

**Secondary Education Society's
Arts and Science College, Bhalod
Taluka-Yawal, Dist- Jalgaon**

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NAAC Reaccredited "B" Grade Fax: +91-02585-242411

Programme Outcome Science Faculty

Undergraduate Level

After graduation from science faculty a student should have:

- Understood the basic concepts, fundamental principles, and the scientific theories related to various scientific phenomena and their relevancies in the day-to-day life.
- Acquired the knowledge to propose novel ideas in explaining facts and figures or providing new solution to the problems.
- To develop knowledge about how interdisciplinary approach helps in providing better solutions and new ideas for sustainable developments.
- Acquired the skills in handling scientific instruments, planning and performing in laboratory experiments.
- Developed scientific outlook not only with respect to science subjects but also in all aspect related to life.

Post Graduate Level

(M.Sc. Organic Chemistry)

After completing the post-graduation in any science subject, the student should have:

- Acquired a deep knowledge of the subject by making use of reference books, research journals & periodicals, internet, etc
- Acquired high level skills in laboratory experimentation and inferring the logical conclusions.
- Participated in seminars and workshops and acquires theoretical thinking skills and practical skills.
- Taken up an independent research project in a R & D organization or in any industrial Organization.

- Students will get an awareness of the impact of chemistry on the environment, society, and other cultures outside the scientific community.
- Accepted that scientific knowledge plays most important role in overcoming social evils, poverty, health issues, and can certainly improves the quality of human beings.

Arts Faculty

Undergraduate Level

After completing the graduation in the faculty of Arts the students will be able to:

- Understood the basic concepts, fundamental principles, and various theories in the subjects like Economics, Political science, Languages and History.
- Realized the importance of literature in terms of aesthetic, mental, moral, intellectual development of an individual and accordingly of the society.
- Written articles, novels, stories to spread the message of equality, nationality, and social harmony, etc.
- Gained the analytical ability to analyze the literature and social issues to appreciate the strength and to suggest the improvements for better results.
- Realized that the pursuit of knowledge is a lifelong process and one can achieve the success only with untiring efforts and positive attitude.

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Programme Specific Outcome Science Faculty

B.Sc Chemistry

After completing three year B.Sc Chemistry degree course, students are able to –

- Able demonstrate and understanding of major concepts in all disciplines of chemistry.
- Understand the physical and chemical nature of various chemical compounds, metals, non-metals, mixtures, and their role in the daily life.
- Acquired a knowledge in the subject by making use of, reference books, research journals, video lectures and other ICT tools and software
- Acquired the skills in handling scientific instruments and analytical methods.
- Achieve the skills which is required in various chemical industries, Schools and Colleges.
- Get an awareness of the impact of chemistry on the environment, society, and other cultures outside the scientific community
- Conceived where and how subject knowledge can be used in future for a betterment of mankind.
- Understand the interdisciplinary nature of chemistry subject with the other subject like mathematics, physics, biological science etc.

B.Sc Computer Science

On Successful completion of the B.Sc. Computer science degree course students are able to:

- Serve as Programmer or Software Engineer with sound knowledge of practical and theoretical concepts for developing software's.
- Improve their basic understanding of operative systems and a working knowledge of software commonly used in academic and professional environments.
- Learn how to organize information efficiently in the forms of outlines, charts, etc. by using appropriate software.
- Work as Hardware Designer/Engineer, Systems Engineer and System integrator with knowledge of networking concept.

- Give Technical Support for various systems.
- Work as Consultant and Management officers for system management.
- Work as IT officer in banks and Marketing person.
- Work as DTP Operator in small-scale industries.
- Serve as Web Designer with latest web development technologies.

M.Sc Organic Chemistry

After completing two year M.Sc Organic Chemistry degree course, students are able to-

- Understand the methods of designing organic compounds and natural products by various mechanism.
- Acquired knowledge of characterization and physicochemical study of organic compounds.
- Use practical skills necessary for the safe manipulation of chemicals
- To develop thinking power of critical analysis and ability to solve problems
- Use the skills for employment or in R&D and science based industry.

Arts Faculty

B. A. Economics

On Successful completion of the B.A. Economics degree course students are able to:

- Understand basic concepts of economics and its use for solutions of various economic problems.
- Analyse historical and current events from an economic perspective.
- Prepare for the Competitive Examinations as MPSC, UPSC.
- Analyze economic behavior in practice.

B. A. Hindi

On Successful completion of the B.A. Hindi degree course students are able to:

- Develop Reading, Writing & Communication Skills in Hindi.
- Get information about the history of ancient, modern Hindi Literature.
- Develop Approach of Hindi Linguistics & Grammar.
- Get information about Literary Theory.

B. A. Marathi

On Successful completion of the B.A. Marathi degree course students are able to:

- Develop Reading, Writing & Communication Skills in Marathi.

- Get Information about the history of Literature.
- Able to apply the study of Marathi Linguistics & Grammar in their practical life.
- Nurture themselves in soft skills and develop research aptitude.

B. A. English

On Successful completion of the B.A. English degree course students are able to:

- Students will gain awareness about the best literary traditions of the world
- Students gain an understanding of the relations between culture, history and texts.
- This helps in developing quality of thinking and imagination and is a step forward to emerge as a better human being
- Students will be able to recognize and comprehend different varieties of English language and develop a writing style of their own
- use correct English in oral as well as written form.

B. A. Political Science

On Successful completion of the B.A. Political Science degree course students are able to:

- Understand basic concepts of political science and political ways of thinking.
- Analyze political behavior in practice.
- Prepare for the Competitive Examinations as MPSC, UPSC.
- Understand the functioning, powers of various organizations.
- Acquired the detail knowledge of Indian Constitution.
- A student can become an ideal citizen by studying political Science.

M. A. Marathi

On Successful completion of the M.A. Marathi degree course students are able to:

- Students have opportunities in the field of research
- Students are able to face various competitive examinations such as MPSC, UPSC, NET, SET and JRF which are useful for them for getting job.
- Students have opportunities to be a press reporter, editor in newspapers.
- Students have opportunities to become translator, blog writer and author.
- Develop Reading, Writing & Communication Skills of Students.

Secondary Education Society's
Arts & Science College, Bhalod,
Course Outcome

Department of Chemistry

| Year | Course Outcome | Course Outcome -Students will be able to :- |
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| 2015- 2018 | F.Y.B.Sc. CH111: Physical and Inorganic Chemistry | Understanding of specific and equivalent conductance, cell constant and use of it to obtain specific and equivalent conductance. Understand Kohlrausch's law and application of it. Develop an ability to use conceptual and mathematical tools to express and predict atomic and molecular behavior. Understand periodic properties. Learn properties of s-block elements. |
| | CH-112: Organic and Inorganic Chemistry | Understand the general properties of organic compounds, applications of organic compounds. Understand the mono functional compounds-common and IUPAC nomenclature of various type of organic compound. Understand the hydrocarbons by many organic reactions. Learn the concepts of VSEPR theory. Understand Arrhenius theory, Bronsted-Lowry theory, and Lewis theory. Understand ionic product of water, buffer solutions. |
| | CH121: Physical and Inorganic Chemistry | Understand first and Second law of Thermodynamic. Understand Electrolytic conductance. Application of conductance measurement. Understand Surface tension of liquid and Viscosity of liquid. |
| | CH-122: Organic and Inorganic Chemistry | Understand the Monohalogen and Dihalogen derivatives. Understand the Alcohol, ethers, epoxides and their preparation. Learn the structure of aldehyde and their preparation. Learn about P block element. |

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| | CH-113 and CH-123 Chemistry Practical | <p>Calibrate the apparatus like volumetric flask, pipette and burette. Learn the determination of heat of solution, equivalent weight, surface tension etc.</p> <p>Understand qualitative analysis of acidic and basic radicals. Understand the applications of types of titrations for various estimations Carry out quantitative analysis by gravimetric method. Carry out quantitative analysis by volumetric method, handle viscometer to determine the viscosity and relative viscosity of liquids. Carry out quantitative analysis by instrumental method using conductometer. Estimate of aniline /phenol. Perform qualitative analysis of organic compounds. Carry out quantitative analysis by volumetric method and gravimetric methods</p> |
| 2018 onward | CH-101: Physical and Inorganic Chemistry | <p>Understanding of fundamental concepts of chemistry, critical constants, electrical Conductance, Types of adsorption isotherms.</p> <p>To understand specific and equivalent conductance, cell constant and use of it to obtain specific and equivalent conductance.</p> <p>Use conceptual and mathematical tools to express and predict atomic and molecular behavior, understanding of variation in periodic table.</p> |
| | CH-102: Organic and Inorganic Chemistry | <p>Understand the general properties of organic compounds, applications of organic compounds. Common and IUPAC nomenclature of various type of organic compound.</p> <p>Understand of S- block Elements of alkali metals and Alkaline earth metals Arrhenius theory, Bronsted Lowry theory, and Lewis theory, ionic product of water, Buffer solutions</p> |
| | CH-103: Chemistry Practical | <p>Acquire skill of calibration of glassware. Able to carry out qualitative and quantitative analysis.</p> <p>Understand the determination of heat of solution, equivalent weight, surface tension etc.</p> |
| | CH-201: Physical and Inorganic Chemistry | <p>Understand the kinetic theory of ideal gases, Study of Surface tension phenomenon, Viscosity, P-block element Metals and metallurgy. To understand the second law of thermodynamics</p> |
| | CH-202: Organic and Inorganic Chemistry | <p>Understand the preparations, reactions and properties of aldehyde ketones, amines, and aromatic Carboxylic acid. Determine the Molecular weight, formula weight, equivalent weight of organic compounds.</p> <p>Understand chemical bonding and structure the Electronic structures, Types of overlap</p> |

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| | CH-203: Chemistry Practical | Preparation and standardization of solutions. Perform qualitative analysis of organic compounds. Carry out quantitative analysis by instrumental method using Conductometer. Estimation organic compounds |
| 2016-2019 | S.Y.B.Sc. 231: Physical and Inorganic chemistry | Understand the electronic structures, size of atoms and ions, ionization energy, metallic and non-metallic of d-block elements. Learn the concept of Helmholtz free energy. Understand numerical calculations of Gibbs free energy. Understand concept of vapor pressure of liquids. Learn the concept of physical properties of metals. Learn colligative properties of solution. Understand the chemistry of transition element and their characteristics of d-block elements. |
| | CH 232: Organic and analytical chemistry | Study of Stereoisomerism and Types of stereoisomerism. Study of amines their formation and reactivity. Understand Nomenclature of Organometallic compounds and their preparation. |
| | CH-233: Chemistry practical | Understand techniques chromatography for separation of components in the mixture. Understand recrystallization for purification of organic compounds. Understand the preparation of various inorganic complexes. Understand the volumetric analysis Understand the organic preparation. |
| | CH-241: Physical and Inorganic chemistry | Understand vapor pressure of solvent. Understand Boiling point elevation of solution, Freezing point depression of solution. Understand the EMF and its measurements. Understand the Standard hydrogen and calomel reference electrodes. Understand Lanthanides Elements and their electronic structure, oxidation state and Extraction. Understand Actinides Elements and Electronic structure, Oxidation state and Preparation. |
| | CH 242: Organic and analytical chemistry | Learn the synthesis and reaction of Five, Six member and condensed heterocyclic systems. Understand the synthesis of synthetic reagents. Understand the mechanism and stereochemistry of E1, E2 reaction. Understand the concept of quantitative analysis by gravimetric methods. understand the concept for separation of analytes in samples by thin layer, paper and column chromatographic methods |
| | CH-243 Chemistry practical | Understand qualitative analysis of organic compounds. Determine molecular weight by depression of freezing point method. Estimate of nickel and barium gravimetrically. |

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| | | Understand the use of potentiometer for determination of standard electrode potential. |
| 2019 onward | CH-301 Physical and inorganic chemistry | To understand Types of solutions it's properties, numerical calculations of Gibbs free energy. Understand concept of Colligative Properties Osmosis and osmotic pressure, Relation of osmotic pressure to vapour pressure, Helmolthz free energy Understand the concept of physical properties of metals Learn methods of purification of ores. |
| | CH-302 Organic and Inorganic chemistry | Understand the basic concept of stereochemistry. Study of reactivity, preparation and reactions of heterocyclic compounds Study of synthesis and reaction of 5, 6 member's heterocyclic systems. Understand the concept of solvents, solutions acids and bases. |
| | CH-303: Chemistry practical | Understand techniques chromatography for separation of components in the mixture, Volumetric method of analysis, Determination of standard electrode potential of Cu/Cu+2 or Ag/Ag+ , Zn/Zn+2 electrodes potentiometrically. Determine molecular weight by depression of freezing point method and elevation in boiling point method. Preparation of derivatives, |
| | CH-401 Physical and inorganic chemistry | To understand Electromotive force and its measurements, thermodynamics of electrode potential Standard potential and equilibrium constant, Classification of electrodes. Study of Calculation of free energy changes, Fugacity and activity concepts, The reaction isotherm, Standard free energy change of formation, |
| | CH-402: Organic and Inorganic chemistry | To understand preparation and synthetic applications of synthetic reagents, study of organometallic compounds preparation uses and types of bonding. Study of s-s, s-p, p-p, p-d and d-d combination of orbitals. Molecular orbital treatment for Hetero nuclear diatomic molecules |
| | CH-403: Chemistry practical | Estimate of Nickel and Barium gravimetrically. Preparation of various inorganic complexes Carry out qualitative analysis of organic compounds. Determination of normality and strength of HCl titrating with standard NaOH Potentiometrically. |
| | SEC-1: Basic Analytical Chemistry | To understand the concept of acid base titration and precipitation titration. Introduction of Analytical chemistry, its interdisciplinary nature, importance of types of analysis: |

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| | | <p>qualitative and quantitative analysis Concept of sampling, Accuracy, precision, significant figures, Errors, Material safety data sheet (MSDS), fire safety, Handling of chemicals. Study of Chromatography techniques. To understand the concept of Redox titration and Complexometric titration, Gravimetric analysis Steps of gravimetric analysis.</p> |
| 2017-20 | CH 351: Physical chemistry | <p>Understand the concept electrochemical cell and determination of potential of cell, laws of photochemistry, quantum yield and fluoresce and phosphorescence from Jablonski diagram. Understand the various devices to measure the radiation from radioactive sample</p> |
| | CH-352: Inorganic chemistry | <p>Understand the modern theories of metal-ligand bond related to valence bond theory Understand the basic concept of CFT, Spin magnetic moment, crystal field stabilization energy related to weak and strong field, limitation of theory.</p> |
| | CH-353: Organic chemistry | <p>Understand Nucleophilic and electrophilic substitution reactions. Molecular rearrangement involving migration to C, N and Oxygen. Understand Polarity picture of carbonyl group and nucleophilic addition reaction to it.</p> |
| | CH-354: Analytical Chemistry | <p>Understand the application of Ion Exchange Chromatography, Size Exclusion Chromatography, Gas Chromatography, HPLC Understand Principles of Electrophoresis and choice of techniques of electrophoresis for various applications.</p> |
| | CH-355: Industrial chemistry | <p>Understand manufacturing of Sugar, Beer and spirit. Understands various types of fertilizer. Understand the aspects of small scale industry.</p> |
| | CH-356: Biochemistry | <p>Understand classification of carbohydrates, amino acids, enzymes, and lipids. Separation of amino acids and proteins Get information about carbohydrates, amino acids, lipid amino acids metabolism</p> |
| | T.Y.B.Sc Sem VI CH-361: Physical chemistry | <p>Understand the first, second and third order reaction. Understand the types of spectra, Rotational, Vibration and Electronic energy levels Learn concept Photoelectric effect, Compton Effect and Heisenberg uncertainty principals</p> |
| | CH-362: Inorganic chemistry | <p>Understand the concept of Hard and Soft acid bases concept theories, application and limitations. Know about the all basic theory of Acid and bases. Know the different types and theories of Corrosion and how to protect Metal from corrosion.</p> |

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| | CH-363: Organic chemistry | Understand the concept of Spectroscopic techniques. Determination which includes IR, UV and NMR. Able to design the organic compound using retro synthesis |
| | CH-364 Analytical Chemistry | Acquire knowledge of different spectrometry like AAS FES, Turbidimetry and Nephelometry. Plasma emission spectrometry Understand principle, Instrumentation and applications of thermogravimetric methods like TGA, DTA and DSC |
| | CH-365: Industrial chemistry | Understand the process of manufacturing of soaps and detergents. Know the information related to drugs and pharmaceuticals. Understand classification of dyes and paints |
| | CH 366: Polymer chemistry | Understand the different methods of polymerization. Understand the preparation, properties and applications of PE, PVC, Polystyrene, polyacrilonytrile, Study of some important polymers |
| | CH-357, CH-367: Physical Chemistry Practical | Determination of the concentration of given solution by different instrumental methods. Use of Microsoft Excel or Origin Determine the refractive index of four liquids, hence specific and molar refraction |
| | CH-358, CH-368: Inorganic practical | Carry out the estimation of metals by gravimetric, volumetric method. Preparation of various inorganic complexes. Estimation by spectrophotometric methods |
| | CH-359, CH-369: Organic practical | Preparation of various organic compounds. Separation of water soluble and water insoluble organic mixtures. Understand the chromatographic techniques |
| 2020 onward | CH-501 Physical chemistry | To orient and acquaint the students towards the basic concepts of Quantum Chemistry. To acquire knowledge about rates of chemical reactions and distinguishing the reaction of different order and their characteristics. To understand the basic principles of phase rules and phase diagrams. To learn the underlying principles of electrode reactions, electrochemical cells and applications of EMF. |

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| | <p>CH-502 Inorganic Chemistry</p> | <p>To describe the VSEPR theory to predict shape of molecules from electron pairs.</p> <p>To describe the bonding in simple compounds using VBT.</p> <p>To describe the principles of VBT to predict hybridization of orbitals. To understand how CFT explains electronic structure, colour and magnetic properties of co-ordination compounds.</p> <p>To introduce the basic principles of MOT and electronic geometry of molecule</p> |
| | <p>CH-503 Organic Chemistry</p> | <p>Students will learn organic reactions like nucleophilic substitution, electrophilic substitution, nucleophilic addition, electrophilic addition and elimination.</p> <p>Students will be able to write/ explain mechanisms of those types of reactions. Students will understand how a reaction takes place in one or more steps.</p> <p>Students will understand the types of intermediates formed in different reactions.</p> <p>Students will learn how reagent attacks the substrate molecule and accordingly how bonds break and formed.</p> <p>Students will learn how change in structure of substrate, reagent and solvent changes the product formed and its stereochemistry.</p> |
| | <p>CH-504 Industrial Chemistry</p> | <p>To produce graduates with enhanced skills, applied knowledge, aptitude to carry out higher studies or research and development in the various industrial areas.</p> <p>To make the student cognizant about important aspects of Chemical Industries, Industrial work culture and environment.</p> <p>To prepare the students for immediate entry to the workplace with sound theoretical knowledge and some basic experimental concepts in the area of various industries viz. Sugar Industry, Fermentation Industry, Petroleum and Petrochemicals.</p> <p>To offers the synergism between basic concepts of Chemistry with Industrial applications.</p> <p>To equip the students with knowledge of some industrial organic synthesis as requirement of diverse chemical industries.</p> <p>Empower the students to understand the concepts in chemical processing, engineering and industrial development.</p> |

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| | CH-505 Analytical Chemistry | <p>Explain the fundamentals of analytical methods and instruments for qualitative and quantitative Analysis.</p> <p>Acquire knowledge of different spectrometry like AAS FES, IR Spectrometry. Plasma emission spectrometry Express the role of analytical chemistry in science.</p> <p>To understand and establish the role of chemistry in quantitative analysis through Potentiometric and pH-metric.</p> |
| | CH-506(A) Biochemistry | <p>Students will study biomolecules like carbohydrates, amino acids, proteins, enzymes, lipids and nucleic acids.</p> <p>Students will understand definitions, classifications and examples of these biomolecules.</p> <p>Students will learn the detailed structure of these biomolecules along with types of bonds or linkages present in their molecules.</p> <p>Students will learn the chemical properties of these biomolecules and the action of some reagents on them in the form of reactions or graphical presentation.</p> <p>Students will understand biochemical energetics of common energy rich compounds along with hydrolytic reactions.</p> <p>Students will learn metabolisms like Glycolysis, TCA cycle, Transamination, deamination and β- oxidation through reactions, enzymes involved, outlines and energetic</p> |
| | CH-601 Physical Chemistry | <p>To learn the basics of molecular spectroscopy and rotational spectra. To understand the basic principles and applications of nuclear chemistry.</p> <p>To learn the consequences of light absorption by atoms and molecules and photochemical reactions. To learn the laws of crystallography and basics of crystal structure.</p> |
| | CH-602 Inorganic Chemistry | <p>To describe basic principles of nanomaterial's.</p> <p>To describe basic synthesis of nanoparticles. To describe composition and technological importance o of inorganic solids.</p> <p>To describe composition of cement, lime and alloys. To describe manufacture.</p> <p>To describe Plant Nutrients. To describe different types of Fertilizers To describe the manufacture of fertilizers To describe Symptoms of deficiency</p> |

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| | CH-603 Organic Chemistry | <p>To study principle of spectroscopy and to understand wave parameters and terms involved in spectroscopy.</p> <p>To study different types of spectroscopy. To understand principle, concept and the terms used in each type of spectroscopy. Interpretation of UV, IR, NMR spectra.</p> <p>Learn use of spectral data for determination of structure of unknown organic compounds.</p> <p>To study different applications of each type of spectroscopy</p> |
| | CH-604 Industrial Chemistry | <p>To make student perceptive about various commodity industries viz. Cosmetics and Perfumes, Dyes and Pharmaceuticals, Pesticides, Soaps and Detergents, related diversified and multidisciplinary fields of chemical industry.</p> <p>To produce graduates with enhanced skills, knowledge and research aptitude to carry out higher studies or research and development in the various industrial areas.</p> <p>To equip students with advance knowledge about various industrially important products.</p> <p>To makes students ready for immediate entry to the workplace with sound theoretical and basic experimental knowledge in the areas of various industries.</p> <p>To engender the substantial interest in the students to understand the concepts in chemical processing, engineering and industrial development of present era viz. Cosmetics and Perfumes Industry, Dyes and pharmaceuticals, Pesticides, Soaps and Detergents, related multidisciplinary and diversified fields of chemical industry.</p> <p>To describe the industrial production of a number of important organic and inorganic compounds</p> <p>To gain comprehensive knowledge of cutting-edge developments in a field of different chemical industries by discussions and exchange of experiences and knowledge.</p> <p>To develop proficiency in application of current aspects of industrial chemistry</p> |
| | CH-605 Analytical Chemistry | <p>Compare the Instrumental methods and non-instrumental methods and there advantages. Understand principle, Instrumentation and applications of thermo gravimetric methods like TGA, DTA and DSC.</p> <p>Understand the application of Ion Exchange Chromatography, Gas Chromatography, HPLC and understand the process involved in solvent extraction.</p> |

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| | CH-606 (A) Polymer chemistry | <p>Define terms like monomer, polymer, polymerization, polydispersity index, etc., classify polymers based on their origin, native backbone chain, and thermal response.</p> <p>Know glass transition temperature and its determination, various ways to express molecular weights of polymers and polydispersity index. Identify different mechanisms of polymerizations viz. free radical, ionic, and condensation polymerizations.</p> <p>Distinguish techniques of polymerization based on physical conditions required for the preparation of polymers in laboratory or industry. Familiar with preparation, properties, and applications of industrially important selected polymers.</p> |
| | CH-507 and CH-607 Physical Chemistry Practical | <p>To develop skills required in chemistry such as the appropriate handling of apparatus, instruments and chemicals. The student will learn the laboratory skills needed to design, safely conduct and interpret chemical research.</p> <p>To expose the students to an extent of experimental techniques using modern instrumentation.</p> <p>The student will develop the ability to effectively communicate scientific information and research results in written and oral formats.</p> |
| | CH-508 and CH-608 Inorganic Chemistry Practical | <p>To analyze the inorganic mixtures.</p> <p>To determine metal from ore and alloy analysis.</p> <p>Using colorimetric analysis to determine amount of metal.</p> <p>To determine metal from gravimetric estimations.</p> <p>To determine amount of metal by volumetric analysis.</p> <p>To determine preparation /synthesis of co-ordination compound.</p> <p>To study separation techniques of metals.</p> |
| | CH-509 and CH-609 Organic Chemistry Practical | <p>To develop skills required in chemistry such as the appropriate handling of apparatus and chemicals. The student will learn the laboratory skills needed to design, safely conduct and interpret chemical research.</p> <p>To expose the students to an extent of experimental techniques using modern instrumentation.</p> <p>The student will develop the ability to effectively communicate scientific information and research results in written and oral formats.</p> <p>Preparation and estimations of various organic compounds. Separation of water soluble and water insoluble organic mixtures. Understand the chromatographic techniques</p> |

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| M.Sc. Part I 2017-2020 | CH-P-110: Physical Chemistry I | <ol style="list-style-type: none"> 1. understand the terms eigen function, eigen value, operator and postulates of quantum mechanics. 2. understand mechanics of particle in one-, two- and three-dimensional box. 3. learn parent–daughter relationship, application of radioactivity, naa, ida. effect of radiation and units of radiation. 4. learn the Fricke and ceric sulphate dosimeter. 5. understand the terms ionic strength, activity coefficient. dho equation. 6. understand the adsorption of gases by solid types of isotherms. |
| | CH130: Inorganic chemistry Paper | <ol style="list-style-type: none"> 1. learn molecular orbitals and its orientation. 2. understand about geometry and shape of the molecule 3. learn and find out bond order and dipole moments of the inorganic molecule. 4. learn 18 electron rule and application. 5. determine the point group of inorganic molecules. 6. understand preparation and properties of transition metal carbonyls. 7. understand concept of symmetry elements in molecules. |
| | CH -150: Basic Organic Chemistry | <ol style="list-style-type: none"> 1. understand stereochemical principles, enantiomeric relationship r and s, e and z nomenclature in c, n, s, p containing compound. 2. understand sn1, sn2 and sni mechanism and stereochemistry. 3. understand NGP by pi and sigma bonds, classical and non - classical carbocations. 4. understand alkylation and acylation reaction. 5. compare the differ between types of addition, elimination and substitution reaction. 6. learn and solve problem type of elimination |

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| | CH-P-210: Physical Chemistry II | <ol style="list-style-type: none"> 1. understand the thermodynamic description of mixtures state function, exact, inexact differential. 2. understand the colligative properties of solutions, depression in f.p., elevation in b.p, osmotic pressure. 3. understand the statistical thermodynamics and various partition functions. 4. understand the consecutive elementary reactions, rate determining steps, steady state approximation, pre-equilibria, Michaelis Menten mechanism, Lindemann Hinshelwood mechanism, chain reactions. 5. understand the molecular spectroscopy: IR, Raman, Electronic and Mossbauer and its application. |
| | CH: 230 - Inorganic chemistry Paper II | <ol style="list-style-type: none"> 1. learn mechanism in transition metal complexes. 2. learn radius ratio rule of coordination no3,4, 3. understand the born-Haber cycle to calculate lattice energy. 4. understand about classification and use of catalyst. 5. understand about structure of atom, hunds rule, term symbol, calculation of microstates, orbital selection rule. 6. know metal complexes involved in biological systems. vitamin-b12, chlorophyll, haemoglobin. |
| | CH-250 Name Reactions, Synthetic Organic Chemistry & Spectroscopy | <ol style="list-style-type: none"> 1. learn various name reaction with example. 2. use synthetic reagents of oxidation and reduction for solving the example. 3. understand mechanism of rearrangements reaction. 4. learn factors affecting on UV absorption spectra. 5. interpret IR spectra on basic values IR frequencies. 6. solve problems of UV, IR and NMR. |

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| | CH-290- General Chemistry | <ol style="list-style-type: none"> 1. solve the problems on chemometrics mean and standard deviation. 2. learn theory of electro gravimetric analysis, electrolytic separation and determination of metals. 3. know instrumentation, choice of mobile phase, solvent treatment systems, pumping systems, sample injection systems, columns for high performance liquid 4. chromatography. 5. learn principle, theory of glass membrane potential, the alkaline and acid error, standard buffers, accuracy of ph, measurements with the ph-meter, types of ion-selective electrodes. 6. learn voltammetric electrodes, detectors, amperometric sensors, amperometric titrations. 7. understand phosphorescence, fluorescence and photo luminescent phenomena used for determination of mixtures. |
| | CH-P-1: Physical Chemistry Practical | <ol style="list-style-type: none"> 1. prepare molar and normal solutions of various concentrations. 2. determine concentration of unknown solutions and degree of hydrolysis and hydrolysis constant by spectrophotometry. 3. determine stability constant of a complex ion and standard free energy change ΔG^0 and equilibrium constant by potentiometry. 4. investigate the rate constant for depolymerization, energy of activation and order of the reaction 5. calculate Hammett constant and amount of aspirin in the given tablet by ph-measurement. 6. determine specific rotation and percentage of two optically active substances by polarimetrically. |
| | CH: I-1: Practical course Inorganic chemistry: | <ol style="list-style-type: none"> 1. perform gravimetric and volumetric analysis ores. 2. analyse binary mixtures by gravimetric and volumetric method. 3. prepare various inorganic complexes and determination of its percent purity. 4. analyse iron from given drug sample and calcium in milk sample. 5. perform paper chromatographic technique. 6. estimate phosphate from waste water by spectrophotometry. |

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| | CH –O- 1 Organic Chemistry practical | <ol style="list-style-type: none"> 1. know uses of chemistry software's like isi draw, chem draw, chem sketch. 2. draw the different structure of organic compound. 3. perform thin layer chromatography technique for completion of reaction. 4. perform single and two stage preparation. 5. apply knowledge of green principle for organic synthesis 6. make use of Soxhlet extractor and steam distillation assembly for purification of organic compound. |
| M.Sc. II Organic Chemistry 2017-18 | Organic CH 350: Organic Reaction Mechanism | <ol style="list-style-type: none"> 1. compare the major and minor product of variety of organic reaction. 2. understand accepted mechanism of organic reaction including all intermediates 3. solve the problems on Taft and hammet constant. 4. understand concave upward and downward deviation. 5. learn the types hydrolysis of ester. 6. solve problems on anchimetric assisted reaction. |
| | CH-351: Spectroscopic Methods in Structure Determination | <ol style="list-style-type: none"> 1. understand principle and instrumentation of H¹nmr, ¹³C nmr and mass spectroscopy. 2. investigate structures on these techniques. 3. resolve structure of organic compounds by 2D nmr techniques. 4. analyze reaction sequences by using spectroscopic technique. |
| | CH-352 Organic stereochemistry | <ol style="list-style-type: none"> 1. understand the basic concepts of stereochemistry 2. assign structure of organic molecules. 3. learn three-dimensional structure of cyclic and acyclic compounds 4. use selectivity of reagents for chemical reactions. 5. compare the major and minor product of asymmetric synthesis. 6. solve the examples on ORD, CD. |

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| | CH-353: Free radical, photochemistry, pericyclic reaction and their applications | <ol style="list-style-type: none"> 1. understand term quantum yield, and electronic states and transitions in molecules. 2. understand Norrish I and Norrish-II cleavages, paterno-buchi reaction. 3. understand photochemistry of olefins and arenes: 1,2-,1,3-and1,4- additions. 4. understand free radical reaction contain halogen, sulphur, and, selenium group transfer reaction. 5. understand selection rule for thermal and photochemical reactions. 6. understand frontier molecular orbital approach [fmo] and aromatic transition state approach according to huckel-mobius system. |
| | CH-450: Chemistry of Natural Products | <ol style="list-style-type: none"> 1. know concept of biogenesis of natural products. 2. classify sources of various vitamins. 3. learn biological importance of vitamins B₁, B₂, B₆, folic acid, b₁₂, c, d₁, e, k₁, and K 4. understand and apply the role of enzyme in reactions. 5. synthesize natural organic compounds by chemical methods. 6. learn the stereochemistry of natural product. |
| | CH-451: Synthetic Methods in Organic Chemistry | <ol style="list-style-type: none"> 1. understand transition metal complexes in organic synthesis, Grubb's catalyst, zieglernatta catalyst. 2. design the organic compounds by use of synthetic reagents 3. understanding role of umpolung in organic synthesis. 4. understanding protection and deprotection in the synthesis of polypeptide and polynucleotide. 5. know basic principles of green chemistry and design green synthesis. 6. use eco-friendly green reagents, solvents, catalysts and reaction conditions. |
| | CH-452: Heterocyclic chemistry, Chiron approach, chiral drugs and Medicinal Chemistry | <ol style="list-style-type: none"> 1. know the main synthetic routes and reactivity for variety of heterocyclic compounds and applications. 2. understand important terms–receptor, therapeutic index, bioavailability, drug assay and drug potency used in medicinal chemistry. 3. understand structure of triose, pentose, hexose, stereochemistry and reaction of glucose. 4. understand synthesis and pharmacological activity of s-ibuprofen, s-metaprolol, (+) ephedrine 5. understand basic pharmacokinetics of drugs, anti-microbial drugs, antifungal, antibacterial, anti-viral, anti-protozoal. |

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| | CH-O-2 Ternary Mixture Separation | <ol style="list-style-type: none"> 1. separate organic compounds in different phases. 2. perform qualitative test to analyse functional group of organic compounds. 3. learn distillation technique. 4. detect elements n, s, and x in organic compounds. 5. use purification techniques of organic compounds. |
| | CH -O-3: Three stage preparations | <ol style="list-style-type: none"> 1. perform three stage preparation. 2. draw the reaction mechanism. 3. purify the organic compounds by crystallization. 4. perform chromatographic technique to check completion of reaction. 5. apply the knowledge about different reaction conditions. |
| | CH-O-4: Short Research Project | <ol style="list-style-type: none"> 1. survey literature for the topic of the project. 2. learn to apply reaction conditions for synthesis, isolation of product and give mechanism. 3. handle instruments for analysis and discuss their experimental results. 4. used ICT tools to prepare project reports and present it using power point presentation. 5. work within a small team to achieve a common research goal. |
| M.Sc. II Organic chemistry 2018-2022 | CH 350: Organic Reaction Mechanism | <ol style="list-style-type: none"> 1. compare the major and minor product of variety of organic reaction. 2. understand accepted mechanism of organic reaction including all intermediates 3. solve the problems on Taft and hammet constant. 4. understand concave upward and downward deviation. 5. learn the types hydrolysis of ester. 6. solve problems on anchimetric assisted reaction. |
| | CH-351: Spectroscopic Methods in Structure Determination | <ol style="list-style-type: none"> 1. understand principle and instrumentation of H^1nmr, ^{13}C nmr and mass spectroscopy. 2. investigate structures on these techniques. 3. resolve structure of organic compounds by $2d$ nmr techniques. 4. analyse reaction sequences by using spectroscopic technique. |
| | CH-352 (Organic stereochemistry y) | <ol style="list-style-type: none"> 1. understand the basic concepts of stereochemistry 2. assign structure of organic molecules. 3. learn three-dimensional structure of cyclic and acyclic compounds 4. use selectivity of reagents for chemical reactions. 5. compare the major and minor product of asymmetric synthesis. |

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| | CH-353: Free radical, Photochemistry, Pericyclic Reaction and their applications | <ol style="list-style-type: none"> 1. understand term quantum yield, and electronic states and transitions in molecules. 2. understand Norrish I and Norrish-II cleavages, paterno-buchi reaction. 3. understand photochemistry of olefins and arenes: 1,2-,1,3-and1,4- additions. 4. understand free radical reaction contain halogen, sulphur, and selenium group transfer reaction. 5. understand selection rule for thermal and photochemical reactions. 6. understand frontier molecular orbital approach [fmo] and aromatic transition state approach according to huckel and mobius system. |
| | CH-450: Chemistry of Natural Products | <ol style="list-style-type: none"> 1. know concept of biogenesis of natural products. 2. classify sources of various vitamins. 3. learn biological importance of vitamins b1,b2,b6,folicacid, b12, c, d1,e,k1, andk 4. understand and apply the role of enzyme in reactions. 5. synthesize natural organic compounds by chemical methods. 6. learn the stereochemistry of natural product. |
| | CH-451: Synthetic Methods in Organic Chemistry | <ol style="list-style-type: none"> 1. understand transition metal complexes in organic synthesis, Grubb's catalyst, Ziegler Natta catalyst. 2. design the organic compounds by use of synthetic reagents. 3. understanding role of umpolung in organic synthesis. 4. understanding protection and deprotection in the synthesis of polypeptide and polynucleotide 5. know basic principles of green chemistry and design green synthesis. 6. use eco-friendly green reagents, solvents, catalysts and reaction conditions. |
| | CH-452: Heterocyclic chemistry, Chiron approach and Medicinal Chemistry | <ol style="list-style-type: none"> 1. know the main synthetic routes and reactivity for variety of heterocyclic compounds and applications. 2. understand important terms—receptor therapeutic index, bioavailability, drug assay and drug potency used in medicinal chemistry. 3. understand structure of triose, pentose, hexose, stereochemistry and reaction of glucose. 4. understand synthesis and pharmacological activity of s-ibuprofen, smetaprolol, fluorouracil, ampicillin, troglitazone. 5. understand basic pharmacokinetics of drugs anti-microbial drugs, anti-fungal, anti-bacterial, anti-viral, anti-protozoal. |

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| | CH-O-2: Separation of ternary mixture using micro-scale techniques | <ol style="list-style-type: none"> 1. separate organic compounds in different phases. 2. perform qualitative test to analyse functional group of organic compounds. 3. learn distillation technique. 4. detect elements n, s, and x in organic compounds. 5. use purification techniques of organic compounds. |
| | CH -O-3: Three stage preparations | <ol style="list-style-type: none"> 1. perform three stage preparation. 2. draw the reaction mechanism. 3. purify the organic compounds by crystallization. 4. perform chromatographic technique to check completion of reaction. 5. apply the knowledge about different reaction conditions. |
| | CHO-4: Short Research Project | <ol style="list-style-type: none"> 1. literature survey for the topic of the project. 2. learn to apply reaction conditions for synthesis, isolation of product and give mechanism. 3. handle instruments for analysis and discuss their experimental results. 4. learn to use ict tools to prepare project reports and present it using power point presentation. 5. work within a small team to achieve a common research goal. |
| M.Sc. Part I 2021-2023 | CH-P-110: Physical Chemistry I | <ol style="list-style-type: none"> 1. Apply the quantum mechanical principles to simple systems of chemical interests 2. Differentiate between the nature of chemical bond concept from MOT and VBT 3. To identify and write the different types of equilibriums in a given nuclear decay process 4. To explain the concept of radiation dose measurement and its practical applications 5. To be able to calculate the ionic strength and activity coefficients by using the basic concepts underlying. |
| | CH-130: Inorganic Chemistry - I | <ol style="list-style-type: none"> 1. Apply the fundamental knowledge about the synthesis, structure, bonding and properties of some selected main group elements which are very important in different fields 2. Apply fundamental knowledge about molecular symmetry, MOT, organometallic compounds, ionic solids and bioinorganic compounds. 3. Explain various concepts and theories of various topics from inorganic chemistry |

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| | CH-150: Organic Chemistry – I | <ol style="list-style-type: none"> 1. Apply the fundamental concepts of organic reaction mechanism in theoretical and practical work, may be in academic, research laboratories, and industries 2. Understand the importance and types of organic reactions and their applications. <p>Acquire knowledge of important characteristics of organic compounds.</p> |
| | CH-190: Industrial Safety and Good Laboratory Practices | <ol style="list-style-type: none"> 1. Understand the importance of laboratory safety. 2. Aware and follow healthy laboratory practices. 3. Acquire the knowledge about personal protective equipment. |
| | AC-101: Practicing Cleanliness | <ol style="list-style-type: none"> 1. Identify need at of cleanliness at home/office and other public places. 2. Plan and observe cleanliness programs at home and other places 3. Practice cleanliness practices in day-to-day life. |
| | CH - 210: Physical Chemistry - II | <ol style="list-style-type: none"> 1. Students will gain an understanding of Joule-Thomson effect, third law of thermodynamics, absolute entropy, standard entropy and residual entropy and partial molar quantity and its significance. 2. Students should understand the importance of statistical thermodynamics and concept of partition functions. 3. Students should able to understand core study of chemical kinetics and spectroscopy. |
| | CH - 230: Inorganic Chemistry - II | <ol style="list-style-type: none"> 1. Understand the concept of microstates, spectroscopic terms and Orgel diagram of inorganic compounds. 2. Gain knowledge about magnetic properties and charge transfer spectra of transition metal complexes. 3. Students are able to analyze structure reactivity and reaction mechanisms of metal complexes. |
| | CH - 250: Organic Chemistry - II | <ol style="list-style-type: none"> 1. Students will learn the basic name reactions and rearrangement reactions. 2. Students will understand the applications of reagents in organic synthesis. 3. Students will apply the basic knowledge about core study of spectroscopy and stereochemistry |
| | CH - 290: Instrumentation and Analysis | <ol style="list-style-type: none"> 1. Explain various theoretical concepts of analytical chemistry. 2. Build up ability to solve the numerical problems 3. Apply theoretical principles, working of various classical and modern instrumentation techniques. |

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| | AC-201(A): Soft Skills | <ol style="list-style-type: none"> 1. Grasp soft skills and communication skills 2. Apply life skills to manage the situations. |
| | CH-P-1: Physical Chemistry Practical-I | <ol style="list-style-type: none"> 1. Students will understand the preparation for each experiment. 2. Setup and standardize the potentiometer, PH meter and conductometer. 3. Identify thermodynamics and kinetics of simple systems. 4. To know Safety requirements and lab skills to perform physio-chemical experiments. 5. To apply the principles and techniques to different systems. |
| | CH-I-1: Inorganic Chemistry Practical-I | <ol style="list-style-type: none"> 1. Students will understand the process of ore analysis. 2. Students able to apply their knowledge for binary mixture separation of inorganic compounds using quantitative analysis 3. Students can analyse contents present in drug 4. Students able to evaluate the lattice energy of binary salt 5. Students are able to synthesize and evaluate the complex and also able to determination of complex purity 6. Students understand the techniques of chromatography and its application in analysis. 7. Students able to handle and perform the instrumental analysis techniques. |

Department of Zoology

| Class | Paper | Course Outcomes |
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| | | After completion of course, student will be able to: |
| F.Y.B.Sc 2017-18 | ZOO 111: Non Chordates | Know Systematic position, habitat and habits external characters and sexual dimorphism of prawn. Study the anatomy of vital systems with respect to functions. |
| | ZOO 112: Cell Biology | Learn the scope of cell biology, distinguishing characters between plant cell and animal cell. Understand the cell cycle, nucleic acids, gene and genetic code, protein biosynthesis. |
| | ZOO 121: Chordate | Know Systematic position, habitat and habits External characters and sexual dimorphism of garden lizard. Gain Knowledge about Anatomy and functions of different systems of Garden Lizard. Learn types of Scales and fins in fishes, amphibian Metamorphosis, aerial adaptations in birds and dentition in mammals. |
| | ZOO 122: Applied Zoology | Learn Scope of Goatary and distribution and characteristics of Indian breeds. Learn Handling techniques, diseases and treatment of Goats. Know Economic importance of Goatary. Gain Detailed knowledge of Lac culture. |
| | ZOO-103: Practicals | Identify and describe different systems, organs and their functions of Prawn from chart or model. Classify non-chordates according to phyla with example. Describe structure and functions of animal cell, different stages of Meiosis and Mitosis. Know blood cells and its importance. Describe structure of male and female gametes and its functions. Describe detailed morphology and anatomy of Garden Lizard. Identify types of scales and fins. Classify chordates with examples. Identify different goat breeds by characteristics. Describe life cycle of lac insect. |

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| F.Y.B.Sc 2018-2022 | ZOO 101 Animal Diversity I | Learn about general taxonomic rules on animal classification Student will learn the identification of non chordates. Know anatomy and physiology of non-chordates animals. Develop the knowledge of Classification of animals, fossils study and geographical distribution of animals. Develop the skill of Microscope handling & care. |
| | ZOO 102 Animal Diversity II | Learn about general taxonomic rules on animal classification. Learn the identification of Chordates. Know anatomy and physiology of Chordates animals. Develop the knowledge of Classification of animals, fossils study and geographical distribution of animals. Develop the skill of Microscope handling & care. |
| | ZOO 103 Zoology Practical based on Animal Diversity I & II | Know the rules of taxonomy and the principle of animal classification. Identify the taxonomic status of the entire chordates and discussed the evolutionary model of the group. Student understood the diversity morphology, biological characters and taxonomical importance some selected museum specimens of different animal groups. |
| | ZOO 201 Comparative Anatomy of Vertebrates | Compare the functioning of organ systems across the animal world. Learn more about human physiology and anatomy. Students will demonstrate a fundamental knowledge of comparative vertebrate animal physiology and anatomy. Student Gains knowledge of functional anatomy of vertebrates from fishes to mammals. |
| | ZOO 202 Developmental Biology of Vertebrates | Student will learn Basic concepts of developmental biology. Student understood the process of development of animals. Student understood the process of organogenesis of selected organs, development of extra embryonic membrane and the nature and physiology of placenta. Student came to know the inducer and inductor role in embryogenesis and knowledge about metamorphosis and the process of regeneration. |
| | ZOO 203 Zoology Practical based on Comparative Anatomy & Developmental Biology of Vertebrates | Student familiar with various stages involved in the developing embryo. Student acquired knowledge of principles and working mechanisms of microscopes. Preparation, direct observation and appreciation of sperm motility and types of placenta of animals. Student familiarize with the principle of developmental biology. Student familiarize with various Techniques and tools of |

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| | | <p>Embryology.</p> <p>Student came to know about internal skeletons and osteology of different bone structures.</p> |
| S.Y.B.Sc 2017-2019 | ZOO 231- Non-Chordates - II | <p>Understand the diversity and classification and functional aspects of different systems of phylum Arthropoda, Mollusca and Echinodermata.</p> <p>Understand the resemblance and evolutionary significance of larval forms of echinoderms.</p> <p>Know about the different types of mouth parts of insects & their feeding habits.</p> <p>Know about the Locomotory organelles and the ways of locomotion in protozoa.</p> <p>Know about the Canal System in Sponge.</p> |
| | ZOO 232- Medical Zoology | <p>Understand fundamental complement of medical zoology.</p> <p>Understand about parasites and epidemiology of parasites in human and animals.</p> <p>Gain knowledge regarding vectors and parasites causing diseases their life cycle, mode of transmission pathogenicity, prevention and control measures.</p> <p>Get detailed understanding of parasites of veterinary importance and their management.</p> |
| | ZOO 233 Zoology Practical | <p>Understand the diversity and classification and functional aspects of different systems of phylum Echinodermata.</p> <p>Came to know about the Canal System in Sponges.</p> <p>Realize the factors affecting Health.</p> <p>Understand the mode of infection of parasite, molecular biology of parasite and drug targets, mechanism of drug resistance, vaccine strategies and proteomic approaches, vaccine strategies.</p> |
| | ZOO 241- Chordates – II | <p>Understand the external as well as internal characters and various systems of <i>Columba livia domestica</i>.</p> <p>Understand the accessory respiratory organs in fishes.</p> <p>Economic Importance of <i>Columba livia domestica</i></p> <p>Be able to know the reptiles of Mesozoic era. Understand the adaptations in aquatic mammals.</p> <p>Understand the term apiculture.</p> |

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| | ZOO 242- Applied Zoology | <p>Understand the Bee keeping equipments and apiary management. Understand the various species of Bees. Gain knowledge about honey bee, bee rearing, Bee enemies and diseases. Know beehives, bee keeping equipment, methods of extraction of honey and processing of honey. Know the economic importance of Apiculture.</p> |
| | ZOO 243- Zoology Practical | <p>Understand the Evolutionary history of animals. Understand the types of fins. Understand the adaptation in Aquatic mammals ex. whale and seal. Understand the diseases, pest, parasites and predators of Honey Bee. Gain knowledge about honey bee products and their uses. Aware about the adulteration of honey.</p> |
| S.Y.B.Sc 2019 onward | ZOO 301- Physiology | <p>Gain fundamental knowledge of physiology. Understand the structure and functioning of human body. Interactions and interdependence of physiological and biochemical processes. Understand the detailed concepts of digestion, respiration, excretion, the functioning of nerves and muscles, cardiovascular system and reproductive system. Learn the concepts of endocrine system and homeostasis.</p> |
| | ZOO 302- Biochemistry | <p>Describe the chemistry of lipids, proteins, enzyme and its significance. Describe the metabolism of carbohydrates, lipids and proteins. Describe the mechanism of enzyme action and identify the classes of enzymes and factors affecting action</p> |
| | ZOO 303- Zoology Practical | <p>Develop knowledge of principles and working mechanisms of microscopes. Gain knowledge of Lab techniques. Identify histological structures of different glands and organs. Identify functional groups of carbohydrates.</p> |
| | SEC- I Apiculture | <p>Understand Classification and Biology of Honey Bees Gain knowledge regarding Artificial Bee rearing. Understand importance products of Apiculture Industry and its Uses Understand Modern Methods of employing artificial Beehives for cross pollination in horticultural gardens.</p> |

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| | ZOO 401- Genetics | <p>Understanding of basic concepts of genetics and laws of inheritance.</p> <p>Know Mendelian and non-mendelian inheritance.</p> <p>Gain knowledge of gene mapping, linkage and crossing over.</p> <p>Know the Concept behind genetic disorder, gene mutations-various causes associated with inborn errors of metabolism.</p> |
| | ZOO 402- Evolutionary Biology | <p>Understand basic concept of evolutionary biology.</p> <p>Understand about Major Events in History of Life.</p> <p>Explain theories of evolution and knowledge of evolution of species.</p> <p>Explain types of natural selection with example.</p> <p>Understand biological species concept.</p> |
| | ZOO 403- Zoology Practical | <p>Describe Linkage, recombination, gene mapping using the data.</p> <p>Explain homology and analogy with the help of chart/model.</p> <p>Understand Mendelian Inheritance pattern and gene interactions.</p> <p>Identify and explain normal and abnormal Human Karyotypes.</p> <p>Explain Darwin's Finches from cut outs of beaks of different species /diagram.</p> <p>Identify types of fossils from models and pictures.</p> |
| | SEC II Medical Diagnostics | <p>Gain knowledge about diagnostic methods used for blood and urine analysis.</p> <p>Understand infectious and non-infectious diseases.</p> |

Department of Botany

| Class | Course | Outcome |
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| F. Y. B.Sc [2017-2018] | Sem-I :BOT:111.:BACTERIA,VIRUS ES AND ALGAE | <ol style="list-style-type: none"> 1. Diversity among Microbes. 2. Life cycle pattern of Viruses& Algae . 3. Systematic, morphology and structure of Viruses & Algae. 3. Useful and harmful activity of Viruses, Algae |
| | Sem-I:BOT:112: PLANT FOR HUMAN WELFARE | <ol style="list-style-type: none"> 1. Know the plants and plants production in human welfare as food, fodder, fibers medicine oil species etc. 2. Understand the nonalcoholic beverages 3Know botanical source, characters of some plants active principle ,plant part, used and uses . |
| | Sem-II:BOT: 121 FUNGI, LICHENS & PLANT PATHOLOGY | <ol style="list-style-type: none"> 1. Know the salient feature of Archegoniates. 2. Student know economic and ecological importance of Archegoniates.. 3. Life cycle pattern of selected genera.. 4. To make student aware of the status of higher cryptogams & Gymnosperm as a group in plant Kingdome.. |
| | Sem-II:BOT.202. INDUSTRIAL BOTANY | <ol style="list-style-type: none"> 1 Know the scope and importance of the discipline. 2.To highlight the conservation of biodiversity 3. Student know plant communities and ecological adaptions in plant. 4. Awareness of the botanical region of Indian and vegetation type of Maharashtra. |
| | Sem-I: Sem-II:BOT 103 & 104: PRACTICAL COURSE (BASED ON BOT.111, BOT.112 & BOT .121. BOT.122) | <ol style="list-style-type: none"> 1. Understand the morphological diversity among Bacteria , Viruses, Algae & Fungi . 2. Observe vegetative and reproductive parts of various life forms of Bacteria, Viruses, Algae &Fungi. 3. Know botanical source/s, characteristics and utilities of Plants/ plant products. 4. Learn about the industrial applications of various plants and plant products. |
| S.Y.B.Sc. (2017-2018) | Sem-III:.231: BRYOPHYTA AND PTERIDOPHYTE | <ol style="list-style-type: none"> 1. Understand the Vegetative structure of Bryophyta&pteridophyte 2. Know Reproductive structure of |

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| | | <p>Bryophyta&pteridophyte Plants.</p> <p>3.Understand the Scope and importance of plant anatomy</p> <p>4. Understand normal secondary growth in plants and their causes.</p> <p>5. Know the Protective tissue system..</p> |
| | Sem-III:.BOT.232: MORPHOLOGY & ANGIOSPERM. | <p>1. Student will able to Understand ground plan of angiospermic plant.</p> <p>2. Student will able about vegetative & reproductive characteristics of angiospermic plant.</p> <p>3. Student will able to understand the modifications and functions of plant parts.</p> |
| | Sem-IV:.BOT.241: PLANT PHYSIOLOGY. | <p>1. Know the scope and Importance of Plant Physiology..</p> <p>2. Understand the properties ,mechanism and classification of enzymes.</p> <p>3. Understand the process of photosynthesis in higher plants with particular emphasis on light and dark reactions, C3 and C4 pathways.</p> <p>4. Understand the respiration in higher plants with particular emphasis on aerobic and anaerobic respiration</p> |
| | Sem-IV:.BOT.242: TAXONOMY OF ANGIOSPERM. | <p>1.Understand of angiospermic plants causes of phenomenal succession & alternation of generation.</p> <p>2.Understand the system of classification of angiosperm, nomenclature& interdisciplinary approaches.</p> <p>3. Provide lab-based training in writing short species descriptions & illustration.</p> <p>4. Recognise members of the major angiosperm families by identifying their diagnostic features, economic & medicinal importance.</p> <p>5. Understand botanical gardens & herbarium technique .</p> |
| | Sem-III& Sem-IV:.BOT:303 and 403 : PRACTICAL COURSE (BASED ON BOT.301, BOT.302 & BOT401,BOT. 402) | <p>1. Understand the some Bryophyta&pteridophyte</p> <p>2. Observe to the Various Photographs and Slide T.S.in plant stem ,Root and Leaf.</p> <p>2. Know the physiological techniques.</p> <p>3. Develop practical skill among the students.</p> |
| F. Y. B.Sc [2018-2019 To 2021 - | Sem-I: BOT:101. MICROBIAL DIVERSITY, ALGAE AND FUNGI | <p>1. Understating the microbial diversity.</p> <p>2. Life cycle pattern of Bacteria, Viruses , Algae & Fungi</p> |

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| 2022] | | 3.Lern characters microbes of algae &,fungi. |
| | Sem-I :BOT:102 PLANTS TAXONOMY. | <ol style="list-style-type: none"> 1.Learn system of plant classification 2.Learn some families form monocot and dicot plants. 3.Know the scientific names of plants 4. Get awareness on conservation of plant diversity.. 3. Know the economic importance of the angiosperm plants. 4. Understand the distinguishing features of angiosperm families. |
| | Sem-II: BOT: 201 DIVERSITY OF ARCHEGONIATES | <ol style="list-style-type: none"> 1. Know the salient feature of Archegoniates. 2. Student know economic and ecological importance of Archegoniates.. 3. Life cycle pattern of selected genera.. 4. To make student aware of the status of higher cryptogams & Gymnosperm as a group in plant Kingdome.. |
| | Sem-II: BOT.202. PLANT ECOLOGY | <ol style="list-style-type: none"> 1 Know the scope and importance of the discipline. 2.To highlight the conservation of biodiversity 3. Student know plant communities and ecological adaptions in plant. 4. Awareness of the botanical region of Indian and vegetation type of Maharashtra. |
| | Sem-I:&Sem-II: BOT 103 & 203: PRACTICAL COURSE (BASED ON BOT.101, BOT.102 & BOT.201, BOT.202) | <ol style="list-style-type: none"> 1.known the equipment used in microbiology. 2. Observe vegetative and reproductive parts of various life forms , Algae and Fung 3. Know botanical source/s, characteristics and utilities of Plants/ plant products. 4. Learn about the industrial applications of various plants and plant products. |
| S.Y.B.Sc.[2019-2020 To 2021-2022] | Sem-III: BOT.301: PLANT ANATOMY | <ol style="list-style-type: none"> 1. Understand the Various plant tissue system. 2. Know Primary structure of Dicot and Monocot Plants. 3.Understand the Scope and importance of plant anatomy 4. Understand normal secondary growth in plants and their causes. 5. Know the Protective tissue system.. |
| | Sem-III: BOT.302: PLANT PHYSIOLOGY | <ol style="list-style-type: none"> 1. Understand the plants and plant cells in relation to water. 2. Learn about the movement of sap and absorption of water in plant body. 3. Understand the process of photosynthesis in higher |

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| | | <p>plants with particular emphasis on light and dark reactions, C3 and C4 pathways.</p> <p>4. Understand the respiration in higher plants with particular emphasis on aerobic and anaerobic respiration.</p> |
| | Sem-III: BOT.304: MUSHROOM CULTIVATION TECHNOLOGY | <p>1. Know the history ,scope and importance of mushroom technology.</p> <p>2. Understand and nutritional and medicinal values of edible mushroom.</p> <p>3. Know about the storage ,making and various food preparations of mushroom.</p> <p>4. Understand the economic importance of mushroom cultivation</p> |
| | Sem-IV: BOT.401: PLANT EMBRYOLOGY | <p>1. Know the scope and Importance of plant Embryology.</p> <p>2. Understand the structure of Micro and Mega sporangium.</p> <p>3. Know the pollination ,fertilization, Endosperm and Embryology.</p> <p>4. Give exposure of techniques in embryology. habit of the angiosperm plant body.</p> |
| | Sem-IV: BOT.402: PLANT METABOLISM. | <p>1. Know the scope and Importance of Plant Metabolism.</p> <p>2. Understand the properties ,mechanism and classification of enzymes.</p> <p>3. Understand the process of photosynthesis in higher plants with particular emphasis on light and dark reactions, C3 and C4 pathways.</p> <p>4. Understand the respiration in higher plants with particular emphasis on aerobic and anaerobic respiration.</p> |
| | Sem-II: BOT.404:NURSERY AND GARDENING. | <p>1. Know the concept of Nursery and Gardening..</p> <p>2. Give to improve the skill for growing fresh and safe vegetables.</p> <p>3. Give to create awareness about home gardening</p> <p>4. Understand to the develop different skills regarding the gardening operations among the student</p> |

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| | Sem-III:Sem-IV: BOT:303 and 403 : PRACTICAL COURSE (BASED ON BOT.301, BOT.302 & BOT401,BOT. 402) | <ol style="list-style-type: none">1. Understand the Various plant tissue system2. Observe to the Various Photographs and Slide T.S.in plant stem ,Root and Leaf.2. Know the physiological techniques.3. Develop practical skill among the students. |
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Department of Physics

| Class | Course | Course Outcomes |
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| | FYBSc PHY- 111: MECHANICS AND PROPERTIES OF MATTER | 1. apply the concept of use of knowledge of mechanics and properties of matter to real life problems. 2. understanding of the course will create scientific temperament. |
| | PHY 112: ELECTRICITY AND MAGNETISM | apply knowledge of electricity and magnetism to expect natural physical process and related ethnological advances. 2. understanding of the course will create scientific temperament. |
| | PHY-113: PRACTICAL COURSE - I | 1. understand the basic laws and explore the fundamental concepts of physics 2. understand the concepts and significance of the various physical phenomena. 3. carry out experiments to understand the laws and concepts of physics. 4. apply the theories learnt and the skills acquired to solve real time problems. |
| | PHY 121: HEAT AND THERMODYNAMICS | 1. apply the concept of use of knowledge of heat and thermodynamics real life problem |
| | PHY 122: THEORETICAL PHYSICS | 1. understanding of the course will create scientific temperament. and understand roll of the internal energy, enthalpy, entropy, temperature. |
| | PHY123:Practical Course II | 1. understand the basic laws and explore the fundamental concepts of physics 2.understand the concepts and significance of the various physical phenomena. 3. carry out experiments to understand the laws and concepts of physics. 4. apply the theories learnt and the skills acquired to solve real time problems. |
| F.Y.B.Sc 2018-19 to 2021-22 | PHY-101 Basic Mechanics | Understand fundamental theory of different physical properties Understand the set of physical laws, describing the motion of bodies, under influence of system of forces. |
| | PHY-102 Dynamics and Elasticity | Demonstrate a rigorous understanding of core theories and principle of physics which include Static and Dynamics. Learn the concept of laws in physics. |

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| | PHY-103 LAB –I and PHY-203 LAB –II | The students should study physics with keen interest, develop their experimental skill and problem solving ability. Develop practical, analytical and mathematical skills in Physics. |
| | PHY-201 Electricity and Electrostatics | Learn the concept of laws in physics. Specialized knowledge and expertise to identify, formulate, investigate, analyze and implement on the problems in physical sciences. |
| | PHY-202 Magnetism and Electromagnetism | Provide knowledge about materials properties and its application for new developing technology. Acquire a comprehensive knowledge and sound understanding of fundamentals of Physics. |
| SYBSc 2017-2018 to 2018-2019 | PHY- 231: Waves and Oscillations | after the completion of the course the students will be able to: 1. understand the fundamentals of mechanics, acoustics, and matter properties. 2. understand the physical properties of shm and the optioning solution of the oscillator utilising differential equations. |
| | PHY- 232 (A): Electronics- I | after the completion of the course the students will be able to: 1. Learn the fundamentals of the pn junction. 2. understand the fundamental concepts of basic electronics and digital electronics applications. 3. Choose knowledge oscillators, a transistor, and the h-parameter. |
| | PHY- 232 (B) – Instrumentation –I | after the completion of the course the students will be able to: 1. major power energy and design ac bridge. 2. know about various electromechanically indicating devices such as temperature, presser, and magnetic induction. 3. Study different waveforms using the capability of storage oscilloscope. |
| | PHY – 241: Modern Physics | after the completion of the course the students will be able to: 1. to know the differences between atomic and molecular spectroscopic techniques. 2. understand the intuitive concepts of quantum physics and nuclear physics. 3. to realize matter's dual nature. |
| | PHY-242: Optics | 1. Learn about several light theories. 2. learn to identify and apply optical and wave physics formulas. 3. fully understand the use of diffraction and |

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| | | polarisation. |
| | PHY 233: PRACTICAL COURSE-I PHY 243: PRACTICAL COURSE-II | after the completion of the course the students will be able to: 1.to understand the fundamental rules of physics and analyze the fundamental principles of physics 2.to understand the concepts and significance of variety of physical sprocesses. 3. to perform experiments in order to understand physics laws and principles. 4. to utilize the concepts and abilities learned to handle critical challenges. |
| S.Y.B.Sc 2019-20 to 2021-22 | PHY 301 Thermodynamics and Kinetic theory of gases | Acquire a comprehensive knowledge and sound understanding of fundamentals of Physics. Continuous learning attitude to adopt new skills and techniques to overcome the challenges related with new technologies. |
| | PHY 302(A) OR PHYSICS 302(B) Electronics-I | Understand Basic Circuits using Active Devices. Learn basic test instruments such as power supply, Function generator etc. their construction and working principle. |
| | PHY 303 LAB-III and PHY 403 Lab IV | The students should study physics with keen interest, develop their experimental skill and problem solving ability. Built small electric circuit which is useful for our practical's.Develop practical, analytical and mathematical skills in Physics. |
| | PHY-401 Waves, Oscillations and acoustics. | Demonstrate a rigorous understanding of core theories and principle of physics which include Waves theories. Learn the concept of laws in physics. |
| | PHY-402 Optics and LASERS | Understand the basic concepts of interference and Diffraction Understand the concepts of Polarization Understand the important principles of LASER physics. |

Department of Hindi

| Class | Course | Outcomes |
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| F.Y.B.A | DSC-HIN A-1 Sem I &II Hindi Story – I -111 Hindi Porty – II - 121 | <ol style="list-style-type: none"> 1. Students have been introduced to Hindi story mode. 2. Faith in human values has been built in the umbrellas. 3. Students linguistic ability has been developed though various stories . 4. Students are made aware of Social empathy through various stories. |
| S.Y.B.A | MIL- I Hindi 235 Sem III Writing Social : Media & literature (Short Story) | <p>After Completing the Course.</p> <ol style="list-style-type: none"> 1. Student are introduced to the theory of creative writing. 2. Demonstrates the creative process of creative writing through Hindi short stories. 3. Human Values are promoted and protected through Hindi stories. |
| | MIL- II Hindi 245 Sem IV Writing Social : Media literature (Geet Navgeet) | <ol style="list-style-type: none"> 1. Introduced Student to Media writing skills. 2. Introduced student to varioes types of media writing skills. 3. Introduced student to Hindi Songs & New Songs. |
| | GEN- DSC-1 (C) A Hindi 231 Sem – III Non_ prose Streams | <ol style="list-style-type: none"> 1. Introduced the Student to the classic works of “kathetar gadya vidya” 2. To nature students through non-finction prose. |
| | GEN- DSC – 1 (D) A Hindi 241 Sem- IV Best Hindi Singal | <ol style="list-style-type: none"> 1. Develomental introduction of one act play. 2. General introduction of major playwrights. 3. Explained the theatrical effect through one act plays. |
| | SKILL SEC-I Hindi 234 Sem- III Linguistic Communication | <ol style="list-style-type: none"> 1.Introduced Student to the theory of linguistic communication. 2. Introduced to the student the |

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| | | major types of communication. 3. Introduced various forms of written communication to the student. |
| | SKILL SEC-II Hindi | |
| | SPL- S 1 DSE – I (A) Hindi 232 Sem - III Poetry | 1. General Introduction to poetry. 2. Introduced various genres of poetry. |
| | SPL S 1 DSE – I (B) Hindi 242 Sem - IV Poetry | 1. General introduction to poetry. 2. Introduced various power of words. 3. Introduced “Shabdhashaktiyo”. 4. Introduced Varses & rhymes. |
| | SPL- S 2 DSE - II (A) Hindi 233 Sem – III Hindi Novel Mode (Time of Gamut) | 1. Introduced visasatmak of Hindi novel. 2. General introduction of leading Hindi Novelists. |
| | Spl- S-2 DSE – II (B) Hindi | 1. Gave developmental introduction to Hindi drama lore. 2. Introduced students to tribal literature & Culture. 3. Highlights the interrelationship between Hindi drama & theater. |
| T.Y.B.A | MIL – III Hindi 356 Sem – V Editing writing & literature (Print Media) | 1. Students will be exposed to editorial art. 2. Students will become familiar with the qualification , responsibilities & importance of an editor. 3. Students will be gain knowledge of the principles and methodology of editorial writing . |
| | MIL IV Hindi 365 sem – VI Movie & literature (Electronic media | 1. Students will be aware of the history of Hindi cinema. 2. Students will be get information about the relationship between hind movies & Indian. |
| | G – 3 DSC –E (A) Hindi 351 Sem – V Special Mode – Travel Literature | After reading this course 1.students will get the theoretical knowledge of travel literature. 2. After get theoretical knowledge of travel Literature. 3. Students will imbibe the art of writing travel Literature work. |

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| | | <p>4. Students will be familiar with Indian saint poetry</p> <p>5. Culture of different states of India students will gain knowledge of surroundings & traditions.</p> |
| | Skill DEC – III Hindi 354 Sem - V Hindi grammar & expretion Expression Dictionary. | <p>1. understanding of standard form of Hindi language and grammer.</p> <p>2. Its usefulness will be proved in the competitive examination</p> |
| | Skill – DEC –IV Hindi 364 Sem – IV Hindi Standardization & Inaccuracy of Hindi Language | <p>1. By developing the writing ability, it will be easier for the students to get employment opportunities in the fields like journalism , publishing department, literature writing etc.</p> <p>2. The personality of the students will be developed by studying this course.</p> |
| | SPL – S-3 DSE –III Hindi 352 Sem- V History of Hindi Literature (Aadikal, Bhaktikal & Ritikal) | <p>1. Students will become familiar with the time division & nomenclature of Hindi literature.</p> <p>2. Student will get the knowledge of major situations, trends & Major work of primitive literature.</p> <p>3. Student will be acquainted with the major circumstance, trends & works of major composers of bhakti.</p> |
| | SPL - S-3 DSE- III (B) Hindi 362 Sem- VI History of Hindi Literature (Morern period) | <p>1. Students will get knowledge of the main features of Bharatendu period poetry.</p> <p>2. Student will get an introduction to literary debates.</p> <p>3. Students will be familiar with the poetry & prose works of modern times.</p> |

Department of Psychology

| Class | Course | Outcomes |
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| F.Y.B.A (SEM I & II) 2017-18 | Modern General Psychology | After completion of course, student will be able to: 1. Understood the basic concepts and modern trends in Psychology. 2. Students can apply the principles of Psychology in everyday life. 3. Students became aware of the applications of Psychological concepts in various fields of human life. |
| F.Y.B.A (Sem I) CBCS Pattern 2018-19 to 2021-22 | Foundations of Psychology (PSY-101) | 1. Understood the basic concepts and modern trends in Psychology. 2. Students can apply the principles of Psychology in everyday life. 3. Students became aware of the applications of Psychological concepts in various fields of human life. |
| F.Y.B.A (Sem II) 2018-19 to 2021-22 | Introduction to Social Psychology (PSY-201) | 1. Students understood the basics concepts in social psychology and the individual in the social world. 2. Developed social behaviour and interpersonal skills of the students. |
| S.Y.B.A(Sem : III) 2017-18 to 2018-19 | PSY-231(A) Advanced social Psychology) | 1. Students understood the basics concepts in social psychology and the individual in the social world. 2. Developed social behaviour and interpersonal skills of the students. |
| S.Y.B.A (Sem : III) 2017-18 to 2018-19 | PSY-241(A) Social Psychology Process | 1. Students understood the basics concepts in social psychology and the individual in the social world. 2. Developed social behaviour and interpersonal skills of the students. |
| S.Y.B.A (Sem III) 2019-20 to 2022-23 | DSC-1C(02)PSY-231 Human Developmental Psychology : Early Life. | 1. Students understood the concept and process of human development in entire human life span. 2. Students also understood the characteristics and hazards in the stages of |

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| | | <p>human development.</p> <p>3. Students understood the physical, mental, social and moral development in various stages of human life.</p> |
| S.Y.B.A (Sem IV) 2019-20 to 2022-23 | DSC-2D(02)PSY-241 Human Developmental Psychology : Later Life. | <p>1. Students understood the concept and process of human development in entire human life span.</p> <p>2. Students also understood the characteristics and hazards in the stages of human development.</p> <p>3. Students understood the physical, mental, social and moral development in various stages of human life.</p> |
| T.Y.B.A (Sem : V) 2017-18 to 2019-20 | PSY-351A Modern Applied Psychology. | <p>1. Students understood the relationship between theoretical principles in psychology and their practical applications.</p> <p>2. Students understood how to solve the problems in daily life with the application of theories in basic psychology.</p> <p>3. Students became ready to function effectively and</p> <p>4. confidently in the society.</p> |
| T.Y.B.A (Sem : VI) 2017-18 to 2019-20 | PSY-361A Applied Psychology & Human Life. | <p>1. Student learned the skills of positive interpersonal communication.</p> |
| T.Y.B.A (Sem : V) 2020-21 onwards | DSC-2E (03) PSY-351 Management of Interpersonal Relations | <p>2. Student understood the various domains of human relationships and process of adjustment.</p> <p>3. Student became able to make good decision making to career choice.</p> |
| T.Y.B.A (Sem : VI) 2020-21 onwards | DSC-2 F (03) PSY-361 Adjustment in Life Span | <p>1. Student understood the concept of self-concept and self-esteem.</p> <p>2. Developed the skills of coping with stress in the student.</p> <p>3. Students understood the effect of habit to lifestyle.</p> |

Department of Mathematics

| Class | Course | Outcomes |
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| F.Y.B.Sc. 2017-18 | MTH-111 Matrices | <p>After learning this course, a student will be able to:</p> <ol style="list-style-type: none"> 1) Understand concepts on matrix operations and rank of the matrix. 2) Understand use of matrix to the system of linear equations. 3) Understand the method to find eigen values and eigen vectors. 4) Apply Cayley-Hamilton theorem to find the inverse of the matrix. 5) know different types of quadratic forms and its applicatrions |
| | MTH-112 Calculus of One Variable | <p>After learning this course, a student will be able to:</p> <ol style="list-style-type: none"> 1) Understand basic concepts of limits and continuity. 2) Understand use of differentiation in various fields. 3) Know the Mean value theorems and its applications. 4) apply Taylor's and Maclaurin's theorems. 5) Know reduction formulae and their application to evaluate specific definite integrals. |
| | MTH-113 (A) Geometry | <p>After learning this course, a student can</p> <ol style="list-style-type: none"> 1) visualize geometrical concepts and can understand |

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| | | <p>two dimensional figures</p> <p>2) find standard forms of equations of two-dimensional structures by using equations of translation and rotation.</p> <p>3) Understand three-dimensional figures and their equations particularly Sphere, Cone and Cylinder.</p> |
| | MTH-121 Ordinary Differential Equations | <p>After successful completion of this course a student will be able to</p> <p>1) understand basic concepts in Differential Equations</p> <p>2) Understand different methods of solving Differential Equations</p> <p>3) Understand use of differential Equations in different fields.</p> |
| | MTH-122 Theory of Numbers and Equations | <p>After successful completion of this course a student will be able to</p> <p>1) find out roots of any equation of degree less than or equal to 4</p> <p>2) use concepts of Theory of Equations in different fields of Mathematics like Algebra, Linear Algebra, Calculus, Ordinary and Partial Differential Equations</p> |
| | MTH-123(A) Laplace Transforms | <p>After successful completion of this course a student will be able to</p> <p>1) understand basic concepts of Laplace Transforms and Inverse Laplace Transforms</p> <p>2) understand the Convolution Theorem and its applications to find the Inverse Laplace Transforms of</p> |

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| | | product of two functions 3) understand use of Laplace Transform in solving Differential Equations. |
| F.Y.B.Sc 2018-19 to 2021-22 | MTH-101 Matrix Algebra | After learning this course, a student will be able to: 1) understand concepts on matrix operations and rank of the matrix. 2) understand use of matrix to the system of linear equations. 3) understand the method to find eigen values and eigen vectors. 4) apply Cayley-Hamilton theorem to find the inverse of the matrix. 5) know the matrix transformation and its applications in rotation, reflection, translation. |
| | MTH-102 Calculus | After learning this course, a student will be able to: 1) understand basic concepts of limits and continuity. 2) understand use of differentiation in various fields. 3) know the Mean value theorems and its applications. 4) apply Taylor's and Maclaurin's theorems. 5) know reduction formulae and their application to evaluate specific definite integrals. |
| | MTH-103 (A) Co-ordinate Geometry | After learning this course, a student can 1) visualize geometrical concepts and can understand twodimensional figures 2) find standard forms of |

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| | | <p>equations of two-dimensional structures by using equations of translation and rotation.</p> <p>3) understand three dimensional figures and their equations particularly Sphere, Cone and Cylinder.</p> |
| | MTH 201 Ordinary Differential Equations | <p>After successful completion of this course a student will be able to</p> <ol style="list-style-type: none"> 1) understand basic concepts in Differential Equations 2) understand different methods of solving Differential Equations 3) understand use of differential Equations in different fields. |
| | MTH 202 Theory of Equations | <p>After successful completion of this course a student will be able to</p> <ol style="list-style-type: none"> 1) find out roots of any equation of degree less than or equal to 4 2) use concepts of Theory of Equations in different fields of Mathematics like Algebra, Linear Algebra, Calculus, Ordinary and Partial Differential Equations. |
| | MTH 203(A) Laplace Transforms | <p>After successful completion of this course a student will be able to</p> <ol style="list-style-type: none"> 1) understand basic concepts of Laplace Transforms and Inverse Laplace Transforms 2) understand the Convolution Theorem and its applications to find the Inverse Laplace Transforms of product of two functions 3) understand use of Laplace |

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| | | Transform in solving Differential Equations. |
| S.Y.B.Sc. 2017-18 to 2018-19 | MTH-231 Calculus of Several Variables | After successful completion of this course a student will be able to understand: a) limit and continuity of functions of several variables b) how to find series expansion of functions. c) methods of finding extreme values of a function of two or more variables. d) concept of double integral, methods of evaluation and its application to find area e) how to solve triple integrals and to use them to find volume of a solid region. |
| | MTH-232(A) Algebra | After successful completion of this course a student will be able to: a) understand different operations in a Group and its Subgroup. b) understand Lagrange, Euler and Fermat theorems. c) understand concepts of homomorphism, isomorphism and automorphism d) understand operations in rings, integral domains, fields and Boolean ring and to know some of the applications of these abstract structures. |
| | MTH-233 Practical Course Based on MTH-231, MTH-232 | After completion of the Practical Course a student will be able to understand and solve several problems on Calculus of Several Variables and Algebra by himself. |
| | MTH-241 Complex Variables | After successful completion of this course a student will be |

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| | | <p>able to</p> <ol style="list-style-type: none"> 1) understand concepts of functions of complex variables and analytic functions 2) understand the concepts of Cauchy Riemann Equations and harmonic functions and its applications. 3) understand apply complex integration and contour integration. |
| | MTH-242(A) Differential Equations | <p>After successful completion of this course a student will be able to</p> <ol style="list-style-type: none"> 1) Understand the of Lipchitz condition and Existence and uniqueness Theorem for the initial value problem 2) know the method of variation of parameters to solve second order linear differential equations 4) Understand the Pfaffian Differential Equations and methods of solving them. 5) understand Difference Equations and their methods of solutions. |
| | MTH-243 Practical Course Based On MTH-241, MTH-242 | <p>After completion of the practical course a student will be able to understand and solve several problems on Complex Variables and Differential Equations by himself.</p> |
| S.Y.B.Sc. 2019-20 to 2021-22 | MTH-301 Calculus of Several Variables | <p>After successful completion of this course a student will be able to understand:</p> <ol style="list-style-type: none"> a) limit and continuity of functions of several variables b) how to find series expansion of functions. |

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| | | <p>c) methods of finding extreme values of a function of two or more variables.</p> <p>d) concept of double integral, methods of evaluation and its application to find area</p> <p>e) how to solve triple integrals and to use them to find volume of a solid region.</p> |
| | MTH-302(A) Group Theory | <p>After successful completion of this course a student will be able to:</p> <p>a) understand different operations in a Group and its Subgroup.</p> <p>b) understand Lagrange, Euler and Fermat theorems.</p> <p>c) understand concepts of homomorphism, isomorphism and automorphism</p> <p>d) understand operations in rings, integral domains, fields and Boolean ring and to know some of the applications of these abstract structures.</p> |
| | MTH-303 Practical Course Based on MTH-301 and MTH-302 | <p>After completion of the Practical Course a student will be able to understand and solve several problems on Calculus of Several Variables and Algebra by himself</p> |
| | MTH 401 Complex Variables | <p>After successful completion of this course a student will be able to</p> <p>1) understand concepts of functions of complex variables and analytic functions</p> <p>2) understand the concepts of Cauchy Riemann Equations and harmonic functions</p> <p>3) understand complex integration and contour</p> |

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| | | integration |
| | MTH 402(A) Differential Equations | <p>After successful completion of this course a student will be able to</p> <ol style="list-style-type: none"> 1) understand the of Lipschitz condition and Existence and uniqueness Theorem for the initial value problem 2) the method of variation of parameters to solve second order linear differential equations 4) understand the Pfaffian Differential Equations and their method of solving 5) understand Difference Equations and their methods of solutions |
| | MTH 403 Practical Course Based On MTH 401 and MTH 402 | <p>After completion of the practical course a student will be able to understand and solve several problems on Complex Variables and Differential Equations by himself.</p> |

Department of Political Science

| Class | Course | Outcomes |
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| F.Y.B.A 2018-2022 | F.Y.B.A. POLITICAL SCIENCE - General Paper C.C. POL - G 101 - A - (Semester I) Indian constitution | Outlining the basic values and philosophy of Indian Constitution as expressed in the Preamble. Studying Fundamental rights, duties and Directive Principles of State Policy. Examining Indian constitutional bodies & amendment process. |
| | F.Y.B.A. POLITICAL SCIENCE POL - G - 201 - B - (Semester II) Indian Government | Student will- Analyze the Indian political system, the powers and functions of the Union, State and Local Governments in detail Student are knowing judiciary & constitutional commission process, center –state relation & civil services. |
| S.Y.B.A 2017-2019 | S.Y.B.A. Political Science, Semester III Paper Code: pol-232-spl 1 modern political ideologies | Students will be able to understand and analyze different political arguments in their ideological context and they will be more sophisticated in dealing with the cultural, ideological and social embeddedness of political actions, discourses, and rhetoric's. The course will enhance the students' critical thinking in revealing and uncovering ideology, an important component of politics. |
| | S.Y.B.A. Political Science, Semester III Paper Code: Pol-233 spl-2 Indian political thought | Student will be able to – Learn Tracing the evolution of Indian political thought from ancient India to modern India |
| | S.Y.B.A. Political Science Semester III Paper Code: pol-231 gen-social political movement in Maharashtra | Student will be able to- know Introduction of Maharashtra. To know the District Administration Understand the Rural Local |

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| | | Administration Understand the Urban Local Administration Introduce different social Movements in Maharashtra. |
| | S.Y.B.A. Political Science, Semester IV Paper Code: pol-242 spl 3 modern political ideologies | Students will be able to understand and analyze different political arguments in their ideological context and they will be more sophisticated in dealing with the cultural, ideological and social embeddedness of political actions, discourses, and rhetoric's. The course will enhance the students' critical thinking in revealing and uncovering ideology, an important component of politics. |
| | S.Y.B.A. Political Science Semester IV Paper Code: pol-243 spl-4 Indian political thought | Student will learn - Tracing the evolution of Indian political thought from ancient India to modern Indi |
| | S.Y.B.A. Political Science, Semester IV Paper Code: pol-241 gen III Administration of Maharashtra | Student will- Develop a local leadership. Exhibit the efforts for rural development. Apply the management and theory at local level. Awareness of the basic governing system as well as development measures. Conceptualization of the developmental process at the top to bottom and also in between. |
| S.Y.B.A 2019 onwards | S.Y.B.A. Political Science, Semester III Paper Code: DSE – 1A Reading Mahatma Gandhi | After the completion of this course, the student-learners would be able to: Draw a link between the life and work of Gandhi particularly the nature of the continuity between his experiences and encounters in South Africa and his spearheading of India's freedom struggle. Explain the central tenets of Gandhi's thought and political practice such as satyagraha, ahimsa, and Swaraj and their significance against the backdrop of the political imagination of both his and the present time. Develop an appreciation of Gandhi's |

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| | | contribution to India's freedom struggle and the influence of his ideas and thought around the globe particularly relating to peace and non-violence movements for justice and equality. |
| | S.Y.B.A. Political Science, Semester III Paper Code: DSE – 2A Government and Politics of America Course outcome- | Upon completion of this course, the student will be able to: Demonstrate in writing a basic knowledge of the functions of American government. Discuss in writing the constitution, federalism, civil liberties, and foreign policy in American government from development to the present. Recall elements of the constitution, civil liberties, federalism, the functions of the three branches of government, and the expansion of the role of government in American life. |
| | S.Y.B.A. Political Science Semester III Paper Code: DSC – 1C Introduction to Administration of Maharashtra | Student will know history of establishment in Maharashtra, role of chief secretary of state, district collector role & functions. |
| | S.Y.B.A. Political Science Semester III Paper Code: SEC 1 Research Methodology in Political Science | Able to do research, including the problem analysis, setting goals and objectives, defining the research subject, selecting research methods including its quality control. Able to solve professional problems based on synthesis and analysis. Able to identify scientific subject. Student is capable of posing research problems relevant to the study of political phenomenon and political processes; setting particular research tasks; and putting together a research design. Student is capable of choosing research methods appropriate for resolving the professional tasks. Student is capable of retrieving, collecting, processing and analysing information relevant for achieving goals in the professional field. |

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| | S.Y.B.A. Political Science, Semester IV Paper Code: DSE – 1B Reading Dr. Ambedkar | After completion of this course, the students would be able to: Gain general familiarity with the life and works of Dr Bhimrao Ambedkar; Get some understanding of Ambedkar's critique of caste; Explaining the thought of political parties, freedom of press. Appreciate Ambedkar's contributions to the making of India's Constitution. |
| | S.Y.B.A. Political Science Semester IV Paper Code: DSE – 2B Government and Politics of China | On successful completion of this module a student will be able to: Demonstrate a knowledge of the key themes of continuity and change in Chinese politics from the Republican period to the present Understand the key problems of governance in a state as large and complex as China Student are knowing silent features of china's constitution, military administration, political parties in china. |
| | S.Y.B.A. Political Science, Semester IV Paper Code: DSC – 1D Introduction to Local and District Administration of Maharashtra | Student will- understand the problems and issues that are faced in the rural areas, especially of Maharashtra is generated through this course. Some of the most effective debates are seen to emerge from these topics. Learners' viewpoints and maturity of thoughts are usually found to be commendable. The course creates learners with a wholesome understanding of administration urban grassroots. Evaluation and analyses of the issues discussed in this course in fact help learners realistically analyses the extent of urban challenges at hand. Student are knowing constitutional & legal board of Maharashtra. |
| | S.Y.B.A. Political Science, Semester IV Paper Code: DSC | A fully engaged student shall be able to get exposure to undertake a short |

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| | – 4 D Minor Research Study Project. | research project. Also, able to communicate and demonstrate the learning through structured thesis and oral presentation. |
| | S.Y.B.A. Political Science, Semester IV Paper Code : SEC – 2 Election Management | Student will- know election commission structure, power, function. Discussing the election process & campaign. Explaining the election methods & political participation. |
| T.Y.B.A 2017-2020 | T.Y.B.A. Political Science, Semester V Paper Code: spl -3 Western Political Thought | Student will learn- Providing an insight into the dominant features of Ancient Western Political Thought: Ancient Greek political thought with focus on Aristotle and Plato; Roman Political Thought: its contributions with special emphasis on the emergence of Roman law. Examining the features of Medieval Political Thought. Evaluating the Renaissance; political thought of Reformation; and Machiavelli. |
| | T.Y.B.A. Political Science, Semester V Paper Code:spl-4 modern political analysis | Student will gain Knowledge: About Moves to scientific tradition in Political Science, and its limitation. Skill gained: Contextual Analysis and how to structure political argument. Competency gained : ability to use different types of analysis |
| | T.Y.B.A. Political Science, Semester V Paper Code: gen g-3 personal administration and management | This course intends to familiarize the students with Bureaucracy, various aspects of Personnel Administration such as; Classification of Services, Recruitment, Training and Promotion and Employer - Employee Relationship, Grievance Redressal Mechanism. |
| | T.Y.B.A. Political Science, Semester VI Paper Code: gen g-3 - personal administration and management | This course intends to familiarize the students with the various aspects of Public Personnel Administration in India and the Issues and Challenges related to Personnel Administration along with Reforms initiatives. |
| | T.Y.B.A. Political Science, Semester VI Paper Code: Spl - | Student will learn- Critically examining Bodin's contributions to the theory of |

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| | 3 Western Political Thought | Sovereignty; Hobbes as the founder of the science of materialist politics; Locke as the founder of Liberalism with focus on his views on natural rights, property and consent; and Rousseau's views on Freedom and Democracy; Bentham's Utilitarianism; and John Stuart Mill's views on liberty and representative government |
| | T. Y.B.A. Political Science, Semester VI Paper Code: gen g-3 personal administration and management | This course intends to familiarize the students with the various aspects of Public Personnel Administration in India and the Issues and Challenges related to Personnel Administration along with Reforms initiatives. |
| T. Y.B.A 2020 onwards | T. Y.B.A. Political Science, Semester V Paper Code: DSE-3A Western Political Thinker Part – I | Student will be able to : Introduce political thought process and theory making in the west from the Greek political thinkers to down the ages including introduce the student to the richness and variations in the political perceptions of western thinkers it provides a foundation to students of political science in familiarizing themselves to the thought and theory of western philosophy it particularly focuses on the evolution of idea and institution of state in the west it covers ancient medieval and early modern thinkers . Analyzing the thought of Aristotle, Machiavelli & Russo. |
| | T. Y.B.A. Political Science, Semester V Paper Code: DSE-4 A Political Sociology Part – I | Student will- Learn the concepts of political sociology, political system, political culture, political socialization, political participation, and political leadership. Evaluating the political culture. Classifying the different types of Political systems. |
| | T. Y.B.A. Political Science, Semester V Paper Code: DSC-1 E Indian Political Thinker | Student will learn-Tracing the evolution of Indian political thought from ancient India to modern India. |

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| | Part - I | Analyzing & Discussing the nationalist thought of dada Bhai Navroji, Lokmanya Tilak, Mahatma Gandhi Analyzing the Gandhian Movements such as the Khilafat, Non Cooperation, Civil Disobedience movements. |
| | T.Y.B.A. Political Science, Semester V Paper Code: SEC-3 Journalism and Mass Communication | Students would be able to relate to the emerging trends in the field of journalism. Students would be able to analyze the various aspects of journalism with objectivity. Students will be able to identify, assess, and analyze the ideological issues related to journalism. |
| | T.Y.B.A. Political Science Semester V Paper Code: GE 1A: Indian Civil Services | This course will encourage students to acknowledge civil services and good governance process in india. Student will be able to understand origin, development, and challenges before good governance in india. |
| | T.Y.B.A. Political Science Semester VI Paper Code: DSE-3 B Western Political Thinker Part – II | Student will gain knowledge about- Providing an insight into the dominant features of Ancient Western Political Thought: Ancient Greek political thought with focus on john Stuart mill, Karl marks, Harold Laski. Evaluate the views on women liberty, state of classes & stateless society. Critically examining John Stuart Mill's views on liberty and representative government. Examine the varieties of non-Marxist socialism: Fabianism, Syndicalism, Guild Socialism, and German Revisionism. |
| | T.Y.B.A. Political Science Semester VI Paper Code: DSE-4 B Political Sociology Part – II | Student will be able to : know the concepts of Power, Authority and Legitimacy in the context of society. Evaluating the concept of public development & modernization. Discussing the concept of political communication & public opinion. Assessing the approaches to political |

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| | | influence & political legitimacy. |
| | T.Y.B.A. Political Science, Semester VI Paper Code: DSC-1 F Indian Political Thinker Part - II | <p>Student will be able to learn - Tracing the evolution of Indian political thought from ancient India to modern India.</p> <p>Student will learn- Analyzing the nationalist thought of Vinayak damodar Savarkar.</p> <p>Assessing the nationalist thought of Dr.Babasaheb Ambedkar & Pandit Nehru.</p> <p>Describing the movements against caste and untouchability, Ambedkar's views on Social Justice and the depressed classes.</p> <p>Discussing the roots of communalism- Savarkar and Hindu Nationalism and Jinnah and the two nation theory.</p> |
| | T.Y.B.A. Political Science, Semester VI Paper Code: SEC- 4 Political Journalism | <p>Student will be able to - Describe political journalism.</p> <p>Explain the key concepts in political journalism.</p> <p>Explain the role of political journalism in a democratic regime.</p> <p>Describe the methods of political journalism.</p> <p>Discuss the role of political journalism during leadership deployment.</p> <p>Discuss the role of political journalism in awareness.</p> |
| | T.Y.B.A .Political Science, Semester VI Paper Code: GE 1B: Management and Good Governance | <p>Student will know- silent features of good governance.</p> <p>Functions of management (POSDCORB), functions of administrative leadership.</p> |

Department of Computer

| Class | Paper | Course Outcomes (Students will be able to) |
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| F.Y.B.Sc 2017-18 | CS-111: Basics of Computer | <ol style="list-style-type: none"> 1. understand the history of computers. 2. understand what computer and basic concepts of computer 3. aware about various types of computers, types of input and output devices. 4. preparation of algorithm and flowchart of program. 5. learn computer networks, its types and basics of internet 6. understand computer viruses and its types. |
| | CS-112:C Programming -I | <ol style="list-style-type: none"> 1. develop their programming skills. 2. be familiar with programming environment with c program structure. 3. declaration of variables and constants. 4. understand operators, expressions and pre-processors. 5. understand arrays, its declaration and uses. |
| | CS-103-Lab course on Paper I and II | <ol style="list-style-type: none"> 1. on completion of the course, students are able to develop programs using c to meet real world needs and able to develop their own websites. 2. this course provides platform to enhance students basic skills required for advance programming |
| | CS-121-Internet Computing | <ol style="list-style-type: none"> 1. understand the types of website, it's structure, site organization model, site planning and testing. 2. understand how to design website with different website development models. 3. know the different page types on websites and it's navigations. 4. designing website using html language. 5. design advanced website using css.. |
| | CS 122: C Programming - II | <ol style="list-style-type: none"> 1. design programs using functions, pointers, structures and unions in c language. |

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| | | <ol style="list-style-type: none"> 2. write a program using file handling. 3. writing programs for drawing different graphical shapes. |
| | CS-103 and 203-Lab course on Paper I and II | <ol style="list-style-type: none"> 1. on completion of the course, students are able to develop programs using c to meet real world needs and able to develop their own websites. 2. this course provides platform to enhance students basic skills required for advance programming |
| F.Y.B.Sc 2018-2022 | CS-101: Essentials of Computer | <ol style="list-style-type: none"> 1. understand the history of computers. 2. understand what computer and basic concepts of computer 3. aware about various types of computers, types of input and output devices and types of memory 4. learn computer networks, its types and basics of internet 5. understand computer viruses and its types 6. know about Operating system and services of operating system as well as various Dos commands |
| | CS-102:C Programming -I | <ol style="list-style-type: none"> 1. develop their programming skills. 2. be familiar with programming environment with c program structure. 3. declaration of variables and constants. 4. understand operators, expressions and pre-processors. 5. Understand the various conditional statements and looping 6. understand arrays, its declaration and uses. |
| | CS-103-Lab course on Paper I and II | <ol style="list-style-type: none"> 1. To learn the various input, output devices, able to install various software, various Dos Commands, web browsers and their functions, able to create an email account, sending an email and receiving an email, how LAN working in laboratory, sharing of computer and printer in Network. 2. on completion of the course, students are able to develop programs using c to meet real world needs and able to develop their own websites. |
| | CS-201-Internet Computing | <ol style="list-style-type: none"> 1. understand the types of website, it's structure, site organization model, site planning and testing. 2. understand how to design website with |

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| | | <p>different website development models.</p> <p>3. know the different page types on websites and it's navigations.</p> <p>4. designing website using html language.</p> <p>5. design advanced website using css..</p> |
| | CS-202:C Programming -II | <p>1. design programs using functions, pointers</p> <p>2.Understand about structures and unions in c language.</p> <p>3. write a program using file handling.</p> <p>4. writing programs for drawing different graphical shapes.</p> |
| | CS- 203-Lab course on Paper I and II | <p>1.Students should be able to understand the programming language C.</p> <p>2.Understand the logic of a problem and write structure of C program.</p> <p>3.Known the concepts of HTML programming</p> <p>4.Students are able to develop website using HTML language</p> |
| S.Y.B.Sc 2017-2019 | COMP 211 : Data Structure I | <p>1. Students are able to know what is data structure and basic algorithm notations.</p> <p>2. Introduction to Algorithm analysis for time and space requirement</p> <p>3.understand different types of data structures and different operations applied on various data structures</p> <p>4. know the file structures</p> |
| | COMP 212 : OOAD & Introduction to C++ | <p>1. be familiar with object oriented programming environment.</p> <p>2. Differentiate between structure oriented programming and object oriented programming.</p> <p>3. understand different object modeling techniques and analysis like generalization ,aggregation and metadata.</p> <p>4. write reusable ,extensible and robust programs in c++..</p> <p>5.Understand the concept of classes and objects</p> <p>6. Know about constructor and destructor and types of it.</p> |
| | COMP 212 : Data Structure II | <p>1. know different non-linear data structures that can be used to represent hierarchical relationship between objects.</p> <p>2. traverse and represent the graphs in computer.</p> |

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| | | <ul style="list-style-type: none"> 3. understand the different approaches of sorting and searching elements in the arrays. 4. understand different techniques of designing the algorithms. |
| | COMP 222 : Programming in C++ | <ul style="list-style-type: none"> 1 Understand function and operator overloading. 2 Write programs for handling runtime errors using exception handling mechanism. 3. understand the concepts of pointers in c++. 4. understand the different types of inheritance, 5. Write generic programs using Templates and Standard template library |
| | COMP 222 and 223 : Practical Course | <ul style="list-style-type: none"> 1. Students are able to develop programs by using various data structure and write extensible and efficient program. 2. Students are able to develop programs by using C++ based on Object oriented concepts. |
| S.Y.B.Sc 2019 Onwards | CS-DSC 2C: COMP 211 : Data Structure I | <ul style="list-style-type: none"> 1. Students are able to know what is data structure and basic algorithm notations. 2. Introduction to Algorithm analysis for time and space requirement 3. understand the concept of stack and different operations applied on stack 4. understand the concept of queue and different operations applied on queue 5. understand the concept of linked list and different operations applied on linked list. |
| | CS-DSC 2C: COMP 212: Programming in C++-I | <ul style="list-style-type: none"> 1. be familiar with programming environment with C++ program structure. 2. declaration of variables and Keywords. 3. understand operators and manipulators. 4. Understand the concept of classes and objects. 5. Know about Function in C++ 6. Understand the concept of function and operator overloading |
| | CS-SECI (Skill Enhancement Course-I) Software & Hardware Installation Skills | <ul style="list-style-type: none"> 1. Understand basics of operating system installations 2. How to install various device 3. Know about network installation and pc maintenance |
| | CS-DSC 2C: COMP 211 and 212 : Practical Course | <ul style="list-style-type: none"> 1. Students are able to develop programs by using various data structure . 2. Students are able to develop programs by using |

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| | | C++ programming languages. |
| | CS-DSC-2D-COMP 221 : Data Structure-II | <ol style="list-style-type: none"> 1. know about what is tree ,binary tree and operations on binary search tree 2. traverse and represent the graphs in computer. 3. understand the different approaches of sorting techniques 4.Understand searching techniques |
| | CS-DSC 2D: COMP 222:Programming in C++-II | <ol style="list-style-type: none"> 1. Understand the constructor and its various type as well as what is destructor. 2. Understand the different aspects of hierarchy of classes and their extensibility. 3. Write programs for handling runtime errors using exception handling mechanism. 4.Write generic programs using Templates and Standard template library 5.Working with files. |
| | CS SEC-II (Skill Enhancement Course-II) Network Security | <ol style="list-style-type: none"> 1. demonstration of malware for using any antivirus software viruses, worms, intrusion tools, spyware using 2. Secure client of network by using various permissions as well as password protection. 3. Apply firewall rules for inbound and outbound services. 4. create user groups and perform various roles for securing network 5. Demonstration of securing wireless network. |
| | CS-DSC 2D: COMP 221 and 222 : Practical Course | <ol style="list-style-type: none"> 1. Students are able to develop programs by using various data structure and implement various sorting techniques. 2. Students are able to develop programs by using C++ programming languages. |
| T.Y.B.Sc. 2017-2020 | CS-311: System Programming | <ol style="list-style-type: none"> 1. get aware about system software's and their tools like editors and debug monitors. 2. get familiar with language processing activities. 3. understand detail working of assembler, macro and macro pre-processor 4. Understand function of compiler, linker & loader. |
| | CS-312: Database Management System | <ol style="list-style-type: none"> 1. get aware of describing & storing data. 2. Know about e-r model by over view of |

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| | | <p>database design.</p> <ol style="list-style-type: none"> 3. Get familiar with conversion of e-r to relational model 4. Know about functional dependency and data normalization. 5. Understand database implementations. 6. Backup & recovery for large or huge of databases. 7. Get aware about handling huge Databases. |
| | CS-313: Software Engineering | <ol style="list-style-type: none"> 1. get aware of evaluation of software and software development life cycle(sdlc). 2. know about software development model. 3.get knowledge of requirement analysis and specification in software engineering. 4.learn use of factfinding techniques, typesof requirement modeling and data modelling concepts. 5.get knowledge of design concepts in software engineering. 6. know about cohesion & coupling , decision table & decisiontree, data flow diagram 7. Knowaboutsoftwarecoding&testing. 8. get aware aboutelement sofsoftwarequalityassurance. |
| | CS-314: Computer Aided Graphics | <ol style="list-style-type: none"> 1.differentiate between interactive and non-interactive graphics. 2. explore different line and circle drawing algorithms. 3. Perform 2d and 3d Transformation on different images. 4. know about detail working of image clipping and windowing. 5. understand rastergraphics and hidden surface lamination.. |
| | CS-315:Programming in VB.NET | <ol style="list-style-type: none"> 1.get aware about .net platform. 2.Understand looping structure ,control flow statements and exception handling in vb.net 3. understandobjectorientedprogramminginvb.net 4. createapplicationsthatuse ADO.net. |
| | Elective -B UG-CS 316 B): JAVA Programming-I | <ol style="list-style-type: none"> 1. get knowledge about jdk environment. 2. explore polymorphism using function and operator overloading ,overriding. |

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| | | <ol style="list-style-type: none"> 3. understand the different aspects of hierarchy of classes and their extensibility. 4 .understand the concepts of streams and files. 5. write programs for handling runtime errors using exception handling mechanism |
| | CS-Lab-301: Lab on System Programming | on completion of the course, students are able to develop system programs to provide basic applications for computing like editor, interrupt handler ,smaco and lexical analyser. |
| | CS-Lab-302: Lab on Programming in VB.NET, Computer Aided Graphics | <ol style="list-style-type: none"> 1.on completion of the course , students are able to develop different programs for demonstrating different computer graphics algorithms like circle,line drawing and clipping. 2.students can create dynamic web pages using vb.net. |
| | Elective -B CSLab- 303 B): Lab on JAVA Programming –I | 1. on completion of the course, students are able to develop efficient programs which provides graphical user interface for easy handling of computers using java |
| | CS-321: Operating System | <ol style="list-style-type: none"> 1.know about functions and services of operating system. 2.aware about different CPU scheduling algorithms 3.Understand with different memory management techniques. 4.understand different disk and drum scheduling algorithms as wellas deadlock concepts. 5. Get introductory knowledge about android operating system. |
| | CS-322: MS-SQL Server | <ol style="list-style-type: none"> 1. Understand features and data types in SQL server. 2. Create and manipulate databases for various applications. 3. Know about the use of procedures and trigger for performing complex operation on databases. 4. handle errors using exception handling Concepts |
| | CS-323: Internet Programming using PHP | <ol style="list-style-type: none"> 1. Understand how php works with lexical structure of it. 2. Program for different applications using arrays, functions and strings. 3. Know about various web techniques used in |

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| | | <p>php.</p> <p>4. Understand how Integrate php with my sql.</p> |
| | <p>CS-324: Theoretical Computer Science</p> | <p>1. understand what is tree and graphs</p> <p>2. Understand concepts of context free grammar and normalization of cfg.</p> <p>3. Convert regular expression to finite automata.</p> <p>4. design turing machines for various applications like enumerator.</p> <p>5. Know about what is pushdown automata and its applications.</p> |
| | <p>CS-325: Computer Network</p> | <p>1. understand applications of network, network structures and protocol hierarchy</p> <p>2. aware about details of physical, data link, network and transport layer of tcp/ip network model.</p> <p>3. aware about cryptography and public key Infrastructure</p> |
| | <p>Elective -B UG-CS 326 B): JAVA Programming-II</p> | <p>1. Program using graphical user interface with swing classes.</p> <p>2. Handle different kinds of events generated while handling windows.</p> <p>3. Create programs using menus and dialog boxes.</p> <p>4. Program for websites using applets.</p> <p>5. Understand advanced java concepts like JDBC and servlets.</p> |
| | <p>CS-Lab-304: Lab on MS SQLServer</p> | <p>1. on completion of the course, students are able to develop database management system using features and services provided by MS-SQL server</p> |
| | <p>CS-Lab-305: Lab on Internet Programming using PHP</p> | <p>1. On completion of the course, students are able to develop interactive static as well as dynamic websites.</p> |
| | <p>Elective -B CS Lab- 306 B): Lab on JAVA Programming -I</p> | <p>1. On completion of the course, students are able to develop efficient programs which provides graphical user interface for easy handling of computers using java</p> |
| <p>T.Y.B.Sc. 2020 Onwards</p> | <p>CS-501: System Programming</p> | <p>1) Understand details about system software</p> <p>2) To do basic system program like development of editors lexical analyzers etc.</p> <p>3) Students are familiar with language processing</p> |

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| | | activities- functions of translators, loader and linkers |
| | CS-502: Database Management System | On completion of the course, student will be able to– 1)Solve real world problems using appropriate set, function, and relational models. 2) Design E-R Model for given requirements and convert the same into database tables. 3) Use SQL. |
| | CS-503: Software Engineering | After completion of the course: 1) Students are able to perform the E-R Diagram, DFD, Data dictionary, Decision tree about software. 2) They can also design the software in learned language using the course content. 3) Get the knowledge of types of testing & how testing is performed in industry. |
| | CS-504: Computer Aided Graphics | 1) Differentiate between interactive and non-interactive graphics. 2) Study line Drawing and Circle Drawing techniques and algorithms. 3) Perform 2D and 3D transformation on different images. 4) Know about detail working of 2D and 3D clipping and windowing. 5) Understand raster graphics and hidden surface elimination. |
| | CS-505:Python Programming-I | 1) Explain basic principles of Python programming language 2) Construct and apply various filters for a specific task. 3) Apply the best features of mathematics, engineering and natural sciences to program real life problems |
| | CS-506 B: JAVA Programming I | 1)Get knowledge of JDK environment 2) Explore polymorphism using method overloading and method overriding 3) Understand the different aspects of hierarchy of classes and their extensibility 4)Understands the concept of streams and files 5)Write programs for handling run time errors using exception |

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| | CS-Lab-507 : Python Programming | <ol style="list-style-type: none"> 1. installation of python 2. write a simple program and function modules in python 3. use of tuple, list and dictionary. |
| | CS-Lab 508: Computer Aided Graphics | <ol style="list-style-type: none"> 1)Understanding Graphics Concept Practically 2)Hands on of using standard graphics library 3)Hands on of implementation of DDA, Bresenham's Line, Circle Drawing Algorithm 4) Hands on of implementation of 2D Transformation: Translation, Scaling and Rotation 5)Hands on of implementation of Cohen-Sutherland line clipping algorithm |
| | CS Lab 509 B: JAVA ProgrammingI | <ol style="list-style-type: none"> 1. Get knowledge jdk environment. 2. Explore polymorphism using function and operator overloading, overriding. 3. Understand the different aspects of hierarchy of classes and their extensibility. 4 understand the concepts of streams and files. 5. write programs for handling runtime errors using exception. |
| | CS-601: Operating System | <ol style="list-style-type: none"> 1) Students should familiar with Operating System Services. 2) Understand CPU scheduling algorithms, memory Management Techniques, Disk Drum Scheduling algorithms, Deadlock preventions and avoidance. 3) Introduction to android operating systems – its architecture, applications and uses.. |
| | CS-602: RDBMS | <p>On completion of the course, student will be able to–</p> <ol style="list-style-type: none"> 1) Design E-R Model for given requirements and convert the same into database tables. 2) Use database techniques such as SQL & PL/SQL. 3) Explain transaction Management in relational database System. 4)Use advanced database Programming concepts |
| | CS-603: Computer network | <p>After completion of the course:</p> <ol style="list-style-type: none"> 1)Students understand the information exchange done across the network with the help of OSI & TCP/IP models |

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| | | <p>2) Student understands how errors are captured & handled in network.</p> <p>3) Student understands various attack & its prevention techniques.</p> |
| | CS-604: Theoretical Computer Science | <p>1) Understanding the use of Sets, Relations and Graphs.</p> <p>2) Understand Languages in TCS.</p> <p>3) Introduction of Regular Languages and Expressions.</p> <p>4) Understanding Pumping Lemma and its applications.</p> <p>5) Explore the knowledge of Pushdown Automata.</p> <p>6) Understanding Normal Forms with Examples.</p> <p>7) Understanding Turing Machine.</p> |
| | CS-605: Python Programming – II | <p>At the end of the course, the student will be able to</p> <p>1) Explain basic principles of Python programming language</p> <p>2) Implement objects oriented concepts, database applications.</p> <p>3) Construct regular expressions for pattern matching and apply them to various filters for a specific task</p> <p>4) Design and implement Database Application and Content providers.</p> <p>5) Apply the best features of mathematics, engineering and natural sciences to program real life problems.</p> |
| | Elective -B)CS-606: JAVA Programming-II | <p>1) Program using graphical user interface with Swing classes</p> <p>2) Handle different kinds of events generated while handling GUI components</p> <p>3) Create programs using menus and dialog boxes</p> <p>4) Program to create applets</p> <p>5) Understand advanced java concepts like JDBC, Java Beans</p> |
| | CS-Lab 607: Python Programming II | <p>1. Define and demonstrate the use of built-in data structures “lists” and “dictionary”.</p> <p>2. Design and implement a program to solve a real world problem.</p> |

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| | | <p>3. Design and implement gui application and how to handle exceptions and files.</p> <p>4. make database connectivity in python programming language</p> |
| | CS- Lab 608 RDBMS | <p>On completion of this course, students will be able to:</p> <ol style="list-style-type: none"> 1) To use SQL & PL/SQL. 2) To perform advanced database operations. 3) Create database tables in postgre SQL. 4) Write and execute simple, nested queries |
| | Elective -B CSLab-609 B): Lab on JAVA Programming –II | <ol style="list-style-type: none"> 1) Program using graphical user interface with Swing classes 2) Handle different kinds of events generated while handling GUI components 3) Create programs using menus and dialog boxes 4) Program to create applets 5) Understand advanced java concepts like JDBC, Java Beans |

Department of History

| Class | Course | Outcomes |
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| F.Y. B.A. 2017-18 | Sem-I HIS - G - 101 : History of Indian Freedom Movement (A. D.1857 - 1905) | <ol style="list-style-type: none"> 1 Evaluate Consolidation of English Power in India 2 Analyses Social Religious Consciousness in India 3 To Introduce Various Perspective of the Indian Freedom Movement 4 To Develop the Spirit of Nationalism among Student. |
| | Sem-II DSC-HIS-G-201-A, Sem.-II History of Indian Freedom Movement (A.D.1905- A.D.1950) | <ol style="list-style-type: none"> 1 To Bring an awareness among the student as Responsible Citizens. 2 Understand modern Indian History 3 Identify the importance and the legacy of Freedom Movement. 4 Evaluate the renaissance and social reform movement in India. |
| 2018-2022 | Sem.I HIS DSC A 1 History of India (1857-1950) | <ol style="list-style-type: none"> 1. To Introduce various perspectives of the Indian Freedom Movement 2. To develop the spirit of Nationalism among students. |
| | Sem.II HIS DSC A 2 History of India (1857-1950) | <ol style="list-style-type: none"> 1. To bring an awareness among the students as responsible citizen of the country. 2. To inculcate Liberty, Equality and Fraternity among the students. |

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| S.Y. B.A. 2017-2019 | Sem.III HIS 231(G-2) : Rise of Maratha Power (1630-1674) | <ol style="list-style-type: none"> 1 Understand the inspiration behind the establishment of swarajya. 2 Explain the reasons behind Chatrapati Shivaji Maharaj conflicts with the regional Lords and the outsiders. 3 Know about the administrative need and the importance of grand coronation of Chatrapati Shivaji. 4 Asses the Chatrapati Shivaji is invasion on karnataka. |
| | Sem.IV HIS 241 (G-2) : Rise of Maratha Power (1674-1707) | <ol style="list-style-type: none"> 1 Understand the formation of welfare state during the Maratha rule. 2 Understand the industrial and agricultural aspects of Chatrapati Shivaji Maharaj. 3 Understand the administrative aspect of the Swarajya. 4 Perceive influence of political support on religion. |
| 2019 onwards | Sem.III HIS 231(G-2) : Rise of Maratha Power (1630-1674) | <ol style="list-style-type: none"> 1. Understand the inspiration behind the establishment of swarajya. 2. Explain the reasons behind Chatrapati Shivaji Maharaj conflicts with the regional Lords and the outsiders. 3. Know about the administrative need and the importance of grand coronation of Chatrapati Shivaji. 4. Asses the Chatrapati Shivaji is invasion on karnataka. |
| | Sem.IV HIS 241 (G-2) : Rise of Maratha Power (1674-1707) | <ol style="list-style-type: none"> 1 Understand the formation of welfare state during the Maratha rule. 2 Understand the industrial and agricultural aspects of Chatrapati Shivaji Maharaj. 3 Understand the administrative aspect of the Swarajya. 4 Perceive influence of political support on religion. |
| T.Y. B.A. 2017-2020 | Sem.V HIS(G3) 351 : History of Modern World (1789-1900) | <ol style="list-style-type: none"> 1 Understand the concept and meaning of the History of Modern Europe 2 Explain important information of the History of Modern Europe 3 To Introduce various perspectives of the History of |

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| | | Modern Europe |
| | Sem.VI HIS(G3) 361 : History of Modern World (1901-1945) | <ol style="list-style-type: none"> 1 Cover an Important topic of the History of Modern World 2 To inculcate Liberty, Equality and fraternity among the students. |
| T.Y. B.A. 2020 onwards | Sem.V DSC 1 E HIS 351 History of Modern Europe (AD 1781 - AD 1913) | <ol style="list-style-type: none"> 1 Understand the concept and meaning of the History of Modern Europe 2 Explain important information of the History of Modern Europe. |
| | Sem.VI DSC 1 F HIS 361 History of Modern Europe (AD 1914 - AD 1945) | <ol style="list-style-type: none"> 1. Cover an Important topic of the History of Modern Europe 2. To inculcate Liberty, Equality and fraternity among the students. 3. To Introduce various perspectives of the History of Modern Europe |
| | Sem.V SEC 3 HIS 354 Travel and Tourism in India | <ol style="list-style-type: none"> 1. Understand the concept and types of Tourism. 2. Acquire adequate knowledge about various aspects in Tourism planning. |
| | Sem.VI SEC 4 HIS 364 An Introduction to Museums in India | <ol style="list-style-type: none"> 1. Explain important information of some Historical tourist places. 2. Develop career in Tourism industry. |

Department of Marathi

| Class | Course | Outcomes |
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| FYBA 2017 - 2018 | FYBA MAR 111 (A) प्रथम सत्र- कथा वाङ्मय MAR१२१ Aद्वितीय सत्र वाङ्मय प्रकाराचा अभ्यास - कविता | १. कथा व कथेची पार्श्वभूमी विद्यार्थ्यांनी समजून घेतली. २. कथा वाङ्मयाचे इतर वाङ्मय प्रकारापेक्षा वेगळेपण विद्यार्थ्यांनी समजून घेतले. ३. कथेचे प्रमुख घटक, कथानक, प्रसंग वर्णन, भाषा, निवेदनशैली, वातावरणनिर्मिती, संघर्ष, व्यक्तीचित्रण हे घटक विद्यार्थ्यांनी समजून घेतले. ४. मराठी कथेचे प्रमुख प्रकार व त्यांचे स्वरूप वैशिष्ट्ये विद्यार्थ्यांनी समजून घेतले. . . १. काव्य संकल्पना, कवितेच्या व्याख्याविद्यार्थ्यांनी समजून घेतल्या. २. विद्यार्थ्यांनी कवितेचे घटक, शब्द, अलंकार, वृत्त, प्रतिमा, प्रतीक यांचे आकलन करून घेतले. ३. कवितेचे प्रकार, स्वरूप, वैशिष्ट्ये हे घटक विद्यार्थ्यांनी आत्मसात केले. ४. विद्यार्थ्यांनी मराठी काव्याचा प्रवाह आत्मसात करून घेतला. ५. खानदेशी काव्य परंपरेचा विद्यार्थ्यांनी परिचय करून दिला. आत्मसात केले. |

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| <p>FYBA/FYBSc 2018 to 2019</p> | <p>FYBA वाङ्मयीन मराठी प्रथम सत्र-वाङ्मय प्रकाराचा अभ्यास – कादंबरी-चकवा-अलका शशांक कुलकर्णी</p> <p>सत्र दुसरे - वाङ्मयप्रकाराचा अभ्यास –काव्य- नेमलेली पुस्तक -कविता संग्रह संपादित</p> | <p>१. मराठी कादंबरीच्या वाटचालीची ओळख विद्यार्थ्यांनी करून घेतली. २. विद्यार्थ्यांनी कादंबरी वाङ्मयाची वैशिष्ट्ये आत्मसात करून घेतली. ३. कादंबरीचे विविध घटक, कथानक, प्रसंग वर्णन, संघर्ष, व्यक्तिचित्रण, मूल्य यांचा परिचय विद्यार्थ्यांनी करून घेतला. ४. मराठी कादंबरीचे विविध प्रकार विद्यार्थ्यांनी अभ्यासले..</p> <p>१. कवितेच्या व्याख्या तसेच काव्य संकल्पना यांचा परिचय विद्यार्थ्यांनी करून घेतला . २. कवितेचे विविध घटक जसे नाद, शब्द, अलंकार, वृत्त, प्रतिमा, प्रतीके या संकल्पना विद्यार्थ्यांनी समजून घेतल्या. ३. कवितेचे प्रकार व स्वरूप वैशिष्ट्ये विद्यार्थ्यांनी आत्मसात केली. ४. खान्देशी काव्य परंपरेचा सविस्तर आढावा विद्यार्थ्यांनी अभ्यासला. ५. मराठी काव्याचा परिचय व प्रभाव विद्यार्थ्यांनी करून घेतला.</p> |
| <p>FYBA 2019 onwards</p> | <p>-वाङ्मयीन मराठी सत्र पहिले -विशिष्ट वाङ्मय प्रकाराचा अभ्यास- कथा-पुस्तक (निवडता कथा</p> | <p>१. वाङ्मय प्रकाराचे स्वरूप, वैशिष्ट्ये विद्यार्थ्यांनी आत्मसात करून घेतली. २. कथा रचनेच्या प्रमुख घटकांचे</p> |

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| | <p>हमीद दलवाई)</p> <p>वांग्मयीन मराठी सत्र दुसरे विशिष्ट वांग्मय प्रकार याचा अभ्यास कविता</p> <p>FYBSC सत्र पहिले आणि दुसरे - कथा आणि संवाद कौशल्य यांचा अभ्यास</p> | <p>आकलन विद्यार्थ्यांनीकेले.</p> <p>३. कथेच्या महत्त्वपूर्ण प्रकारांचा परिचय विद्यार्थ्यांनी करून घेतला.</p> <p>४. मराठी कथेची वाटचाल विद्यार्थ्यांनी विविध टप्प्यांच्या आधारे समजून घेतली.</p> <p>५. हमीद दलवाई यांच्या कथांच्या कथानकाचे विद्यार्थ्यांनी आकलन करून घेतले.</p> <p>६. हमीद दलवाई यांच्या निवडक दहा कथांमधील प्रसंगवर्णन आणि वातावरण निर्मिती यांचे विशेष विद्यार्थ्यांनी जाणून घेतले.</p> <p>७. हमीद दलवाई यांच्या निवडक कथेतील संघर्ष, निवेदनशैली, भाषाविशेष या घटकांचे आकलन विद्यार्थ्यांनी करून घेतले.</p> <p>१. कविता या वाङ्मय प्रकाराचे स्वरूप, वैशिष्ट्ये विद्यार्थ्यांनी आत्मसात करून घेतली.</p> <p>२. काव्य रचनेच्या प्रमुख घटकांचा परिचय विद्यार्थ्यांनी करून घेतला.</p> <p>३. कविता या वाङ्मय प्रकाराच्या दोन महत्त्वपूर्ण प्रकारांचे स्वरूप विद्यार्थ्यांनी जाणून घेतले.</p> <p>४. आधुनिक मराठी कवितेची वाटचाल विद्यार्थ्यांनी विविध टप्प्यांचा आधारे जाणून घेतली.</p> <p>५. संपादित कवितासंग्रहातील</p> |
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| | | <p>विविध प्रकारातील कवितांचा आशय विद्यार्थ्यांनी जाणून घेतला.</p> <p>६. संपादित कवितासंग्रहातील विविध प्रकारातील कवितांचे भाषिक विशेष विद्यार्थ्यांनी जाणून घेतले.</p> <p>७. संपादित कवितासंग्रहातील विविध प्रकारातील कवितांचे अभिव्यक्ती विशेष विद्यार्थ्यांनी जाणून घेतले.</p> <p>विद्यार्थ्यांच्या लक्षात आली.</p> <p>१. "माणदेशी माणसं" या कथासंग्रहातील कथांची कथानक, व्यक्तिचित्रण व प्रसंगवर्णन या अंगांनी जाणवणारी वैशिष्ट्ये विद्यार्थ्यांनी लक्षात घेतली.</p> <p>२. माणदेशी माणसं या कथासंग्रहातील कथांचा संघर्ष निवेदन व भाषा ही वैशिष्ट्ये विद्यार्थ्यांनी लक्षात घेतली.</p> <p>३. संवादाच्या औपचारिक व अनौपचारिक प्रकारांचा परिचय विद्यार्थ्यांनी करून घेतला</p> <p>४. संवाद कौशल्यासाठी आवश्यक बाबींचा परिचय विद्यार्थ्यांनी करून घेतला.</p> <p>५. भाषण, सादरीकरण, वाद-विवाद, सूत्रसंचालन, गटचर्चा या संवाद कौशल्याचे स्वरूप, वैशिष्ट्ये आणि त्याचे उपयोजन विद्यार्थ्यांनी</p> |
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| SYBA / SYBsc 2017-18 to 2018-19 | <p>SYBA जनरल मराठी (G -2)वाङ्मय प्रकार याचा अभ्यास -कादंबरी सत्र तिसरे -रारंग ढांग- प्रभाकर पेंढारकर</p> <p>SYBA सत्र चौथे वाङ्मय प्रकार- आत्मकथा -माती पंख आणि आकाश - ज्ञानेश्वर मुळे</p> <p>SYBA - S 1 मध्ययुगीनगद्य वाङ्मय प्रकारांचा अभ्यास- सत्र तिसरे- आज्ञापत्र- रामचंद्रपंत अमात्य(संपादक रा.चि. ढेरे)</p> | <p>१.कादंबरी या वाङ्मय प्रकाराची विद्यार्थ्यांनी ओळख करून घेतली.</p> <p>२. आधुनिक काळातील कादंबरीच्या प्रेरणा विद्यार्थ्यांनी समजून घेतल्या.</p> <p>३. रारंगढांग या कादंबरीचे प्रातिनिधिक स्वरूपात अध्ययन विद्यार्थ्यांनी केले.</p> <p>१. मराठीतील आत्मचरित्र व आत्मकथनाचे स्वरूप विद्यार्थ्यांनी आत्मसात केले.</p> <p>२.मराठीतील आत्मकथनात्मक लेखन व पुरुषांची आत्मकथने याचा अभ्यास विद्यार्थ्यांनी केला.</p> <p>३.आत्मकथनाचे स्वरूप व वैशिष्ट्ये विद्यार्थ्यांनी आत्मसात करून घेतली.</p> <p>१.शिवकालीन स्वराज्यनीतीचा परिचय विद्यार्थ्यांनी करून घेतला.</p> <p>२. स्वराज्यासाठी आज्ञापत्रातील महत्त्वाचे विचार विद्यार्थ्यांनी आत्मसात केली.</p> <p>३. शिवकालिन कल्याणकारी योजनांची माहिती विद्यार्थ्यांनी समजून घेतली.</p> <p>४.मध्ययुगीन कालखंडातील राज्यकर्त्यांच्या नीती आचरण</p> |

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| | <p>SYBA –S1 मध्ययुगीन पद्य वाङ्मय प्रकाराचा अभ्यास- निवडक संत कवी कवयित्री यांच्या अभंग रचना</p> <p>SYBA S2 साहित्य स्वरूप विचार -सत्र तिसरे</p> <p>SYBA S 2 -सत्र चौथे - साहित्य स्वरूप विचार</p> | <p>पद्धतीचा परिचय विद्यार्थ्यांनी करून घेतला.</p> <ol style="list-style-type: none"> १. मध्ययुगीन पद्य वाङ्मयाचा विद्यार्थ्यांनी परिचय करून घेतला. २. संत वाङ्मयाची प्रेरणा विद्यार्थ्यांनी समजून घेतली. ३. मध्ययुगीन संत वाङ्मयाचे स्वरूप विद्यार्थ्यांनी जाणून घेतले. ४. निवडक संतांच्या अभंग रचनांचा अभ्यास विद्यार्थ्यांनी करून घेतला. <ol style="list-style-type: none"> १. पौरात्य व पाश्चिमात्य साहित्यशास्त्रातील विविध संकल्पनांचा सखोल परिचय विद्यार्थ्यांनी करून घेतला. २. साहित्याचे स्वरूप, साहित्याचे प्रयोजन आणि साहित्याची निर्मिती प्रक्रिया विद्यार्थ्यांनी आत्मसात केली. ३. साहित्याचे विविध उपप्रकारांचे स्वरूप व वैशिष्ट्ये यांचा परिचय विद्यार्थ्यांनी करून घेतला. <ol style="list-style-type: none"> १. साहित्याची भाषा आणि व्यावहारिक भाषेतील मूल्यात्मक जाणिवा विद्यार्थ्यांनी आत्मसात केल्या. २. आकलन, आस्वाद आणि संस्कार मूल्य म्हणून विद्यार्थ्यांनी साहित्याचा अभ्यास करून घेतला. |
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| | <p>S.Y.B.Sc-प्रथम सत्र- ललित वाङ्मय-कथा- स्वप्न आणि सत्य- लेखक वि. स. खांडेकर</p> <p>S.Y.B.Sc-सत्र दुसरे- नाटक- प्रेमाच्या गावा जावे- वसंत कानेटकर</p> | <p>३.विद्यार्थ्यांमध्ये वाङ्मयीन अभिरुची निर्माण झाली. ४. प्रादेशिक साहित्याची ओळख विद्यार्थ्यांनी करून घेतली.</p> <p>१. कथा वाङ्मयाची वाटचाल विद्यार्थ्यांनी समजून घेतली. २. कथेचे विविध घटक, कथानक, व्यक्तिचित्रण, प्रसंग वर्णन, संघर्ष, भाषाशैली हे सर्व घटक विद्यार्थ्यांनी समजून घेतले. ३. कथा वाङ्मयाचे असलेले वेगळेपण विद्यार्थ्यांनी समजून घेतले. ४. मराठी कथेचे योगदान विद्यार्थ्यांनी आत्मसात केले. ५. वि. स. खांडेकर यांच्या कथांची वैशिष्ट्ये विद्यार्थ्यांनी लक्षात घेतली.</p> <p>१. नाटकाची संकल्पना व नाटकाच्या व्याख्या विद्यार्थ्यांनी समजून घेतल्या. २. नाटकाचे घटक, कथानक, व्यक्तिचित्रण, संघर्ष, भाषाशैली यांचा अभ्यास विद्यार्थ्यांनी केला. ३. नाटकाचे प्रकार सामाजिक, ऐतिहासिक, राजकीय प्रकार विद्यार्थ्यांनी लक्षात घेतले. ४. नाटकातील सुखात्मिका व शोकांतिका यांचे स्वरूप व वैशिष्ट्ये विद्यार्थ्यांनी अभ्यासले. ५. मराठी नाटकाचा इतिहास</p> |
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| | | विद्यार्थ्यांनी आत्मसात करून घेतला. |
| SYBA/Bsc 2019onwards | SYBA DSC वाङ्मयीन मराठी- वैचारिक गद्य लेखनाचा अभ्यास - सत्र तिसरे | <p>१. मराठीतील वैचारिक गद्य लेखनाच्या परंपरेचा परिचय विद्यार्थ्यांनी करून घेतला.</p> <p>२. महात्मा ज्योतिराव फुले यांचे जीवन कार्य व त्यांची वैचारिक जडणघडण याबाबत विद्यार्थ्यांनी जाणून घेतले.</p> <p>३. महात्मा ज्योतिराव फुले यांच्या लेखन संपदेबाबत विद्यार्थ्यांनी माहिती घेतली.</p> <p>४. शेतकऱ्याचा असूड मधील वैचारिक आशयाचे स्वरूप, वैशिष्ट्ये विद्यार्थ्यांनी समजावून घेतली.</p> |
| | SYBA वाङ्मयीन मराठी -सत्र चौथ-चरित्र- आत्मचरित्रपर लेखनाचा अभ्यास- नेमलेली साहित्यकृती -जीवनरंग | <p>१. चरित्र व आत्मचरित्रपर लेखनाचे सामाजिक व वाङ्मयीन दृष्ट्या महत्त्व विद्यार्थ्यांनी जाणून घेतले.</p> <p>२. मराठीतील चरित्र लेखनाच्या परंपरेचा परिचय विद्यार्थ्यांनी करून घेतला.</p> <p>३. मराठीतील आत्मचरित्र लेखनाच्या परंपरेचा परिचय विद्यार्थ्यांनी करून घेतला.</p> <p>४. जीवनरंग या पुस्तकातील निवडक चरित्रपर लेखांचे स्वरूप</p> |

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| | <p>SYBA DSE १ आधुनिक वाङ्मय प्रकारांचा अभ्यास – कादंबरी- सत्र तिसरे- कादंबरी -अवकाळी पावसाच्या दरम्यानची गोष्ट - आनंद विंगकर</p> <p>SYBA (DSE १ B) सत्र चौथे- आधुनिक वाङ्मय प्रकार - कविता -माझे विद्यापीठ - नारायण सुर्वे</p> | <p>विद्यार्थ्यांनी जाणून घेतले.</p> <ol style="list-style-type: none"> १. कादंबरी या वाङ्मय प्रकाराचे स्वरूप, प्रकार त्यांची वैशिष्ट्ये विद्यार्थ्यांनी जाणून घेतले. २. आधुनिक मराठी कादंबरीच्या वाटचालीचा परामर्श विद्यार्थ्यांनी घेतला. ३. “अवकाळी पावसाच्या दरम्यानची गोष्ट “या कादंबरीतील ग्रामीण जीवन वास्तवाचे स्वरूप विद्यार्थ्यांनी लक्षात घेतले. ४. “अवकाळी पावसाच्या दरम्यानची गोष्ट” या कादंबरीचे वाङ्मय मूल्यमापन विद्यार्थ्यांनी केले. ५. कादंबरीचे वाचन, आकलन व मूल्यमापन करून घेण्याची दृष्टी विद्यार्थ्यांमध्ये विकसित झाली. <ol style="list-style-type: none"> १. कविता या वाङ्मय प्रकाराचे स्वरूप व वैशिष्ट्ये विद्यार्थ्यांनी जाणून घेतले. २. आधुनिक मराठी कवितेच्या वाटचालीचा परामर्श विद्यार्थ्यांनी करून घेतला. ३. विद्यार्थ्यांनी माझे विद्यापीठ या कवितासंग्रहातील विविध जीवन जाणिवांचा शोध घेतला. ४. माझे विद्यापीठ या कवितासंग्रहाचे विद्यार्थ्यांनी |
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| | <p>SYBA DSE २ सत्र तिसरे - साहित्यविचार भारतीय आणि पाश्चात्य</p> <p>SYBA DSE २-B सत्र चौथे - साहित्यविचार भारतीय आणि पाश्चात्य</p> <p>SYBA -SEC -लेखन कौशल्य -सत्र तिसरे- लेखन कौशल्य -</p> | <p>वाङ्मयीन मूल्यमापन केले. ५. कवितेचे वाचन, आकलन व मूल्यमापन करण्याची दृष्टी विद्यार्थ्यांमध्ये विकसित झाली.</p> <p>१. भारतीय आणि पाश्चात्य साहित्य विचारांचा परिचय विद्यार्थ्यांनी करून घेतला. २. विद्यार्थ्यांनी साहित्याचे स्वरूप समजून घेतले. ३. प्रमुख संस्कृत व पाश्चात्य साहित्य मीमांसकांनी साहित्याच्या स्वरूपाविषयी मांडलेल्या विचारांचा विद्यार्थ्यांनी परिचय करून घेतला</p> <p>१. भारतीय आणि पाश्चात्य साहित्य विचारांचा परिचय विद्यार्थ्यांनी करून घेतला. २. साहित्याच्या भाषेचे स्वरूप विद्यार्थ्यांनी जाणून घेतले तसेच शब्दशक्तीचे स्वरूप व प्रकार विद्यार्थ्यांनी समजून घेतले. ३. साहित्याच्या भाषेचे स्वरूप जाणून घेताना पाश्चात्य साहित्य मीमांसकांनी त्याबाबत मांडलेल्या विविध संकल्पनांचा विद्यार्थ्यांनी परिचय करून घेतला.</p> <p>१. विद्यार्थ्यांनी मुद्रितशोधनाचे स्वरूप आणि आवश्यकता जाणून घेतली.</p> |
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| | <p>मुद्रितशोधन</p> <p>SYBA SEC २ लेखन कौशल्य सर्जनशील लेखन</p> <p>SYBA- MIL - माध्यमांसाठी लेखन व संवाद सत्र तिसरे- मुद्रित माध्यमांसाठी लेखन</p> <p>SYBA- MIL-सत्र चौथे -</p> | <p>२. मुद्रित शोधनाची कौशल्य विद्यार्थ्यांनी आत्मसात केले.</p> <p>३. मुद्रितशोधनाच्या खूणा अर्थ आणि त्याचे उपयोजन याबाबत विद्यार्थ्यांनी सविस्तर माहिती जाणून घेतली.</p> <p>४. विरामचिन्ह आणि लेखनविषयक नियम यांचे स्वरूप विद्यार्थ्यांनी जाणून घेतले.</p> <p>१. सर्जनशील लेखनाचे स्वरूप आणि वैशिष्ट्ये विद्यार्थ्यांनी जाणून घेतले.</p> <p>२. कथा लेखनाची निर्मितीप्रक्रिया विद्यार्थ्यांनी समजून घेतली.</p> <p>३. नाट्यात्मक लेखनाची निर्मितीप्रक्रिया विद्यार्थ्यांनी समजून घेतली.</p> <p>४. विद्यार्थ्यांनी कथा लेखनाचा सराव केला.</p> <p>१. विद्यार्थ्यांनी वृत्तपत्र व मुद्रित माध्यमाचा विशेष परिचय करून घेतला.</p> <p>२. विद्यार्थ्यांनी वृत्तपत्र या मुद्रित माध्यमाचे कार्य आणि त्याची उपयुक्तता जाणून घेतली.</p> <p>३. वृत्तपत्र माध्यमासाठी करावयाच्या बातमी लेखनाचे स्वरूप व तंत्र विद्यार्थ्यांनी अवगत केले</p> <p>१. नभोवाणी या श्राव्य माध्यमाचा</p> |
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| | <p>श्राव्य माध्यमासाठी लेखन व संवाद</p> <p>S.Y.B.Sc AECC -कथा आणि उपयोजित लेखन - सत्र तिसरे- विज्ञान कथा आणि नोंद लेखन</p> <p>SYBSC सत्र चौथे- विनोदी कथा आणि विज्ञान पर लेखन</p> | <p>विशेष परिचय विद्यार्थ्यांनी करून घेतला.</p> <p>२. विद्यार्थ्यांनी नभोवाणी या श्राव्य माध्यमाचे कार्य आणि त्याची उपयुक्तता जाणून घेतली.</p> <p>३. विद्यार्थ्यांनी नभोवाणी माध्यमासाठी करावयाच्या भाषणाच्या लेखनाचे स्वरूप व तंत्र अवगत केले.</p> <p>४. नभोवाणी माध्यमासाठी करावयाच्या श्रुतिका लेखनाचे स्वरूप व तंत्र विद्यार्थ्यांनी अवगत केले.</p> <p>१.विज्ञान कथा या कथा प्रकाराचा परिचय विद्यार्थ्यांनी करून घेतला.</p> <p>२.विनोदी कथा या कथा प्रकाराचा विद्यार्थ्यांनी परिचय करून घेतला.</p> <p>३.विज्ञानाच्या क्षेत्रातील विविध विषयांबाबत मराठीतून लेखन करण्यास विद्यार्थ्यांना प्रोत्साहन मिळाले.</p> <p>४. वैज्ञानिक संज्ञा संकल्पना बाबत विज्ञान कशासाठी नोंद लेखन करण्याचे तंत्र विद्यार्थ्यांनी आत्मसात केले.</p> <p>१.विज्ञान कथा या कथा प्रकाराचा परिचय विद्यार्थ्यांनी करून घेतला.</p> <p>२.विनोदी कथा या कथा प्रकाराचा</p> |
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| | | <p>विद्यार्थ्यांनी परिचय करून घेतला.</p> <p>३. विज्ञानाच्या क्षेत्रातील विविध विषयांबाबत मराठीतून लेखन करण्यास विद्यार्थ्यांना प्रोत्साहन मिळाले.</p> <p>४. वैज्ञानिक संज्ञा संकल्पना बाबत विज्ञान कशासाठी नोंद लेखन करण्याचे तंत्र विद्यार्थ्यांनी आत्मसात केले.</p> <p>५. विज्ञानाच्या क्षेत्रातील विविध विषयांवर लोक उपयोगी लेखन करण्याचे कौशल्य विद्यार्थ्यांनी जाणून घेतले.</p> |
| <p>TYBA 2017-18 to 2019-20</p> | <p>TYBA –G-3 वाड्मयीन मराठी(पर्यायी अभ्यासक्रम) सत्र पाचवे वाड्मय प्रकार- नाटक- नेमलेले पाठ्यपुस्तक – अधांतर- नाटक जयंत पवार</p> <p>TYBA सत्र सहावे वाड्मय प्रकार- ललित गद्य- नेमलेले</p> | <p>१. नाटकवाड्मय प्रकाराचे विद्यार्थ्यांनी स्वरूप जाणून घेतले.</p> <p>२. नाटकाचे घटक कथानक, व्यक्तिचित्रण, संघर्ष, संवाद, भाषा शैली इत्यादी घटक विद्यार्थ्यांनी समजून घेतले.</p> <p>३. पौराणिक, ऐतिहासिक, सामाजिक, ग्रामीण, दलित आणि स्त्रीवादी नाट्य प्रकारांचे विद्यार्थ्यांनी अध्ययन केले.</p> <p>४. सुखात्मिका, शोकांतिका इत्यादी नाट्य विशेष यांचा परिचय विद्यार्थ्यांनी करून घेतला.</p> <p>१. विद्यार्थ्यांनी ललित गद्य या वाड्मय प्रकाराचे स्वरूप जाणून घेतले.</p> |

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| | <p>पाठ्यपुस्तक - साहित्य अकादमीने पुरस्कृत साहित्यिकांचे- निवडक ललित गद्य</p> <p>TYBA -मराठी विशेष तर-S-3 - सत्र पाच - १९२०ते १९६० या कालखंडातील कथा व कादंबरी वाङ्मयाचा परिचय</p> | <p>२. मराठीतील ललीत गद्याची परंपरा विद्यार्थ्यांनी समजून घेतली.</p> <p>३. ललित गद्य या वाङ्मय प्रकारातील अनुभवांची मांडणी आणि आविष्कार पद्धती विद्यार्थ्यांनी समजून घेतली.</p> <p>४. ललित गद्य लेखनातील अनुभवांची तरलता आणि संवेदनांचे आकलन विद्यार्थ्यांनी करून घेतले.</p> <p>५. विद्यार्थ्यांनी ललित गद्यातील घटना प्रसंगातील भावात्मक नाट्य आणि जीवन संघर्षाचे स्वरूप समजून घेतले.</p> <p>.</p> <p>१. १९२०ते १९६० या कालखंडातील वाङ्मय व सांस्कृतिक घटनांचा परिचय विद्यार्थ्यांनी करून घेतला.</p> <p>२. १९२०ते १९६०या कालखंडातील विविध वाङ्मय प्रकारांच्या वाटचालीचा व वाङ्मयीन साहित्यकृतीचा परिचय विद्यार्थ्यांनी करून घेतला.</p> <p>३. १९२०ते १९६०या कालखंडातील वाङ्मयीन विविध प्रवाह यांचा परिचय विद्यार्थ्यांनी करून घेतला.</p> <p>४. १९२०ते १९६०या कालखंडातील कथा, कादंबरी, नाटक व काव्य या वाङ्मय प्रकारातील प्रमुख लेखक व त्यांचे वाङ्मयीन कार्य यांचा परिचय विद्यार्थ्यांनी करून घेतला.</p> |
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| | <p>TYBA- S-3-सत्र सहावे- १९२०ते १९६०या कालखंडातील कविता आणि नाटक वाङ्मयाचा परिचय</p> <p>TYBA- S 4-भाषाविज्ञान आणि मराठी व्याकरण सत्र पाचवे- भाषाविज्ञान</p> | <p>१. १९२०ते १९६० या कालखंडातील वाङ्मय व सांस्कृतिक घटनांचा परिचय विद्यार्थ्यांनी करून घेतला. २. १९२०ते १९६०या कालखंडातील विविध वाङ्मय प्रकारांच्या वाटचालीचा व वाङ्मयीन साहित्यकृतीचा परिचय विद्यार्थ्यांनी करून घेतला. ३. १९२०ते १९६०या कालखंडातील वाङ्मयीन विविध प्रवाह यांचा परिचय विद्यार्थ्यांनी करून घेतला. ४. १९२०ते १९६०या कालखंडातील कथा, कादंबरी, नाटक व काव्य या वाङ्मय प्रकारातील प्रमुख लेखक व त्यांचे वाङ्मयीन कार्य यांचा परिचय विद्यार्थ्यांनी करून घेतला.</p> <p>१. भाषा, स्वरूप व तिचे मानवी जीवनातील कार्य विद्यार्थ्यांनी समजावून घेतले. २. स्वन निर्मिती प्रक्रिया, वागेन्द्रियांची रचना व कार्य विद्यार्थ्यांनी समजावून घेतले. ३. स्वनिम संकल्पना, रुपीम संकल्पना विद्यार्थ्यांनी समजावून घेतल्या. ४. वाक्य विन्यास आणि अर्थ विन्यास यांचे स्वरूप विद्यार्थ्यांनी समजावून घेतले.</p> |
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| | TYBA- S 4-सत्र सहावे- मराठीव्याकरण | १. मराठी पारंपारिक व्याकरणातील काही महत्त्वाच्या घटकांचा परिचय विद्यार्थ्यांनी करून घेतला. २. मराठीतील म्हणी व वाक्प्रचार यांचा वापर विद्यार्थ्यांनी दैनंदिन बोलीत केला. |
| TYBA 2020 onwards | TYBA –DSC- E वाङ्मयीन मराठी- विशिष्ट वाङ्मय प्रकाराचा अभ्यास सत्र पाचवे- एकांकिका लेखनाचा अभ्यास TYBA –DSC- E सत्र सहावे ललित गद्य लेखनाचा अभ्यास DSE-३ -मध्ययुगीन मराठी वाङ्मयाचा | १. विद्यार्थ्यांनी एकांकिका या नाट्य प्रकाराचे स्वरूप व वैशिष्ट्ये जाणून घेतले २. मराठीतील एकांकिका लेखनाची वाटचाल विद्यार्थ्यांनी अभ्यासली. ३. दलित एकांकिका लेखनाचे स्वरूप, वैशिष्ट्ये व वाटचाल विद्यार्थ्यांनी समजून घेतली. ४. निवडक दलित एकांकिकांचा अभ्यास विद्यार्थ्यांनी केला. १. विद्यार्थ्यांनी ललित गद्य या वाङ्मय प्रकाराची संकल्पना स्वरूप व वैशिष्ट्ये जाणून घेतली. २. मराठीतील ललित गद्य लेखनाच्या वाटचालीचा परामर्श विद्यार्थ्यांनी घेतला. ३. ललित गद्य लेखनातील विविध प्रकारांची त्यांच्या बदलत्या रूपांची विद्यार्थ्यांनी माहिती करून घेतली. ४. स्त्रीविषयक निवडक ललित गद्य लेखनाचा विद्यार्थ्यांनी अभ्यास केला. १. विद्यार्थ्यांनी मध्ययुगीन मराठी वाङ्मयाचा इतिहासाचा परिचय |

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| | <p>इतिहास सत्र पाचवे- मध्ययुगीन मराठी वाङ्मयाचा इतिहास</p> <p>सत्र -6 -मध्ययुगीन मराठी वाङ्मयाचा अभ्यास</p> | <p>करून घेतला.</p> <p>२. मध्ययुगीन मराठी वाङ्मयाचा निर्मिती व प्रेरणा विद्यार्थ्यांनी जाणून घेतली.</p> <p>३. महानुभाव संप्रदायाच्या वाङ्मय निर्मितीचे स्वरूप विद्यार्थ्यांनी लक्षात घेतले आणि त्याचे वैशिष्ट्य जाणून घेतले.</p> <p>४. शाहिरी काव्याचे स्वरूप विद्यार्थ्यांनी लक्षात घेतले आणि शाहिरी काव्याची वैशिष्ट्ये जाणून घेतले.</p> <p>५. निवडक ग्रंथकारांच्या वाङ्मय निर्मितीचा वा साहित्यकृतीचा परिचय विद्यार्थ्यांनी करून घेतला.</p> <p>१. मध्ययुगीन मराठी वाङ्मयाच्या इतिहासाचा परिचय विद्यार्थ्यांनी करून घेतला.</p> <p>२. मध्ययुगीन मराठी वाङ्मयाचा निर्मितीमागील प्रेरणा विद्यार्थ्यांनी जाणून घेतली.</p> <p>३. वारकरी संप्रदायातील प्रमुख संत कवींच्या काव्यनिर्मितीचे स्वरूप विद्यार्थ्यांनी जाणून घेतली आणि त्याची वैशिष्ट्ये लक्षात घेतली.</p> <p>४. बखर वाङ्मय निर्मितीचा परिचय करून घेऊन विद्यार्थ्यांनी त्यांची वैशिष्ट्ये जाणून घेतली.</p> |
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| | <p>DSE -४ -मराठीचा भाषिक अभ्यास सत्र 5 मराठीचा भाषिक अभ्यास</p> <p>सत्र -6-मराठीचा भाषिक अभ्यास</p> | <p>५.निवडक ग्रंथकारांच्या वाङ्मय निर्मितीचा वा साहित्यकृतींचा परिचय विद्यार्थ्यांनी करून घेतला.</p> <p>१.विद्यार्थ्यांनी भाषेचे स्वरूप आणि तिचे कार्य जाणून घेतले. २. भाषा अभ्यासाच्या विविध अंगांचा विद्यार्थ्यांनी परिचय करून घेतला. ३. विद्यार्थ्यांनी भाषा उत्पत्तीचे सिद्धांत जाणून घेतले. ४. भाषाकुळ संकल्पना विद्यार्थ्यांनी समजून घेऊन मराठीच्या भाषाकुळाची माहिती घेतली.</p> <p>१. विद्यार्थ्यांनी मराठीच्या कालिक भेदाचे स्वरूप जाणून घेतले व त्यांची वैशिष्ट्ये नोंदविली. २. विद्यार्थ्यांनी मराठीच्या प्रांतिक भेदाची माहिती करून घेतली. ३. मराठीच्या निवडक प्रमुख बोलींच्या वैशिष्ट्यांचा विद्यार्थ्यांनी परिचय करून घेतला. ४. भाषाविषयक समज गैरसमज यांचे विद्यार्थ्यांनी निराकरण करून घेतले.</p> <p>१.लोकरंगभूमीची संकल्पना विद्यार्थ्यांनी जाणून घेतली. २.लोकरंगभूमीचे स्वरूप विद्यार्थ्यांनी जाणून घेतले व त्यांच्या वैशिष्ट्यांचा</p> |
| | <p>GE - मराठी लोकरंगभूमी</p> | |

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| | <p>सत्र-5-मराठी लोकरंगभूमी</p> | <p>परिचय करून घेतला. ३. लोकसाहित्य आणि लोकरंगभूमी यांचा परस्पर संबंध विद्यार्थ्यांनी समजून घेतला. ४. किर्तन आणि भारुड या लोकरंगभूमीच्या पारंपारिक रूपांची स्वरूप, वैशिष्ट्ये विद्यार्थ्यांनी जाणून घेतली. ५. खानदेशी वही आणि कोकणी दशावतार या लोकरंगभूमीच्या प्रादेशिक प्रकारांची स्वरूप, वैशिष्ट्ये विद्यार्थ्यांनी जाणून घेतली.</p> |
| | <p>सत्र सहा -मराठी लोकरंगभूमी</p> | <p>१. विद्यार्थ्यांनी तमाशा या लोकरंगभूमीच्या पारंपारिक स्वरूपाची स्वरूप, वैशिष्ट्ये जाणून घेतली. २. लोकनाट्य या लोकरंगभूमीच्या आधुनिक रूपाची विद्यार्थ्यांनी स्वरूप, वैशिष्ट्ये जाणून घेतली ३. विद्यार्थ्यांनी सत्यशोधकी जलसे आणि आंबेडकरी जलसे या लोकरंगभूमीच्या आधुनिक रूपांची स्वरूप, वैशिष्ट्ये अभ्यासली. ४. विद्यार्थ्यांनी पथनाट्य आणि रिंगणनाट्य या लोकरंगभूमीच्या आधुनिक रूपांची स्वरूप वैशिष्ट्ये अभ्यासली.</p> <p>१. दूरचित्रवाणी या दृकश्राव्य माध्यमाचा विद्यार्थ्यांनी परिचय</p> |

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| | <p>MIL-माध्यमांसाठी लेखन व संवाद सत्र पाचवी दृक-श्राव्य माध्यमांसाठी लेखन व संवाद</p> <p>सत्र -6 वे आधुनिक समाज माध्यमांसाठी लेखन व संवाद</p> | <p>करून घेतला.</p> <p>२. दूरचित्रवाणी या दृकश्राव्य माध्यमाचे विद्यार्थ्यांनी कार्य अभ्यासले आणि त्याची उपयुक्तता जाणून घेतली.</p> <p>३. दूरचित्रवाणीसाठी करावयाच्या मनोरंजनपर व माहितीपर कार्यक्रमांच्या लेखनाचे स्वरूप व तंत्र विद्यार्थ्यांनी अवगत केले.</p> <p>४. दूरचित्रवाणीसाठी करावयाच्या जाहिरात लेखनाचे स्वरूप व तंत्र विद्यार्थ्यांनी अवगत केले.</p> <p>.</p> <p>१. आधुनिक समाज माध्यमांचा विशेष परिचय विद्यार्थ्यांनी करून घेतला.</p> <p>२. आधुनिक समाज माध्यमांचे कार्य विद्यार्थ्यांनी जाणून घेतले आणि त्याची उपयुक्तता अभ्यासली.</p> <p>३. ई-मेल लेखनाचे स्वरूप विद्यार्थ्यांनी अभ्यासले व ते लेखन तंत्र अवगत केले.</p> <p>४. ब्लॉग लेखनाचे स्वरूप विद्यार्थ्यांनी लक्षात घेतले व ते लेखन तंत्र अवगत केले.</p> <p>५. फेसबुक, ट्विटर, व्हाट्सअप, यूट्यूब यावरील लेखनाचे स्वरूप विद्यार्थ्यांनी अभ्यासले.</p> <p>६. फेसबुक, युट्यूब या वरील निवेदन कौशल्य विद्यार्थ्यांनी</p> |
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| | <p>SEC - लेखन कौशल्य सत्र पाचवे- लेखन कौशल्य निबंध लेखन</p> <p>सत्र सहावे-लेखन कौशल्य- ग्रंथ परीक्षण लेखन</p> | <p>आत्मसात केले.</p> <p>१. विद्यार्थ्यांनी निबंध लेखनाचे कौशल्य आत्मसात केले. २. निबंध लेखनाचे स्वरूप व त्याचे घटक विद्यार्थ्यांनी जाणून घेतले. ३. निबंधाचे प्रकार विद्यार्थ्यांनी अभ्यासले व त्यांच्या लेखनाचा सराव केला.</p> <p>१. ग्रंथ परीक्षण लेखनाचे कौशल्य विद्यार्थी आत्मसात केले. २. ग्रंथ परीक्षण लेखनाचे स्वरूप विद्यार्थ्यांनी अभ्यासले व या लेखनाची प्रक्रिया जाणून घेतली. ३. विविध प्रकारातील ग्रंथाचे परीक्षण लिहिण्याचा सराव विद्यार्थ्यांनी केला.</p> |
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Department of Economics

| Class | Course | Outcomes |
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| F.Y.B.A 2017-2018 | 1. Eco G- 101 A & 201 A Fundamentals of Economics – I II | After completing the course: - <ul style="list-style-type: none"> • Introduction & enhancement of the understanding of the student in the domain of economics. • Introduction to the main or common analytical tools which are used in economics analysis. • Increase rational outlook among the student about the economic matters happened around their surroundings. • To aware the student to the economic environment prevail in the economic system. |
| F.Y.B.A 2018-2022 | 2. Eco G- 101(A)& 201(A)Principles of micro-economics – I II | After completing the course: - <ul style="list-style-type: none"> • Introduced to the students to the basic principles of micro-economics theory. • Introduced the students behavior of consumer in economy price determination in market and also factor pricing. • How to micro economic concept can be applied to analyze real life situation. |
| S.Y.B. A 2017-2019 | 2. Eco 231&241: General paper – Indian Economy Since 1980- I & II | After completing the course: - <ul style="list-style-type: none"> • To enable student to have understanding the various issues of the Indian economy. |

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| | | <ul style="list-style-type: none"> • To develop the analyzing capability in the context of current Indian economic problems. • To able the students for appearing the MPSC, UPSC and other competitive examination |
| | 3. ECO 232 & 242: Special paper- I Advanced Micro-Economics I & II | <p>After completing the course: -</p> <ul style="list-style-type: none"> • To acquaint the student's knowledge of Micro-Economics concept and theories. • To enable the students to have understating the theory of consumer behavior. • To develop the analyzing capability in applying theories to real life situation. |
| | 4.ECO 233& 243: Special paper- II Advanced Macro-Economics I & II | <p>After completing the course: -</p> <ul style="list-style-type: none"> • To acquaint the student knowledge of macro-economic concept and theories. • To acquaint the student knowledge of macro-economic problem and policies. • To develop the analyzing capacity in applying theories to real life situation. |
| S.Y.B. A 2019 Onwards | 1. DSC Eco 231 C & DSC Eco 241 D: Indian Economy Since 1980- I & II | <p>After completing the course: -</p> <ul style="list-style-type: none"> • To enable student to have understanding the various issues of the Indian economy. • To develop the analyzing capability in the context of current Indian economic problems. • To able the students for appearing the MPSC, UPSC and other competitive examination |
| T.Y.B. A 2017-2020 | 1. Eco 351 & 361: General paper – Indian | <p>After completing the course: -</p> <ul style="list-style-type: none"> • To enable students to have |

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| | Economy Since 1980 – III & IV | <p>understanding the various issues of the Indian economy.</p> <ul style="list-style-type: none"> • To develop the analyzing capability in the context of current Indian economic problems. • To able the student for appearing the MPSC, UPSC and other competitive examinations. |
| | 2. Eco 352 A& 362A: Special paper – Public Finance and Policies- I & II | <p>After completing the course: -</p> <ul style="list-style-type: none"> • To enable students to have understanding the various issues of Public Finance and Policies. • To develop the analyzing capability in the context of Public Finance and Policies. • To able the student for appearing the MPSC, UPSC and other competitive examinations. |
| | 3. Eco 353 A & 363 A: Special paper – International Trade & Practices I & II | <p>After completing the course: -</p> <ul style="list-style-type: none"> • To enable students to have understanding the various issues of International Trade & Practices. • To develop the analyzing capability in the context of International Trade & Practices. • To able the student for appearing the MPSC, UPSC and other competitive examinations. |
| T.Y.B. A 2020 Onwards | 1. Eco 351 & 361 Sem - V & VI Indian Economy Since 1980-III & IV | <p>After completing the course,</p> <ul style="list-style-type: none"> • A student will able to understand the various issues of the Indian Economy. • Analyzing capability of students in the context of current Indian Economic problems will be developed. • A student will be quite Prepare to appear the MPSC, UPSC and |

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| | | other competitive Examinations. |
| | 2. Eco.352 (A) & 362 (A) Sem. V- & VI Economics of Public Finance –I & II | After completing the course, <ul style="list-style-type: none"> • A student will be able to understand the various issues of the Public Finance and Policies. • Analyzing capability of students in the context of current Public Finance and Policies • A student will be quite prepared to appear the MPSC,UPSC and other competitive Examinations |
| | 3. Eco.353 (A) & 363 (A) Sem. V- & VI Theory of International Trade I & II | After completing the course, <ul style="list-style-type: none"> • A student will be able to understand the various issues of the International trade and Practices. • Analyzing capability of students in the context of International Trade and Practices • A student will be quite prepared to appear the MPSC,UPSC and other competitive Examinations |
| | 4. SEC-EC0 354- 364 Modern Banking and Indian Banking System Sem- V & VI | After completing the course <ul style="list-style-type: none"> • The Knowledge of student in banking and financial market will be improved. • The Knowledge of student about new changes and technology in banking will be upgraded. • A Student will be able to know more about Indian banking system. • About the relevance of banking practices to modern competitive world |
| | 5. GE- ECO355&365 Indian Economic Environment I&II Sem- V & VI | After completing the course, <ul style="list-style-type: none"> • A student will be acquainted about Economic Environment for Business. • The knowledge of the student about new reforms in Indian |

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| | | <p>Economy will be upgraded</p> <ul style="list-style-type: none">• The student will be partially Prepare to face competitive Examination |
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Department of English

| Class | Course | Outcomes |
|--------------------------------------|---|---|
| F.Y.B.A. (2017-18 to 2021-22) | Compulsory English | To develop the ability of students to comprehend written texts. |
| | | To inculcate amongst students moral and human values. |
| | | To make students aware of the aesthetic pleasure of literature. |
| | | To develop in students the proficiency in speaking and writing English for different purposes. |
| | | To make them aware of the importance of communicative competence. |
| S.Y.B.A. (2017-18 to 2018-19) | Compulsory English | To enable the students to understand written texts. |
| | | To inculcate the human and moral values amongst the students. |
| | | To develop the communicative competence of students with special reference to congratulations, compliments, thanks, expressing an apology and making enquiries. |
| | | To develop the writing skills of students with special reference to reporting, notice, agenda and minutes and letter writing. |
| | | To acquaint the students with formal and informal style in using the language. |
| S.Y.B.A. (2019- 20 to 2021-22) | | To create interest for reading literature among students. |
| | | To develop reading and grasping skills among students. |
| | | To inculcate among students the values for leading quality life. |
| | | To enhance communication skills among students. |
| T.Y.B.A. (2017- 18 to 2019-20) | Compulsory English | To acquaint the students with reading and writing skills. |
| | | To make the students proficient in communication skills. |
| | | To develop the listening and speaking skills among the students. |
| | | To inculcate moral and ethical values through literature. |
| | | To enable the students to acquire conversational skills in daily life. |
| T.Y.B.A. (2020-21 to 2021-22) | Ability Enhancement Skill (Developing Communication Skills) | To acquaint students with various modes of communication. |
| | | To intimate students about various types of written communication. |
| | | To inform students about various types of oral communication. |
| | | To give practice to students in various modes of communication. |
| F. Y. B.Sc. (2021-22) | Ability Enhancement Course (English Communication) | To introduce students with writing and reading skills. |
| | | To acquaint the students with the use of English language through different means. |
| | | To acquaint the students with the creative use of English language. |
| S. Y. B.Sc. (2019-20 to Today) | Communicative English | To train the students to use English language for career purpose. |
| | | To motivate students to write persuasively in English. |
| | | To help students to use English language for academic and vocational purpose. |