC-1 Sem-II	Botany (Practical's)	CO-1	Understand forms of Bryophytes, Pteridophytes and Gymnosperms.
		CO-2	Acquire the skill of preparation of slides of plant body and reproductive organs.
		CO-3	Classify and identify different plant parts on the basis of external morphology.
		CO-4	Describe the plants in technical language.
		CO-5	Develop critical understanding on morphology, botanical names and cultivation practices of economically important plants.
B.SC-1 Sem-I	Zoology (Theory)	CO-1	Develop a deeper sense with respect to phylum Protozoa to Echinodermata relation to taxonomy, classification, body organization and general characteristics this strengthens students' capability in basic zoology.
		CO-2	Grasp various the Systematic positions from Protozoa to Echinodermata their pathogenicity and its epidemiology.

		CO-3	Describe unique characters and recognize life functions of Protozoa, Porifera, Coelenterate, Helminthes, Arthropoda, Annelida, Mollusca and Echinodermata.
		CO-4	Improve ability and apply Knowledge of Non-chordates for its execution in Agriculture especially with the phylum Arthropoda.
		CO-5	Implement an extensive idea about economic and ecological significance of various non-chordates phylum's in human life.
B.SC-1 Sem-I	Zoology (Practical)	CO-1	Observation, classification up to classes and sketching of the following animals (Specimens and models)
		CO-2	Study of permanent slides
		CO-3	Anatomical Study through computer aided techniques, Video clipping, models, photographs and other available resources.
		CO-4	Mounting
B.SC-1 Sem-II	Zoology (Theory)	CO-1	know what the chordates are.
		CO-2	Learn about the different phylum of chordates.
		CO-3	Confidently explain the general characters and classification of Protochordates up to class Mammalia.
		CO-4	Understand the level of organization in chordate.
		CO-5	Explain the origin and evolutionary relationship in different sub phylum's of chordates.
		CO-6	Describe specific features of Protochordates up to class Mammalia.
		CO-7	Recognize and differentiate life functions of Protochordates upto class Mammalia.
		CO-8	Understand Migration in fishes and birds, parental care in Amphibians and Poisonous and non-poisonous snakes.
		CO-9	Explain the adaptations in Birds and Mammals.
B.SC-1 Sem-II	Zoology (Module)	CO-1	Study on edible fishes from the local region.
		CO-2	Case study of diversity in frogs from surrounding areas.
		CO-3	Survey of Photographic evidence of parental care in frogs in monsoon.
		CO-4	Survey the diversity of snakes in the surrounding area.
		CO-5	Survey of Migratory birds in the forest /Grassland/Field.
		CO-6	Case Study of migratory wetland birds from local reservoirs.
		CO-7	Prepare a model on the evolution of man.
B.SC-1 Sem-II	Zoology (Practical's)	CO-1	General characters and classification of Phylum Chordata:
		CO-2	General characters and Classification up to orders of the following chordates or as per the availability in the laboratory from the major orders, (Specimens or Models):
B.SC-1 Sem-I	Physics (Theory)	CO-1	Discuss the basic concepts of rotational dynamics.
		CO-2	Examine the phenomenon of simple harmonic motion and distinction between undamped, damped and force oscillations and the concept of resonance.
		CO-3	Explain the superposition of simple harmonic motion and acquire the knowledge of Ultrasonic waves, their production, detection and applications in different field.
		CO-4	Determine the constants of elasticity and relate it with appropriate things
		CO-5	Interpret the postulates of special theory of relativity.
		CO-6	Know the concept of Global positioning system (GPS)
B.SC-1 Sem-I	Physics (Module)	CO-1	Apply the principles of measurement and error analysis.
		CO-2	Develop the skills to handle various instruments with precision
B.SC-1 Sem-I	Physics (Practical's)	CO-1	List out, identify and handle various equipment likes different types of pendulums.
		CO-2	Learn the procedures of operation of various oscillating objects.
		CO-3	Acquire skills in observing and measuring different types of errors.
		CO-4	Perform procedures and techniques related to experiments based on mechanics.
		CO-5	Conduct an experiment collaboratively and ethically

B.SC-1 Sem-II	Physics (Theory)	CO-1	Discuss the concept of scalars & vectors and their properties.
		CO-2	Develop an understanding of Gauss law and its applications to obtain electric filed in different cases.
		CO-3	Formulate the relationship between electric displacement vector, electric polarization and dielectric constant.
		CO-4	Distinguish between the magnetic effect of electric current, electromagnetic induction and the related laws in appropriate circumstances.
		CO-5	Simplify electrical circuits by applying various network theorems.
B.SC-1 Sem-II	Physics (Module)	CO-1	Make use of Multimeter for the measurement of electrical parameters and get the knowledge of electronic components and their applications.
		CO-2	Estimate the power consumption of domestic appliances and carry out energy audit
B.SC-1 Sem-II	Physics (Practical's)	CO-1	Simplify various electrical circuits by using network theorems.
		CO-2	Learn the procedures of operation of electrical components like capacitor, resistor and inductor.
		CO-3	Acquire skills in measuring dielectric constants of different materials.
		CO-4	Perform procedures and techniques related to experiments based on electrical and electronic circuits.
		CO-5	Conduct an experiments collaboratively and ethically.
B.SC-1 Sem-I	Computer Science (Theory)	CO-1	Understand the computer, I/O and peripheral devices.
		CO-2	Understand concept of Operating systems.
		CO-3	Apply the Programming concepts.
		CO-4	Learn C language.
		CO-5	Write Simple C Programs.
B.SC-1 Sem-I	Computer Science (Module)	CO-1	To draw flowchart, learn Algorithms and write simple programs.
		CO-2	To assess the curricular skills acquired by students at college level through Assignments, Unit test, Internal Test, Group Discussion/Seminar/Mini Project, Study Tour
B.SC-1 Sem-I	Computer Science (Practical's)	CO-1	Write word processing task.
		CO-2	Create worksheet and perform operations on it.
		CO-3	Design, compile and debug programs in C language.
		CO-4	Classify conditional expressions and looping statement to solve problems associated with conditions and repetitions.
		CO-5	Demonstrate the programs using arithmetic and relational operators.
		CO-6	Implement the concept of various string handling functions.
		CO-7	Classify programming components that efficiently solve computing problems in real-world.
B.SC-1 Sem-II	Computer Science (Theory)	CO-1	Implement basic data structures such as arrays, stacks.
		CO-2	Use linked list, trees and queues.
		CO-3	Apply Algorithm for solving problems like sorting, searching, insertion and deletion of data.
		CO-4	Describe the procedural and object-oriented paradigm with concepts of streams, classes, functions, data and objects.
		CO-5	Perform programming on functions, inline functions, constructor and destructor.
		CO-6	Perform programming on the concept of function overloading, operator overloading, virtual functions and polymorphism.
B.SC-1 Sem-II	Computer Science (Module)	CO-1	Acquire skill to work with core components of data structure
		CO-2	Acquire object-oriented programming skill.
B.SC-1 Sem-II	Computer Science (Practical's)	CO-1	Perform various operations Data structure using CPP.
		CO-2	Develop the concept of dynamic memory allocation through linked list.
		CO-3	Design stack and queue with contiguous and non-contiguous data storage mechanism.
		CO-4	Perform the various operations on binary tree.

		CO-5	Implement sorting on 1-D array using different techniques.
M.A. -1 Sem-I	Political Science (Indian Political Thought)	CO-1	The students will be able to understand the contribution and thoughts of the makers of Modern India.
		CO-2	The students will analyse the knowledge of various Ideological Streams in Indian PoliticalThought
		CO-3	Analyse and compare the ideas and theories of Indian Political Thinkers.
M.A. -1 Sem-I	Political Science (Indian Government & Policies Thought)	CO-1	Understand & explain about constitutional Development in India.
		CO-2	To understand the philosophy of Indian constitutions.
		CO-3	To understand the various Government of Indian acts their provision and reforms.
		CO-4	They also know about different constitutional authorities in India such as Election Commission, Finance Commission, and CAG.
		CO-5	Critically analyzing the important institutions of the Indian Union: The Executive: President; Prime Minister.
		CO-6	Assessing the nature of Indian Federalism with focus on Union-State Relations
M.A. -1 Sem-I	Political Science (Public Administration)	CO-1	Discuss the Evaluation of Public Administration.
		CO-2	Student can compare about private and public Administration.
		CO-3	The students will be explain & critical analysis about various Approaches to the Public Administration.
		CO-4	The students will become familiar with details of administrative organisation.
M.A. -1 Sem-I	Political Science (Local Self Government)	CO-1	Understand the democratic decentralisation operating in India.
		CO-2	Student Understand Evolution of local Self Government in India.
		CO-3	To analyse Rural & Urban Local Bodies power and Fuctions.
		CO-4	To critically studies the relationship between people's bodies and bureaucracy.
M.A. -1 Sem-II	Political Science (Political thought)	CO-1	Understanding about the historical and emerging trends in political process in the India states.
		CO-2	Explain various Patterns of state politics.
		CO-3	Understand the constitutional system at state level, and the relation between state politics and national politics.
		CO-4	Explain Areas of state-centre conflict in Indian fedaretion,
		CO-5	Critically examine Issues of state politics like Linguistic, regional, religious
M.A. -1 Sem-II	Political Science (Governance Policy in India)	CO-1	After the successful completion of the course the students will acquire an in-depth knowledge of the Governance and Public Policy in India.
		CO-2	The students will be able to explain the functioning of the Governance and implementation Public Policy in India.
M.A.-1 Sem-I	Micro Economics-1	CO-1	Cite the basic principles of microeconomics.
		CO-2	Interpret the concepts of utility, demand-supply mechanism, and elasticity.
		CO-3	Apply these concepts to solve and analyze various problems of economic policy.
		CO-4	Analyze the perfect competitive market framework.
		CO-5	Assess the framework and analyze microeconomic relationships.
		CO-6	Devise pricing strategies for firms and calculate productivity and costs for the firm.
M.A.-1 Sem-I	Macro Economics-1	CO-1	Explain the evolution of money and know the concept of money and its functions.
		CO-2	To understand the national income concept.
		CO-3	Know about the supply of money and high-powered money.
		CO-4	To gives the idea of Keynesian theory of employment.
		CO-5	To understand the theories of the consumption function.
		CO-6	To gives an idea about how to make a saving and investment.
		CO-7	Evaluate the working and effects of monetary and fiscal policy.

		CO-6	Devise pricing strategies for firms and calculate productivity and costs for the firm.
M.A.-1 Sem-I	Macro Economics-1	CO-1	Explain the evolution of money and know the concept of money and its functions.
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		CO-5	To understand the theories of the consumption function.
		CO-6	To gives an idea about how to make a saving and investment.
		CO-7	Evaluate the working and effects of monetary and fiscal policy.
M.A.-1 Sem-I	Agricultural Economics-1	CO-1	Explain the scope and subject matter of agricultural economics.
		CO-2	To understand the rural infrastructure and agricultural production.
		CO-3	To analyze the issues related to agricultural and economic development.
		CO-4	Deals with the farm management and types of agricultural risk.
		CO-5	To understand the Labor Supply, Mobility of Labor and Segmentation in Labor Markets.
		CO-6	Evaluate the problem of agricultural finance and suggestion to improve agricultural finance.
		CO-7	Know about agricultural growth in India and the effects of globalization.
M.A.-1 Sem-I	Public finance	CO-1	To understand the role of government in the economy.
		CO-2	To understand the different aspects of the fiscal Federation.
		CO-3	To understand various aspects of monetary and fiscal policy and changes in monetary and fiscal policy since 1991.
		CO-4	To develop an understanding of various aspects of public choice.
		CO-5	To know the structure of public expenditure its theories and social cost-benefit analysis.
		CO-6	To understand the concept of public debt and the principle of debt management and repayment.
		CO-7	To know the detail about central and states income sources and the concept of VAT.
M.A.-1 Sem-II	Micro Economics	CO-1	Report a thorough understanding of the basic principles of microeconomics.
		CO-2	Interpret the Monopolistic market framework, and apply it to microeconomic situations.
		CO-3	Illustrate the features of the Oligopolistic market.
		CO-4	Break down the nuances of welfare economics.
		CO-5	Review the above concepts to solve and analyse various problems of economic policy.
		CO-6	Devise and apply game-theoretic solutions for economic decision-making.
M.A.-1 Sem-II	Macro Economics	CO-1	This course is useful for understanding various real economic issues and evaluating them.
		CO-2	Policy outcomes
		CO-3	To consider the role of the Industry and Service sector in the economy of Maharashtra.
M.A.-1 Sem-II	Industrial Economics	CO-1	To create an understanding of the role of industries in economic development.
		CO-2	To know the government's industrial policy since 1948 and from the period of economic reforms.
		CO-3	It is useful to know the impact of new economic policies on the industrial sector of India.
		CO-4	It is important to study regional imbalance in industrial development.
		CO-5	Creating knowledge about the trade union movement in India and labour market reforms.

		CO-6	It is important to know the need for foreign capital for industrial development.
M.A.-I Sem-II	Environmental Economics	CO-1	It is Useful to Know the relation between environmental Issues and various Variables in the Economy.
		CO-2	Creating knowledge about Government's environmental policies in India.
		CO-3	Create understanding about awareness of environmental problems.
		CO-4	It gives information about environmental Problems in the Industrial and Agriculture sectors.
		CO-5	It is Useful to Know the Global attempts and policies regarding environmental issues.
		CO-6	It is Useful to Know Urban and Rural Environmental Problems.
M.COM-1 Sem-I	Managerial Economic	CO-1	Application of concepts of Managerial Economics in the process of business decision making
		CO-2	Application of demand supply concepts towards consumer choices.
		CO-3	Application of demand supply concepts towards consumer choices.
		CO-4	Assessment of Production process determination in various industries.
		CO-5	Impact of business cycles in Agriculture, Industry, Services and Share Market.
		CO-6	Application of pricing practices in various markets and bargaining tendencies thereof.
M.COM-1 Sem-I	Advanced Financial & Cost Accounting	CO-1	Investments are assets held by an enterprise for earning income.
		CO-2	Final Accounts gives an idea about the profitability and financial posting of business to its management, owners and other interested parties.
		CO-3	The cost sheet is prepared to ascertain cost of product/job/operation or to give attire or to determine tender price for supply of goods or providing service.
		CO-4	Operating result the operating result is the surplus or deficit for the year under the Accounting Standard framework an getting result recognizes all revenues and operating expenditure.
		CO-5	Accounting for construction contracts is the allocator of contract revenue and contract.
M.COM-1 Sem-I	Banking & Insurance Services	CO-1	Application of CIBIL Score in qualifying the proposal of advances.
		CO-2	Impact of Monetary Policy on various industries.
		CO-3	Impact of PMJJBY & PMSBY.
		CO-4	Assessment of Claim Settlement Procedure of Life Insurance.
		CO-5	Assessment of Claim Settlement Procedure of General Insurance.
M.COM-1 Sem-I	Service Marketing & Customer Relationship Management	CO-1	Students will understand seven phases of marketing of service in depth.
		CO-2	Student will understand strategic issues peculiar of service marketing.
		CO-3	Students will understand an importance of new and innovative concepts of CRM, especially E-CRM.
		CO-4	Demonstrate idea creation and implementation of CRM for different service sector.
M.COM-1 Sem-II	Accounting for Managerial Decision	CO-1	Ratio analysis compares line-item data from a company's financial statements to reveal regarding profitability individually operated ... and solvency.
		CO-2	A cash flow analysis determines a company's working capital the amount of money available to run business operation and complete transaction. That is Calculate as current assets and current liabilities.
		CO-3	The outcome of Anovit in the statistics This ratio shows the difference between the within group variance and which ultimately produces a figure which allows a conclusion that the hypothesis is supported or rejected.
		CO-4	BEO fells you how many units of a product must be sold to cover the fix3d and variable cost of production The BEP is considered to measure of the margin of
		CO-5	Budgetary control is the process of preparation of budgets for various activities and company the budget figures for arriving at deviation of any

			which to be elemental in future. Thus, budget is a means and budgetary control is the end result.
M.COM-1 Sem-II	Strategic Management	CO-1	Demonstrate decision making ability and dynamism.
		CO-2	Will understand major theories, background work, concept and research output in the field of strategies management.
		CO-3	Demonstrate a proper meaning of the tools and technique used by executives in executing strategies and will appreciate its integrative and interdisciplinary nature.
		CO-4	Demonstrate practical situation for diagnosing and solving organizational issues. 5. Relate theories and device application of it
M.COM-1 Sem-II	Management Concept & Organization Behavior	CO-1	Student Understand decision making process both at individual level and in group.
		CO-2	Student Understand Power, Politics, and Accomplishing organizational goals.
		CO-3	Students demonstrate ability to manage conflicts.
		CO-4	Students will determine Leadership style according to the situation.
M.COM-1 Sem-II	Computer Application in Business (Skill Enhancement Course)	CO-1	Word processing allows students to interpret and process to understand higher standard of word processing. Students can perform the practical parts and remove mistakes on word documents.
		CO-2	Students should be able to demonstrate and understanding of accounting theory. Apply accounting procedure by using computer accounting software. Perform accounting reports and records.
		CO-3	Enable students to gain expert knowledge, principles and procedure of computerize accounting and taxation. Critical thinking and problem-solving skills in analyzing financial information and taxation.
		CO-4	Student should know basic data types in spreadsheets. Is able to determine database and convert them. Know basic functions to calculate mathematical, statistical and logical operations. Have skills of data visualizing depending on data and task types.
		CO-5	Understand how to start MS –Excel and SPSS. Enter basic data into SPSS and Carry out statistical analysis that can test hypothesis. Develop various required graphs.
M.COM-1 Sem-II	Computer Application in Business (Practical) Skill Enhancement Course	CO-1	Describe what micro soft word 2013 and how it is useful in both personal and professional life.
		CO-2	Create a new document, work with a document, format text insert and work with clip arts and pictures, use the mail merge, print a document and create high quality document designs and layouts.
		CO-3	Enter the accounting transactions in computerized format and gate the financial results.
		CO-4	Acquire the skill of financial decision making and interpret the financial statements as well as evaluation of stock of the end.
		CO-5	Apply the micro soft office Excel program and modify a worksheet. Work with cell references.
		CO-6	Learn to use functions and formulas. Create and edit tables, charts and graphs. Import and export data.
M.Sc.-1 Sem-I	In-Organic Chemistry (Th)	CO-1	Predict the nature of bond and its properties through various electronic structural methods; bonding models.
		CO-2	Recognize and assign symmetry characteristics to molecules and objects,
		CO-3	Understand and analyse structure-property correlation of coordination compounds.
		CO-4	Corelate magnetic properties of complexes with strength of ligand field
		CO-5	design new coordination compounds based on a fundamental understanding of their electronic properties.
		CO-6	Appreciate specialized and advanced topics in inorganic and coordination chemistry
		CO-7	Correlate structure and bonding with reactivity of boron clusters.
		CO-8	Analyse ligation of diatomic ligands with metals.

M.Sc.-1 Sem-I	Organic Chemistry (Th)	CO-1	Implement rules of aromaticity to organic molecules.
		CO-2	Sketch organic molecules in different projection formula and assign its configuration.
		CO-3	Apply their understanding about the organic reactions of industrial significance with respect to the chemo selectivity, regioselectivity and enantioselectivity.
		CO-4	Analyze the product distribution and the stereochemistry of various organic products.
		CO-5	Evaluate the organic reactions based on the influence of the substituents on substrate molecules.
		CO-6	Design organic reactions in order to achieve the required product(s).
M.Sc.-1 Sem-I	Physical Chemistry (Th)	CO-1	Understand basic concepts and theories for quantum mechanics, surface chemistry, thermodynamics and electrochemistry.
		CO-2	Apply the concepts of quantum mechanics to solve higher order problems associated with shapes, size and energy of atomic entities.
		CO-3	Develop the methodologies to identify and use colloidal substances and micelles.
		CO-4	Implement and build theoretical and experimental processes using thermodynamics and electrochemical concepts.
		CO-5	Solve numerical problems associated with quantum mechanics, thermodynamics, and electrochemistry.
M.Sc.-1 Sem-I	Analytical Chemistry (Th)	CO-1	Appraise specific analytical technique based on sample and target analyte.
		CO-2	Develop analytical ability and critical thinking in selection of statistics and their use in making interpretation meaningful and productive.
		CO-3	Understand the principles of chromatographic techniques.
		CO-4	Select proper chromatographic technique among the available techniques.
		CO-5	Corelate the use of indicator used in different types of titrations.
		CO-6	Explore electroanalytical techniques based on conductance and emf measurements.
		CO-7	Design buffer systems of the required pH.
M.Sc.-1 Sem-I	Structural Chemistry (AEC-1)	CO-1	Provide basic insights into concept of resonance and three-dimensional arrangement of molecules.
		CO-2	Draw and compare the significant resonance contributor, help to assign the correct configuration.
		CO-3	Draw and name structure using structure drawing software.
		CO-4	Prepare and present report on a particular topic.
		CO-5	Develop imagination of molecule in three-dimensional space.
M.Sc.-1 Sem-I	Physical Chemistry (Lab-1)	CO-1	Select the proper indicator for a titration.
		CO-2	Improve scientific skill of data collection and analysis.
		CO-3	Create methods for estimation of concentration of electrolytes in mixture using potentiometry.
		CO-4	Corelate nature of graphs in conductometric titrations.
		CO-5	Get awareness about laboratory skills of handling electroanalytical instruments.
		CO-6	Apply concept of critical micellar concentration to cleaning power of detergents.
M.Sc.-1 Sem-I	Organic Chemistry (Lab-2)	CO-1	Design the methodologies to develop eco-friendly and green technology for industry and research.
		CO-2	Develop methods and remedies for reactions with environmental pollution.
		CO-3	Improve scientific practical information orally and in writing.
		CO-4	Get awareness about laboratory safety and handling of chemicals.
		CO-5	Apply different purification techniques recrystallization, thin layer chromatography, distillation and solvent extraction.
		CO-1	Recollect the principles of electronic structure, bonding and reactivity of coordination complexes.

M.Sc.-1 Sem-II	Advanced In-Organic Chemistry (Th)	CO-2	Understand the concept of synthesis and stability of transition metal organometallic complexes.
		CO-3	Develop the possible catalytic pathways leading to desired products.
		CO-4	Apply the principles of transition metal coordination complexes in understanding functions of biological systems.
		CO-5	Identify the medicinal applications of inorganic compounds.
		CO-6	Unravel and interpret the photochemical properties of coordination complexes.
M.Sc.-1 Sem-II	Organic Reaction Mechanism (Th)	CO-1	Predict the orientation and stereochemistry of the product of addition reaction
		CO-2	Predict the orientation and stereochemistry of the product of elimination reaction.
		CO-3	Apply enolate chemistry to achieve molecular complexity.
		CO-4	Design organic reactions in order to achieve the required product(s).
		CO-5	Formulate green chemistry synthesis to increase atom economy.
M.Sc.-1 Sem-II	Physical Chemistry-II (Th)	CO-1	Understand basic and advanced level statistical thermodynamics, reaction kinetics, photochemistry and nuclear-chemistry.
		CO-2	Apply the concepts of statistical thermodynamics and reaction kinetics to solve complex problems.
		CO-3	Demonstrate the ability to use chemical dynamics to solve problems associated with enzyme kinetics, fast reactions and complex reactions.
		CO-4	Implement and build theoretical models for reaction rates, thermodynamics and nuclear phenomena.
		CO-5	Solve numerical problems associated with statistical thermodynamics, reaction kinetics, photochemistry and nuclear chemistry.
M.Sc.-1 Sem-II	Analytical Chemistry-II (Th)	CO-1	Select most suitable modern chromatographic technique for separation of analyte from matrix.
		CO-2	Explain various types of columns and detectors used in chromatography.
		CO-3	Determine pKa value of indicator using potentiometry.
		CO-4	Summarize principles and applications of molecular absorption and molecular emission spectroscopy.
		CO-5	Design experiments based on spectrophotometry and polarographic analysis.
		CO-6	Apply the principle involved in radioanalytical techniques and instrumentation therein.
		CO-7	Formulate experiments based on optical and electroanalytical techniques.
M.Sc.-1 Sem-II	Acid, Bases & Virtual Lab (AEC-2)	CO-1	Correlate concept of pKa to predict the reaction mechanism.
		CO-2	Apply the basic operations of spreadsheet applications.
		CO-3	Operate various Chemistry software with advanced functions.
		CO-4	Prepare and present report on a particular topic.
M.Sc.-1 Sem-II	In-Organic Chemistry (Lab-3)	CO-1	Apply knowledge to determine reaction rate of chemical reactions.
		CO-2	Create methods for estimation of concentration of electrolytes in mixture using potentiometry.
		CO-3	Corelate nature of graphs in conductometric titrations.
		CO-4	Improve skill to perform experiment in electroanalytical methods.
		CO-5	Corelate structure property relationship of conjugated systems.
		CO-6	Design conjugated polymer of desired optoelectronic property.
M.Sc.-1 Sem-II	Physical Chemistry (Lab-4)	CO-1	apply knowledge to develop method for qualitative identification elements from the mixture having applications in industry and research.
		CO-2	Create methods for estimation of element/metal from the complexes.
		CO-3	Improve skill for separation identification and removal of interfering radicals.
		CO-4	Get idea about development of spot test for the different elements.
		CO-5	Understand importance of metal complexes and green methods for the synthesis.

M.Sc.-1 Sem-I	Cell & Molecular Biology	CO-1	Understand structural organization and functional role of cell, organelles and biomolecules.
		CO-2	Correlate the various life processes and their functioning.
		CO-3	Understand the process of chromosomal organization and its role in cellular metabolism.
		CO-4	Evaluate the various life processes and their regulations with special reference to regulation of gene expression.
M.Sc.-1 Sem-I	Evolution & Diversity of algae & Fungi	CO-1	Understand the phycology with special reference to Indian work.
		CO-2	Identify Algae in diversified habitats (Terrestrial, fresh water, marine) Criteria used in classification of algae, Role of algae in human welfare.
		CO-3	Know General account of thallus organization, reproduction and life history of algae.
		CO-4	Study important groups of algae Cyanophyta, Chlorophyta, Charophyta, Xanthophyte, Bacillariophyta, Phaeophyta & Rhodophyta.
		CO-5	Study General Characters of Fungi Classification., Economic importance of fungi in medicine, Use Algae and fungi in Agriculture (Biopesticide and biofertilizer) & Fungi as plant pathogen.
M.Sc.-1 Sem-I	Economic Botany & Resource Utilization	CO-1	Study the origin, divarication, utility and conservation strategies & natural resources.
		CO-2	Study importance of food, fiber, medicines & oil yielding plant.
		CO-3	Study the plants and their value in the service & mankind.
		CO-4	Study the conservation of biodiversity.
M.Sc.-1 Sem-I	Plant Development	CO-1	Deal with regulation of growth and development of plants in relation to bio-molecular interaction.
		CO-2	Know the various structural and anatomical components of plant tissue and reproductive parts.
		CO-3	Understand Structure and development of Flower, Male gametophyte, Female gametophyte, Seed development, dormancy.
		CO-4	Know about plant anatomical structure, their developmental patterns.
		CO-5	Identify plant reproductive parts development of male, female gametophytes, seed and fruits.
		CO-6	Know anomalous Secondary Growth.
		CO-7	Apply the knowledge of anatomy, structure and functions to all flowering plants.
		CO-8	Apply the embryological techniques and methods to various plant species and situations. Understand and apply the knowledge of pollen biology and methods and techniques to various plant species.
M.Sc.-1 Sem-I	Lab-1	CO-1	Create monographs of algal isolates.
		CO-2	Classify and identify algal genus.
		CO-3	Demonstrate the application of algae in different fields.
		CO-4	Create monographs of fungal isolates.
		CO-5	Classify and identify algal genus.
		CO-6	Perform Diagnosis of plant diseases.
		CO-7	Create compendium of plant diseases.
M.Sc.-1 Sem-I	Lab-2	CO-1	Know the importance cultivation & uses of economically important plants.
		CO-2	Identify medicinal plants & uses of medicinal plants, which are locally available.
		CO-3	Survey extramural, sources of various non-wood forest products.
		CO-4	Know Conservation strategies of rare & threatened plant species.
		CO-5	Identify important plants & their value in the service of the mankind.
M.Sc.-1 Sem-II	Plant Physiology	CO-1	Demonstrate a depth of knowledge of physiological processes together with a better understanding of interaction and regulation of growth, metabolism and development and influence of environment on plant and further will be able to communicate scientific ideas in both written and oral forms to diverse audiences.

		CO-2	Showcase knowledge of various signal transduction mechanisms in plants. The concept of second messengers, calcium signaling, kinases/phosphatases in plant signaling would be delineated to enhance their grasping power for understanding of different signaling pathways operative in plants. Two component signaling concept would be introduced and extended to plant hormone signaling. Quorum sensing and its potential biotechnological applications should be clear to students after these classes.
		CO-3	Gain knowledge about various mechanisms such as channel or transport proteins involved in nutrient uptake in plants. Further the course will deal with various phytohormones and their role in physiology of growth and development. This course will introduce students to physiological advances in sensory photobiology.
M.Sc.-1 Sem-II	Evolution and Diversity of Bryophytes and Pteridophytes	CO-1	Understand evolutionary diversification of early land plants and morphology and reproduction in bryophytes, pteridophytes.
		CO-2	Know the Ecological and Economic Importance of bryophytes, pteridophytes.
		CO-3	Classify Bryophytes into various groups, study their importance.
		CO-4	Classify Pteridophytes into various groups, study their importance and multiplication of important ferns know the applied aspects of Bryophytes and Pteridophytes.
M.Sc.-1 Sem-II	Genetics plant Bradding	CO-1	Understand the concept of classical and modern genetics clearly.
		CO-2	Study the inheritance pattern.
		CO-3	Know the role of chromosomes in evolution and the factors leading to changes in them.
		CO-4	Study mutations and breeding and their significance in crop improvement. study the variation in populations.
		CO-5	Differentiate the genetics changes and can justify the reasons.
		CO-6	Signify the maternal inheritance can be very well elaborated.
		CO-7	Explain how mutations can lead to variation and lethality.
		CO-8	Apply their knowledge to the changes in population genetics.
M.Sc.-1 Sem-II	Plant biochemistry & Pharmacognosy	CO-1	Study the plant biochemistry and its various aspects.
		CO-2	Study the metabolism and regulation of bio molecules.
		CO-3	Understand the medicinal properties of plants and its constituents.
		CO-4	Study the evaluation and standardization methods of drugs.
		CO-5	Classify Carbohydrates, Lipids, fatty Acids and their importance.
		CO-6	Learn about the techniques of crude drug preparations.
		CO-7	Expand knowledge domain in tune with Drug development.
M.Sc.-1 Sem-I	Animal Structure & Function (Non-Chordata)	CO-1	Find out the taxonomic characters of the different animals and apply for forming the zoological names of the animals in biosystematics.
		CO-2	Classify invertebrates by using different methods and can develop different cladogram and phylogram.
		CO-3	Compare different systems in all phyla of no chordates and compare it with evolutionary significance of it. They know about the transition occurred with time scale. They can explain digestive, respiratory, circulatory, excretory, reproductive and nervous system from Protozoa to Hemichordate.
		CO-4	find out distinguished mechanism of the different system function and the change in their mode of function if any throughout the invertebrate series.
		CO-5	Identify various larval forms of invertebrates like of Porifera, coelenterate, helminths, Annelida and Crustacea.
M.Sc.-1 Sem-I	Animal Structure & Function (Chordata)	CO-1	Describe different types of taxonomic characters and rules and operative principles of International Code of Zoological Nomenclature and designate zoological names.
		CO-2	Distinguish the Endo skeletal system of Protochordates and Chordates and replacement of the cartilaginous structure by bones.

		CO-3	Study different systems throughout the vertebrate series as per their adaptations in different habitat and their successive modifications.
		CO-4	Explain structure and functioning of sense organs of mammals.
		CO-5	Learn migration avenues of Fishes and Birds, their types, benefits, routes, threats etc.
M.Sc.-1 Sem-I	Gamete Biology	CO-1	Study spermatogenesis and oogenesis in eukaryotes.
		CO-2	Determine different events and their mechanisms during fertilization and its consequent changes.
		CO-3	Learn assisted reproduction techniques to overcome infertility.
		CO-4	Understand *Ex vivo* and *In vivo* gene therapy etc.
		CO-5	Learn about contraception and methods.
M.Sc.-1 Sem-I	Genes & Differentiation	CO-1	Describe cell specification and differentiation in whole vertebrate series.
		CO-2	Study different body axis formation in *Drosophila*, Amphibia and Chick etc.
		CO-3	Learn about Human Aging and Senescence and factors affecting it.
		CO-4	Describe Biology of sex determination.
		CO-5	Study stem cells, their properties, types markers and disorders etc.
M.Sc.-1 Sem-I	Lab-1	CO-1	Separate and determine molecular weights of protein by gel electrophoresis.
		CO-2	Prepare histochemical demonstration of lysosomes by acid phosphatase activity
		CO-3	Prepare histochemical demonstration of DNA by Fuelgen technique and DNA/RNA by MGPY Technique
		CO-4	Prepare histochemical demonstration of carbohydrate by PAS reaction
		CO-5	Separate Amino acid by Paper chromatography.
		CO-6	Investigate bacterial growth and different microbial preparations
M.Sc.-1 Sem-I	Lab-1	CO-1	Realize the importance of animal ethics in laboratories
		CO-2	Compare the structural differences of the reproductive organs of male and female animals.
		CO-3	Analyze the events of oogenesis and spermatogenesis through histological preparations
		CO-4	Distinguish between the developmental/metamorphic events in the life cycle of frog, Chick and *Lymnea*.
		CO-5	Count the sperms and analyse semen for fructose contents
M.Sc.-1 Sem-II	Molecular Cell Biology	CO-1	Understand and Compare Bio membranes and extracellular matrix.
		CO-2	Compare various type cell surface and intracellular receptors.
		CO-3	Analyse types of Cells Signaling pathways and Cell cycle control.
		CO-4	Describe cytoskeleton in the form of microfilaments and microtubules.
		CO-5	Determine secretory pathways in eukaryotic cells.
M.Sc.-1 Sem-II	Tools & techniques in Biology	CO-1	Apply principles and uses of techniques in Biology.
		CO-2	Find principles and applications of advanced microscopes and compare their uses.
		CO-3	Adopt different microbiological techniques.
		CO-4	Know cry techniques and cryopreservation of cells, tissues and organisms
		CO-5	Study Radioisotope and mass isotope techniques in biology.
M.Sc.-1 Sem-II	Endocrinology	CO-1	Study histology and histophysiology of different endocrine glands.
		CO-2	Study classification of hormones and their actions at cellular as well as genetic level.
		CO-3	Study regulation of the processes in organism by hormones.
		CO-4	Describe synthesis, transport and metabolism of steroid and nonsteroid hormones.
		CO-5	Study hormones of different endocrine glands and relative diseases.
		CO-6	Study hormone replacement therapy and neuroendocrine mechanisms in different animal.
		CO-1	Study environment and their biotic and abiotic interactions.

M.Sc.-1 Sem-II	Environment & Ecology	CO-2	Describe population ecology in terms of diversity indices along with growth curves, demes and dispersal.
		CO-3	Study community ecology, ecological succession, ecosystems.
		CO-4	Describe environmental pollution and effects on nature, global warming global dimming.
		CO-5	Study conservation biology through sanctuaries, National parks, Project Tiger and Biosphere reserves.
		CO-6	Study toxicological effects of pesticides and remedial aspects of it.
		CO-7	Study Inter-Government Policy/Protocol for Climate change, Intellectual Property Rights and Environment Impact Assessment Processes.
M.Sc.-1 Sem-II	Lab-3	CO-1	Separate and determine molecular weights of protein by gel electrophoresis.
		CO-2	Prepare histochemical demonstration of lysosomes by acid phosphatase activity.
		CO-3	Prepare histochemical demonstration of DNA by Feulgen technique and DNA/RNA by MGPY Technique.
		CO-4	Prepare histochemical demonstration of carbohydrate by PAS reaction.
		CO-5	Separate Amino acid by Paper chromatography.
		CO-6	Investigate bacterial growth and different microbial preparations
M.Sc.-1 Sem-II	Lab-4	CO-1	Study human hormonal disorders.
		CO-2	Analyse parameters of different soil samples.
		CO-3	Analyse parameters of different water samples.
		CO-4	Calculate Diversity indices (Shannon, Simpson).
		CO-5	Determine RQ.
		CO-6	Identify Freshwater Plankton from water samples.
		CO-7	Perform Qualitative analysis of Pollution indicators.

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