

**Maratha Vidya Prasarak Samaj's
K.P.G. Arts, Commerce and Science College, Igatpuri,
Nashik**

**Program Outcomes, Program Specific Outcomes, Course specific
Outcomes
2019-2020**

**Department of Computer Science
Bachelor of Science in Computer Science**

Program Outcomes (PO) B.Sc.(CS)

Science graduate students are expected

PO1. Scientific knowledge: Apply the knowledge of mathematics, science, and computing to the solution of complex scientific problems.

PO2. Problem analysis: Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and applied sciences.

PO3. Design/development of solutions: Design solutions for complex problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5. Modern tools usage: Create, select, and apply appropriate techniques, resources, and modern computing and IT tools including prediction and modeling to complex scientific activities with an understanding of the limitations.

PO6. The software engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional practice.

PO7. Environment and sustainability: Understand the impact of the professional software engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the scientific practice.

PO9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10. Project management: Demonstrate knowledge understanding of the scientific and management principles and apply these to one's own work, as a member and leader in a team,

to manage projects and in multidisciplinary environments.

Program Specific Outcomes (PSO) B.Sc. Computer Science

Students of B.Sc. Computer Science are expected

A graduate with a B.Sc. in Computer Science will have the ability to

PSO1. Demonstrate mastery of Computer Science in the following core knowledge areas

- o Data Structures and Programming Languages**
- o Databases, Software Engineering and Development**
- o Computer Hardware and Architecture**

PSO2. Apply problem-solving skills and the knowledge of computer science to solve real world problems

PSO3. Develop technical project reports and present them orally among the users

Couse outcome of F.Y. BSc (CS) CBCS-2019 Pattern

Students of the first year B.Sc. (CS) are expected

Semester-I

Class	Paper Code	Couse Title	Outcome
F.Y.B.Sc.(CS)	CS-111	Problem Solving using Computer and 'C' Programming	<ul style="list-style-type: none">• To understand the concept of Problem solving• To understand steps involved in algorithm & program development• To understand the concept of Algorithm• Develop Algorithm for simple problem• Ability to implement algorithms in the 'C' language.• Develop modular programs using control structures and arrays in 'C'.

F.Y.B.Sc.(CS)	CS-112	Database Management Systems	<ul style="list-style-type: none"> • Describe the fundamental elements of relational database management systems • Explain the basic concepts of relational data model, entity-relationship model, relational database design, relational algebra and SQL. • Design ER-models to represent simple database application scenarios • Convert the ER-model to relational tables, populate relational database and formulate SQL queries on data. • Improve the database design by normalization.
F.Y.B.Sc.(CS)	CS-113	Practical course based on CS101 and CS102	<ul style="list-style-type: none"> • Able to devise pseudo code and flowchart for computational problems. • Understand how to write, debug and execute simple programs in C. <ul style="list-style-type: none"> • Able to create database tables in Postgres SQL. • Able to write and execute simple and nested queries.

Couse outcome of F.Y. BSc (CS) CBCS-2019 Pattern

Students of the first year B.Sc. (CS) are expected

Semester-II

Class	Paper Code	Couse Title	Outcome
F.Y.B.Sc.(CS)	CS-121	Advanced 'C' Programming	<ul style="list-style-type: none"> • Develop advanced concepts of programming using C. • Develop modular programs using control structures, pointers, arrays, strings and structures. • Design and develop solutions to real world problems using C. <ul style="list-style-type: none"> • Able to develop structured programming approach.
F.Y.B.Sc.(CS)	CS-122	Relational Database Management Systems	<ul style="list-style-type: none"> • Able to acquire knowledge of data security and its importance. • Design E-R Model for given requirements and convert the same into database tables. • Able to use database techniques such as SQL & PL/SQL. • Understand and able to implement concept of transactions. • Use advanced database Programming concepts.
F.Y.B.Sc.(CS)	CS-123	Practical course based	<ul style="list-style-type: none"> • Write debug and execute programs using advanced features in C. • To perform advanced

		on CS201 and CS202	database operations.
Course outcome of S.Y. BSc (CS) 2013 Pattern			
Students of the second year B.Sc. (CS) are expected			
Semester-I			
Class	Paper Code	Course Title	Outcome
S.Y.B.Sc.(CS)	CS 211	DATA STRUCTURES USING C	.To learn the systematic way of solving problem.To understand the different methods of organizing large amount of data .To efficiently implement the different data structures .To efficiently implement solutions for specific problems
S.Y.B.Sc.(CS)	CS 221	Object Oriented Concepts and Programming in C++	.Acquire an understanding of basic object oriented concepts and the issues involved in effective class design. In order to write C++ programs that use object oriented concepts such as information hiding, constructors, destructors, inheritance etc
Semester- II			
Class	Paper Code	Course Title	Outcome
S.Y.B.Sc.(CS)	CS-212	Relational Database Management System (RDBMS)	. • To teach fundamental concepts of RDBMS (MySQL) To teach principles of databases -To teach database management operations -To teach data security and its importance -To teach client server architecture
S.Y.B.Sc.(CS)	CS 222	Software Engineering	• To teach concepts of Software Engineering - To teach principles of Software Engineering - To teach various process models used in practice -To know about the system engineering and requirement engineering -To build analysis model
	CS 223	Lab Course I & II	Students will be able to use linear and non-linear data structures like stacks, queues , linked list etc. • Student will be able to handle operations like searching, insertion, deletion, traversing mechanism etc. on various data structures.
Course outcome of T.Y. BSc (CS) 2013 Pattern			
Students of the third year B.Sc. (CS) are expected			
Semester-III			

Class	Paper Code	Course Title	Outcome
T.Y.B.Sc.(CS)	CS-331	Systems Programming	<ul style="list-style-type: none"> • Able to design structure of a simple editor. • Able to design structure of Assembler and macro processor for a hypothetical simulated computer. • Understand working of linkers and loaders and other development utilities. • Understands Complexity of Operating system as software.
T.Y.B.Sc.(CS)	CS-332	Theoretical Computer Science	<ul style="list-style-type: none"> • Understand the fundamental mathematical , regular languages and finite automata • Able to describe and transform regular expressions and grammars. • Able to design different types of Finite Automata and Machine as Acceptor , verifier and translators. • Able to understand the concept and design of push-down automata. • Able to understand the design and different types of Turing machine . • Understand the relation between context free languages, PDA and TM . • Able to understand recursive enumerable languages, recursive function theory and Problems on recursive function
T.Y.B.Sc.(CS)	CS-333	Computer Networks –I	<ul style="list-style-type: none"> • Understand basic computer network technology. • Understand and explain Data Communications System and its components. • Able to identify the different types of network topologies and protocols. • Enumerate the layers of the OSI model and TCP/IP. Explain the function(s) of each layer. • Identify the different types of network devices and their functions within a network . • Understand the basic protocols of computer networks, and how they can be used to assist in network design and implementation.
T.Y.B.Sc.(CS)	CS-334	Internet Programming I	<ul style="list-style-type: none"> • To understand client server architecture. • Implement PHP, Server Side Scripting Language . • To know how to implement socket programming.
T.Y.B.Sc.(CS)	CS-335	Programming in Java-I	<ul style="list-style-type: none"> • Understand to implement object oriented programming concepts. • Understand how to design graphical user interface in Java programs. • Understand how to design and develop applets. • Able to design User Interface using Swing and AWT. • Understand concept of packages and study how to implement them.
T.Y.B.Sc.(CS)	CS-336	Object Oriented Software Engineering	<ul style="list-style-type: none"> • Understand the importance of Object Orientation in Software engineering. • Acquire knowledge of components of Unified Modeling Language . • Able to understand techniques and diagrams related to structural modeling . • Will learn techniques and diagrams related to behavioral modeling . • Will learn different techniques of Object Oriented analysis, design

			and testing .
Semester IV			
Class	Paper Code	Couse Title	Outcome
T.Y.B.Sc.(CS)	CS--341	Operating Systems	<ul style="list-style-type: none"> • Understand the role of operating system as System software. • Able to compare the various algorithms and comment about performance of various algorithms used for management of memory, CPU scheduling, File handling and I/O operations. • Understand various concept related with Deadlock to solve problems related with Resources allocation, after checking system in Safe state or not. • To understand role of Process synchronization towards increasing throughput of system.
T.Y.B.Sc.(CS)	CS-342	Compiler Construction	<ul style="list-style-type: none"> • Learn how to use lexical analyzer and parser generator tools. • Understand how to build symbol tables and generate intermediate code. • Will study compiler architecture. • Study and understand the technique of compiler optimization
T.Y.B.Sc.(CS)	CS-343	Computer Networks II	<ul style="list-style-type: none"> • Will study how to configure PCs running Linux so that they receive IP addresses, have default routes, can resolve host names, and so on. (And similarly for Windows, if time permits.). • Able to apply knowledge of the TCP/IP layering model to intelligently debug networking problems. • Will able to use Linux commands to understand how a PC is configured. • Will able to understand and build the skills of subnetting and routing mechanisms.
T.Y.B.Sc.(CS)	CS-344	Internet Programming II	<ul style="list-style-type: none"> • Understand working of XML,CSS and XML parsers. • Will learn to implement PHP framework for effective design of web application. • Will use JavaScript to program the behavior of web pages. • Will use AJAX to make our application more dynamic.
T.Y.B.Sc.(CS)	CS-345	Programming in Java-II	<ul style="list-style-type: none"> • Understand how to use database programming using Java. • Will able to implement web development concept using Servlet and JSP. • Will Able to develop a game application using multithreading. • Learn and implement socket programming concept.

T.Y.B.Sc.(CS)	CS-346	Computer Graphics	<ul style="list-style-type: none"> • Understand how to use graphics objects represented in computer. • Will able to correlate between user and computer through graphics. • Able to increase the productivity through graphics. • Understand programmer's perspective of working of computer graphics.
T.Y.B.Sc.(CS)	CS-347	Practical Based on CS-331 and CS341-Sem-I and II	<ul style="list-style-type: none"> • Understand how to implement structure of a simple editor. • Able to develop structure of Assembler and macro processor for an hypothetical simulated computer. • Able to develop various algorithms used for management of memory, CPU scheduling, File handling and I/O operations. • Understand how to develop Banker algorithms related with Resources allocation, after checking system in Safe state or not.
T.Y.B.Sc.(CS)	CS-348	Practical Based on CS-335 and CS345-Sem-I and II and Computer Graphics using Java	<ul style="list-style-type: none"> • Understand how to implement Object Oriented programming concept using basic syntaxes of control Structures, strings and function for developing skills of logic building activity. • Able to identify classes, objects, members of a class and the relationships among them needed for a finding the solution to specific problem. • Able to demonstrates how to achieve reusability using inheritance, interfaces and packages and describes faster application development can be achieved. • Able to demonstrate understanding and use of different exception handling mechanisms and concept of multithreading for robust faster and efficient application development. • Able to identify and describe common abstract user interface components to design GUI in Java using Applet & AWT along with response to events . • Able to identify, Design & develop complex Graphical user interfaces using principal Java Swing classes based on MVC architecture.
T.Y.B.Sc.(CS)	CS-349	Practical Based on CS-334 and CS344-Sem-I and II and Project	<ul style="list-style-type: none"> • Able to design a basic web site using HTML5 and CSS3 to demonstrate responsive web design. • Learn how to implement dynamic web pages with validation using JavaScript objects by applying different event handling mechanism. • Learn how to use AJAX Programming Technique to develop RIA. • Able to develop simple web application using server side PHP programming and Database Connectivity using My SQL. • Will understand how to build well-formed XML Document and implement Web Service using Java.

Department of Chemistry

Bachelor of Science in Chemistry

● Program Outcomes (PO) B.Sc. ●

Science graduate students are expected

PO-01	To do masters in the basic areas of the discipline.
PO-02	To apply their broad knowledge of science across a range of fields, with in-depth knowledge in at least one area of study.
PO-03	To articulate the methods of science and explain why current scientific knowledge is both contestable and testable by further inquiry.
PO-04	To apply appropriate methods of research, investigation and design, to solve problems in science, including the planning and/or conduct of a significant project, problem or investigation.
PO-05	To recognize the need for information; effectively search for, evaluate, manage and apply that information in support of scientific investigation.
PO-06	Employ highly developed conceptual, analytical, quantitative and technical skills and are adept with a range of technologies.
PO-07	To evaluate the role of science, in addressing current issues facing local and global communities, for example climate change, health and disease, food security, sustainable energy use etc.
PO-08	To work effectively in groups to meet a shared goal with people who's disciplinary and cultural backgrounds differ from their own.
PO-09	To communicate clearly and convincingly about science ideas, practice and future contributions to expert and non-expert audiences, matching the mode of communication to their audience.

● Program Specific Outcomes (PSO) B.Sc. Chemistry ●

Students of B.Sc. Chemistry are expected

PSO-1	To have post graduate education in chemistry after B.Sc. Chemistry.
PSO-2	To use modern library search tools to locate and retrieve scientific information about a topic, chemical, chemical technique, or an issue relating to chemistry.
PSO-3	To understand the objective of their chemical experiments, properly carry out the experiments, and appropriately record and analyze the results.
PSO-4	To use standard laboratory equipment, modern instrumentation, and classical techniques to carry out experiments.
PSO-5	To follow the proper procedures and regulations for safe handling and use of chemicals.
PSO-6	To communicate the concepts and results of their laboratory experiments through effective writing and oral communication skills.
PSO-7	To pursue their career objectives in advanced education in professional and in a scientific career in government or industry, in a teaching career in the school systems, or in a related career following graduation.

Course Outcomes of T. Y. B.Sc. Chemistry (2013 Pattern)

● Semester-III ●

Class	Course Title	Course Outcomes
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		Students of the T.Y. B. Sc. Chemistry (2013 Pattern) are excepted
T.Y.B.Sc. (2013Pattern)	CH-313: Physical Chemistry Paper-I	<ul style="list-style-type: none"> • To learn rate constant for third order reaction, energy of activation, Arrhenius equation, solve the sums based on it. • To understand Ohm's law, Kohlrausch's law transport number. Debye-Huckel-Onsager Interionic Attraction theory, Asymmetry /Relaxation effect, Electrophoretic effect. • To understand the term additive and constitutive properties, electrical polarization of molecule, induced and orientation polarization, dipole moment , nature of wave Rotational / Microwave spectroscopy , Vibrational Spectra , Vibrational rotational Spectra , Raman Spectroscopy and Solve the numerical problems • To understand terms in phase equilibria such as-system, phase in system, components in system, degree of freedom, one / two component system, phase rule and application of phase rule to one and two component system.
T.Y.B.Sc. (2013Pattern)	CH-323: Inorganic Chemistry Paper-II	<ul style="list-style-type: none"> • To draw the MO energy level diagram for heteronuclear diatomic molecule. • To compare the different approaches to bonding in Coordination compound. • To understand the meaning of various terms involved in coordination chemistry • To comment on the stereoisomerism in complexes with C.N. 4 & 6.
T.Y.B.Sc. (2013Pattern)	CH-333: Organic Chemistry Paper-III	<ul style="list-style-type: none"> • To understand pKa and pKb of organic acids and bases, factors affecting the acidity and basicity of organic compounds. • To understand stereochemistry, energy and stability of conformations of disubstituted cyclohexane. • To understand mechanism, kinetics and comparison of SN1 &SN2 reactions. • To understand reactions of alkenes, alkynes and carbonyl compounds with reaction mechanism. Elimination reactions and their mechanism. • To understand the aromatic electrophilic and nucleophilic substitution reactions, effect of activating and deactivating groups on rate and orientation in reaction products.
T.Y.B.Sc. (2013Pattern)	CH-343: Analytical Chemistry Paper-IV	<ul style="list-style-type: none"> • To understand principles of common ion effect and solubility product factors affecting solubility product. • To understand electro gravimetric principle, principle, factors and applications of TGA and DTA. • To learn principle, instrumentation, working and application of Spectrophotometer, AAS, FES. • To understand construction, working, advantages, disadvantages of DME, polarography.
T.Y.B.Sc. (2013Pattern)	CH-353: Industrial Chemistry Paper-V	<ul style="list-style-type: none"> • To understand different processes actually run, safety measures to be adopted in industries, production of chemicals and processes involving in production. • To learn regarding set up of small scale industry, different techniques to increase the production
T.Y.B.Sc.	CH-E3:	<ul style="list-style-type: none"> • To know agriculture chemistry, it's potential, basic concept of soil, its

(2013Pattern)	Agriculture Chemistry Paper-VI	<p>properties & classification on the basis of pH.</p> <ul style="list-style-type: none"> • To know the different plant nutrients, their functions and deficiency symptoms, various techniques to protect the plants. • To Identify the problematic soil and recommend method for their reclamation • To have the knowledge of quality irrigation water, quality standard and analysis of irrigation water.
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●Semester-IV●

Class	Course Title	Course Outcomes
		Students of the T.Y. B. Sc. Chemistry (2013 Pattern) are excepted
T.Y.B.Sc. (2013Pattern)	CH-314: Physical Chemistry Paper-I	<ul style="list-style-type: none"> • To know emf, type of cells, reference electrode, Nernst Equation and equilibrium constant K of the cell reaction, liquid junction potential, classification of electrochemical cell and solve the numerical problems based on this topic. • To classify nuclides, decay kinetics, measurement of radioactivity, application of radioisotopes and solve the numerical problems based on this topic. • To understand crystalline and amorphous solids / anisotropic and isotropic solid, and laws of crystallography, Weiss and Millers Indices, Crystal system different planes, Bragg's experiment, Structure of NaCl Laue's and Bragg's method applications and solve the numerical problems. • To understand concept of quantization, atomic spectra, wave particle duality, Uncertainty principle and its physical significance, Schrodinger wave equation, Wave function and its Interpretation, Degeneracy, application, solve the numerical problems.
T.Y.B.Sc. (2013Pattern)	CH-324: Inorganic Chemistry Paper-II	<ul style="list-style-type: none"> • To know the electronic configuration of lanthanides and actinides. • To understand types of crystalline solids, different operations in stoichiometric molecules. • To understand the bio-inorganic chemistry. • To understand the formation of p-type and n-type semiconductor.
T.Y.B.Sc. (2013Pattern)	CH-334: Organic Chemistry Paper-III	<ul style="list-style-type: none"> • To understand carbanions and their synthetic application, retrosynthesis, terms involved in it. • To understand mechanism of Beckmann, Bayer-Villiger, Pinacol-pincolone, Curtis, Favorski, Claisen rearrangement reactions. • To understand applications of UV, IR and NMR spectroscopy in structure determination. • To know the isolation, classification, synthesis and structure determination of terpenoids (Citral) and alkaloids (Ephedrine) using chemical.
T.Y.B.Sc. (2013Pattern)	CH-344: Analytical Chemistry Paper-IV	<ul style="list-style-type: none"> • Principle, types, advantages and applications of solvent extraction, chromatography, electrophoresis. • To know principle and working of GSC and GLC analysis, types of column, detectors • To understand separation mechanism, instrumentation and application of HPLC. • To understand nephelometry and turbidimetry as an analytical tool, their differences and application.
T.Y.B.Sc. (2013Pattern)	CH-354: Industrial Chemistry Paper-V	<ul style="list-style-type: none"> • To classify polymerization reactions, thermodynamic and transport properties of polymer, commercial polymers. • To know importance of sugar industry, consumption (plantation white) sugar with flow diagram., cane juice extraction by various

		<p>methods, clarification by processes like carbonation, Sulphitation , Phosphatation, etc.</p> <ul style="list-style-type: none"> • To understand types of surfactants, raw materials for detergents, washing action and detergents, detergent builders, additives. • To learn preparation of dye intermediates, structural features, classification and applications of dyes. • To know methods of production and pharmacological activity, meaning of the terms, synthesis and uses of few drug.
T.Y.B.Sc. (2013Pattern)	CH-D3: Dairy Chemistry Paper-VI	<ul style="list-style-type: none"> • To know importance of the Dairy chemistry subject from the point of rural economy, composition of milk, its food & nutritive value • To understand the microbiology of the milk, various preservatives and adulterants, various milk proteins and their role for the human body. • To know various milk products, their composition, manufacture and uses • To identify preservative and adulterants in milk.
T.Y.B.Sc. (2013Pattern)	CH-347: Physical Chemistry Practical- I	<ul style="list-style-type: none"> • To determine rate constant, strength of acid, order of reaction, energy of activation • To understand the variation of mutual solubility temperature with %concentration, effect of impurity on critical point. • verify Langmuir and Freundlich adsorption isotherm, determine the molecular weight of polymer by using Ostwald viscometer • To handle different instrument like pH meter, conductivity meter, potentiometer, colorimeter etc. and are able to determine different parameters. • determine specific refractivity, molar refractivity using Abbe's Refractometer • To determine the transport number of cation by moving boundary method.
T.Y.B.Sc. (2013Pattern)	CH-348: Inorganic Chemistry Practical- II	<ul style="list-style-type: none"> • To understand gravimetric and volumetric analysis of ores and alloy. • To prepare a various inorganic complex and determine its % purity. • To study binary mixture with removal of borate and phosphate • To understand inorganic Qualitative analysis of mixture containing borates and phosphates. • To visit a chemical industry.
T.Y.B.Sc. (2013Pattern)	CH-349: Organic Chemistry Practical- III	<ul style="list-style-type: none"> • To understand quantitative estimation of organic compounds from the given sample solution. • To learn synthesis of organic compounds and checking their purity. • To perform qualitative analysis of binary mixture and identification of components by performing different kinds of reactions on them.

Course Outcomes of S. Y. B.Sc. Chemistry (2013 Pattern)

•Semester-I•

Class	Course Title	Course Outcomes
		Students of the S.Y. B. Sc. Chemistry (2013 Pattern) are excepted
S.Y.B.Sc. (2013 Pattern)	CH-211: Physical & Analytical Chemistry Paper-I 81311	<ul style="list-style-type: none"> • To determine rate of reaction, order of reaction, techniques and solve problem related to it. • To understand concepts in photochemistry, types , quantum yield and are able to solve numerical problems • To understand concepts of distribution law, its thermodynamic proof, application and extraction theory. • To learn sampling techniques, chemical analysis and application.

		<ul style="list-style-type: none"> • To learn different errors and deviation useful in chemical determination and analysis. • To develop skill in quantitative analysis, detection of different radicals, interfering ions and removal, common ion effect.
S.Y.B.Sc. (2013 Pattern)	CH-212: Inorganic & Organic Chemistry Paper-II 81321	<ul style="list-style-type: none"> • To learn stereochemistry, different conformations of cyclohexane and comparison of stability. Baeyer's strain theory and stability of conformations. • To learn types of reagents, organic reactions, Mechanism of Aldol condensation, Markonikov's and anti-Markonikov's addition, Saytzeff and Hoffmann elimination, SN1 and SN2 reactions and Hofmann rearrangement. • To learn principles and process of metallurgy, difference between ore and minerals, calcination and roasting and smelting, methods for separation. • To understand electrolysis of alumina and its refining, Aluminium and its alloys, purification of bauxite ore. • To learn pyrometallurgy, physico chemical principles, different reactions in the blast furnace, properties of pig iron and wrought iron, methods for preparation of steel, their merits and demerits. • Meaning of corrosion and passivity, types and factors affecting corrosion, prevention of metal from corrosion, theories of passivity.

●Semester-II●

Class	Course Title	Course Outcomes
		Students of the S.Y. B. Sc. Chemistry (2013 Pattern) are excepted
S.Y.B.Sc. (2013 Pattern)	CH-221: Physical & Analytical Chemistry Paper-I 81312	<ul style="list-style-type: none"> • To understand the concept of free energy , types and relation of free energy with other thermodynamic parameters, Clapeyron equation, Clausius Clapeyron equation and numerical problems • To know different types of solution and understand vapour composition diagram, azeotropes and able to solve numerical. • To understand volumetric analysis, preparation of solution of different concentrations, calibration of glassware. • To know the importance of indicators, types of titration and estimation by different methods.
S.Y.B.Sc. (2013 Pattern)	CH-222: Inorganic & Organic Chemistry Paper-II 81322	<ul style="list-style-type: none"> • To understand concept of different reagents used in the one type of conversion, Merits & demerits of different reagents, Reagent based mechanisms and Use of different hydrogen donors for hydrogenation. • To define and classify heterocyclic compounds, Use Huckel rule to predict aromaticity, suggest synthetic route for preparation of various heterocyclic compounds and Write and complete various reactions of heterocyclic compounds as well as predict products. • To know importance of biochemistry, reactions of glucose, principle in Killani Fischer synthesis, stereoisomerism in monosaccharide, phenomenon of mutarotation, structure and bonding in maltose, lactose, cellobiose and sucrose, classification and structure of amino acids. • To study d-block elements, physical and chemical properties and trends observed in the elements. • To know the organ metallic compounds, metal-carbon bond, multiple bonding in CO, synthesis of binary metal carbonyls, 18 electron rule,

		catalytic properties and applications.
S.Y.B.Sc. (2013 Pattern)	CH-223: Practical Chemistry Paper-III	<ul style="list-style-type: none"> To verify theoretical principles by performing experiments To interpret the experimental data and obtain conclusions. To improve analytical skills while performing practicals. To correlate the theory with experiments and understand their importance.

Course Outcomes of F. Y. BSc Chemistry (CBCS-2019 Pattern)

●Semester-I●

Class	Course Title	Course Outcomes
		Students of the First Year B. Sc. Chemistry (2019 CBCS Pattern) are excepted
F.Y.B.Sc. (CBCS Pattern)	CH-101: Physical Chemistry Paper-I	<ul style="list-style-type: none"> To learn the principle of thermodynamic & calculation of different types of energies. To understand exothermic and endothermic reactions, third law of thermodynamics and its application. Understand the concept of different salts and their pH value, preparation of Buffer solution. Understand the concept of common ion effect Hydrolysis constant, ionic product, solubility product.
F.Y.B.Sc. (CBCS Pattern)	CH-102: Organic Chemistry Paper-II	<ul style="list-style-type: none"> To understand the fundamentals, principles. Students will learn Fundamentals of organic chemistry. To understand the stereochemistry (Conformations, configurations and nomenclatures). To enhance the knowledge related to Functional groups. To understand functional group approach for aliphatic hydrocarbons.
F.Y.B.Sc. (CBCS Pattern)	CH-103: Practical Chemistry Paper-III	<ul style="list-style-type: none"> To learn importance of chemical safety and Lab safety while performing experiments in laboratory. To learn about determination of thermo chemical parameters and related concepts. Understand techniques of pH measurements and preparation of buffer solutions. To learn elemental analysis of organic compounds and chromatographic techniques for separation of constituents of mixtures.

●Semester-II●

Class	Course Title	Course Outcomes
		Students of the First Year B. Sc. Chemistry (2019 CBCS Pattern) are excepted
F.Y.B.Sc. (CBCS Pattern)	CH-201: Inorganic Chemistry Paper-I	<ul style="list-style-type: none"> To learn various theories and principles applied to reveal atomic structure. Significance of quantum chemistry. To explain rules for filling electrons in various orbitals- Aufbau principle, Pauli Exclusion Principle, Hund's rule of maximum multiplicity and Electronic configuration. To classify elements as main group, transition and inner transition elements. To write name, symbol, electronic configuration, trends and properties. To define various types of chemical bonds- Ionic, covalent, coordinate and metallic bond. To describe VBT and its application and also the need of VSEPR theory.
F.Y.B.Sc. (CBCS Pattern)	CH-202: Analytical Chemistry Paper-II	<ul style="list-style-type: none"> To understand concept of mole concentrations and various units of concentrations which will be helpful for preparation of solution. To understand stoichiometric calculation, Units such as ppm, ppb, ppt, density and specific gravity study. To learn basics of chromatography and its types.

		<ul style="list-style-type: none"> • To understand measurement, working and application of pH meter. • To learn separation, classification and determination of binary mixture.
F.Y.B.Sc. (CBCS Pattern)	CH-203: Practical Chemistry Paper-III	<ul style="list-style-type: none"> • To understand Inorganic volumetric analysis and synthesis of Inorganic compounds. • To understand analysis of commercial products. • To learn about preparations and purification of organic compounds.

Department of Zoology

Programme outcome	
1.	Acquired the knowledge with facts and figure related to zoology,
2.	Understood the basic concept of fundamental principles, and the scientific theory related to various scientific phenomenon and their relavencies in the day today life,
3.	Acquired the skill in handling scientific instruments , and planning and performing in laboratory experiment,
4.	The skills of observation and drawing logical inference from the scientific experiment,
5.	Analized the given scientific data critically and systematically and the ability to draw the objective and conclusion.
6.	Being able to think creatively (Divergently and convergent) to propose novel ideas in explaining facts a and the figure or providing new solution to the problem,
7.	Realized hoe development in any science subject help in the development in the others science subject and vice versa and how interdisciplinary approach help in providing better solution and new ideas for the sustainable development.
8.	Developed scientific outlook not only with respect to science subject but also in all aspects related to life
9.	Realised that knowledge of subject in other faculty such as humanities, performing arts , social science etc . can have great and effective influence which inspire in evolving in new scientific theory and invention,
10	Embided ethical , moral and social values in personal and social life leading to highly cultured and civilized personality,
11	Developed various communication skill such as reading listening and speaking etc. Which will help in expressing ideas and views clearly and effectively,
12	Realised the persuit of knowledge is a life long activity and in combination with untiring efforts and positive attitude and other necessary qualities leads towards the successful life,
13	Developed flair by participating in various social and cultural activities voluntarily, in order to spread knowledge, creating awareness about the social evils, blind faith , etc

Programme specific outcome

1	Student get the knowledge of animal science from primitive to highly evolved animal group, that is breeding and management of the live stock animal such as cattle, sheep ,fishery ,lac, apiculture, etc.
2	It prepare the student for the carrier opportunities in the field of animal breeding, food production of animal, animal agriculture business, animal behavior and welfare.
3	The curriculum highlights the potential of various branches to become an enterpreuner.
4	With the help of practical the students get equipped with the skills related to the laboratory as well as with the field studies.
5	With the help of practical the students get equipped with the skills related to the

	laboratory as well as with the field studies.
6	Students developed interest and foundation for further studies in zoology.
7	Students learn about the conservation and sustainable use of biodiversity.
8	Subject knowledge help the student for taking up the successful carrier in zoology

Course specific outcome, Sem-I

Class	Course title	Outcome
F.Y.B.Sc.	Paper-I, ZO-111 Animal diversity-I	1. The student will be able to understand classify and identify the diversity of animals.
		2. The student understands the importance of classification of animals and classifies them effectively using the six levels of classification.
		3. The student knows his role in nature as a protector, preserver and promoter of life which he has achieved by learning, observing and understanding life.
	Paper-II, ZO-112 Animal Ecology	1.The learners will be able to Identify and critically evaluate their own beliefs, values and actions in relation to professional and societal standards of ethics and its impact on ecosystem and biosphere due to the dynamics in population. promote betterment of environment.
		2.To understand anticipate, analyse and evaluate natural resource issues and act on a lifestyle that conserves nature.
3.The Learner understands and appreciates the diversity of ecosystems and applies beyond the syllabi to understand the local lifestyle and problems of the community.		
4.The learner will be able to link the intricacies of food chains, food webs and link it with human life for its betterment and for non-exploitation of the biotic and abiotic components.		
5.The working in nature to save environment will help development of leadership skills to promote betterment of environment.		
Paper-III, ZO-213 Practical	1.student will be able to identify the lower nonchordate animals.	
	2.student will learn how unicellular organism reproduce	
	3.student will learn what are the impurities present in the water and how to estimate them	
S.Y.B.Sc.	Paper-I, ZY-211 Animal Systematics and Diversity-III	1. The students will be able to understand, classify and identify the diversity of higher vertebrates.
		2. The students will able to understand the complexity of higher vertebrates
		3. The students will be able to understand different life functions of higher vertebrates.
		4. The students will be able to understand the linkage among different groups of higher vertebrates.
		5. The student will become aware regarding his role and responsibility towards nature as a protector, to understand his role as a trustee and conservator of life which he has achieved by learning, observing and understanding life.

	Paper-II, ZY-212 Applied zoology-I	1. The learner understands the basics about beekeeping tools, equipment, and managing beehives.
		2. The learner understands the basic information about fishery, cultural and harvesting methods of fishes and fish preservation techniques.

Course specific outcome, SEM-II

Class	Course title	Course Outcome
F.Y.B.Sc.	Paper-I, ZO-121 Animal Diversity- II	1. The student will be able to understand classify and identify the diversity of animals.
		2. The student understands the importance of classification of animals and classifies them effectively using the six levels of classification.
		3. The student knows his role in nature as a protector, preserver and promoter of life which he has achieved by learning, observing and understanding life.
	Paper-II, ZO-122 Cell Biology	1. The learner will understand the importance of cell as a structural and functional unit of life.
		2. The learner understands and compares between the prokaryotic and eukaryotic system and extrapolates the life to the aspect of development.
		3. The dynamism of bio membranes indicates the dynamism of life. Its working mechanism and precision are responsible for our performance in life.
		4. The cellular mechanisms and its functioning depends on endo-membranes and structures. They are best studied with microscopy.
	Paper-III, ZO-123 Practical	1. student will be able to identify the Higher nonchordate animals.
		2. student get acquainted with the diversity of mouth parts in insect.
		3. student will come to know how to rear the lac insect a, earthworm honey bees for the production of lac, vermicompost and honey.
S.Y.B.Sc.	Paper-I, ZY-211 Animal Systematics And Diversity-IV	1. The students will be able to understand, classify and identify the diversity of higher vertebrates.
		2. The students will be able to understand the complexity of higher vertebrates
		3. The students will be able to understand different life functions of higher vertebrates.
		4. The students will be able to understand the linkage among different groups of higher vertebrates.
		5. The student will become aware regarding his role and responsibility towards nature as a protector, to understand his role as a trustee and conservator of life which he has achieved by learning, observing and understanding life.

	Paper-II, ZY-212 Applied zoology- II	1.The learner understands the biology, varieties of silk silkworms and the basic techniques production.
		2. The learner understands the types of agricultural pests, Major insect pests of agricultural importance and Pest control practices.
	Paper-III, ZY-223 Practical	1.student will learn how to distinguish between poisonous and non-poisonous snake.
		2.student will learn the diversity of beak and feet in birds.
		3.from the study of morphology and physiology of rat they will understand the human system.
		3.Beekeeping help them to start their own business.
		4.study of pisciculture help them to start their own business.

Department of Physics

Program outcome: B.Sc. (Physics)	
1	The science stream endeavors the spirit of scientific inquiry and analytical thinking among the students.
2	It also provides opportunities to learn experimental concepts related with life science.
3	Acquired the knowledge with facts and figures related to various subjects in pure sciences such as Physics, Chemistry, Botany, Zoology, Mathematics, etc.
4	Understood the basic concepts, fundamental principles, and the scientific theories related to various scientific phenomena and their relevancies in the day-to-day life.
5	Acquired the skills in handling scientific instruments, planning and performing in laboratory experiments. The skills of observations and drawing logical inferences from the scientific experiments. Analyzed the given scientific data critically and systematically and the ability to draw the objective conclusions. Been able to think creatively (divergently and convergent) to propose novel ideas in explaining facts and figures or providing new solution to the problems.
6	Realized how developments in any science subject helps in the development of other science subjects and vice-versa and how interdisciplinary approach helps in providing better solutions and new ideas for the sustainable developments.
7	Developed scientific outlook not only with respect to science subjects but also in all aspects related to life. Realized that knowledge of subjects in other faculties such as humanities, performing arts, social sciences etc. can have greatly and effectively influence which inspires in evolving new scientific theories and inventions. Imbided ethical, moral and social values in personal and social life leading to highly cultured and civilized personality.

Program Specific outcome : B.Sc. (Physics)	
1	To foster scientific attitude, provide in-depth knowledge of scientific and technological concepts of Physics.
2	To enrich knowledge through problem solving, minor/major projects, seminars, tutorials, review of research articles/papers, participation in scientific events, study visits.
3	To familiarize with recent scientific and technological developments.

4	To create foundation for research and development in Physics.
5	To help students to learn various experimental and computational tools thereby developing analytical abilities to address real world problems.
6	To train students in skills related to research, education, industry, and market.
7	To help students to build-up a progressive and successful career in Physics.

Course outcome : B.Sc. (Physics) Semester 1

Class	Course Title	Outcome
F.Y.B.Sc.	PHY-111-Mechanics and Properties of Matter	<ul style="list-style-type: none"> To understand the concept of motion displacement velocity Newtons laws of motion. b)To understand Work and Energy ,Workdone with varying force. To demonstrate Fluid mechanics ,Bernoulli's Principle,viscosity. To understand property of matter, stress and strain ,Hook's law, young's modulus.solving the problem.
	PHY-112-Physics Principles and Application	<ul style="list-style-type: none"> To understand the general structure of atom, spectrum of hydrogen atom. To understand the atomic excitation and LASER principles. To understand the bonding mechanism and its different types. To demonstrate an understanding of electromagnetic waves and its spectrum. Understand the types and sources of electromagnetic waves and applications. To demonstrate quantitative problem solving skills in all the topics covered.
	PHY-113 Physics Laboratory-IA	<ul style="list-style-type: none"> To train students in skills related to research, education, industry, and market. To help students to build-up a progressive and successful career in Physics. Study and use of various measuring instrument such as vernier calliper ,micrometer screw Gauge, Travelling microscope. Study of various practical related to research level such as LASER ,Spectromter ,Flat spiral spring with moment of inertia of disc, Coefficient of viscosity angle of prism.
S.Y.B.Sc.	PHY-211-Mathematical Methods in Physics I	<ul style="list-style-type: none"> Understand the complex algebra useful in physics courses Understand the concept of partial differentiation. Understand the role of partial differential equations in physics Understand vector algebra useful in mathematics and physics Understand the singular points of differential

		equation.
	PHY-212-Electronics II	<ul style="list-style-type: none"> • Apply laws of electrical circuits to different circuits. • Understand the relations in electricity • Understand the properties and working of transistors. • Understand the functions of operational amplifiers. • Design circuits using transistors and operational amplifiers. • Understand the Boolean algebra and logic circuits.

Course outcome : B.Sc. (Physics) Semester2

Class	Course Title	Outcome
F.Y.B.Sc.	PHY-121 Heat and Thermodynamics	<ul style="list-style-type: none"> • To understand thermodynamic state, vander waal's equation with study of laws of thermodynamic. • To understand the concept of Heat transfer mechanism ,Study the different types of heat engine such as carnot's cycle,Diessel otto cycle ,refrigerator Principles,Air conditioner. • To study the thermometry , Gas filled thermometer,bimetallic thermometer,Platinum resistance thermometer, thermocouple.
	PHY-122 Electricity and Magnetism	<ul style="list-style-type: none"> • To understand the concept of the electric force, electric field and electric potential for stationary charges. • Able to calculate electrostatic field and potential of charge distributions using Coulomb's law and Gauss's law. • To understand the dielectric phenomenon and effect of electric field on dielectric. d) To Study magnetic field for steady currents using Biot-Savart and Ampere's Circuital laws. • To study magnetic materials and its properties. • Demonstrate quantitative problem solving skills in all the topics covered.
	PHY-123 Physics Laboratory 1B	<ul style="list-style-type: none"> • Study of thermocouple ,specific heat oh gravity ,sthermal conductivity of lee's method,carnot's cycle. • Design charging and discharging of capacitor LR circuit,Kirchhoff's law, Diode chracterisites ,frequency of AC mains.
S.Y.B.Sc.	PHY221-Oscillations, Waves and Sound	<ul style="list-style-type: none"> • Understand the physics and mathematics of oscillations. • Solve the equations of motion for simple harmonic, damped, and forced oscillators. • Formulate these equations and understand their physical content in a variety of applications, Describe oscillatory motion with graphs and equations, and use these descriptions to solve problems of oscillatory motion. • Explain oscillation in terms of energy exchange, giving various examples. Solve problems relating to

		<p>undamped, damped and force oscillators and superposition of oscillations.</p> <ul style="list-style-type: none"> • Understand the mathematical description of travelling and standing waves. Recognize the one-dimensional classical wave equation and solutions to it. • Calculate the phase velocity of a travelling wave. • Explain the Doppler effect, and predict in qualitative terms the frequency change that will occur for a stationary and a moving observer. • Define the decibel scale qualitatively, and give examples of sounds at various levels. Explain in qualitative terms how frequency, amplitude, and wave shape affect the pitch, intensity, and quality of tones produced by musical instruments
	PHY 222-Optics	<ul style="list-style-type: none"> • Acquire the basic concepts of wave optics. Describe how light can constructively and destructively interfere. Explain why a light beam spreads out after passing through an aperture. summarize the polarization characteristics of electromagnetic waves. Appreciate the operation of many modern optical devices that utilize wave optics . • Understand optical phenomena such as polarization, birefringence, interference and diffraction in terms of the wave model. Analyze simple examples of interference and diffraction phenomena. Be familiar with a range of equipment used in modern optics.
	PH223: PRACTICAL COURSE	<ul style="list-style-type: none"> • Use various instruments and equipment. Design experiments to test a hypothesis and/or determine the value of an unknown quantity. • Investigate the theoretical background to an experiment. Set up experimental equipment to implement an experimental approach. • Analyze data, plot appropriate graphs and reach conclusions from your data analysis. • Work in a group to plan, implement and report on a project/experiment. Keep a well-maintained and instructive laboratory logbook.

B.Sc. (Mathematics)

Program outcome : B.Sc. (Mathematics)	
	<ol style="list-style-type: none"> 1) Enabling students to develop a positive attitude towards mathematics as an interesting and valuable subject of study. 2) Understand the basic concepts, fundamental principles and scientific theories related to various scientific phenomena and their relevance in the day-to-day life. 3) Ability to analyze a problem, identify and define the computing requirements, which may be appropriate to its solution. 4) Enhancing students' overall development and to equip them with mathematical modeling abilities, problem solving skills, creative talent and

	<p>power of communication necessary for various kinds of employment.</p> <p>5) Understand application mathematics in different fields</p> <p>6) Ability to pursue advanced studies and research in pure and applied mathematical science.</p>
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Program Specific outcome : B.Sc. (Mathematics)	
	<p>1) Think in a critical manner.</p> <p>2) Know when there is a need for information, to be able to identify, locate, evaluate, and effectively use that information for the issue or problem at hand.</p> <p>3) Formulate and develop mathematical arguments in a logical manner.</p> <p>4) Acquire good knowledge and understanding in advanced areas of mathematics and software like maxima, chosen by the student from the given courses.</p> <p>5) Understand, formulate and use quantitative models arising in social science, Business and other contexts.</p>

Course outcome : B.Sc. (Mathematics)		
Class	Course Title	Outcome
SEM I F.Y.B.Sc.	MT-111 Algebra	<p>After completion of this course, the student will be able to:</p> <ul style="list-style-type: none"> Define Basic concepts of Set, Relations and functions. Use the division algorithm, Euclidian algorithm, in computations and proofs about the integers Learn about some important results in the theory of numbers including the prime number theorem, describe the properties of prime numbers, Show that every positive integer can be expressed as product of prime power in unique way Write a formula for the number of positive integers less than n that are relatively prime to n Define congruence and describe the properties of congruence State Chinese Remainder Theorem, Fermat's and Wilson's theorem Compute sums, products, quotients, conjugate, modulus, and argument of complex numbers · Apply De-Moivre's theorem to find the nth roots of unity.
	MT-112 Calculus I	<p>After completion of this course, the student will be able to:</p> <ul style="list-style-type: none"> Describe the Algebraic and Order Properties of \mathbb{R} Understand absolute value function and its properties, triangle inequality and its consequences, neighborhood of a point on real line. Define of Upper bound, Lower bound, supremum, infimum of subsets of \mathbb{R}, completeness property of \mathbb{R}. Know Archimedean property and its consequences, the density theorem Learn to define sequence in terms of functions from \mathbb{R} to a subset of \mathbb{R}. Recognize bounded, convergent, divergent, Cauchy and monotonic sequences and to calculate their limit superior, limit inferior, and the limit of a bounded sequence.

		<ul style="list-style-type: none"> • Learn to check function is continuous understand the consequences of the intermediate value theorem for continuous functions.
	<p>MT-113 Mathematics Practical</p>	<p>This course will enable the students to:</p> <ul style="list-style-type: none"> • Learn Maxima software. • Learn to find graphs, roots and primes integer using maxima software • Problem solve on algebra and calculus by using maxima software. • Knowledge of application of mathematics
<p>SEM III S.Y.B.Sc.</p>	<p>MT-231-Calculus of Several Variables</p>	<p>After completion of this course, the student will be able to:</p> <ul style="list-style-type: none"> • Learn conceptual variations while advancing from one variable to several variables in calculus. • Understand Functions of two variables, Domain and Range, Graphs, Level Curves, Functions of Three or More Variables, Limits and Continuity. • Applications of multivariable calculus tools in physics, economics, optimization, and understanding the architecture of curves and surfaces in plane and space etc. • Understand Partial Derivatives • Learn Higher Derivatives, Clairaut's Theorem, Partial Differential Equations, Wave equation, Chain Rule, Homogeneous Functions, Euler's theorem. • Recognize the major classification of PDEs and the qualitative differences between the classes of equations. • Be competent in solving linear PDEs using classical solution methods • Understand Extreme values of functions of two variables. • Learn Necessary conditions for extreme values, Second Derivative Test, Lagrange Multipliers • Inter-relationship amongst the line integral, double and triple integral formulations. • Sketch curves in Cartesian and polar coordinate systems.
	<p>MT-232(A) Numerical Methods & it's applications</p>	<p>After completion of this course, the student will be able to:</p> <ul style="list-style-type: none"> • Obtain numerical solutions of algebraic and transcendental equations. • Learn about various interpolating and extrapolating methods. • Define Basic concepts of operators Δ, E, ∇ • Find the difference of polynomial • Solve problems using Newton forward formula and Newton backward formula. • Derive Newton forward formula and Newton backward interpolation formula. • Apply Lagrange's Interpolation formula when difference interval are unequal • Understood the concept of Numerical Differentiation (Derivatives using Newton's forward difference formula) • Apply various numerical methods in real life problems

		<ul style="list-style-type: none"> • Derive general quadrature formula • Derive Trapezoidal rule, Simpson's 1/3 and 3/8 rules -using general quadrature formula • Solve initial and boundary value problems in differential equations using numerical methods. • Find the solution of ordinary differential equation of first by Taylor's Series method, Picard's method of successive approximations, Euler method, Modified Euler's methods and Runge-Kutta methods
	MT-233 Mathematics Practical	This course will enable the students to: <ul style="list-style-type: none"> • Learn Maxima software. • Problem solve on analytic geometry and calculus by using maxima software. • Problem solving on geometry and calculus. • Give the knowledge of geometry using maxima software.

Course outcome : B.Sc. (Mathematics)

Class	Course Title	Outcome
SEM II F.Y.B.Sc.	MT-121 Analytical Geometry	After completion of this course, the student will be able to: <ul style="list-style-type: none"> • Describe the various forms of equation of a plane, straight line, Sphere, Cone and Cylinder. • Find the angle between planes, Bisector planes, Perpendicular distance from a point to a plane, Image of a line on a plane, Intersection of two lines • Define coplanar lines and illustrate • Compute the angle between a line and a plane, length of perpendicular from a point to a line • Define skew lines • Calculate the Shortest distance between two skew lines
	MT-122 Calculus II	After completion of this course, the student will be able to: <ul style="list-style-type: none"> • Assimilate the notions derivative of a function at a point • Calculate the limit and examine the continuity of a function at a point. • Apply derivative tests in optimization problems appearing in social sciences, physical sciences, life sciences and a host of other disciplines. • Understand L' Hospital Rule and Successive Differentiation • Understand the genesis of ordinary differential equations. • solve first order differential equations utilizing the standard techniques Learn various techniques of getting exact solutions of solvable first order differential equations and linear differential equations. • Grasp the concept of a general solution of a linear differential equation of an arbitrary order and also learn a few methods to obtain the general solution of such equations. • Formulate mathematical models in the form of ordinary differential equations to suggest possible solutions of the day to day problems arising in physical, chemical and biological disciplines.
	MT-123	This course will enable the students to: <ul style="list-style-type: none"> • Solves Problem on Calculus and analytical geometry

	Mathematics Practical.	<ul style="list-style-type: none"> • Introduction to application of mathematics in real life. Learn to build logical concept.
SEM IV S.Y.B.Sc.	MT-241 Linear Algebra	<p>After completion of this course, the student will be able to:</p> <ul style="list-style-type: none"> • Solve linear systems (using matrices) by Gauss elimination and Gauss-Jordan elimination method • Understand the concepts of vector spaces, subspaces, bases, dimension and their properties. • Recognize the concepts of the term linear independence, linear dependence, basis, and dimension, and apply these concepts to various vector spaces and subspaces • Understand about Row, Column and Null Space of a matrix, and Rank and nullity • Discuss the linear transformations, properties and equality • Understand the concepts of Kernel and range • State Rank-Nullity theorem • Use matrix algebra and the related matrices to linear transformations • Relate matrices and linear transformations, compute eigen values and eigen vectors of linear transformations. • .Find the characteristic equation, eigen values and eigen vectors of a matrix. • State Cayley- Hamilton theorem • Learn basic Matrix Transformations in R^2 and R^3 • Understand linear Isomorphism
	MT-242(B) Dynamical Systems	<p>After completion of this course, the student will be able to:</p> <ul style="list-style-type: none"> • Students understand fundamental concepts related to modeling time dependent phenomena. Students extend their knowledge of calculus to solve problems in difference equations. • Students improve problem solving skills. • Students will cooperate when appropriate to help each other understand the concepts of dynamical systems and to learn how to function in a work.
	MT-243 Mathematics Practical	<p>This course will enable the students to:</p> <ul style="list-style-type: none"> • To demonstrate used of interpolation method in numerical analysis. • Use computational techniques and algebraic skills essential for the study of systems of Linear equations, matrix algebra, vector spaces, eigenvalues and eigenvectors, Orthogonality and Diagonalization

Department of Botany

Program outcome: B.Sc. (Botany)	
1	Apply the knowledge of biology to make scientific queries and enhance the comprehension potential..
2	It also provides opportunities to learn experimental concepts related with life science.
3	Successful transfer of scientific knowledge both orally and in writing.
4	Function as an individual, as a member or a leader to perform a task in class room situation or during field study.
5	Acquired the skills in handling scientific instruments, planning and performing in laboratory experiments. The skills of observations and drawing logical inferences from the scientific experiments. Analyzed the given scientific data critically and systematically and the ability to draw the objective conclusions. Been able to think creatively (divergently and convergent) to propose novel ideas in explaining facts and figures or providing new solution to the problems.
6	Insist the significance of conserving a clean environment for perpetuation and sustainable development. study incessantly by self to cope with growing competition for higher studies and employment.
7	Developed scientific outlook not only with respect to science subjects but also in all aspects related to life. Realized that knowledge of subjects in other faculties such as humanities, performing arts, social sciences etc. can have greatly and effectively influence which inspires in evolving new scientific theories and inventions. Imbided ethical, moral and social values in personal and social life leading to highly cultured and civilized personality.

Program Specific outcome : B.Sc. (Botany)	
1	Students acquire fundamental Botanical knowledge through theory and practicals as well as to explain basis plant of life, reproduction and their survival in nature
2	To enrich knowledge through problem solving, minor/major projects, seminars, tutorials, review of research articles/papers, participation in scientific events, study visits.
3	Helped to understand role of living and fossil plants in our life.
4	To create awareness about cultivation, conservation and sustainable utilization of biodiversity
5	To know advance techniques in plant sciences like tissue culture, Phytoremediation, plant disease management, formulation of new herbal drugs etc.

6	Students able to start nursery, mushroom cultivation, biofertilizer production, fruit preservation and horticultural practices.
7	To help students to build-up a progressive and successful career in botany

Course outcome : B.Sc. (Botany) Semester 1

Class	Course Title	Outcome
F.Y.B.Sc.	BO-111-Plant life and utilization I	<ul style="list-style-type: none"> • Study of cryptogams to understand their Diversity, know evolution of algae, fungi and bryophytes. • Discuss about morphological structure, classification, reproduction & economic importance of algae. • Study and impart knowledge about the general Characteristics, structure, reproduction, life history and economic importance of fungi. Understand the features of Lichens. • To get knowledge about classification, mode of reproduction and detailed study of some important bryophytes.
	BO-112-Plant morphology and Anatomy	<ul style="list-style-type: none"> • Understand the floral morphology of angiosperms and different theories related to the evolution of advanced leaf like or floral parts of the plants. • To understand the types of an inflorescence and its significance. <p style="text-align: center;">To provide knowledge about morphological and internal structure of plants.</p> <ul style="list-style-type: none"> • Students identify the different plants on the basis of its morphological and anatomical structure • Plant anatomy and embryology are much awaited subject to study the internal structures and structure & function of reproductive organs in plants • The course paper cover basic aspects of anatomy of plant tissues such as meristems, epidermis, permanent tissues, complex tissue systems and organ structure of plant
	BO-113 Practical based on BO 111 & BO 112	<ul style="list-style-type: none"> • . To study and get knowledge about parts and working principles of compound and dissecting microscope. • Students are capable to become practical knowledge about micro-preparation and observation of permanent slides of genera. • Learn the microscopic technique, familiarize with the external and internal structure of lower and higher group organisms. Study of Lichens and its types. • . Understand in details with practical knowledge of the morphology of different types of inflorescence. Practical understanding of the different types of

		fruits and their morphology. Students able to understand the internal structure of monocot and dicot (stem, leaf and root), secondary thickening, anomalous secondary thickening (Dicot and Monocot) and nodal anatomy.
S.Y.B.Sc.	BO-211- Taxonomy of Angiosperms and Plant community	<ul style="list-style-type: none"> • Understand the objective, scope and importance of angiosperms. • Understand the concept of Artificial, Natural and Phylogenetic system of classification. its merits & demerits • Understand the system of binomial nomenclature advantages and disadvantages • Aware various plant families and its economic importance • Understand the Plant ecology, concept of population, community and ecosystem as well as plant adaptation to environment
	BO-212-Plant Physiology	<ul style="list-style-type: none"> • . Acquire knowledge on the physiological functions of plant. • To become knowledgeable in plant and its water relations. • Students will able to gain knowledge on role of micronutrients in plant growth, their development and understand the mechanism of nitrogen metabolism • Students will be able to understand the various physiological life processes in plant • Learn about the movement of sap & absorption of water in plant body • Understand the Photoperiodism concept of short day plants, long day plants and day neutral plants.

Course outcome : B.Sc. (Botany) Semester2

Class	Course Title	Outcome
F.Y.B.Sc.	BO-121 Plant life and utilization II	<ul style="list-style-type: none"> • To get knowledge about plant diversity such as Pteridophytes, Gymnosperms and Angiosperms. • To get knowledge about classification, mode of reproduction and detailed study of some important Pteridophytes. • To study Gymnosperms, classification ,reproduction ,utilization and economic importance. To understand about Angiosperms, comparative account of monocotyledons & dicotyledons Utilization and economic importance of angiosperms.

<p>BO-122 Principles of plant science</p>	<ul style="list-style-type: none"> • To understand the scope of plant physiology. • To get knowledge about diffusion in plants, imbibition as a special type of plant diffusion. • To understand the osmosis three types of solution such as Hypotonic, .Isotonic and Hypertonic.to study the exo-osmosis & endo-osmosis, plasmolysis mechanism & its significance. To understand about the concept of plant growth & growth regulator & their significance. • Acquire knowledge on ultrastructure of cell. Comparative account of prokaryotic and eukaryotic cell. • Acquire knowledge on ultrastructure of cell. Understand ultrastructure of cell wall, plasma membrane and cell organelles as well as cell cycle in plants and stages of mitosis & meiosis. To understand the structure of DNA types of DNA & chromosomes, structure of RNA.
<p>BO-123 Practical based on BO-121 & BO-122</p>	<ul style="list-style-type: none"> • Understand the internal structural variation of pteridophytes and gymnosperms through T.S. and L.S Study of utilization & economic importance of pteridophytes, Gymnosperms & Angiosperms. The laboratory course gives practical knowledge to perusing students in the field of cytology, cell division- Mitosis & Meiosis • Students are capable to become practical knowledgeable in estimation of chlorophyll- a & b by using plant material. These experiments will be helpful to student for better understanding of the scientific principles and skillful implementation of the experiments such as Plasomolysis & DNA extraction by using Banana.

<p>S.Y.B.Sc.</p>	<p>BO-221- Anatomy Embryology</p> <p>Plant and</p>	<ul style="list-style-type: none"> • Plant anatomy and embryology are much awaited subject to study the internal structures and structure & function of reproductive organs in plant • The course paper cover basic aspects of anatomy of plant tissues such as meristems, epidermis, permanent tissues, complex tissue systems and structure of plant organs; reproductive developmental aspects of male reproductive system - Pollen grains, female reproductive system - embryo sac. • Students will be benefitted by studying the plant anatomy enables to identify fragmentary plant materials, wood, forensic investigation, and applied aspects of meristems cultures. • Biotechnology- Definition, concept and scope Interdisciplinary nature of biotechnology Students will be able to utilize embryological studies in various aspects like analysis of evolutionary trends, circumscription and delimitation of taxa and making a decision on systematic position. Students familiarize in secondary growth, anomalous secondary growth in monocot and dicot stems. Student able to understand the process of microsporogenesis, megasporogenesis and double fertilization. Students able to understand endosperm and its types and know the structure and development of monocot and dicot embryos.
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<p>BO-222– Plant Biotechnology</p>	<ul style="list-style-type: none"> • Students will Acquire knowledge about Biotechnology- concept and scope Interdisciplinary nature of biotechnology Student get knowledge on Enzyme Technology & properties of enzymes. Classification of enzymes Industrial applications of enzymes. Production of amylase, proteases and lipase enzyme Enzymes immobilization - concept and techniques of immobilization Understand the basic principles of plant tissue culture. Acquire knowledge on Fermentation, Bioreactors used in fermentations- stirred tank and tubular tower and digestive tank fermenters Media composition for liquid and solid state fermentations Industrial applications of fermentation Downstream processing- citric acid production. Students get knowledge on single cell protein, Methods of phytoremediation- Rhizofiltration, phytoextraction, phytostabilization, phytovolatilization, phytodegradation. Students learned about the Basics of plant genetic engineering Gene Cloning. DNA electrophoresis ,fragments ,genetic engineering and nano technology in gene
<p>BO-223: Practical based on theory courses (Paper I and Paper II)</p>	<ul style="list-style-type: none"> • Students will gain a clear understanding of the most advanced plant division i.e. Angiosperms. Understand the floral morphology of angiosperms and different theories related to the evolution of advanced leaf like or floral parts of the plants. Understand in detail practical knowledge on study of plant families and its economic importance Understand the ecological adaptation in hydrophyte and xerophytes with the help of T.S.of plant material. • Practical knowledge on how to measure the abundance, frequency of a species, population or community using quadrat method. • Understand knowledge on different tools of taxonomy and ecological instruments. Acquire knowledge about the PH of soil by PH meter, determine of WHC (Water Holding Capacity) Determination of DPD, Determine rate of transpiration in different condition of environment. Student will gain knowledge about Arc Auxanometer, Curling exp. Imbibition in seed, • Students able to understand the internal structure of monocot and dicot (stem, leaf and root), secondary thickening, anomalous secondary thickening (Dicot and Monocot) and nodal,anatomy.

		<p>Understand the .Study of tetrasporangiate anther and types of</p> <ul style="list-style-type: none"> • ovules. dicot and monocot embryo. Students are capable to become practical knowledgeable in estimation of citric acid by titration method. Acquire knowledge on production of SCP & commercial product, fermentation products, enzyme immobilization. Knowledge on the various taxonomic techniques used in field study and various procedure of plant specimen preservation for further study.
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Department of Economics

Program outcome : B.A. (Economics)

B.A. Economics	<p>➤ 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.</p>
	<p>➤ 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.</p>
	<p>➤ Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.</p>
	<p>➤ Effective Citizenship: Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.</p>
	<p>➤ Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.</p>
	<p>➤ Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.</p>
	<p>➤ Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes</p>
M.A.	<p>➤ Ability to apply the concepts of micro economics such as demand, supply, revenue, cost, elasticity, etc</p>
	<p>➤ Ability to compare and contrast various market structures and understand concept of equilibrium, price determination</p>

Economics	<ul style="list-style-type: none"> ➤ At the end of the course, the student should be able to evaluate microeconomic concepts, models and its use in real life situations.
	<ul style="list-style-type: none"> ➤ Ability to understand, apply and analyze concepts-public debt, budget, fiscal policy in public economics.
	<ul style="list-style-type: none"> ➤ Ability to interpret the theories relating to public economics in real life situations.
	<ul style="list-style-type: none"> ➤ Ability to discuss and debate on the public finance and policies w.r.t. India
	<ul style="list-style-type: none"> ➤ Ability to understand and interpret the concepts such as Balance of Payments, Exchange Rates, Foreign Exchange transactions, International capital flows, etc.
	<ul style="list-style-type: none"> ➤ Ability to critically analyze the effects of deficits, exchange risk, role of foreign capital on the world economy/trade
	<ul style="list-style-type: none"> ➤ Ability to discuss and debate on subjects related to international trade and finance w.r.t the Indian Economy
	<ul style="list-style-type: none"> ➤ Ability to analyze and evaluate the subject with reference to various aspects of Labour economics.
	<ul style="list-style-type: none"> ➤ Ability to develop an understanding of the labour with its intricacies and imperfections and to be able to construct intellectual dialogue on the challenges of labour w.r.t. the Indian Economy.

Program Specific outcome : B.A. (Economics)	
B.A. Economics	1. Understand the behaviour of Maharashtra, India and World economy
	2. Analysis macroeconomic policies including fiscal and monetary policies of India since economic reforms.
	3. Determine economic variables including inflation, unemployment, poverty, GDP, Balance of Payments using statistical methods.
	4. Understand the behaviour of financial and money markets and perform cost-benefit analysis for making investment decisions.
M.A. Economics	1. Ability to analyze and demonstrate knowledge of the basic theories/laws in economics- law of demand, law of supply, production function, etc
	2. At the end of the course, the student should be able to evaluate microeconomic concepts, models and its use in real life situations.
	3. Ability to recognize, apply and analyze concepts and theories in public economics.
	4. Ability to appraise and assess the theory of public economics in real life situations.

	5. Ability to understand the concepts of international economics such as comparative cost, terms of trade, trade policies and trade agreements
	6. Ability to interpret and apply theory relating to understand international trade
	7. Ability to discuss and debate the effects of trade policy, trade agreements, exchange rate policies on the world economy/trade
	8. Ability to analyze and evaluate the subject with reference to various aspects of agrarian economies.
	9. Ability to develop an understanding of agriculture with its intricacies and imperfections and to be able to construct intellectual dialogue on the challenges of agriculture

Course Outcomes (U.G.)

Sr. No.	Class	Course	Course Outcomes
1	FY BA- Sem- I & II	G1- Indian Economic Environment	<ul style="list-style-type: none"> ➤ To familiarize the students with the recent developments in the Indian Economy. ➤ To help the students to prepare for varied competitive examinations ➤ To provide the students with the background of the Indian Economy with focus. Ability to develop an understanding of the economic environment and the factors affecting economic environment. ➤ Ability to develop awareness on the various new developments in the different sectors of an economy – agriculture, industry, services, banking, etc. ➤ Ability to compare and contrast Indian Economy with other world economies.
			<ul style="list-style-type: none"> ➤ To create the awareness of the student of modern banking system. ➤ Understanding of the opportunities of banking their interaction with rest of the economy essential to realize how monetary force operates through multitude of channels.
2	SY BA	S1-Micro Economics	<ul style="list-style-type: none"> ➤ To understand the behavior of an economic agent namely; a consumer, a producer, a factor owner and the price fluctuations in a market. Price formation in different markets structure and the equilibrium of a firm and industry.
		S2-Macro Economics	<ul style="list-style-type: none"> ➤ To understand the economic analysis in terms of theoretical, empirical as well as policy-making issues.
			<ul style="list-style-type: none"> ➤ The objective of the course is to familiarize the students the basic concepts of Macro economics and applications.

3	TY BA	G3- Economic Development & Planning	➤ This paper is devoted to the theories of economics development, approaches to economic development, social and institutional aspects of development, constraints on development process, macroeconomic policies, role of foreign capital and economic planning in developing countries.
		S3- International Economics	➤ Course provides the students a thorough understanding and deep knowledge about the basic principles that tent to govern the free flow of trading goods and services at the global level.
			➤ It trained about the rational of recent challenge in the export import policies of India.
		S4-Public Finance	➤ To understand the policies and operations which involve the use of tax and expenditure measures while budgetary policy. It helps to understand expenditure program, budgetary procedures, stabilizations instruments, debt issues, levels of the government, etc.
4	F.Y. B. Com Sem-I	Business Economics (Micro)	<ul style="list-style-type: none"> ➤ To impart knowledge of business economics ➤ To clarify micro economic concepts ➤ To analyze and interpret charts and graphs ➤ To understand basic theories, concepts of micro economics and their application
5	F.Y. B. Com Sem-II	Business Economics (Micro)	<ul style="list-style-type: none"> ➤ To understand the basic concepts of micro economics. ➤ To understand the tools and theories of economics for solving the problem of decision making by consumers and producers. ➤ To understand the problem of scarcity and choices.
6	S.Y. B. Com	Business Economics (Macro)	<ul style="list-style-type: none"> ➤ To understand the concept, process and importance of communication. ➤ To acquire and develop good communication skills requisite for business correspondence. ➤ To develop awareness regarding new trends in business communication. ➤ To provide knowledge of various media of communication. ➤ To develop business communication skills through the application and exercises.
8	T.Y. B. Com	Indian and Global Economic Development	<ul style="list-style-type: none"> ➤ To acquaint students with the basic concepts, terms & provisions of Mercantile and Business Laws. ➤ To develop the awareness among the students regarding these laws affecting business, trade and commerce.

Course Outcomes (P.G.)

Sr. No.	Class	Course	Course Outcomes
1	MA- Part- I, Sem.-I	1.Micro Economics Analysis-I	<ul style="list-style-type: none"> ➤ To provide a thorough understanding of the principles of economics ➤ • To enable students to apply micro economic concepts in various contexts. ➤ • To enable understanding the basic theories in

			<p>microeconomics such as demand theory, production theory, market structures.</p> <ul style="list-style-type: none"> ➤ • To discuss the modern developments in micro economics such as Modern Demand theories.
		2.Public Economics-I	<ul style="list-style-type: none"> ➤ To develop an understanding of the changing role of the government and the fiscal functions of the modern governments. ➤ • To discuss and deliberate on the concepts and theories in public economies like public policy, principles of taxation, theories of public expenditure, etc. ➤ • To develop an understanding of various policies in public economics like fiscal policy, taxation policy, public debt policy, public expenditure policy etc.
		3.International Trade	<ul style="list-style-type: none"> ➤ • To develop an understanding of the theoretical concept in international trade. • To analyze international economics with reference to terms of trade, trade policy, trade agreements etc. ➤ • To provide knowledge to students regarding recent developments and changes in international banking, international banking agreements etc. ➤ • To make the students understand role of international economic organization and global crisis development.
		4.Agricultural Economics	<ul style="list-style-type: none"> ➤ To develop an understanding of agricultural economics in the theoretical as well as practical context. ➤ • To discuss and debate the various issues and challenges faced by agrarian economies w.r.t. production, productivity, efficiency, employment, etc.
2	MA- Part-I, Sem.-II	1.Micro Economics Analysis-II	<ul style="list-style-type: none"> ➤ • To provide a thorough understanding of the principles of economics ➤ • To enable students to apply micro economic concepts in various contexts. ➤ • To enable understanding the basic theories in microeconomics such as demand theory, production theory, market structures. ➤ • To discuss the modern developments in micro economics such as Game Theory.
		2.Public Economics-II	<ul style="list-style-type: none"> ➤ • To develop an understanding of various policies in public economics like fiscal policy, public debt policy, fiscal finances, etc. ➤ • To help the students to understand the normative policies and compare it with the policies framed and followed by Indian economy. ➤ • To impart information to the students about the reforms like taxation reforms in India
		3.International Finance	<ul style="list-style-type: none"> ➤ • To develop an understanding of the theoretical concept in international financeBalance of Payments, exchange rate policies, capital flows, etc. ➤ • To compare and contrast the scenarios on international trade in India vis-à-vis the world economy. ➤ • To provide knowledge to students regarding recent developments and changes in international banking,

			<p>international banking agreements etc.</p> <ul style="list-style-type: none"> ➤ • To make the students understand role of international economic organization and global crisis development.
		4.Labour Economics	<ul style="list-style-type: none"> ➤ To develop an understanding of labour economics in the theoretical as well as practical context. ➤ • To discuss and debate the various issues and challenges faced by labour with reference to division of labour, employment, wage determination, etc. ➤ • To demonstrate on the various aspects of labour dynamics and labour relations w.r.t. India
3	MA-Part-II, Sem.-III	1.Macro Economics Analysis-I	<ul style="list-style-type: none"> ➤ Course equips the students to understand systematic facts and latest theoretical development for empirical analysis.
		2.Growth &Development-I	<ul style="list-style-type: none"> ➤ This course most important area of the economic exploration in the last 50-60 years. Although relatively recent in origin this subject occupies a significant position in the economic theory and practice. It includes the evaluation of growth models as well as important concept such as poverty, inequality and population dynamics in the context of developing countries.
		3.Modern Banking	<ul style="list-style-type: none"> ➤ Course intends to make students aware about the changing scenario of the modern banking role, structure, performance and the current problem faced by the banking sector in India and also in the world.
			<ul style="list-style-type: none"> ➤ It also covers the future prospects and role of modern banking sector at the global level.
		4.Demography	<ul style="list-style-type: none"> ➤ To understand the importance of population in economic development and various theories that explains the growth of population in a country.
	<ul style="list-style-type: none"> ➤ Gender characteristics, migration and urbanization are the essential to understand the dynamics of this change. 		
4	MA-Part-II, Sem.-IV	1.Macro Economics Analysis-II	<ul style="list-style-type: none"> ➤ This course assumed such a great significance in recent times that a prior understanding of macroeconomics theoretical structure is considered essential of the proper comprehension of the different issues and policies.
		2. Growth & Development-II	<ul style="list-style-type: none"> ➤ India beginning a developing country this subject becomes extremely relevant for current situation. It includes the practical aspects of process of growth and development including the role of agriculture and industry, external trade and resources mobilization and the role of the state and the markets.
		3.Research Methodology	<ul style="list-style-type: none"> ➤ Course provides extension and application of knowledge in a current specialized field. To get exposed to a few elements of social science research. Elementary knowledge of research methodology consolidated and depend their understanding of various branches of economics.

		4.Economics of Environment	➤ The course attempts to sensitize the students about the dynamics of changes in the Rural Economy. It includes the study of problems faced by rural population and also includes the critical review of various schemes and projects that benefit the rural population. In this course the students are also made capable to understand the process of rural development and problems of rural development.
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Department of Geography

Program Outcome: B.A. (Geography)	
1.	The bachelor program in geography is tailored to meet the students specific educational and professional goals in mind.
2.	During the first year of the program, the students are trained on advanced concepts of physical and human geography.
3.	The second year allows them to concentrate on specific areas of the subject, on which they complete their field reports.
4.	Develop the general understanding of global human population pattern factor influencing the distribution and mobility of human population including settlement and economic activities and human impacts on the physical environment.
5.	Read, interpret and generate maps and other geographic representations as well as analyze and present information from a special perspective.
6.	Evaluate cultural social physical and environmental process with a particular focus on space and place.

Program Specific Outcome: B.A. (Geography)	
1.	The study of Physical Geography helps to gain an insight into the processes of landform development and geomorphic hazards. A possible outcome is that students could be able to minimize the intensity of such hazards and monument of related events.
2.	The branches of Human Geography make them capable of identifying the development prerogatives of regions and applying them in formulation of regional development plans.
3.	The study of Practical Geography prepares them in the field survey and Planning of region. Students could make outline and map of local region which is very useful in planning and Land use study.
4.	Geography introduces the students to the characteristics of soil regions, floral and faunal regions. This holistic knowledge makes them capable of assessing and

	developing forestry projects, biodiversity conservation plans and probable land use policies of rural areas.
5.	Demonstrate knowledge of physical and culture features of the earth and locate them on the map.
6.	Know the basic concepts and terminologies used in Geography like interior of the earth , plate tectonic , sea floor spreading , population growth , disasters, composition and structure of atmosphere , hydrosphere, etc.
7.	Know about the basic disciplines of Geography and its sub branches.
8.	Differentiate between minerals and rock , weather and climate, interior of the earth , basic industries , farming etc.
9.	Get information about the causes and the effect of local, national and International problems like global warming, acid rain, ozone depletion, soil Degradation , deforestation etc.
10.	Handle topographical and weather maps and interpret them.
11.	Identify types of rocks.
12.	Know about Geographical Information System (GIS) and Remote Sensing (RS).

Course Outcome: B.A. (Geography)

Class	Course title	Outcome
F.Y.B.A	Sem I 110(A) Physical Geography	<ol style="list-style-type: none"> 1) Students are introduced to the basic concepts in Physical Geography. 2) Students are introduced to the various geographical features.
	Sem II 110(B) Human Geography	<ol style="list-style-type: none"> 1) Students are introduced to basic concepts in Human Geography. 2) The Geographical maturity of students in their current and future courses shall develop. 3) The students develops theoretical , applied and computational skills .
F.Y.B.Com	Sem I and Sem II Elements of commercial Geography-I and II	<ol style="list-style-type: none"> 1) Students are understand the scope and content of Commercial Geography in relation to the spatial distribution of resources. 2) Students are acquainted with the dynamic nature of Commercial Geography. 3) Students are aware about the relationships between geographical factors and economic activities.

S.Y.B.A (G2)	(Yearly) Elements of Climatology and Oceanography (2207)	<ol style="list-style-type: none"> 1) Students are introduced to the basic principles and concepts in Climatology and Oceanography. 2) Students are acquainted with the applications of Climatology and Oceanography in different areas and environment. 3) Students are aware about the Planet Earth and thereby to enrich their knowledge.
S.Y.B.A (S1)	(Yearly) Tourisms Geography (2208)	<ol style="list-style-type: none"> 1) Students are acquainted basic concepts of Geography and Tourism. 2) Students are aware with the utility and application of Tourism. 3) Students are understand the impact of tourism on Physical and Human Environments.
S.Y.B.A (S2)	(Yearly) Fundamentals of Geographical Analysis (2209)	<ol style="list-style-type: none"> 1) Students are acquainted with the basic of Statistical data. 2) Students are acquainted with the principles of surveying , its importance and utility in the geographical study. 3) Students are familiar to the various Projections and Cartographic Techniques.
T.Y.B.A (G3)	(Yearly) Regional Geography Of India (3207)	<ol style="list-style-type: none"> 1) Students are acquainted with Geography of our nation. 2) Students are aware about the magnitude of problems and Prospects at National level. 3) Students are understand the inter relationship between the subject and society. 4) Students are understand the recent trends in Regional studies.
T.Y.B.A (S3)	(Yearly) Agricultural Geography (3208)	<ol style="list-style-type: none"> 1) Students are introduced to Agricultural activities and its relation with Geography. 2) Students are familiarized with new modern technical methods and their applications in agricultural activities. 3) Students are able to apply the previously knowledge in problems and prospects in agriculture.
T.Y.B.A (S4)	(Yearly) Techniques Of Special Analysis (3209)	<ol style="list-style-type: none"> 1) Students are introduced with SOI Toposheets and to acquire knowledge of Toposheet Reading/Interpretation. 2) Students are familiarized with the weather instruments and their applications in Geographical phenomena. 3) Awareness about GIS was created among the students.

Department of English

Program outcome : B.A. (ENGLISH)	
	To acquire the knowledge of Social Sciences mental moral Sciences languages
	To make aware the literary tradition and the new changes and up gradation in the field of language study
	To acquire sufficient knowledge regarding the human psychology and behaviour and to adopt the knowledge for practical.
	To find out proper remedies on the situations and questions arise in society regarding on equality vanishing human values like universal brotherhood
	To make responsible citizens and follow the human values for upbringing of unequal Strata

Program Specific outcome : B.A. (ENGLISH)	
	To introduce Various forms of literature like novel drama poetry
	To learn and analysis the different cultures in in each and every corner of the world
	Study of literary movement in different ages
	Develop grammatical knowledge and spectacle use
	Today develop and upgrade the knowledge of communication skills and its uses in practical life for success in the field of employment and business

Course outcome : B.A. (ENGLISH) Semester 1

Class	Course Title	Outcome
FYBA 2019 CBCS PATTERN	ENGLISH COMPULSORY 13001	A. To learn the art of writing B. To study the different writes C. To learn and create interest towards poetry D. To upgrade the communication skills E. To learn basic language skills
	ENGLISH GENERAL 1	A.to develop basic qualities of human being B. To develop interest towards the language C. To make aware the cultural diversity D. To aware the concerns of human life E. The develop the struggle and positive attitude
SYBA 2013 PATTERN	ENGLISH COMPULSORY 2017	A. To learn the art of writing B. To develop the students for self reliance and learning C. To learn and create interest towards poetry D. To upgrade the communication skills E. To learn basic language skills
	ENGLISH GENERAL 2 2337	A. To aware and learn basic short forms of literature B. To understand the literary importnae of short story poetry C. To understand the science of languagec D. To understand the mechanism of language E. To uderstand the components forming the word and language
	ENGLISH SPECIAL 1 2338	A. To understand the term of drama and study the form B. The literary and the performing dimensions of drama. C. To encourage students to make detail study of masterpieces and understand the social settlements D. To enhance student's awareness regarding vivid phases and styles
	ENGLISH SPECIAL 2 2339	A. To make aware the student sto the terms and concepts in the poetry. B. To prepare students for practical criticism to poetry C. To understand the various types and its peculiarities D. To make aware students the asthetic approach of poetry E. To develop the individual concern to study the stules of poets
TYBA 2013 PATTERN	ENGLISH COMPULSORY 3017	A. To develop the student to use basic tips for communication B. To prepare the students for practice of language C. To introduce the students to the styles of writing D. To practise the grammar E. To develop the communication skills
	ENGLISH GENERAL 3 3337	A.to aware the types of poetry B. To develop awareness regarding indian poetry and its subject vaiety C. To understand and the practice of the creative use of language D. To increase the interest among the student to advance study of the language E. To prepare student for detail study of literature and language
	ENGLISH SPECIAL 3 3338	A. To introduce students to the basics of novel as a literary form B. To expose students to the historical development and nature of novel C. To develop literary sensibility and sense of cultural diversity in students D. To make students aware of different types and aspects of novel

		E.To expose students to some of the best examples of novel
	ENGLISH GENERAL 4 3339	A. To introduce students to the basics of literary criticism B. To make them familiar with the significant critical approaches and terms C. To develop aptitude for critical analysis D. To make them aware of the nature and historical development of criticism E.To encourage students to interpret literary works in the light of the critical approaches
FYB Com 2019 CBCS PATTERN	Compulsory English	A. To offer relevant and practically helpful pieces of prose and poetry to students so that they not only get to know the beauty and communicative power of English but also its practical application B. To expose students to a variety of topics that dominates the contemporary socioeconomic and cultural life C. To develop oral and written communication skills of the students so that their employability enhances D.To develop overall linguistic competence and communicative skills of students
	Additional English	A. To expose students to a good blend of old and new literary extracts having various themes that are entertaining, enlightening and informative so that they realize the beauty and communicative power of English B. To make students aware of the cultural values and the major problems in the world today C. To develop literary sensibilities and communicative abilities among students D. To learn and create interest towards prose and poetry.
SYB Sc. 2013 PATTERN	English	A. To introduce the vivid perspectives of writers through thier short stories B. To acquaint and familiarize students the human tendency in various situations. C. To acquaint the students with grammar and the language skills in multivalent contexts D To acquaint and familiarize the students with advanced writing skills in different contexts E. To acquaint and enlighten students regarding the speaking skill in various contexts F. To minimize the gap between the existing communicative skills of the students and the skills they require at professional level

SYB Sc. (B C S) 2013 PATTERN	English	A. To introduce the vivid perspectives of writers through their short stories B. To acquaint and familiarize students the human tendency in various situations. C. To acquaint the students with grammar and the language skills in multivalent contexts D To acquaint and familiarize the students with advanced writing skills in different contexts E. To acquaint and enlighten students regarding the speaking skill in various contexts F. To minimize the gap between the existing communicative skills of the students and the skills they require at professional level
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Course outcome : B.A. (ENGLISH) Semester 2

Class	Course Title	Outcome
FYBA 2019 CBCS PATTERN	ENGLISH COMPULSORY 13001	A. To aware students for basic humsn tendencies B. To study baisc behaviour of human in literature C. To increase interest towards the writing of the writers D. To practise the basic grammar E.to practise and develop basic concept of communication
	ENGLISH GENERAL 1	A. To understand the form of writing B. To study the style of writing C. To understand the human nature in literature D. To understand the nature of language E. To improve language skills
SYBA 2013 PATTERN	ENGLISH COMPULSORY 2017	N.A.
	ENGLISH GENERAL 2337	N.A.
	ENGLISH SPECIAL 1 2338	N.A.
	ENGLISH SPECIAL 2 2339	N.A.
TYBA 2013	ENGLISH COMPULSORY 3017	N.A.
	ENGLISH GENERAL 3 3337	N.A.
	ENGLISH SPECIAL 3 3338	N.A.

PATTERN	ENGLISH SPECIAL 4 3339	N.A.
FYB Com 2019 CBCS PATTERN	Compulsory English	A. To make students aware of the cultural values and the major problems in the world today B. To learn and create interest towards prose and poetry C. To develop literary sensibilities and communicative abilities among students D. To expose students to a variety of topics that dominates the contemporary socioeconomic and cultural life E. To develop overall linguistic competence and communicative skills of students
	Additional English	A. To offer relevant and practically helpful pieces of prose and poetry to students so that they not only get to know the beauty and communicative power of English but also its practical application. B. To expose students to a good blend of old and new literary extracts that is entertaining and informative so that they realize the beauty and communicative power of English. C.. To develop oral and written communication skills of the students so that their employability enhances . D. To study basic behaviour of human literature.
SYB Sc. 2013 PATTERN	English	N.A.
SYB Sc. (B C S) 2013 PATTERN	English	N.A.

[Department of Hindi](#)

Program Outcome: B.A. (Hindi)	
1.	Student seeking admission for B.A. programme is expected to imbue with following quality which helps them in their future life to achieve the expected Goals.
2.	Realization of human values.
3.	Sense of social service.
4.	Responsible and dutiful citizen.
5.	Creative ability.

Program Specific Outcome: B.A. (Hindi)	
1.	To understand the basic concept and subject of Hindi & its origin.
2.	To make the importance of subject Hindi & its Branches.
3.	To understand various aspect of Hindi literature with a process to reach method and giving new mode and direction
4.	To make attempt in different area and theory such as vocabulary and vice versa
5.	To understand in the Literature more in a border areas then merely confined to subject
6.	To know about Hindi literature its roots cause perspectives and methods.
7.	Elaborating and understanding its philosophical methods of Hindi Literature.
8.	Evaluating the concept of Hindi from past to present and making the society more closely through literature

Course Outcome: B.A. (Hindi)		
Class	Course title	Outcome
F.Y.B.A	Sem I Vaikalpik Hindi 11091 A	1. Hindi poetry literature is developed to students 2. Awareness about Hindi story Literature 3. Communication skills through Hindi language is developed 4. Original writing trends is increased 5. Advertisement writing skills is developed 6. Translation information is provides 7. Relative information is provided. 8. Awareness about Hindi computing is developed.
	Sem II Vaikalpik Hindi 11091 B	1. Hindi poetry literature is developed to students 2. Awareness about Hindi story Literature 3. Essay writing skill is developed. 4. Advertisement writing skills is enhanced.

S.Y.B.A	Kahani, Kavya avum Lekhan G-2 2097	<ol style="list-style-type: none"> 1. Students are introduced to representatives of stories and poem 2. Introduction of specialty of new stories and poetry 3. Official and Professional knowledge of Hindi is enhanced 4. Advertisement writing skills, technical, interview knowledge is enhanced . 5. Knowledge of word combination is developed.
S.Y.B.A	Hindi Bhasha Ka Vikas S-1 2098	<ol style="list-style-type: none"> 1. Students are introduced to specific definition and different forms of language. 2. Students are introduced to spoken Hindi language and language development 3. Students are introduced to the organization where official and constitutional use of Hindi Language is adopted 4. Scientific teaching of language is developed in students 5. Different parts and branches of language science is introduced to students 6. Students are made aware to correlate language science with Science 7. Information about different forms, origin history and scientific knowledge of devanagari script is given to students.
S.Y.B.A	Upanyas, natak tatha Madhyayugin Hindi kavya S-2 2099	<ol style="list-style-type: none"> 1. Review and norms of hindi novels are developed in students 2. Inadvertent of hindi novels and plays are developed in students. 3. Students are introduced to poetry of Medieval saints and Devotee 4. Students are familiar to contribution and dimensions made by different representative poem from Medieval period 5. Through medium of literature work beauty and craft of literature is introduced.

T.Y.B.A (G3)	Hindi Sahitya 3097	<ol style="list-style-type: none"> 1. Students get knowledge about biography, long poetry and drama. 2. Official and Professional knowledge of Hindi is enhanced. 3. Letter writing, Application drafting in Government offices is developed. 4. Skill of Letter drafting is enhanced. 5. Effectiveness and skill of translation of English to Hindi is developed.
T.Y.B.A (S3)	Hindi Sahitya ka Itihas 3098	<ol style="list-style-type: none"> 1. Student are aware about history about the Hindi Literature 2. Student are aware about naming about different period and background about history of Hindi Literature 3. The students are well known with representative writing, importance of writing, accountability with previous and post effect 4. Students are introduced toward development sequence and reasons for changes in literature 5. Through history of Hindi literature, the relation between literature and era of life is clarified 6. The changes in social, political, religious, aortic condition in modern era and perspective in changes of Hindi Literature are explained to students.
T.Y.B.A (S4)	Kavyashastra 3099	<ol style="list-style-type: none"> 1. Students gain the knowledge regarding poetry, literature and from different terminology different forms of poetry along its purpose is given 2. Students gain knowledge in elements of poetry, forms of poetry and word power 3. Student know about ornamentation, different hobbies are illustrated 4. Students become well familiar with drama, one act play, different gesture, essay writing are known. 5. Different gesture, forms are known to students 6. Students get familiar with different types of criticism, use of criticism and quality of criticism.

Department of Marathi

Program outcome : B.A. (Marathi)	
1.	विशिष्ट कालखंडाच्या पाश्र्वभूमीवर साहित्यामागील प्रेरणा प्रवृत्तींचे ज्ञान करून घेतो.
2.	चिकित्सक अभ्यासाची क्षमता विकसित होते .
3.	जागतिकीकरणात विविध क्षेत्रांना सामोरे जाण्यासाठी भाषिक क्षमता विकसित करणे.
4.	विविध प्रकारची लेखन कौशल्ये विकसित करणे
5.	आस्वाद घेण्याची क्षमता विकसित करणे .
6.	साहित्य व्यवहार व प्रकाशन व्यवसायाचे स्वरूप समजते .
7.	समीक्षा करण्याची दृष्टी व क्षमता विकसित होते .

Program outcome : M.A (Marathi)	
1.	विद्यार्थ्याला आपल्या आवडीचे संशोधनाचे क्षेत्र निश्चित करता येते.
2.	मराठी भाषा आणि साहित्याचे प्रगत ज्ञान प्राप्त होते.
3.	समकालीन साहित्य प्रवाहांचे नीट आकलन होते.
4.	साहित्य प्रश्नाविषयी विचार करण्याची जाण निर्माण होते.
5.	साहित्य आणि जीवन विषयक जाणीव परिपक्व.
6.	चिकित्सक अभ्यासाची क्षमता विकसित होते.
7.	विद्यार्थ्याला लेखन गुणांना उत्तेजन मिळते.

Program Specific Outcome B.A Marathi	
1.	मराठी साहित्यातील भिन्न-भिन्न प्रवाह आणि प्रकार लक्षात घेणे.
2.	विद्यार्थ्यांच्या साहित्य अभिरुचीचा विकास करणे.
3.	संशोधनाची संकल्पना, प्रयोजने आणि विविध संशोधन पद्धती समजावून घेतो .
4.	व्यक्तिमत्व विकासासाठी भाषिक कौशल्ये विकसित करणे.
5.	प्रसारमाध्यमांसाठी विविध प्रकारची लेखन कौशल्ये आत्मसात करणे.

Program Specific Outcome: M.A (Marathi)	
1.	विशिष्ट कालखंडातील साहित्याच्या व्याप्तीबद्दल जाण निर्माण होण्यास मदत होते.
2.	विषयाच्या चिकित्सेची समज वाढविणे.
3.	साहित्य कृतीच्या साहित्यप्रकाराच्या तौलनिक अभ्यासाबाबत दिशा , व्याप्ती आणि मर्यादा यांची समज निर्माण होण्यास मदत करणे, अशा अभ्यासाची क्षमता वाढविणे.
4.	साहित्याच्या व्यवच्छेदक लक्षणाबाबत विचारांची आणि साहित्याच्या मूल्यमापनाची सवय लावणे.

Course outcomes of B.A. (Marathi)

Class	Course title	Outcome
FYBA	MAR 10021 व्यावहारिक आणि उपयोजित मराठी सामान्य स्तर – 1. भाग १,२ Sem I & II Pattern 2019	<ol style="list-style-type: none"> 1. मराठी साहित्य, मराठी भाषा आणि मराठी संस्कृती यांचा क्रमशः परिचय करून घेतो. 2. मराठी साहित्यासंबंधी रूची निर्माण होते. 3. वाङ्मयीन अभिरूचीचा विकास होतो. 4. मराठी साहित्यातील भिन्न भिन्न प्रवाह व प्रकार लक्षात येतात. 5. व्यक्तिमत्त्व विकासात भाषेचे महत्व स्पष्ट होते. 6. व्यावहारीक भाषेचे उपयोजन करता येईल.
FYBCom	Code - 117 भाषा, साहित्य आणि कौशल्य विकास. भाग 1,2 Sem I & II Pattern 2019	<ol style="list-style-type: none"> 1. भाषा व साहित्य यांचे उपयोजन करता येईल. 2. भाषिक कौशल्यांची जाण निर्माण होईल. 3. व्यवहार भाषेचे महत्त्व समजेल . 4. भाषा व्यवहारात भाषेचे आदान प्रदान. 5. भाषिक कौशल्यांचा विकास साधता येईल.
SYBA	MAR 2027 आधुनिक मराठी आणि उपयोजित G-2 Pattern 2013	<ol style="list-style-type: none"> 1. आत्मचरित्रात्मक वेच्यांचे आकलन आस्वाद आणि मूल्यमापन करण्याची क्षमता विकसित होते. शुद्धलेखनाची ओळख होते. 2. पारिभाषिक संज्ञांचा परिचय होतो. 3. चरित्र, आत्मचरित्र या साहित्यप्रकारांच्या तात्विक घटकांचे ज्ञान प्राप्त होते. 4. मराठीतील निवड चरित्र, आत्मचरित्रांची ओळख होते.
SYBA	MAR 2028 मराठी साहित्यातील विविध साहित्यप्रवाह विशेष स्तर - 1 Pattern 2013	<ol style="list-style-type: none"> 1. मराठी साहित्यातील तात्विक घटकांचे ज्ञान प्राप्त होते. 2. वेगवेगळ्या कालखंडातील मराठीतील अभिजात साहित्यकृतींचा संस्कार घडतो. 3. साहित्याविषयीची अभिरूची निर्माण होते. 4. साहित्यकृतीला मुक्त प्रातिसाद देण्याची क्षमता निर्माण होते.

		5. साहित्यकृतीचे आकलन, आस्वाद आणि मूल्यमापन करण्याची क्षमता विकसित होते.
SYBA	MAR-2019 मध्ययुगीन मराठी साहित्याचा इतिहास 1818 ते 1960 विशेष स्तर - 2 Pattern 2013	1. अभ्यासाच्या प्रारंभी विद्यार्थी मराठी साहित्याच्या ऐतिहासिक परंपरेचे ज्ञानप्राप्त करून घेतो. 2. विशिष्ट कालखंडाच्या पाश्चिमात्य साहित्यामागील प्रेरणा प्रवृत्तीचे ज्ञान करून घेतो. 3. साहित्यप्रकारांच्या विकसनशील परंपरेचे स्थूल ज्ञान करून घेतो. 4. विद्यार्थी पदव्युत्तर अभ्यास करण्याची तयारी करतो.
TYBA	MAR- 3027 आधुनिक मराठी साहित्य आणि व्यवहारिक व उपयोजित मराठी सामान्य स्तर – 3 Pattern 2013	1. आधुनिक मराठी साहित्यातील विविध साहित्यप्रकारांचा परिचय होतो. 2. साहित्याबद्दलची अभिरूची विकसित होऊन कलाकृतीचा आस्वाद घेण्याची क्षमता विकसित होते. 3. भाषेचे यथोचित आकलन करून तिचा वापर करण्याची क्षमता विकसित होते. 4. निबंध व प्रवासवर्णन या साहित्यप्रकारांचे ज्ञान मिळते.
TYBA	MAR- 3028 साहित्यविचार- विशेष स्तर 3 Pattern 2013	1. साहित्याचे स्वरूप समजून घेतो. 2. वाङ्मयीन मूल्यांचा परिचय होतो. 3. साहित्याची प्रयोजने जाणून घेतो. 4. साहित्य आणि समाज यांच्यातील परस्पर संबंध समजून घेतो. 5. साहित्य निर्मितीची तत्वे जाणतो
TYBA	MAR- 3029 भाषाविज्ञान- विशेष स्तर-4 Pattern 2013	1. भाषेचे स्वरूप व कार्य, भाषेच्या अभ्यासाचे महत्व, भाषेच्या प्रमुख अंगांचा परिचय करून घेतो. 2. भाषेचे मानवी जीवनातील कार्य व महत्व जाणून घेतो. 3. वेगवेगळ्या भाषाभ्यास पध्दतीचे वेगळेपण व महत्व जाणून घेतो. 4. मराठी भाषेचा उत्पत्तीकाल जाणून तत्कालीन भाषिक स्थित्यंतराचा परिचय होतो. 5. मराठी भाषेचा ऐतिहासिक परिचय होतो.

SYBSc-	MAR 83111, 83112 मराठी विज्ञान साहित्य आणि व्यवहारिक मराठी Sem I & II Pattern 2013	<ol style="list-style-type: none"> 1. मराठी विज्ञान साहित्याची अभिरूची निर्माण होते 2. वैज्ञानिक जाणिवा निर्माण होतात. 3. विज्ञान, उद्योगातील विविध प्रवाह संधी इ. चा परिचय होतो. 4. लेखन, वाचन, आकलन संभाषण ही भाषिक कौशल्ये विकसित होतात. 5. वैज्ञानिक कार्यालयीन व्यावसायिक माहिती घेऊन पारिभाषिक संज्ञांची ओळख होते.
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Course Outcomes of M.A (Marathi)
Semester I

Class	Course title	Outcomes
M.A -I	MAR- 10401 भाषा व्यवहार आणि भाषिक कौशल्य भाग-1 Pattern 2019	<ol style="list-style-type: none"> 1. विविध स्तरावरील भाषिक कौशल्ये व क्षमता विकसित होते. 2. भाषाव्यवहाराचे औपचारिक आणि अनौपचारिक क्षेत्रनिहाय स्वरूप समजते. 3. व्यक्तिमत्व विकासासाठी भाषिक कौशल्ये आत्मसात होतात. 4. प्रासारमाध्यमांचे स्वरूप व त्यासाठी भाषाव्यवहाराचे स्वरूप लक्षात येते.
M.A -I	MAR -10402 मराठी साहित्याचा इतिहास 1818 ते 1920 Pattern 2019	<ol style="list-style-type: none"> 1. प्राचीन धर्मपंथ संप्रदाय व वाङ्मय यांचे परस्पर संबंध समजून घेतो. 2. राजकीय स्थित्यंतरे आणि मराठी साहित्य निर्मितीतील संबंध जाणून घेतो. 3. मराठी संत परंपरेचे योगदान व महत्व जाणतो. 4. महानुभाव संप्रदायाचे कार्य जानतो.
M.A -I	MAR-10403 ऐतिहासिक भाषाविज्ञान Pattern 2019	<ol style="list-style-type: none"> 1. स्वनिम निर्मितीची प्रक्रिया समजावून घेतो 2. वागिद्रियाची रचना व कार्य समजावून घेतो. 3. वाक्यविन्यास व अर्थविन्यास संकल्पनांचा भाषेचे वेगळेपण व महत्व जाणून मानवी जीवनातील कार्य व महत्व जाणून मानवी जीवनातील कार्य व महत्व जाणून घेतो. 4. वेगवेगळ्या भाषाभ्यास पध्दतीचा परिचय होतो.
M.A-I	MAR-10404 ग्रामीण साहित्य Pattern 2019	<ol style="list-style-type: none"> 1. स्वातंत्र्य प्राप्ती नंतरच्या कालखंडात ग्रामीण साहित्याच्या निर्मितीची कारणपरंपरा समजावून घेतो. 2. ग्रामीण साहित्याचे स्वरूप व कार्य यांची चिकित्सा करतो. 3. ग्रामीण साहित्यातील विविध वाङ्मयप्राकारांचा विकास कसा होत गेला याचे मूल्यमापन करतो. 4. ग्रामीण साहित्याने दिलेले योगदान, त्याच्या विकासाची गती, दिशा यांची मीमांसा करतो.

Semester II

M.A -I	MAR-20401 भाषाव्यवहार आणि भाषिक कौशल्य भाग - 2 Pattern 2019	<ol style="list-style-type: none"> 1. व्यवहार व प्राकाशन व्यवसायाचे स्वरूप समजते. 2. मुलाखत लेखनाची तंत्रे व कौशल्ये यांचा वापर करता येतो. 3. अर्जलेखन आणि पत्रलेखनाचा व्यवहारिक वापर करता येतो. 4. भाषांतर आणि अनुवादप्राकिया यांची तात्विक व व्यावहारिक माहिती मिळते. 5. निवेदन कौशल्याची माहिती होते.
M.A-I	MAR-20402 मराठी साहित्याचा इतिहास: 1920 ते 2010 Pattern 2019	<ol style="list-style-type: none"> 1. मराठी साहित्यातील विविध धर्मसंप्रदायाचे महत्व जाणतो. 2. मराठी साहित्यातील राजकिय स्थित्यंतरांचे स्वरूप समजून घेतो. 3. पंडिती काव्याची वैशिष्ट्ये जाणतो. 4. शाहिरी काव्याचे महत्व जाणतो.
M.A-I	MAR-20403 समाज भाषाविज्ञान Pattern 2019	<ol style="list-style-type: none"> 1. समाजातील भाषा उपयोजनातील विविधता समजावून घेतो. भाषा आणि समाज यांचे परस्पर संबंध जाणतो. 2. सामाजिक भाषाविज्ञानाची नवी संकल्पना जाणतो. 3. भाषा आणि विविध क्षेत्रीय वापराचे महत्व समजून घेतो. 4. प्रामाणभाषा आणि परभाषा संपर्काचे स्वरूप जाणतो.
M.A-I	MAR-20404 दलित साहित्य Pattern 2019	<ol style="list-style-type: none"> 1. स्वातंत्र्य प्राप्ती नंतरच्या कालखंडात दलित साहित्याच्या निर्मितीची कारणपरंपरा समजावून घेतो. 2. दलित साहित्याचे स्वरूप व कार्य यांची चिकित्सा करतो. 3. दलित साहित्याने निर्माण केलेल्या विविध वाङ्मयप्राकारांच्या विकासाचे मूल्यमापन करतो. 4. दलित साहित्यातून व्यक्त होणा-या वेदनांचे व विद्रोहाचे स्वरूप जाणून घेतो.

Course Outcomes of M.A (Marathi)
Semester III

Class	Course title	Outcome
M.A-II	MAR-30431 प्रसारमाध्यमे आणि साहित्यव्यवहार Pattern 2013	<ol style="list-style-type: none"> 1. संधी मिळविण्याची भाषिक क्षमता विकसित होते 2. मुद्रित माध्यमातील विविध कौशल्ये प्रसारमाध्यमातील लेखन कौशल्य आत्मसात करतो. 3. प्रसारमाध्यमांचे समाजातील महत्व जाणतो. 4. प्रसारमाध्यमात सेवेची संधी आत्मसात करतो. 5. विविध कलांच्या आस्वाद प्राकिया जाणून घेतो.

M.A-II	MAR 30432 साहित्य: समीक्षा आणि संशोधन Pattern 2013	<ol style="list-style-type: none"> 1. प्रसारमाध्यमातील लेखन कौशल्य आत्मसात करतो. 2. प्रसारमाध्यमांचे समाजातील महत्व जाणतो. 3. प्रसारमाध्यमात सेवेची संधी मि.विण्यासाठी भाषिक क्षमता विकसित होते. 4. मुद्रित माध्यमातील विविध कौशल्ये आत्मसात करतो. 5. विविध कलांच्या आस्वाद प्राक्रिया जाणून घेतो.
M.A-II	MAR 30432 साहित्य: समीक्षा आणि संशोधन Pattern 2013	<ol style="list-style-type: none"> 1. एकाच लेखकाचे वाङ्मयीन आकलन, लेखकाच्या व्यक्तिमत्त्वाची जडणघडण समजून घेतो. 2. लेखकाचा काळ व त्याची साहित्यनिर्मिती यातील संबंधाचा शोध व त्याद्वारे लेखनातील कालतत्व व चिरंतनतत्व यांचा मागोवा घेतो. 3. साहित्य निर्मितीतील वैविध्य व त्यातील लेखकाचे स्थान व वाङ्मयीन योगदान समजावून घेतो.
M.A-II	MAR-30434 लोकसाहित्याची मुलतत्वे आणि मराठी लोकसाहित्य Pattern 2013	<ol style="list-style-type: none"> 1. लोकसाहित्याचे स्वरूप समजून घेतो. 2. लोकसाहित्याची व्यापकता व सर्वसमावेशकता समजून घेतो. 3. लोकसाहित्यातील विविध प्रकार समजावून घेतो. 4. लोकसाहित्यातील सामाजिक, धार्मिक, सांस्कृतिक जाणिवा स्पष्ट होतात.

Semester IV

M.A-II	MAR-40431 प्रसारमाध्यमे आणि साहित्यव्यवहार Pattern 2013	<ol style="list-style-type: none"> 1. वृत्तसंकलनाची प्रक्रिया जाणून घेतो. 2. जाहिरात लेखनाची कौशल्ये विकसित होतात. 3. विविध माध्यमांच्या पटकथा लेखनाचे कौशल्य आत्मसात करतो. 4. विविध साहित्यप्रकारांचे स्वरूप आणि संकल्पना समजून घेतो. 5. रूपांतर कौशल्ये आत्मसात करून घेतो.
M.A-II	MAR-40432 साहित्य: समीक्षा आणि संशोधन Pattern 2013	<ol style="list-style-type: none"> 1. समीक्षा करण्याची दृष्टी व क्षमता विकसित होते. 2. संशोधनाची संकल्पना, प्रायोजने आणि विविध संशोधन पध्दती समजावून घेतो. 3. वाङ्मयीन संशोधनाच्या विविध अभ्यासक्षेत्रांचा परिचय होती. 4. आंतर्विद्याक्षेत्रीय संशोधनाचे स्वरूप आणि महत्व लक्षात येते. 5. संशोधन करण्याची दृष्टी व क्षमता विकसित होते.

M.A-II	MAR-40433 विशेष लेखकाचा अभ्यास Pattern 2013	<ol style="list-style-type: none"> विविध कलाकृतीतून लेखकाचे योगदान व त्याचे तौलनिक आकलन करून घेतो. मध्ययुगीन वारकरी संत परंपरा व तिचे स्वरूप समजावून घेतो. मध्ययुगीन कालखंडातील सामाजिक, सांस्कृतिक व धार्मिक पर्यावरण जाणून घेतो. आधुनिक कालखंडातील लेखनाच्या प्रेरणा जाणतो. आधुनिक लेखकांची वैशिष्ट्ये जाणतो.
M.A-II	MAR-40434 लोकसाहित्याची मुलतत्वे आणि मराठी लोकसाहित्य Pattern 2013	<ol style="list-style-type: none"> जागतिकीकरणातील लोकसाहित्याचे व लोककलेचे महत्व समजून घेतो. लोकसाहित्याचे इतिहास, पुरातत्वशास्त्र, मानसशास्त्र, भाषाशास्त्र, मानववंशशास्त्र, धर्म शास्त्र इ. शास्त्रांशी असलेला अनुबंध समजून घेतो.. मराठी लोकसाहित्याचे विविध कलाविष्कार जाणतो. मराठी लोकसाहित्य अभ्यासकांची परंपरा जाणतो.

Department of Political Science

Program Outcome :- B.A.-2019-20 (Political Science)

a.	Realization of human value.
b.	Sense of social service.
c.	Responsible and dutiful citizen.
d.	Creative ability.
e.	To Understand the contribution and philosophy of Constitution of India for Good Citizens.
f.	To make Citizens participate in structure of Local Self Government of Maharashtra.
Program Specific Outcomes :- B.A.2019-20 (Political Science)	
1	Understand the contribution of the main tradition in the political thought of Western political thinkers.
2	Understand the processes and dynamics of Indian government and politics. It also familiarize with the vital contemporary emerging issues of centre-state relation, political parties, emergence of new leadership at different levels, demand for autonomy movement, ethnic conflicts etc.
3	Acquaint with the basic concepts, principles and dynamics of public administration.
4	Familiarise with important theories and issues of international relations.
5	Understand the basic concept and ideological orientations of political discipline.
6	Understand the contribution of the main traditions of Indian Political Thought.
7	An understanding the evolution, development and trends of India's foreign policy.
8	Acquaint with the basics of International Law and the new trends in the realm of International law.
9	Understand the basic concept and issues concerning human rights and challenges.
10	Understand the women's issues and problems.
11	Familiarise with the problems and prospects of rural development in India.
12	Understand the cultural, social, political, economic and constitutional environment as a historical perspective of Indian Administration.

Department of Political Science

Course Outcomes Class:- B.A. (Political Science) Sem.1 & 2		
Class	Course -Code/ Title	Course Outcome - Sem.1 & 2
FYBA	G-1 Code--11161A-Poli.Sci.G-1 (Pattern-2019) Paper-(Introduction to Indian Constitution)	1. The students are acquainted with the important features of the Constitution of India .
		2. The student is aware with the basic framework of Indian Government .
		3. The students becomes familiar to the working of the Constitution of India .
		4. Students can know the different ideological standpoints to various concept and theories that are critically explained .
S.Y.B.A.	(2167) Poli.Sci-Gen-2 (Pattern-2013) Paper- (Political Theory and Concepts)	Course outcomes Class: -S.Y.B.A. General (Yearly)
		1. Students are introduced to concepts, ideas and theories in political science .
		2. Students are familiar to evolution and usage, ideas and theories with reference to individual thinkers both historically and analytically.
		3. Students can know the different ideological standpoints to various concept and theories that are critically explained .
S.Y.B.A.	(2168)-Poli.Sci.Spe1 (Pattern-2013) Paper- (Western Political Thought)	Course outcomes Class: -S.Y.B.A. Special (Yearly)
		1. Students are introduced to the classical tradition in political theory from Plato to Marx from the point of view of analysis and understanding of political events and the problems of their time.
		2. Students are aware about the negligence of women's concerns and issues
		3. Students can know the change within the Western political tradition
S.Y.B.A.	(2169)-Poli.Sci.Spe-2 (Pattern-2013) Paper- (Political Sociology)	Course outcomes Class: -S.Y.B.A. Special (Yearly)
		1. Students are introduced to the classical tradition in political sociological issues with the view to analyze and understand political events and problems of their time and solution .
		2. Students are aware about the political development, political importance of politics concerns and issues.
T.Y.B.A.	(3167)-Poli.Sci.Gen -3 Paper- Local Government	Course outcomes Class: -T.Y.B.A. General (Yearly)
		1. Students are introduced to structure of Local Self Government of Maharashtra.
		2. Students are familiar to awareness of the various Local Self Institutions, function, and composition and importance.
T.Y.B.A.	(3168)-Poli.Sci.Spe-3	Course outcomes Class: -T.Y.B.A. Special (Yearly)
		1. Students are introduced to essence of Public Administration, its

	(Pattern-2013) Paper-(Public Administration)	effectiveness in translating the governing philosophy into programmes, policies and activities and making it a part of Community living. 2. Students are familiar to personnel public administration in the historic context highlighting several of its categories which develops administrative salience and capabilities to deal with the process of Changes 3. Students can know the paradigm of democratic legitimacy 4. The importance of legislative and judicial control over administration is given to students in the course
T.Y.B.A.	(3169)-Poli.Sci.Spe.4 (Pattern-2013) Paper – (International Politics)	Course outcomes Class: -T.Y.B.A. Special (Yearly) 1. Students are introduced to concepts and dimensions of international relations 2. Students are familiar to different theories highlighting the major debates and different aspects of balance of power within. 3. Students can know the various aspects of conflict and conflict resolution, collective security and specificity of the long period of post Second World War and phase of the Cold War of Detente and Deterrence leading to theories of rough parity in armaments.

Department of Commerce

Program Outcomes : B. Com.	
1	To develop independent logical thinking and facilitate personality development of the students
2	To equip the students for seeking suitable careers in management and entrepreneurship

Program Outcomes : M. Com.	
1	To equip and train Post Graduate students to accept the challenges of Business World by providing opportunities for study and analysis of advanced Commercial and business methods and processes
2	To inculcate students with methods of Data collection and interpretations.
3	To develop among students Communication, Study and Analytical skills.

Program Specific Outcomes : B. Com. (Cost & Works Accounting)	
1	Students got knowledge about Basic Cost concepts, Elements of cost, Ascertainment of Material and Labour Cost.
2	Students obtained knowledge about the concepts and principles application of Overheads
3	Students understood various methods of costing and their applications

4	Students understood the concepts and utility regarding costing techniques.
5	Students obtained the information about importance of training includes concepts, procedures and legal Provisions of cost audit.

Program Specific Outcomes : B. Com. (Marketing Management)

1	Students understood the concept and functions of marketing planning and sales management
2	Students got knowledge about marketing strategies and organization
3	Students got information about various facets of marketing with regulatory aspects
4	Students understood marketing in globalize scenario
5	Students obtained knowledge regarding the concepts of Marketing Research
6	Students understood the role of Brand and Distribution of production including Management in marketing.
7	Students understood the basic concepts related to Marketing, Management, Productivity and Economic Development
8	Students obtained knowledge about the importance of control on marketing activities

Program Specific Outcomes : M. Com. (Business Administration)

1	Students got knowledge of concepts, nature and structure of Production and Operation Management
2	Students got sound knowledge of concepts, nature and structure of Financial Management
3	Students acquire sound knowledge of concepts, nature and importance of knowledge management
4	Students got acquaint with in-depth knowledge of HRM, practices followed by HR managers and understanding about recent trends in HRM
5	Students understood various concepts of organization behavior, knowledge about process of formation of group behaviour in an organization set up
6	The students got familiarize with the recent advancements in business administration and developed understanding about tools and their application in the business.
7	Students learnt the actual research process of the business organization

Course Outcomes: B. Com..

Class	Course Title	Outcome
FYBCom	112- Financial Accounting	<ol style="list-style-type: none"> 1. Students got knowledge of various accounting concepts 2. Students gained knowledge about accounting procedures, methods and techniques.

Sem. 1	114- Business Mathematics and Statistics	<ol style="list-style-type: none"> 1. Students got prepared for competitive examinations. 2. Students understood the concept of Simple interest, compound interest and the concept of EMI. 3. Students got aware with the concept of shares and calculations of Dividend 4. Students understood the concept of population and sample. 5. Students upgraded their knowledge regarding the use of frequency distribution useful for make decision.
	116- Consumer Protection and Business Ethics	<ol style="list-style-type: none"> 1. Students got acquaint with concept of consumer and consumer movement. 2. The students got aware about consumer rights, duties and mechanism for resolving their disputes.
FYBCom Sem. 2	122- Financial Accounting	<ol style="list-style-type: none"> 1. Students gained knowledge about accounting procedures, methods and techniques. 2. Students have developed practical approach to accounts writing by using software package.
	124- Business Mathematics and Statistics	<ol style="list-style-type: none"> 1. Students understood various methods of calculation regarding averages and variations. 2. Students understood the concept and application of profit and loss in business. 3. Students obtained knowledge for solving the LPP to maximize the profit and to minimize the cost. 4. Students knew about utility of correlation and regression analysis and estimation about the relationship between two variables. 5. Students understood the concept and techniques of different types of index numbers.
	126- Consumer Protection and Business Ethics	<ol style="list-style-type: none"> 1. Students got aware about laws relating to consumers. 2. Students got aware with role of Business Ethics in various functional areas.
SYBCom (2013 Pattern)	2113 - Business Communication	<ol style="list-style-type: none"> 1. Students understood the concept, process and importance of communication. 2. Students aware regarding new trends in business communication. 3. Students upgraded with the knowledge of various media of communication. 4. Students developed with various skills of business communication through the application and exercises.
	2143 - Business Management	<ol style="list-style-type: none"> 1. Students upgraded with the basic knowledge & understanding about business management concept. 2. Students understood various functions of management
	2153 - Elements of Company Law	<ol style="list-style-type: none"> 1. Students imparted with the knowledge of fundamentals of Company Law. 2. The knowledge of students updated regarding the provisions of the Companies Act of 2013. 3. The knowledge of students improved regarding new concepts involving in company law regime. 4. Students acquainted with the duties and responsibilities of Key Managerial Personnel. 5. Students imparted with the provisions and procedures under company law
SYBCom	2123 - Corporate Accounting	<ol style="list-style-type: none"> 1. The students are enabled to develop awareness about Corporate Accounting in conformity with the provisions of Companies Act and Accounting as per Indian Accounting Standards. 2. The students have learned about the conceptual aspect of

		<p>corporate accounting and skills for Computerized Accounting</p> <p>3. The students are capable to implement their skills about accounting standards</p>
TYBCom	3113- Business Regulatory Framework (Mercantile Law)	<p>1. Students grasped the detailed information regarding the basic concepts, terms & provisions of Mercantile and Business Laws.</p> <p>2. Awareness improved among the students regarding these laws affecting business, trade and commerce.</p>
	3153- Auditing & Taxation	<p>1. The students got acquaint with the concept and principles of Auditing, Audit process, Assurance Standards, Tax Audit, and Audit of computerized Systems.</p> <p>2. They got knowledge about preparation of Audit report.</p> <p>3. Students understood the basic concepts and to acquire knowledge about Computation of Income, Submission of Income Tax Return, Advance Tax, and Tax deducted at Source, Tax Collection Authorities under the Income Tax Act, 1961.</p>
	Advanced Accounting	<p>1. Imparted the knowledge of various accounting concepts</p> <p>2. The knowledge about accounting procedures, methods and techniques has installed.</p> <p>3. Students got acquainted with practical approach to accounts writing by using software package.</p>
Course Outcomes: M. Com.		
Class	Course Title	Outcome
M.Com. Part I Sem. 1	101 Management Accounting	1. Students acquired sound Knowledge of concepts, methods and techniques of management accounting and developed competence with their usage in managerial decision making and control.
	102 Strategic Management	1. Students acquired sound knowledge of concepts, nature and structure of strategic Management
M.Com. Part I Sem. 2	201- Financial Analysis & Control.	1. Students acquired sound knowledge of concepts, methods and techniques of management accounting and the students developed for competence with their usage in managerial decision making and control
	202 A- Industrial Economics	<p>The students studied the basic concepts of</p> <p>1. Industrial economics</p> <p>2. The significance and problems of industrialization.</p> <p>3. The impact of Industrialization on Indian Economy</p>
M.Com. Part 2 Sem. 3	301- Business Finance	Students acquired sound knowledge of concepts, nature and structure of business finance.
	302- Research Methodology for Business	<p>1. The students got acquaint with the areas of Business Research Activities.</p> <p>2. The students enhanced capabilities to conduct the research in the field of business and social sciences.</p> <p>3. The students got enable in developing the most appropriate methodology for their research studies.</p> <p>4. The students are familiar with the art of using different research methods and techniques</p>
M.Com. Part 2 Sem. 4	401- Capital Market and Financial Services.	Students acquired sound knowledge, concept and structure of capital market and financial services.
	402- Industrial Economic	<p>The students studied</p> <p>1. The basic concepts of Industrial Finance.</p>

Environment.	2. The effects of New Economic Policy. 3. The impact of Labor reforms on Industries.
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- 2. The effects of New Economic Policy.**
- 3. The impact of Labor reforms on Industries.**