**Shri Shivaji Shikshan Prasarak Mandal's**
# Loknete Ramdas Patil Dhumal
# Arts, Science and Commerce College, Rahuri
## Program outcomes, program specific outcomes and course outcomes

**2.6.1 – Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution (to provide the web link)**

## Department of Mathematics
## AY 2018-19

| Program | F.Y. B.Sc. Mathematics |
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| Program Outcomes | **PO1:** Give the students a sufficient knowledge of fundamental principles, methods and a clear perception of in numerous power of mathematical ideas and tools and know how to use them by modelling, solving and interpreting.<br>**PO2:** Reflecting the broad nature of the subject and developing mathematical tools for continuing further study in various fields of science.<br>**PO3:** Enhancing student overall development and to equip them with mathematical modelling abilities, problem solving skills, creative talent and power of communication necessary for various kinds of employment.<br>**PO4:** Enabling students to develop a positive attitude towards mathematics as an interesting and valuable subject of study. |
| Program Specific Outcomes | **PSO1:** A student should be able to recall basic facts about mathematics and should be able to display knowledge of conventions such as notations, terminology and recognize basic geometrical figures and graphical displays, state important facts resulting from their studies.<br>**PSO2:** A student should get a relational understanding of mathematical concepts and concerned structures, and should be able to follow the patterns involved, mathematical reasoning.<br>**PSO3:** A student should get adequate exposure to global and local concerns that explore them many aspects of Mathematical Sciences.<br>**PSO4:** A student be able to apply their skills and knowledge, that is, translate information presented verbally into mathematical form, select and use appropriate mathematical formulae or techniques in order to process the information and draw the relevant conclusion.<br>**PSO5:** A student should be made aware of history of mathematics and hence of its past, present and future role as part of our culture. |
| Course Outcomes | **MT-101: Algebra and Geometry** After completing the course, students will able to –<br>1. Solve various problems on properties of integers and use the basic concepts of divisibility, congruence and their applications in basic algebra.<br>2. Apply factor theorem, remainder theorem to solve problems on |

| | polynomials and by using given relations between roots he will find the roots of polynomials. |
| | 3. Solve the system of homogeneous and non-homogeneous linear of m equations in n variables by using concept of rank of matrix, finding eigen values and eigen vectors. |
| | 4. Solve the problems of lines in three dimension, planes, spheres, and cylinders and how geometry is related to algebra by using their algebraic equations. |
| | **MT-102 Calculus and Differential Equations** |
| | After completing the course, students will able to – |
| | 1. Identify algebraic and order properties of real numbers. |
| | 2. Identify and apply the function properties of real number system such as the completeness property. |
| | 3. Verify the values of limit of a function at a point using the definition of a limit. |
| | 4. Students will be familiar with the techniques of integration and differentiation of function with real variables. |
| | 5. Identify and apply the intermediate value theorem, Mean value theorem and Hospitals rule. |
| | 6. Identify types of differential equations and solve differential equations such as Exact, homogeneous, non -homogeneous, and linear and Bernoulli differential equations etc. |
| **Program** | **S. Y. B. Sc.** |
| Program Outcomes | **PO1:** Give the students a sufficient knowledge of fundamental principles, methods and a clear perception of in numerous power of mathematical ideas and tools and know how to use them by modelling, solving and interpreting. |
| | **PO2:** Reflecting the broad nature of the subject and developing mathematical tools for continuing further study in various fields of science. |
| | **PO3:** Enhancing student overall development and to equip them with mathematical modelling abilities, problem solving skills, creative talent and power of communication necessary for various kinds of employment. |
| | **PO4:** Enabling students to develop a positive attitude towards mathematics as an interesting and valuable subject of study. |
| Program Specific Outcomes | **PSO1:** A student should be able to recall basic facts about mathematics and should be able to display knowledge of conventions such as notations, terminology and recognize basic geometrical figures and graphical displays, state important facts resulting from their studies. |
| | **PSO2:** A student should get a relational understanding of mathematical concepts and concerned structures, and should be able to follow the patterns involved, mathematical reasoning. |
| | **PSO3:** A student should get adequate exposure to global and local concerns that explore them many aspects of Mathematical Sciences. |
| | **PSO4:** A student be able to apply their skills and knowledge, that is, translate information presented verbally into mathematical form, select and use appropriate mathematical formulae or techniques in order to process the information and draw the relevant conclusion. |
| | **PSO5:** A student should be made aware of history of mathematics and hence of its past, present and future role as part of our culture. |
| Course Outcomes | **MT 211:Multivariable Calculus-I** After completing the course, students will able to – |

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| | 1. Students learn analysis of multivariable functions, continuity, and differentiability.<br>2. learn the concepts of multiple integrals and their Application to area and volumes<br>**MT212 (B): Laplace Transform and Fourier Series** After completing this course student will be able to-<br>1. Learn the methods and properties of Laplace transform and Inverse Laplace Transform, apply them to solve Linear Differential equations.<br>2. Apply the fundamental concepts of Fourier series, Fourier Sine series, Fourier Cosine series to find series representation of irrational numbers.<br>**MT 221: Linear Algebra** After completing this course student will be able to-<br> 1. Use the concept of basis and dimension of vector spaces linear dependence and linear independence, to solve problems.<br>2. Use the concept of inner product spaces to find norm of vectors, distance between vectors, and check the orthogonality of vectors, to find the orthogonal and orthonormal basis.<br>3. Apply the properties of linear transformations to linearity of transformations, kernel and rank of linear transformations, inverse transformations to solve the problems of matrix transformations, change of basis.<br>**MT222(B):Numerical Analysis and It's Application**<br>After completing this course student will be able to-<br>After completing this course student will be able to-<br>1. Understand different types of errors and Methods to evaluate it.<br>2. Understand the methods to solve Algebraic and Transcendental Equations.<br>3. Study discrete function and interpolate it by using numerical methods.<br>4. Learn different numerical methods to solve differentiation and integration of discrete function.<br>5. Learn different numerical methods to solve ordinary differential equations. |
| **Program** | **T.Y. B.Sc. Mathematics** |
| Program Outcomes | **PO1:** Give the students a sufficient knowledge of fundamental principles, methods and a clear perception of in numerous power of mathematical ideas and tools and know how to use them by modelling, solving and interpreting.<br>**PO2:** Reflecting the broad nature of the subject and developing mathematical tools for continuing further study in various fields of science.<br>**PO3:** Enhancing students' overall development and to equip them with mathematical modelling abilities, problem solving skills, creative talent and power of communication necessary for various kinds of employment.<br>**PO4:** Enabling students to develop a positive attitude towards mathematics as an interesting and valuable subject of study. |
| Program Specific Outcomes | **PSO1:** A student should be able to recall basic facts about mathematics and should be able to display knowledge of conventions such as notations, terminology and recognize basic geometrical |

| | figures and graphical displays, state important facts resulting from their studies.<br>**PSO2:** A student should get a relational understanding of mathematical concepts and concerned structures, and should be able to follow the patterns involved, mathematical reasoning.<br>**PSO3:** A student should get adequate exposure to global and local concerns that explore them many aspects of Mathematical Sciences.<br>**PSO4:** A student be able to apply their skills and knowledge, that is, translate information presented verbally into mathematical form, select and use appropriate mathematical formulae or techniques in order to process the information and draw the relevant conclusion.<br>**PSO5:** A student should be made aware of history of mathematics and hence of its past, present and future role as part of our culture. |
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| Course Outcomes | **MT 331 :Metric Spaces** After completing this course student will be able to -<br>1. Learn the basic abstract ideas of analysis.<br>2. Learn the basic ideas open sets, closed sets, limit point, isolated points, boundary points, and subspace and product metric spaces and apply them to study the nature of sets.<br>3. Learn the theorems on completeness, compactness, and connectedness and use them to solve the problems. Identify the continuity of a function which is defined on metric spaces, at a given point and identify the set of points on which a function is continuous by using different theorems.<br>**MT 332: Real Analysis-I** After completing the course, students will able to –<br>Understand countable and uncountable sets, sequence and series of real numbers and their convergence and divergence.<br>**MT 334:Group Theory** After completing the course, students will able to –<br>1. Identify the various algebraic structures with their corresponding binary operations.<br>2. Generalize the groups on the basis of their orders, elements, order of elements and group relations.<br>3. Compare two groups of same orders on the basis of isomorphism Criteria.<br>4. Compute the possible subgroups of given group of specific orders and will recognize them.<br>**MT 335:Ordinary Differential Equations** After completing the course, students will able to –<br>Solve linear differential equations with constant coefficients, non - homogeneous differential equations, system of first order equations, solution of differential equations by Power series method<br>**MT 337(A): Operations Research** After completing the course, students will able to –<br>1. Formulate and model a LPP from a word problem and solve them graphically in $2 - D$.<br>2. Modify a primal problem and use the LPP to identify the new solution<br>3. Understand basic notions like feasibility, infeasibility, basic solutions, unbounded solutions etc.<br>**MT 337(F): Number Theory** After completing the course, students will able to –<br>1. Solve various problems on properties of integers and use the basic |

concepts of divisibility and their applications in basic algebra.
2. Apply Euclid's algorithm and backwards substitution. Understand the definitions of congruence's, residue classes and least residues.

**MT 341:Complex Analysis** After completing the course, students will able to –
1. Solve problems on basic concepts of modulus, argument of a complex number, DeMoiver's theorem and use them to find roots of an algebraic equation.
2. Define continuity and differentiability for complex functions.
3. Prove the Cauchy -Riemann equations and apply them to complex functions in order to determine whether a given continuous function is complex differentiable.
4. Evaluate integrals along a path - directly from the definition and also via the Fundamental Theorem of Contour Integration and Cauchy's Theorem.
5. Compute the Taylor and Laurent expansions of simple functions, determining the nature of the singularities and calculating residues.
6. Prove the Cauchy Residue Theorem and use it to evaluate integrals.

**MT 342:Real Analysis -II** On satisfying the requirements of this course, students will have the knowledge and skills to:
Know convergence of sequence and series of functions, Riemann integrals, Improper integrals and its applications,

**MT 344:Ring Theory** After completing the course, students will able to –
1. Assess properties implied by the definitions of rings.
2. Use various canonical types of rings.
3. Analyse and demonstrate examples of ideals and quotient rings.
4. Use the concept of isomorphism and homomorphism for rings.

**MT 345: Partial Differential Equations** On satisfying the requirements of this course, students will have the knowledge and skills to: Form the partial differential equations and Solve the problems on Pfaffian differential equations. Solve the problems on first order and higher degree partial differential equations and its applications.

**MT 347(A) : Optimization Techniques** After completing this course students will have the knowledge and skills to:
1. Solve the project management related problems by using the concepts of CPM, PERT so as to find out the project completion time.
2. Fond the optimal solutions of Game theory problems, Optimal solution of two person zero sum game, Solution of mixed strategy games, graphical solution of games, and linear programming solution of game.
3. Solve the problems on Replacement policy after failure, how to process the n jobs on two machines or three machines in minimum time so that the machines remain idle for short time.
4. Solve the optimization unconstrained the optimization problems and constrained optimization problems of multivariable functions.

**MT 347(F): Computation Geometry** After completing the course, students will able to –
1. Design, analyse and develop algorithm and method for solving geometric problems efficiently.

| | 2. Assess theoretical and practical problems that involves geometry.<br>3. Generalize basic notions of reflection, rotation, projection with real life examples |
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## Department of Physics
### AY 2018-19

| Program | F.Y. B.Sc. Physics |
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| Program Outcomes | **Paper I Section I (For Term 1):**<br>programme is designed to cater to the requirement of Choice Based Credit System following the University Grants Commission (UGC) guidelines. In the proposed structure, due consideration is given to Core and Elective Courses (Discipline specific - Physics), along with Ability Enhancement (Compulsory and Skill based) Courses. Furthermore, continuous assessment is an integral part of the CBCS, which will facilitate systematic and thorough learning towards better understanding of the subject. The systematic and planned curricula from first year to the third year (comprised of six semesters) shall motivate the student for pursuing higher studies in Physics and inculcate enough skills for becoming an entrepreneur |
| Program Specific Outcomes | **PO1:**To study the various types of motion and their classical Approaches<br>**PO2:** understood Work Energy Relations<br>**PO3:**to study Concept of viscous force and viscosity<br>**PO4:**understanding Properties of Matter |
| Program Outcomes | **Paper II Section I (For Term 1): Physics Principles and Applications**<br>On successful completion of this course students will be able to do the following:<br>1. To understand the general structure of atom, spectrum of hydrogen atom<br>.2. To understand the atomic excitation and LASER principles.<br>3. To understand the bonding mechanism and its different types.<br>4. To demonstrate an understanding of electromagnetic waves and its spectrum.<br>5. Understand the types and sources of electromagnetic waves and applications.<br>6. To demonstrate quantitative problem solving skills in all the topics covered |
| Program Specific Outcomes | **PO1:**To study the structure of atoms and their classical Approaches<br>**PO2:** study of laser<br>**PO3:**to study Concept of molecules<br>**PO4:**understanding Properties of electromagnetic waves<br>**PO5:**to study the applications of em waves |
| Program Outcomes | **Physics I Section II (For Term 2): Heat and Thermodynamics**<br>To foster scientific attitude, provide in-depth knowledge of scientific and technological concepts of Physics. To enrich knowledge through problem solving, minor/major projects, seminars, tutorials,<br>Review of research articles/papers, participation in scientific events, study visits, etc.<br>To familiarize with recent scientific and technological developments.<br>To create foundation for research and development in Physics. |
| Program Specific Outcomes | **PO1:**to understanding of Concept of thermodynamic<br>**PO2:** study of Conversion of heat into work and it's converse<br>**PO3:** understood of various engines.<br>**PO4:**to study Concept of heat & temperature |
| Program Outcomes | **Paper II Section II (For Term 2): Electromagnetics**<br>On successful completion of this course students will be able to do the following:<br>1.To understand the concept of the electric force, electric field and electric potential for stationary charges<br>2) Able to calculate electrostatic field and potential of charge distributions using Coulomb's law and Gauss's law.<br>3) To understand the dielectric phenomenon and effect of electric field on dielectric. |

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| | 4) To Study magnetic field for steady currents using Biot- Savart and Ampere's Circuital laws.<br>5) To study magnetic materials and its properties.<br>6) Demonstrate quantitative problem solving skills in all the topics covered. |
| Program Specific Outcomes | **PO1:**to study concept of electrostatics<br>**PO2:**to understood of dielectrics<br>**PO3:**to study the concept of magnetism and their properties<br>**PO4:** knowing about the magnetic material<br>**PO5:**To study the properties of magnetism |
| Program Outcomes | **For practical course: 20 practical's**<br>As per syllabus of university |
| Program Specific Outcomes | We take 20 experiments properly by using various instruments as per university of Pune. |
| **Program** | **S.Y. B. Sc Physics** |
| Program Outcomes | **Paper I (PHY211) Mathematical Methods in Physics I**<br>Understand the complex algebra useful in physics courses.<br> 2. Understand the concept of partial differentiation.<br> 3. Understand the role of partial differential equations in physics.<br>4. Understand vector algebra useful in mathematics and physics.<br>5. Understand the concept of singular points of differential equations. |
| Program Specific Outcomes | **POS1**:- To study complex number in various forms<br>**POS2** :- Detail study and solving the problem on partial differentiation<br>**POS3:-** to know how the physical quantity having magnitude and direction<br>**POS4** :- understanding basic knowledge of order ,degree linearity of Differential equation |
| Course Outcomes | **Paper II (PHY 212) Electronics I /Instrumentation**<br>1.Learning outcomes: After successful completion of this course,<br> 2. the student will be able to  Understand the concept of measurement.<br> 3.  Understand the performance of measuring instruments.<br> 4. Design experiments using sensors. |
| Program Specific Outcomes | **PO1:-** understanding of static and dynamic characteristics of measurement<br> **PO2**:- to basic knowing of transducer and its types<br> **PO3:-** to basic knowing of Pressure  and its types<br> **PO4**:- To study of signal conditioning and processing by using Op-amp |
| Course Outcomes | **Paper I (PHY221) Oscillations, Waves and Sound**<br>1.To study underlying principles of oscillations and its scope in development. 2.To understand and solve the equations / graphical representations of motion for simple harmonic damped, forced oscillators and waves.<br>3.  To explain oscillations in terms of energy exchange with various practical applications.<br>4.To solve numerical problems related to undamped, damped, forced oscillations and superposition of oscillations.<br>5. To study characteristics of sound, decibel scales and applications. |
| Program Specific Outcomes | **PO1**: to understanding of linear S.H.M. and its solution.<br> **PO2**: basic knowledge of Differential equation for damped harmonic oscillator and its solution, discussion of different cases.<br> **PO3**: give the knowledge of forced oscillations- LCR series circuit.<br> **PO4** understanding the concept of waves ,its types  and its solution.<br> **PO5:** basic knowledge of sound Intensity, Loudness, Pitch, Quality and timbre. |

| Course Outcomes | **Paper II (PHY 222) Optics** |
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| | 1.On successful completion of this course the students will be able to Acquire the basic concept of wave optics. |
| | 2.Describe how light can constructively and destructively interfere. |
| | 3.Explain why a light beam spread out after passing through an aperture |
| | 4.Summarize the polarization characteristics of electromagnetic wave |
| | 5.Understand the operation of many modern optical devices that utilize wave optics |
| | 6.Understand optical phenomenon such polarization, diffraction and interference in terms of the wave model |
| Program Specific Outcomes | **PO1:** understanding Geometrical optics and Lens aberrations |
| | **PO2:** to study Types of optical instruments: Simple Microscope, Compound Microscope |
| | **PO3:** to study interference and diffraction |
| | **PO4:** understanding of polarization |
| Course Outcomes | **Paper III (PHY 223) (Annual) Practical** |
| | After completing this practical course students will be able to Use various instruments and equipment. |
| | Design experiments to test a hypothesis and/or determine the value of an unknown quantity. |
| | Investigate the theoretical background of an experiment. |
| | Setup experimental equipment to implement an experimental approach. Analyze the data, plot appropriate graphs and reach conclusions from data analysis. |
| | Work in a group to plan, implement and report on a project/experiment. Keep a well-maintained and instructive laboratory logbook. |
| Program Specific Outcomes | As per syllabus of university we take 16 experiments properly using various devices. |
| Course Outcomes | **T.Y.B.Sc. (Physics) (Sem-III )** |
| | As far as possible to promote: |
| | 1) Physics Education through Master Texts: It helps in understanding the theoretical and mathematical development of the subject and to create interest in the subject. |
| | 2) Physics Education through Experimentation: It helps in general to improve scientific attitude. So emphasis is given on the development of experimental skills, data analysis, calculations, and also on the limitations of the experimental method and data and, results obtained. |
| | 3) Physics Education through Problem Solving: It helps in understanding the concepts of physics. It underline the strength of equations, formulae, graphs, mathematical tools to tackle the problems. So accordingly, we have introduced compulsory problem part in the question paper. |
| | 4) Physics Education through History and Philosophy: It helps in understanding the conceptual development of the subject and thereby increase the interest in the subject. A topic on this is introduced in the Physics Course. |
| | 5) Physics Education through Awareness of Misconceptions: It improves the scientific awareness among the students. A discussion on different subjects are encouraged. |
| | 6) Physics Education through Proto-research: It creates interest in the subject and improves technological aspect. Accordingly, mini projects, hands-on activities, projects, models and demonstrations etc. is included in the syllabi. |
| | 7) Physics Education through Qualitative Overview: It creates interest in the subject to continue to work in the field of science in general and physics in particular. Accordingly future directions and frontiers of the subject are included in the syllabi. |
| Program Specific Outcomes | **PSO1:** A student should be able to recall basic facts about physics and should be able to display knowledge of conventions such as notations, terminology and recognize basic knowledge, state important facts resulting from their studies. |
| | **PSO2:** A student should get a relational understanding of mathematical concepts |

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| | and concerned structures, and should be able to follow the patterns involved.<br>**PSO3:** A student should get adequate exposure to global and local concerns that explore them many aspects of physical Sciences.<br>**PSO4:** A student be able to apply their skills and knowledge, that is, translate information presented verbally into mathematical form, select and use appropriate mathematical formulae or techniques in order to process the information and draw the relevant conclusion.<br>**PSO5:** A student should be made aware of history of physics and hence of its past, present and future role as part of our culture. |
| Course Outcomes | **PH331: Mathematical Methods in Physics II**<br>After completing this course student will be able to -<br>1. Learn the basic abstract ideas of analysis.<br>2. Learn the basic ideas of mathematical method in physics .<br>3. Learn the theorems on completeness, compactness, and connectedness and use them to solve the problems. Identify the on metric spaces, using different theorems.<br>**PH332: Classical Electrodynamics**<br>After completing the course, students will able to –<br>Understand the concept of electrostatics and magneto statics and electrodynamics.<br>**PH333: Classical Mechanics**<br>After completing the course, students will able to –<br>1. Identify the various motion of particles<br>2. Generalize the groups on the basis of their motions, laws and its applications.<br>3. Compare the classical mechanics and quantum mechanics.<br>**PH334: Atomic and Molecular Physics**<br>After completing the course, students will able to –<br>Understood the concept atoms and various structures of atoms.<br>And solving the problems of regarding of atoms.<br>**PH335: Computational Physics**<br>After completing the course, students will able to –<br>Understood the concept programs and various programs using 'c' and 'c++'. And solve by using algorithm , flow chart and outline of program.<br>**PH336: Elective: I:B: Elements of Materials Science**<br>After completing the course, students will able to –<br>Study the concept of molecules, structure of atoms and how to make the molecules by combination of atoms.<br>**T.Y.B.Sc. (Physics) (Sem-IV )**<br>**PH341: Solid State Physics**<br>After completing this course student will be able to -<br>1. Learn the basic idea of solid state physics.<br>2. Learn the basic ideas of metal, non-metals and insulators<br>3. Learn the theorems on molecular structures of bcc, fcc<br>**PH342: Quantum Mechanics**<br>. After completing this course student will be able to -<br>1. Learn the basic knowledge of quantum mechanics.<br>2. Learn equation on time dependant and time independent.<br>3. Learn the theorems on quantum mechanics.<br>**PH343: Thermodynamics and Statistical Physics**<br>After completing the course, students will able to –<br>1. Understood the all concept heat and thermodynamics and statistics.<br>**PH344: Nuclear Physics**<br>After completing the course, students will able to –<br>1.study the basic concept of nuclear physics<br>2. Basic idea of the structure of nuclear physics.<br>3. Understood the application of nuclear fission and nuclear fusion.<br>**PH345: Electronics II /Advanced Electronics** |

| | After completing the course, students will able to –<br>1. Study the basic concept of electronics.<br>2. Basic idea of the advanced electronics.<br>3. Understood the application of advanced electronic in various field.<br>**PH346: Elective II: J: Lasers**<br>After completing the course, students will able to –<br>1. Study the basic concept of laser.<br>2. Basic idea of the material types of laser.<br>3. Understood the application of lasers in different places.<br>**PH347: Laboratory Course I**<br>After completing this practical course students will be able to  Use various instruments and equipment.<br> Design experiments to test a hypothesis and/or determine the value of an unknown quantity.<br> Investigate the theoretical background of an experiment.<br>Setup experimental equipment to implement an experimental approach.  Analyze the data, plot appropriate graphs and reach conclusions from data analysis.<br>Work in a group to plan, implement and report on a project/experiment.  Keep a well-maintained and instructive laboratory logbook<br>**Phy348: Laboratory Course II**<br>After completing this practical course students will be able to  Use various instruments and equipment.<br> Design experiments to test a hypothesis and/or determine the value of an unknown quantity.<br> Investigate the theoretical background of an experiment.<br> **PH349: Laboratory Course III (Project)**<br>After completing this practical course students will be able to Use various instruments and equipment.<br> Design experiments to test a hypothesis and/or determine the value of an unknown quantity.<br> Investigate the theoretical background of an experiment. |
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# Department of Zoology
# FY 2018-19

| Program | F.Y. B.Sc. Zoology |
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| Program Outcomes | 1. PO1 - Students gain knowledge and skill in the fundamentals of animal sciences, understands the complex interactions among various living organisms<br> 2. PO2 – Analyse complex interactions among the various animals of different phyla, their distribution and their relationship with the environment<br> 3. PO3 – Apply the knowledge of internal structure of cell, its functions in control of various metabolic functions of organismsPO7 – Gain knowledge of Agro based Small Scale industries like sericulture, fish farming, butterfly farming and vermicompost preparation.<br>4. PO4 – Understands about various concepts of genetics and its importance in human health<br>5. PO5 - Apply ethical principles and commit to professional ethics and responsibilities in delivering his duties<br>6. PO6– Apply the knowledge and understanding of Zoology to one's own life and work |

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| Program Specific Outcomes | PSO1.To foster curiosity in the students for Zoology.<br>PSO2.To create awareness amongst students for the basic and applied areas of Zoology.<br>PSO3.To orient students about the importance of abiotic and biotic factors of environment and their conservation.<br>PSO4.To provide an insight to the aspects of animal diversity.<br>PSO5.To inculcate good laboratory practices in students and to train them about proper handling of lab instruments.<br>PSO6. To understand the Animal diversity around us.<br>PSO7. To understand the underlying principles of classification of animals.<br>PSO8. To understand the terminology needed in classification.<br>PSO9. To understand the differences and similarities in the various aspects of classification.<br>PSO10. To classify invertebrates and to be able to understand the possible group of the invertebrate observed in nature.<br>PSO11. To understand our role as a caretaker and promoter of life.<br>PSO 12. To understand the origin and advancement of higher vertebrates (tetrapoda).<br>PSO 13. To understandgeneral characters of different groups of higher vertebrates.<br>PSO 14. To classify vertebrates and to become able to understand the possible group of vertebrates observed in nature.<br>PSO15. To understand different behaviours and adaptations in higher vertebrates<br>PSO16. To understand affinities among different groups of higher vertebrates.<br>PSO17. To provide thorough knowledge about various animal sciences from primitive to highly evolved animal groups.<br>PSO 18. To make the students aware of applications of Zoology subject in various industries |
| Course Outcomes | **COURSE TITLE :ANIMAL DIVERSITY I&II**<br>CO1. The student will be able to understand classify and identify the diversity of animals.<br>CO 2. The student understands the importance of classification of animals and classifies them<br>effectively using the six levels of classification.<br>CO 3. The student knows his role in nature as a protector, preserver and promoter of life<br>which he has achieved by learning, observing and understanding life.<br>**COURSE TITLE: CELL BIOLOGY AND GENETICS**<br>CO1. Learning outcomes for Cell Biology.<br>CO2. The learner will understand the importance of cell as a structural and functional unit of<br>life.<br>CO3.The learner understands and compares between the prokaryotic and eukaryotic system<br>and extrapolates the life to the aspect of development.<br>CO4.The dynamism of bio membranes indicates the dynamism of life. Its working<br>mechanism and precision are responsible for our performance in life.<br>CO5.The cellular mechanisms and its functioning depends on endo-membranes and<br>structures. They are best studied with microscopy.<br>agricultural importance and Pest control practices.<br>CO6 Structural and functional aspects of basic unit of life i.e. cell concepts |

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| | CO7 Mendelian and non mendielian inheritance<br>CO8 Concept behind genetic disorder, gene mutations- various causes associated with inborn errors of metabolism |
| **Program** | **S. Y. B. Sc.** |
| Program Outcomes | **COURSE TITLE: ANIMAL DIVERSITY –III&IV**<br>1. PO1 - Students gain knowledge and skill in the fundamentals of animal sciences, understands the complex interactions among various living organisms<br> 2. PO2 – Analyse complex interactions among the various animals of different phyla, their distribution and their relationship with the environment<br>3. PO3 – Apply the knowledge of silk worm rearing<br>4. PO4 – Understands the complex evolutionary processes and behaviour of animals<br> 5. PO5 – Correlates the physiological processes of animals and relationship of organ systems 6.<br> PO6 – Understanding of environmental conservation processes and its importance, pollution control and biodiversity and protection of endangered species 7.<br>PO7 – Gain knowledge of Agro based Small Scale industries like sericulture, fish farming, butterfly farming and vermicompost preparation.<br>8. PO8 – Understands about various concepts of genetics and its importance in human health<br>9. PO9 - Apply ethical principles and commit to professional ethics and responsibilities in delivering his duties<br>10. PO10 – Understands concepts of fisheries, fishing tools and site selection<br> 11PO11- Aqua culture systems, induced breeding techniques, post harvesting tecniques<br> 12PO12 Understands about composition of blood, blood born diseases, autopsy and biopsy<br>13PO13 Types of immunity, antigens-antibodies and their properties |

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| Program Specific Outcomes | PSO1.To foster curiosity in the students for Zoology.<br>PSO2.To create awareness amongst students for the basic and applied areas of Zoology.<br>PSO3.To orient students about the importance of abiotic and biotic factors of environment and their conservation.<br>PSO4.To provide an insight to the aspects of animal diversity.<br>PSO5.To inculcate good laboratory practices in students and to train them about proper handling of lab instruments.<br>PSO6. To understand the Animal diversity around us.<br>PSO7. To understand the underlying principles of classification of animals.<br>PSO8. To understand the terminology needed in classification.<br>PSO9. To understand the differences and similarities in the various aspects of classification.<br>PSO10. To classify invertebrates and to be able to understand the possible group of the invertebrate observed in nature.<br>PSO11. To understand our role as a caretaker and promoter of life.<br>PSO 12. To understand the origin and advancement of higher vertebrates (tetrapoda).<br>PSO 13. To understandgeneral characters of different groups of higher vertebrates.<br>PSO 14. To classify vertebrates and to become able to understand the possible group of vertebrates observed in nature.<br>PSO15. To understand different behaviours and adaptations in higher vertebrates<br>PSO16. To understand affinities among different groups of higher vertebrates.<br>PSO17. To provide thorough knowledge about various animal sciences from primitive to highly evolved animal groups.<br>PSO 18. To make the students aware of applications of Zoology subject in various industries |
| Course Outcomes | **ANIMAL DIVERSITY III & IV**<br>CO1. The students will be able to understand, classify and identify the diversity of higher<br>vertebrates.<br>CO2. The students will able to understand the complexity of higher vertebrates<br>CO3. The students will be able to understand different life functions of higher vertebrates.<br>CO4. The students will be able to understand the linkage among different groups of higher<br>vertebrates.<br>CO5. The student will become aware regarding his role and responsibility towards nature as a<br>protector, to understand his role as a trustee and conservator of life which he has achieved by<br>learning, observing and understanding life.<br>**APPLIED ZOOLOGY I AND II**<br>CO1. To understand the basic life cycle of the honeybees, beekeeping tools and equipments.<br>CO 2. To learnfor managing beehives for honey production and pollination.<br>CO 3. To understand the basic information about fishery, cultural and harvesting methods of<br>fishes.<br>CO 4. To understand fish preservation techniques. |

| | CO 5. To understand the biology, varieties of silkworms and the basic techniques of silk |
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| | production and harvesting of cocoons. |
| | CO 6. To learn the different silkworm species and their host plants. |
| | CO 7. To study types of agricultural pests and Major insect pests of agricultural importance. |
| | 36 \| Page |
| | CO 8. To study Pest control practices. |
| | CO 9. The learner understands the basics about beekeeping tools, equipment, and managing |
| | beehives. |
| | CO10. The learner understands the basic information about fishery, cultural and harvesting |
| | methods of fishes and fish preservation techniques. |
| | CO11. The learner understands the biology, varieties of silkworms and the basic techniques |
| | of silk production. |
| | CO12. The learner understands the types of agricultural pests, Major insect pests of |

## Department of Botany
## AY 2018-19

| Program | F.Y. B.Sc. Botany (Sem I) |
| --- | --- |
| Program Outcomes | **BO111(Plant Diversity):** Study of Agrobiodiversity, loss of biodiversity, conservation of biodiversity.<br>**BO112(Industrial Botany):**Industrial processes amino acids, wine, bakery products with the help of fungi. |
| Program Specific Outcomes | **BO111(Plant Diversity):** Know about the floral diversity.<br>**BO112(Industrial Botany I):**Application of industrial Botany knowledge in the self business. |
| Program | F. Y. B. Sc. Botany (Sem II) |
| Program Outcomes | **BO121(Morphology and Anatomy):** Study of morphological terms and concepts and anatomy.<br>**BO122(Industrial Botany II):** Manufacturing of essential oils, bio fertilizers. |
| Program Specific Outcomes | **BO121(Morphology and Anatomy):** It helps to understand the taxonomical concepts.<br>**BO122(Industrial Botany II):** Know the application of industrial knowledge. |
| Program | S.Y. B.Sc. Botany (Sem-I) |
| Program Specific Outcomes | **BO211(Taxonomy of Angiosperms & Plant Community):** Know the introduction of taxonomy, systems of classifications, study of plant families.<br>**BO212 (Plant Physiology):** Discussion of plant physiology and its relation to the various metabolic mechanisms inside the plant body such as, water absorption, transpiration, guttation, exudation, ascent of sap, nitrogen metabolism, seed dormancy & germination. |
| Program | **BO211(Taxonomy of Angiosperms & Plant Community):** Gives knowledge of taxonomy of angiosperms.<br>**BO212 (Plant Physiology):** Study of plant metabolic pathways. |
| Course Outcomes | S.Y. B.Sc. Botany (Sem-II) |
| Program Specific Outcomes | **BO221(Plant Anatomy and Embryology):** Study of plant internal |

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|---|---|
| | morphology, structure of plant ovules, fertilization.<br>**BO222 (Plant Biotechnology):** Theoretical knowledge of plant tissue culture and single cell protein will help to understand the methods and commercial importance of it. |
| **Program** | **BO221(Plant Anatomy and Embryology):** It gives the detailed knowledge of reproduction method of flowering plants.<br>**BO222 (Plant Biotechnology):** It creates the awareness of scope, importance and history of Biotechnology.  Students will study the plant tissue culture techniques, single cell protein, genetic engineering , genomics & proteomics, bioremediation. |
| Course Outcomes | **BO . 331 CRYPTOGAMIC BOTANY-**<br>CO-1. Study of cryptogams to understand their Diversity.<br>CO-2. Know the systematics, morphology and structure of algae, fungi , bryophytes, and Pteredophytes.<br>CO- 3. Know life cycle pattern of cryptogams.<br>CO-4. Know economic importance of cryptogams.<br>CO-5.Know evolution of algae, fungi, bryophytes and Pteredophytes.<br>**BO.332 CELL & MOLECULAR BIOLOGY**<br>CO-1.Gain knowledge about cell and its function.<br>CO-2.Learn the scope and importance of molecular biology.<br>CO-3. Understand ultra structure of cell wall, plasma membrane and cell organelles<br>CO-4. Understand the biochemistry of cell.<br>CO-5. Understand the biochemical nature of nucleic acid and their role in living systems.<br>**BO. 333 GENETICS AND EVOLUTION**<br>CO-1.Understand the Mendelian and neo Mendelian genetics. CO-2 Know about interaction of genes, multiple alleles and linkage and crossing over. CO-3. Know about sex linked inheritance, chromosomal aberrations. CO-4. Know the evolutionary sequence of various groups of plants.<br>**BO.334 SPERMATOPHYTIC AND PALAEOBOTANY**<br>CO-1. Systematic study of gymnosperms and angiosperms.<br>CO-2.Understand the morphological and reproductive character of spermatophytic plants.<br>CO-3.Understand economic importance of gymnosperms and angiosperms.<br>CO-4.Understand the diversity among spermatophyte.<br>CO-5.To bring investigation of palaeobotanical study in India.<br>CO-6.Know, scope and application of Palaeobotany.<br>CO-5.Know types of fossils, geological time scale.<br>**BO.335 HORTICULTURE & FLORICULTURE**<br>CO-1.Understand economic importance of plant and plant product.<br>CO-2. Know the methods of plant propagation.<br>CO-3.Understand the fruit & vegetables production technology.<br>CO-4.Understand the scope & importance of floriculture.<br>CO-5.Understand the methods of cultivation of different flowering plants.<br>**B0.336 COMPUTATIONAL BOTANY**<br>CO-1.Understand the scope & importance of biostatistics.<br>CO-2.Understand the scope and some basic commonly used terms like sampling, data, dispersion, population, central tendency etc.<br>CO-3.Knowledge to apply statistical analysis to biological data for testing different hypothesis |

| Program | T.Y. B.Sc. Botany (Sem-IV) |
|---|---|
| Course Outcomes | **BO. 341 PLANT PHYSIOLOGY & BIOCHEMISTRY**.<br>CO-1.Know scope and importance of plant physiology.<br>CO-2Understand plant & water relation.<br>CO-3.Understand process of photosynthesis, C3 , C4, CAM pathways.<br>CO-4.Understand the process of respiration, growth and developmental process in plant.<br>CO-5.Understand the biochemistry of cell.<br>CO-6.Understand the different biochemical reaction of biomolecules in plant cell.<br>**BO. 342 PLANT ECOLOGY AND BIODIVERSITY**.<br>CO-1.Know the biotic and abiotic components of ecosystem.<br> CO-2.Food chain & food web in ecosystem.<br>CO-3.Understand diversity among various groups of plant kingdom.<br>CO-4.Understand plant community & ecological adaptation in plants.<br>CO-5. Scope , importance and management of biodiversity.<br>**BO. 343 PLANT PATHOLOGY**.<br>CO-1.Understand scope and importance of plant pathology.<br>CO-2.Know disease cycle and disease development .<br>CO-3.Know the effect of plant diseases on economy of crops.<br>CO-4.Know the methods of studying plant diseases.<br>CO-5.They can identify the plant diseases like bacterial , nematodal, and fungal.<br>CO-6.Know the disease forecasting.<br>CO-7.Know the prevention and control measures of plant diseases.<br>**BO. 344 MEDICAL AND ECONOMIC BOTANY**<br>CO-1.Understand scope and importance of pharmacognosy.<br>CO-2.Know the cultivation, collection, processing & importance of various herbal drugs.<br>CO-3.Understand the scope of economic botany.<br>CO-4.Know the botanical resources like non wood forest products.<br>CO-5.Understand the concept of Ayurvedic pharmacy.<br>**BO. 345 PLANT BIOTECHNOLOGY**<br>CO-1.Understand the fundamental of recombinant DNA technology.<br>CO-2.Understand tissue culture techniques.<br>CO-3.Role of microbes in agriculture , medicine & industry.<br>CO-4.Know the fermentation technology.<br> CO-5.Understand the concept of bioinformatics, genomics & proteomics.<br>CO-6.Understand technical germplasm & cryopreservation.<br>**BO. 346 PLANT BREEDING & SEED TECHNOLOGY**.<br> CO-1.Understand the scope & importance of plant breeding.<br>CO-2.Know the technique of production of new superior crop varieties.<br>CO-3.Know the about heterosis, hybrid vigor etc.<br>CO-4.Know the process of hybrid variety, development & their release.<br>CO-5.Know about seed germination, processing , production etc. |

## Programmes Outcomes (PSO's) B.Sc.- (Chemistry)

| PO 1 | Demonstrate, solve and an understanding of major concepts in all disciplines of chemistry. |
|------|---------------------------------------------------------------------------------------------|
| PO 2 | To understand basic facts and concepts in Chemistry while retaining the exciting aspects of Chemistry so as to develop interest in the study of chemistry as a discipline. |
| PO 3 | Employ critical thinking and the scientific knowledge to design, carry out, record and analyze the results of chemical reactions. |
| PO 4 | To develop the ability to apply the principles of Chemistry |
| PO 5 | Find out the green route for chemical reaction for sustainable development. |
| PO 6 | To inculcate the scientific temperament in the students and outside the scientific community. |
| PO 7 | Use modern techniques, decent equipments and Chemistry software" s |

## Programmes Specific Outcomes (PSO's) B.Sc.- (Chemistry)

| PSO 1 | To appreciate the achievements in Chemistry and to know the role of Chemistry in nature and in society |
|-------|--------------------------------------------------------------------------------------------------------|
| PSO 2 | To explain nomenclature, stereochemistry, structures, reactivity, and mechanism of the chemical reactions. |
| PSO 3 | To develop problem solving skills. |
| PSO 4 | Use modern chemical tools, Models, Chem-draw, Charts and Equipments. |
| PSO 5 | Know structure-activity relationship. |
| PSO 6 | To be familiarised with the emerging areas of Chemistry and their applications in various spheres of Chemical sciences and to apprise the students of its relevance in future studies. |
| PSO 7 | Develop research oriented skills. |
| PSO 8 | To develop skills in the proper handling of apparatus and chemicals. To be exposed to the different processes used in industries and their applications. |

## Course Outcomes (CO's) B.Sc.- (Chemistry)

| | F.Y.B.Sc. Annual pattern | |
|---|---|---|
| | **Chem. Paper I-Physical and Inorganic Chemistry** | |
| CO-1 | to solve problems regarding van der Waal's and Critical constant and regarding P-V-T relations | |
| CO-2 | Theoretical basis of adsorption phenomena is integrated | |
| CO-3 | to solve problems based on GMV relationship. | |
| CO-4 | Student lnows about atomic structure chemical thermodynamics | |
| CO-5 | Concept of hybridization and differentiation with overlap | |
| | **Chem. Paper II- Organic and Inorganic Chemistry** | |
| CO-1 | knows the structure, bonding, properties and reactivities of organic molecules such as covalent character, hybridization, bond angles, bond energies, bond polarities and shapes of molecules. | |
| CO-2 | Structural effects and their applications in determining strength of acids and bases. | |
| CO-3 | The common and IUPAC names of alkanes, alkenes, alkynes and homocyclic, polycyclic aromatic hydrocarbons | |
| CO-4 | Skeleton of long form of periodic table | |
| CO-5 | Structure, nomenclature, preparation and reactions of organic compounds. | |
| CO-6 | Concept of isomerism, types of isomers and representation of organic molecules. | |
| CO-7 | Concept of oxyanions, different than mineral acids, oxyacids of phosphorous & sulphur | |
| | **Chem .Paper III Practical Course** | |
| CO-1 | Verify theoretical principles experimentally | |
| CO-2 | Improvement of practical skills of the students. | |
| CO-3 | Acquire skill of crystallisation | |
| CO-4 | record correct m. p. / b. p. | |

| | S.Y.B.Sc. Semester-I | |
|---|---|---|
| | **CH-211 Physical and Analytical Chemistry** | |
| CO-1 | Concept of kinetics , terms used , rate laws , types of order | |
| CO-2 | Know Types of photochemical reactions and photophysical process | |
| CO-3 | Distribution law and nature of solute in solution state | |
| CO-4 | Chemical analysis and its applications | |

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|---|---|
| CO-5 | Meaning of error and terms related to expression & estimation of errors |
| CO-6 | Method of detection of Basic and acidic radicals |
| CO-7 | Classification of compounds with different functional groups |
| | **CH-212 Organic and Inorganic Chemistry** |
| CO-1 | Draw the structure of boat and chair configuration its energy and stability of cyclohexane |
| CO-2 | Define and classify heterocyclic compounds and their reactions and preparations |
| CO-3 | Differentiate between ore and minerals. |
| CO-4 | electrolysis of alumina and its refining, their alloys and application |
| CO-5 | understand Metallurgy of Iron and Steel |
| CO-6 | Methods of prevention of metal from corrosion. |
| | **Semester-II** |
| | CH-221 Physical and Analytical Chemistry |
| CO-1 | Chemical and physical equilibrium |
| CO-2 | Ideal and non ideal solutions and laws governing these solutions |
| CO-3 | Meaning of equivalent weight, molecular weight, normality, molality, primary and secondary standards. |
| CO-4 | Types and role of indicators. |
| | CH-222 Organic and Inorganic Chemistry |
| CO-1 | Concept of different reagents used in the one type of conversion. |
| CO-2 | Write and complete various reactions of heterocyclic compounds. |
| CO-3 | role of biochemistry in the day to day life |
| CO-4 | Write cyclic structure of glucose in Fischer, Haworth and chair form |
| CO-5 | position of d-block elements in periodic table. |
| CO-6 | To define acids and bases according to Arrhenius theory Lowery- Bronsted concept, Lewis concept. |
| CO-7 | To know toxic chemical in the environment. |
| | CH-223 Practical Course in Chemistry |
| CO-1 | Correlate the theory and experiments and understand their importance |
| CO-2 | Perform the complete chemical analysis of the given organic compound |
| CO-3 | Verify theoretical principles experimentally |
| CO-4 | Perform all the activities in the laboratory with neatness and cleanness. |
| CO-5 | Acquire skill of crystallisation, record correct m. p. / b. p. |

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| | **T.Y.B.Sc. Semester-III** |
| | **CH-331 Physical Chemistry** |
| **CO 1** | Write an expression for rate constant k and half-life period for third order reaction |
| **CO 2** | Solve the numerical problems based on k, $E_a$ and A. |
| **CO 3** | To know the cell constant, types of electrolyte. |
| **CO 4** | To understands the term refractive index, specific volume, molar volume, and molar refraction, dipole moment, M.I. and spectra of molecule. Derive the expression for rotational spectra for the transition from J to J+1 |
| **CO 5** | Know the meaning of phase, component, and degree of freedom for one and two component system. |
| | **CH-332 Inorganic Chemistry** |

| CO 1 | Know the theories of covalent bond formation. |
|------|-----------------------------------------------|
| CO 2 | Know the meaning of various terms involved in co-ordination chemistry |
| CO 3 | Calculation of charge on complex ion and oxidation number. |
| CO 4 | Familiar with IUPAC name of coordination compound.CO-5. Know the various types of isomerism in coordination compounds.CO-6. Know the need of concept of hybridization. |
| | **CH-333 Organic Chemistry** |
| CO 1 | Define organic acids and bases. |
| CO 2 | Distinguish between geometrical and optical isomerism. |
| CO 3 | Discuss kinetics, mechanism and stereochemistry of SN1 and SN2 reactions. |
| CO 4 | Compare between E1 and E2 reactions. |
| CO 5 | Understand the evidences, reactivity and mechanism of various elimination and substitution reactions. |
| | **CH-334 Analytical Chemistry** |
| CO 1 | Know the different terms related with gravimetric analysis. |
| CO 2 | To understand different TGA techniques. |
| CO 3 | To study emr and its interaction with matter. |
| CO 4 | To understand different voltametric techniques. |
| CO 5 | To know the concept of AAS. |
| CO 6 | To understand emission spectra by FES. |
| | **CH-335 Industrial Chemistry** |
| CO 1 | Know the various industrial aspects. |
| CO 2 | Classify various insecticides, fungicides, pesticides. |
| CO 3 | Study the food deterioration factors and their control. |
| CO 4 | Understand Non-starch polysaccharides-cellulose-occurrence. |
| CO 5 | Study the various operations involved in the manufacture and compositions of cement, Glass. |
| | **CH-336-B  Polymer Chemistry** |
| CO 1 | History of polymers. |
| CO 2 | Difference between simple compounds and polymer. |
| CO 3 | Names of polymers. |
| CO 4 | Various methods of nomenclature. |
| CO 5 | Difference between natural synthetic, organic and inorganic polymers. |
| CO 6 | Terms-Monomer, Polymer, Polymerization, Degree of polymerization, Functionality, Number average, Weight average molecular weight. Mechanisms of polymerization.Polymerization techniques. |
| CO 7 | Importance of silicone polymers. Derivatives of cellulose polymers & their applications. Ingredients added to polymer fillers. |
| CO 8 | Polymer reactions and applications. Polymer reactions and their effect on physical and chemical properties. |
| CO 9 | Advantages of polymer reactions to change their properties. |
| | **Semester-IV** |
| | CH-341 Physical Chemistry |
| CO 1 | Understand Mechanics of system of particles. |
| CO 2 | Know the concept of electrode, cell reaction, types of electrode. |
| CO 3 | Solve the cell reaction and calculate Ecell, pH. |
| CO 4 | Calculate wavelength,angle, interplanar spacing. |
| CO 5 | Understand De-Broglie hypothesis and Uncertainty principle |
| CO 6 | Derive Schrodinger's time dependent and independent equations |
| | **CH-342 Inorganic Chemistry** |
| CO 1 | Understand the behaviour of f-block elements. |
| CO 2 | Know the band theory of metal. |

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| **CO 3** | Understand the nature of solid. |
| **CO 4** | Define catalysis and various terms involved in it. |
| **CO 5** | Understand biological role of inorganic ions and compounds. |
| | **CH-343 Organic Chemistry** |
| **CO 1** | To study UV, IR and NMR spectroscopy. |
| **CO 2** | Discuss different types of rearrangement reactions. |
| **CO 3** | Determine structure of compound by spectroscopic methods. |
| **CO 4** | Understand the difference between carbocation and carbanion. |
| **CO 5** | To study alkaloids, Ephedrine, citral molecule with their properties and application. |
| | **CH-344 Analytical Chemistry** |
| **CO 1** | Know the different analytical techniques. |
| **CO 2** | To understand different types of separation techniques. |
| **CO 3** | To study principle, construction and working of GC and HPLC. |
| **CO 4** | To give an extended knowledge about chromatographic techniques used for separation of amino acids. |
| **CO 5** | Discuss the problem based on distribution coefficient and extraction techniques. |
| | **CH-345 Industrial Chemistry** |
| **CO 1** | Know the classification of pharmaceutical drugs, their nomenclature, application and synthesis. |
| **CO 2** | To study the waste management. |
| **CO 3** | To understand the classification and uses of dyes, paints and pigments. |
| **CO 4** | To study the different types of soap products. |
| **CO 5** | To know importance of sugar industry. |
| **CO-6.** | To study the basics of polymer nomenclature. |
| | **CH-346-B Polymer Chemistry** |
| **CO 1** | Polymer degradation, Chemical and geometric structures of polymers. |
| **CO 2** | Important polymers like PVC, polystyrene, polyvinyl alcohol, Teflon, Resins, nylon, epoxypolymer, Uses & properties of polymers. |
| **CO 3** | Role of polymer industry in the economy. , Advantages of polymers, Some industrially important polymers  polymer processing? |
| **CO 4** | Different polymer processing techniques. Polymer testing and analysis, Properties of polymers & testing., Various fiber spinning techniques, Reinforcement & compounding of polymers. |
| | **CH-347 Physical Chemistry practical.** |
| **CO 1** | To find the rate constant of reaction k and relative strength. |
| **CO 2** | Study the energy of activation for second order reaction. |
| **CO 3** | To find order of reaction. |
| **CO 4** | Find out the acidity, Basicity and PKa value on pH meter. |
| **CO 5** | To find unknown concentration of solution by colorimeter. |
| **CO 6** | To determine pH of various buffer solution by potentiometer. |
| | **CH-348 Inorganic Chemistry Practical‟ s** |
| **CO 1** | Study the gravimetric and volumetric estimations. |
| **CO 2** | Preparation of inorganic complexes |
| **CO 3** | To study qualitative analysis of  binary mixture with removal of borate and phosphate radical. |
| **CO 4** | To understand the separation of ions by the chromatographic techniques |
| | **CH-349 Organic Chemistry Practical‟ s** |
| **CO 1** | Perform the Binary mixtures. |
| **CO 2** | Preparation of organic compounds, their purifications and run TLC. |
| **CO 3** | Determination of physical constant: Melting point, Boiling point. |
| **CO 4** | Different separation techniques. |

After successful completion of two year degree program in chemistry a student should be able to;

| PSO 1 | Determine molecular structure by using UV, IR and NMR. |
|---|---|
| PSO 2 | To give students a comprehensive understanding of the principles of Chemistry |
| PSO 3 | Improve the Skill of student in organic research area. |
| PSO 4 | To gain the skill to design and carry out scientific experiments and interpret the data. |
| PSO 5 | Study of Asymmetric synthesis. |
| PSO 6 | Determine the aromaticity of different compounds. |
| PSO 7 | To be able to define and resolve new problems in Chemistry and participate in the future development of Chemistry. |
| PSO 8 | To develop the post graduate department on the modern lines of education and training levels. |
| PSO 9 | To impart the advanced practical and theoretical knowledge to the students and develop the scientific skills among them to be useful in the concerned field. |
| PSO 10 | To trained students and make them eligible for accessing integrated multidimensional fields. |
| PSO 11 | Anticipation of new/upcoming areas in academics as well as in technology. |

## Course Outcomes (CO's) M.Sc. - (Organic Chemistry)

| | **Semester-I** |
|---|---|
| | CHP-110 Fundamentals of Physical Chemistry-I |
| CO 1 | The course aims to provide fundamental understanding of physical chemistry. |
| CO 2 | Students learn the concept of Gibbs and Helmholtz energies, Chemical potential and Expressing Chemical equilibrium in terms of chemical potential. |
| CO 3 | Elements of quantum chemistry, wave particle duality, uncertainty principle, wave function and its interpretation, well behaved functions, ortho normal functions, Schrodinger equation, particle in a box, degeneracy, quantum mechanical harmonic oscillator and quantum tunneling are introduced. |
| CO 4 | Students are made aware of Chemical kinetics and reaction dynamics topics such as Reversible reactions, principle of microscopic reversibility, steady state approximation and elucidating mechanism using SSA. Arrhenius theory, enzyme catalysis and Michaelis-Menten mechanism. |
| | **CHI-130Molecular Symmetry & Chemistry of p-block elements** |
| CO 1 | This is made to understand the symmetry and group theory and use this knowledge to interpret the properties like dipole moment, optical activity, and signals in IR and Raman spectroscopy. |
| CO 2 | Students are also made to understand the properties of main group elements and their applications in fields like catalysis, industry, human metabolism and medicines etc. |
| CO 3 | It also explains organometallic compounds of Si, Sn, Pb, Ga, As, Sb, Bi etc and their synthesis and reactions. |
| | **CHO-150 Basic Organic Chemistry** |
| CO 1 | This course helps to improve basic organic concepts. |
| CO 2 | The Purpose of the course is to aware the students for basic organic chemistry. |
| CO 3 | The main intension of the course is that to know stereochemistry of carbon compounds, how to write structure of molecules & their reactivity. |
| CO 4 | Student should aware about reaction mechanism. |

| | **CHA-190 Safety in Chemical Laboratory and Good Laboratory Practices** |
|---|---|
| **CO 1** | The Students are made aware of necessary guidelines of safety in chemical laboratory and good laboratory practice. |
| **CO 2** | Students get acquainted with different types of hazards at work place, use of personal protective. |
| **CO 3** | Students also aware about types of fire extinguisher inventory management, storage and disposal material safety data sheets. |
| **CO 4** | Students should know how to handle first Aid as while working different chemicals are in contact with the skin, eyes and inhalation and ingestion. |
| | **Semester- II** |
| | **CHP-210 Fundamentals of Physical Chemistry II** |
| **CO 1** | The course aims to provide understanding of physical chemistry; |
| **CO 2** | In this course fundamentals of molecular spectroscopy are introduced. Students learn basic elements of rotational, vibrational, raman and electronic spectroscopy. |
| **CO 3** | Nuclear and radiation Chemistry concepts are introduced. Students get familiar with Chemical Bonding**.** |
| **CO 4** | Valence Bond theory, hybrid orbital, geometry and hybridization, Molecular Orbital Theory, linear variation method, Approximations underlying Huckel theory, bond order, Aromaticity, Applications of Huckel theory. |
| | **CHI- 230 Coordination and Bioinorganic Chemistry** |
| **CO 1** | Students are made aware of spectral and magnetic properties of d and f block elements, spectrophotometric analysis of metals like Cr, Mn, Ni and magnetic behavior of various complexes of f block elements in MRI and as TV phosphors. |
| **CO 2** | Students are also made aware of a role of metal ion in biologically active compounds like Hb, Mb cytochromes and use of anticancer drugs i.e. platinum Complexes. |
| **CO 3** | It explains biochemistry of Na, K, Ca, with respect to Na/K pumps. |
| | **CHO-250 Synthetic Organic Chemistry & Spectroscopy** |
| **CO 1** | The main aim of this course is to study with various basic organic reactions with mechanism, reagent and ylides |
| **CO 2** | This course also covers with the basic introduction to various spectroscopic methods like UV, $^1$H-NMR, $^{13}$C- NMR, IR, Mass spectrometry and their applications. |
| | **CHA-290 General Chemistry** |
| **CO 1** | The basic purpose of this course is to understand the importance and properties of mass spectrometry, gas chromatography and high performance liquid Chromatography. |
| **CO 2** | Students also familiar with concept of analytical chemistry like data handling and spreadsheets, Sampling, Standardization and calibration. |
| **CO 3** | Separation by precipitation, distillation, extraction and ion exchange chromatography. |
| | **CHP-107 Practical Course  (Physical Chemistry)** |
| **CO 1** | Students are trained to use the techniques such as pH metry, Conductometry, Potentiometry, Colorimetry, Spectrophotometry, Refractometry and G. M. Counter. |
| **CO 2** | These techniques will enable them to work as quality control chemist in various labs and such organizations. |
| | **CHI-147 Practical Course (Inorganic Chemistry** |

| CO 1 | Students are given the knowledge of basic preparation of various solutions, synthesis of various inorganic complexes and their characterization. |
|---|---|
| CO 2 | The students are trained for handling of natural materials and their quantitative analysis which involves disintegration, separation and individual estimations. |
| CO 3 | They are given hands on training to handle various equipments like spectrophotometer, flame photometer, Condutometer etc. |

**CHO-247 Practical Course (Organic Chemistry)**

| CO 1 | This course makes the students to aware of different organic techniques like purification, crystallization, distillation, TLC, M.P./B.P. this course develops scientific views, organic synthesis and also give knowledge of separation of ternary organic mixtures. |
|---|---|
| CO 2 | Student gets Knowledge of chemistry software likes, MOPAC, ISIS draw, Chemdraw office. |

**Semester- III**

### CHO-350 Organic reaction mechanism

| CO 1 | The main aim of this course is to learn and understand the basic concept in reaction mechanism. |
|---|---|
| CO 2 | This course helps the students to understand the role of recent reagent, catalyst in mechanism of reaction. |
| CO 3 | This course also helps to improve the thinking ability of the students towards reaction mechanism. |

### CHO-351 Spectroscopic Methods in Structure Determination.

| CO 1 | This course enables to the students learn the basic of spectroscopic methods like UV, $^1$H-NMR, $^{13}$C-NMR, IR, Mass spectrometry and their application. |
|---|---|
| CO 2 | This course gives idea of structure determination of known and unknown organic molecules by using spectroscopic data. |

### CHO-352 Organic Stereochemistry

| CO 1 | This course helps to aware the students to understand the stereochemistry of organic reactions. |
|---|---|
| CO 2 | Also gives detail idea regarding stereochemistry of alicyclic rings, fused, bridge and caged rings. |
| CO 3 | This course also includes resolution of racemic modification and determination of stereochemistry of organic compound using NMR, which helps to the students that they predict stereochemistry of organic compounds |

### CH-353 Photochemistry, pericyclic Reactions and Heterocyclic Chemistry

| CO 1 | The aim of this course is to furnish the students with fundamental and theoretical understanding of heterocyclic chemistry. |
|---|---|
| CO 2 | This course includes photochemistry and pericyclic reactions which helps the students to improve their imagination power. |
| CO 3 | Heterocyclic chemistry gives basic idea to the students in synthesis of different heterocyclic derivatives. |

**Semester- IV**

### CHO-450 Chemistry of Natural products

| CO 1 | . In this course PG students learn the different pathways of synthesis of natural products. |
|---|---|
| CO 2 | It also helps stereochemistry and structure determination of some natural products. |
| CO 3 | The biogenesis develops the synthetic strategies to prepare different important natural compounds in the laboratory. |

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|---|---|
| **CO 4** | This course involves multistep synthesis of coumarins,flavonoids, isoflavonoids and terpenoids. |
| | **CHO-451 Advanced Synthetic Organic Chemistry** |
| **CO 1** | This course involves organometallic chemistry which helps the students to develop their ideas in organic synthesis. |
| **CO 2** | This course involves the reactions like coupling reactions, multicomponent reactions, ring formation reactions, olifination which helps the students to plan synthesis of new organic molecules. |
| **CO 3** | Click chemistry develops the ecofriendly approach towards organic synthesis. |
| | **CHO: 452 Carbohydrate and Chiron Approach, Chiral Drugs and Medicinal chemistry** |
| **CO 1** | This course is designed to make the students aware of the chemistry of biomolecules and basic concept of retrosynthetic strategy and synthesis of chiral drugs. |
| **CO 2** | This course also gives knowledge of synthesis of pharmacologically active chiral drugs. |
| **CO 3** | Medicinal chemistry helps to introduce the drugs and their biological properties to the students. |
| **CO 4** | It also helps to understands pharmacokinetics and pharmacodynamics of the drugs and drug targets. |
| | **CHO-453 Designing organic Synthesis and Asymmetric Synthesis** |
| **CO 1** | This course is specially designed to understand the designing of organic synthesis, which helps develops the research ideas. |
| **CO 2** | It involves principle and applications of asymmetric synthesis which helps to predict the chiral products in organic synthesis. |
| **CO 3** | Students also came to know the use of cram rule, felkin anh rule, cram chelate model, use of chiral auxillary and chiral reagents in organic synthesis. |
| | **CHO-347 Single stage preparations** |
| **CO 1** | This practical course involves single stage preparation of different organic compounds and heterocycles. |
| **CO 2** | The main objective of this course is to develop the skilled practical hand of the students in laboratory. |
| | **CHO-447 Two stage Preparations** |
| **CO 1** | This course includes multistep synthesis of organic compounds and heterocycles. |
| **CO 2** | This course helps the students to improve the techniques like workup of reactions, purification, TLC, M.P / B.P etc. |
| **CO 3** | The main of this course is to improve practical skill and practice of micro scale preparation. |
| | **CHO-448 Green Chemistry Practical** |
| **CO 1** | This course makes the students to aware of roll of green chemistry in organic synthesis. |
| **CO 2** | Green chemistry helps to reduce the pollution. |
| **CO 3** | The main objective of this course is how to avoid solvents and do solvent free reactions. |

# Department of Electronics
## AY 2018-19

| Program | F.Y. B.Sc. Electronics |
|---|---|
| Program Outcomes | **Objective Paper I: Paper I: EL- 111: Analog Electronics**<br> 1. To understand importance of Electronics in day today life<br>2. To understand basics of electronic circuits<br> 3. To make the students learn through problem solving<br> 4. To understand few electronic |
| Program Specific Outcomes | After completion of this course student will be able:<br>**Pos1** To identify different parameters/functions/specifications of components used in electronic circuits<br>**Pos2**. To solve problems based on network theorems.<br>**Pos3**. To perform simulations using simulator for analyzing network<br>      Performance<br>**Po4:** study of Passive Circuits<br>**Po5:-** Study of Active Circuits<br>Po6:- Concept of Amlifier and Its Application |
| Program Outcomes | **Paper I: EL-121: Digital Electronics**<br>    1. To know about different number systems and codes<br>     2. To understand logic gates and truth tables<br>    3. To understand combinational logical circuits<br>    4. To understand sequential logical circuits<br>     5. To encourage the students for making use of simulation software for<br>       testing and building the circuits before experimentation. |
| Program Specific Outcomes | After completion of this course student will be able<br>  **Pos1**. To solve problems based on inter conversion of number systems<br>  **Pos 2**. To reduce the expression using Boolean theorems<br>   **Pos 3**. To reduce expressions using K maps in SOP and POS forms<br>  **Pos 4**. o understand how to use flip flops to build modulus counter<br>  **Pos 5** To familiarize with applications of counters like ring counter or event<br>       Counter<br>  **Po6:-** Study od Combinational Circuit and its application<br>  **Po7:-**Study of Sequential Circuit and Its application<br>  **PO8:-** Memory Organization |
| Program Outcomes | **EL- 113: ELECTRONICS Practical**<br>1. To teach students how to draw different symbols and circuit diagrams<br>2. To develop skill of circuit connections<br>3. To familiarize the student with different components and devices used in the<br>   laboratory and the device  Manuals<br>4. To familiarize students with laboratory instruments like Ammeter, voltmeter,<br>   DMM, Signal Generator,  Function Generator, CRO and tools like cutter,<br>   stripper etc.<br> 5. To train them to design and analyze the circuits for specific purpose<br> 6. To teach the students how to analyze the results and calculate performance<br>   parameters<br> 7. To motivate them to work on different mini projects |

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| Program Specific Outcomes | After completion of this course student will be able at (Least 16 Experiment)<br>1. To identify different components and devices as well as their types<br>2. To understand basic parameters associated with each device<br>3. To know operation of different instruments used in the laboratory<br>4. To connect circuit and do required performance analysis<br>5. To compare simulated and actual results of given particular experiment<br>6 Study of Rectifier circuit<br>7. filter Circuit<br>8.Transistor Configuration and Its application<br>9. Logic gates<br>10.Circuit Theorem<br>11.. Kirchhoffs laws,<br>12 Study and measurement parameter usind Electronic Instuments<br>13.Ic circuits<br>14.Counters<br>15.Muptipexers and Demultiplexers<br>!6. Encider and Decoders |
| **Program** | **S.Y. B.Sc. Electronics** |
| Course Outcomes | **EL-232: Paper- II: Digital Circuit Design**<br>This course provides basic knowledge about systematic methodology of designing digital systems. After study through lectures and assignment, student will be able to |
| Program Specific Outcomes | **PO1:-** Distinguish between different logic families based on their performance parameters<br>**PO2**:- Analyze basic combinational logic circuits for simple applications<br>**PO3:-** Design combinational logic circuits using K maps for identified applications<br>**PO4**:- Design Sequential logic circuits using state diagram, excitation table for identified applications CO5 Understand and compare different types of ADC and their performance parameters using data sheets/manuals CO6 Understand and compare different types of DAC and their performance parameters using data sheets/manuals |
| Course Outcomes | **EL-231: Paper - I: Analog Circuit Design Semester IV**<br>This course provides basic knowledge about systematic methodology of designing analog systems. After study through lectures and assignment, student will be able |
| Program Specific Outcomes | **PO1:-** Design single/multistage amplifier using transistor and analyze their frequency response base on gain-bandwidth product due to coupling /bypass capacitors<br>**PO2:-** Classify and compare different power amplifiers<br>**PO3:-** Understand and design push pull amplifier and need of heat sinks<br>**PO4**:- Distinguish between Op-amp Feedback circuits based on their configurations<br>**PO5:-** Analyze the effect of negative and positive feedback on characteristics of Op-amp<br>**PO6:-** Understand and analyze the need of positive feedback in oscillator circuits<br>**PO7:-** Design , develop and build circuits for identified applications |
| Program Outcomes | **EL-241: Paper – I: Communication Electronics**<br>This course provides basic knowledge of analog (continous wave) and digital communication systems . After study through lectures and assignment, student will be able to<br>**1**:- Understand different blocks in communication systems, types of noise in communication systems and its different parameters<br>**2:-** Understand need of modulation, modulation process and amplitude modulation and demodulation methods<br>**3**:- Analyse generation of FM Modulation and demodulation methods and comparison between amplitude and frequency modulation<br>**4**:- Identify different radio receivers and their performance parameters. |
| Program Specific Outcomes | **POS1**:- Solve problems based on AM and FM performance parameters |

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| | **POS2** :- Compare pulse modulation techniques such as PAM, PPM, PWM and compare TDM and FDM techniques used in communication<br>**PoS3:-** Understand need of sampling and sampling theorem as well as know about performance parameters of digital communication<br>**POS4** :- Analyze difference between ASK, FSK , PSK as well as PCM and its applications |
| Program Outcomes | **EL-241: Paper – I: Instrumentation**<br>1. To understand importance of Electronics in day today life<br>2. To understand basics of electronic circuits<br>3. To make the students learn through problem solving<br>4. To understand few electronic |
| **Program Specific Outcomes** | **PO1:** To understand Basic Measurement system<br>**PO2**:-study of generator Signal and function Generator with Block diagram<br>**PO3:-**study of CRO<br>**Po4:-**Study of regulators and Ics Circuits as a regulators |
| Course Outcomes | **243 Practical Course least 16 Experiment)**<br>. 1. To teach students how to draw different symbols and circuit diagrams<br>2. To develop skill of circuit connections<br>3. To familiarize the student with different components and devices used in the laboratory and the device  Manuals<br>4. To familiarize students with laboratory instruments like Ammeter, voltmeter, DMM, Signal Generator,  Function Generator, CRO and tools like cutter, stripper etc.<br>5. To train them to design and analyze the circuits for specific purpose<br>6. To teach the students how to analyze the results and calculate performance parameters<br>7. To motivate them to work on different mini projects<br>Laboratory requirements: Instruments<br>**Po1**. Power Supply(single and dual)    **Po2**. Signal Generator and function generators<br>**Po3.** CRO<br>**Po4.** Digital multi-meters<br>**Po 5**. single stage and Two Stage amplifier<br>**Po6**.TDM<br>**Po7**. FDM<br>**Po8**. Circuit Design using K-Map<br>**Po9**.3 bit 4 bit Counter<br>**Po10**;- .Encoder Decode<br>**Po11:-** Modulation Ampitude<br>**Po12;-**Demodulation<br>**Po13;-**Temperature sensor LM 35<br>**Po14**:-regulators Load and Line<br>**PO15:-**Convertor current to voltage<br>**Po16**;- application of Op-Amp |

## PROGRAM OUTCOMES: B. Sc. Computer Science

| Department of Computer Science | After successful completion of three year degree program in Computer Science a student should be able to; |
|---|---|
| Program Outcomes | PO-1 To develop problem solving abilities using a computer<br>PO-2 To build the necessary skill set and analytical abilities for developing computer based solutions for real life problems.<br>PO-3 To imbibe quality software development practices.<br>PO-4 To create awareness about process and product standards<br>PO-5 To train students in professional skills related to Software Industry.<br>PO-6 To prepare necessary knowledge base for research and development in Computer Science<br>PO-7 To help students build-up a successful career in Computer Science |
| Program Specific Outcomes | PSO 1: Demonstrate understanding of the principles and working of the hardware and software aspects of computer systems.<br>PSO-2 Design, implements, test, and evaluate a computer system, component, or algorithm to meet desired needs and to solve a computational problem.<br>PSO-3 To Enhance skills and adapt new computing technologies for attaining professional excellence and carrying research. |

## Course Outcomes B.Sc. Computer Science
## Semester I

| Course | Outcomes |
|---|---|
| CS-101<br>Problem Solving Using Computers and 'C' Programming | CO-1 To develop Problem Solving abilities using computers<br>CO-2 To teach basic principles of programming<br>CO-3 To develop skills for writing programs using 'C' |
| CS-102<br>File Organization and Fundamental of Databases | CO-1 To understand data processing using computers<br>CO-2 To teach basic organization of data using files<br>CO-3 To understand creations, manipulation and querying of data in databases |
| CS-103<br>Computer Science Practical Paper I | CO-1 Design and implement a 'C' programs for simple problems<br>CO-2 Understand appropriate use of data types and array structures<br>CO-3 Understand use of appropriate control structures |
| CS-104<br>Computer Science Practical Paper II | CO-1 Understanding basic HTML designing<br>CO-2 Writing C programs using complex data structures such as pointers, structures etc. |

## Course Outcomes B.Sc. Computer Science
## Semester II and III

| Course | Outcomes |
|---|---|
| CS- 211<br>Data Structures using 'C' | CO-1 To learn the systematic way of solving problem<br>CO-2 To understand the different methods of organizing large amount of data<br>CO-3 To efficiently implement the different data structure<br>CO-4 To efficiently implement solutions for specific problems |
| CS- 212<br>Relational Database Management System | CO-1 To teach fundamental concepts of RDBMS (PL/PgSQL)<br>CO-2 To teach principles of databases<br>CO-3 To teach database management operations<br>CO-4 To teach data security and its importance<br>CO-5 To teach client server architecture |
| CS- 221<br>Object Oriented Concepts using C++ | CO-1 Acquire an understanding of basic object oriented concepts and the issues involved in effective class design<br>CO-2 Write C++ programs that use object oriented concepts such |

| | as information hiding, constructors, destructors, inheritance etc. |
|---|---|
| **CS- 222**<br>**Software Engineering** | CO-1 To teach basics of System Analysis and Design.<br>CO-2 To teach principles of Software Engineering<br>CO-3 To teach various process models used in practice<br>CO-4 To know about the system engineering and requirement<br>       engineering To build analysis model |
| **CS 223**<br>**Data structures Practicals**<br>**and C++ Practicals** | CO-1 Design and implement Data structures and related<br>algorithms<br>CO-2 Understand several ways of solving the same problem. |
| **CS 223**<br>**Database Practicals &**<br>**Mini Project using**<br>**Software Engineering**<br>**technique s** | CO-1 Understanding the use of cursors, triggers, views and stored<br>procedures<br>CO-2 Understanding the steps of system analysis and design<br>CO-3 Understanding Data requirements for a specific problem<br>domain<br>CO-4 Designing Data base as per the Data requirements<br>CO-5 Designing queries as per the functional requirements |
| **Course Outcomes B.Sc. Computer Science**<br>**Semester IV** |
| **Course** | **Outcomes** |
| **CS-331**<br>**Systems Programming** | CO-1 To understand the design structure of a simple editor.<br>CO-2 To understand the design structure of Assembler and macro<br>processor<br>for a hypothetical simulated computer.<br>CO-3 To understand the working of linkers and loaders and other<br>development utilities.<br>CO-4 To understand Complexity of Operating system as a<br>software |
| **CS-332**<br>**Theoretical Computer**<br>**Science** | CO-1 To have an understanding of finite state and pushdown<br>automata.<br>CO-2 To have a knowledge of regular languages and context free<br>languages.<br>CO-3 To know the relation between regular language, context<br>free language and corresponding recognizers.<br>CO-4 To study the Turing machine and classes of problems. |
| **CS-333**<br>**Computer Networks -I** | CO-1 Understand different types of networks, various topologies<br>and application of networks.<br>CO-2 Understand types of addresses, data communication.<br>CO-3 Understand the concept of networking models, protocols,<br>functionality of each layer.<br>CO-4 Learn basic networking hardware and tools. |
| **CS-334**<br>**Internet Programming I** | CO-1 Learn Core-PHP, Server Side Scripting Language<br>CO-2 Learn PHP-Database handling. |
| **CS-335**<br>**Programming in Java-I** | CO-1 To learn Object Oriented Programming language<br>CO-2 To handle abnormal termination of a program using<br>       exception handling<br>CO-3 To create flat files<br>CO-4 To design User Interface using Swing and AWT |
| **CS-336**<br>**Object Oriented**<br>**Software Engineering** | CO-1 Understanding importance of Object Orientation in<br>Software engineering<br>CO-2 Understand the components of Unified Modeling Language<br>CO-3 Understand techniques and diagrams related to structural<br>modeling<br>CO-4 Understand techniques and diagrams related to behavioral<br>modeling<br>CO-5 Understand techniques of Object Oriented analysis, design<br>and testing |

| Course Outcomes B.Sc. Computer Science Semester V | |
|---|---|
| **Course** | **Outcomes** |
| **CS-341**<br>**Operating Systems** | CO-1 To understand design issues related to process management and various related algorithms<br>CO-2 To understand design issues related to memory management and various related algorithms<br>CO-3 To understand design issues related to File management and various related algorithms |
| **CS-342**<br>**Compiler Construction** | CO-1 To understand design issues of a lexical analyzer and use of Lex tool<br>CO-2 To understand design issues of a parser and use of Yacc tool<br>CO-3 To understand issues related to memory allocation<br>CO-4 To understand and design code generation schemes |
| **CS-343**<br>**Computer Networks -II** | CO-1 Basic networking concepts.<br>CO-2 Understand wired and wireless networks, its types, functionality of layer.<br>CO-3 Understand importance of network security and cryptography. |
| **CS-344**<br>**Internet Programming II** | CO-1 Learn different technologies used at client Side Scripting Language<br>CO-2 Learn XML,CSS and XML parsers.<br>CO-3 One PHP framework for effective design of web application.<br>CO-4 Learn JavaScript to program the behavior of web pages.<br>CO-5 Learn AJAX to make our application more dynamic. |
| **CS-345**<br>**Programming in Java-II** | CO-1 To learn database programming using Java<br>CO-2 To study web development concept using Servlet and JSP<br>CO-3 To develop a game application using multithreading<br>CO-4 To learn socket programming concept |
| **CS-346**<br>**Computer Graphics** | CO-1 Computer programming skills in C programming language<br>CO-2 Basic understanding of use of data structures<br>CO-3 Basic Mathematical concepts related to matrices and geometry. |
| **CS-347**<br>**Lab Course I**<br>**System Programming &**<br>**Operating System** | CO-1. Design and implement System programs with minimal features to understand their complexity.<br>CO-2. Design and implement simulations of operating system level procedures.<br>CO-3 Understand the process of designing and implementing System programs and operating system components. |
| **CS-348**<br>**Lab Course II**<br>**Programming in Java** | CO-1. Implement core Java programs to solve simple problems<br>CO-2. Implement Client and Server end Java programs |
| **CS-349**<br>**Lab Course III**<br>**Programming in**<br>**PHP & Project** | CO-1 Implement Simple PHP programs to solve simple problems<br>CO-2 Understand the process of designing and implementing Webapplications, using PHP. |

# Department of Economics
## AY 2018-19

| Program | F.Y. B.A Economics |
|---|---|
| Program Outcomes | **PO.1** Technical knowledge: use various tools for economic analysis and apply knowledge of the Micro and Macro approach for the personal benefit and for the benefit of national and the global economy<br>**PO.2**. Problem analysis: recognize formulate and study the problems of various sectors of the Indian economy, regional economy and the global economy with the help of the economic ways of thinking, theories, concepts and laws<br>**PO.3.** Design/development of solutions: Design policies and solutions for the economic problems of India and the global economy at large.<br>**PO.4.** Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern IT tools for economic analysis<br>**PO.5**. The student and society: Apply the knowledge of economic concepts, laws and theories, for a better economic environment for the society at large.<br>**PO.6**. Environment and sustainability: develop an economic way of thinking leading to the economic growth, protecting environment with sustainable development<br>**PO.7.** Communication: Communicate effectively on the economic activities with the community and the society through the acquiring knowledge of the national and the global economy. |
| Program Specific Outcomes | **PSO.1**. Explain the basic concepts, laws and theories related to the economic behaviour of the human being.<br>**PSO.2**. Inculcate the economic way of thinking<br>**PSO.3**. Apply economic analysis in practice. |
| Course Outcomes | **INDIAN ECONOMY PROBLEMS-PROSPECTS**<br>**1**. Understand role of agriculture, industrial sector in Indian economy.<br>**2**. Understand nature, Basic Characteristics and Major issues of Indian economy<br>**3**. Understand population & economic development<br>**4.** Understand Poverty and Unemployment Concepts and their trends in Indian economy<br>**5**. Understand Salient Features of Economy of Maharashtra<br>**6**. Understand Regional Imbalance Causes & Preventive Measures. |
| Program | S. Y. B.A |
| Program Outcomes | 1. Technical knowledge: use various tools for economic analysis and apply knowledge of the Micro and Macro approach for the personal benefit and for the benefit of national and the global economy<br>2. Problem analysis: recognize formulate and study the problems of various sectors of the Indian economy, regional economy and the global economy with the help of the economic ways of thinking, theories, concepts and laws<br>3. Design/development of solutions: Design policies and solutions for the economic problems of India and the global economy at large.<br>4. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern IT tools for economic analysis<br>5. The student and society: Apply the knowledge of economic concepts, laws and theories, for a better economic environment for the society at large.<br>6. Environment and sustainability: develop an economic way of thinking leading to the economic growth, protecting environment with sustainable development<br>7. Communication: Communicate effectively on the economic activities with the community and the society through the acquiring knowledge of |

| | the national and the global economy |
|---|---|
| Program Specific Outcomes | 1. Understand process of credit creation by commercial banks<br>2. Understand Quantity theory of money.<br>3. Understand concept of Revenues and cost of Production.<br>4. Understand the Indian capital market |
| Course Outcomes | **SUBJECT - MODERN BANKING G2**<br>1. 1. Create the awareness among the students of Financial System.<br>2. Understand commercial banking system in India<br>3. Understand working & operation of RBI<br>4. Understand new development in Indian financial system<br>5.. Understand cooperative and rural banking in India<br>6. Understand non banking financial institutions & financial services in India<br>7. Understand the Indian money market<br>8. Understand the Indian capital market<br>9. Able to understand international aspects of the Indian financial system<br>**Subject2: Micro Economics (S1)**<br>1. Student is expected to understand the behavior of an economic agent, namely, a consumer,<br>a producer, a factor owner and the price fluctuation in a market.<br>2. To understand nature and scope of economics, the theory of consumer behavior, analysis<br>of production function and equilibrium of a producer, the price formation in different markets<br>structures and the equilibrium of a firm and Industry.<br>3. Understand concept of Revenues and cost of Production.<br>4.Understand concept of Revenues and cost of Production.<br>5. Understand Linear & Non- Linear functional relationship<br>6. Understand price determination<br>of factors (Rant, wages, interest and Profit.)<br>7. Understand meaning of social welfare function.<br>**Subject3 - Macro Economics (S2)**<br>1. Understand macro economic analysis<br>2. Understand of national income<br>3. Understand classical & Keynesian theories of output and employment<br>4. Understand consumption & Investment function<br>5. Understand process of credit creation by commercial banks<br>5. Understand Quantity theory of money.<br>6. Understand various macroeconomic problems.<br>7. Understand various macroeconomic policies |
| **Program** | **T.Y. B.A. ECONOMICS** |
| Program Outcomes | 1. Technical knowledge: use various tools for economic analysis and apply knowledge of the Micro and Macro approach for the personal benefit and for the benefit of national and the global economy<br>2. Problem analysis: recognize formulate and study the problems of various sectors of the Indian economy, regional economy and the global economy with the help of the economic ways of thinking, theories, concepts and laws<br>3. Design/development of solutions: Design policies and solutions for the economic problems of India and the global economy at large.<br>4. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern IT tools for economic analysis<br>5. The student and society: Apply the knowledge of economic concepts, laws and theories, for a better economic environment for the society at large.<br>6. Environment and sustainability: develop an economic way of thinking leading to the economic growth, protecting environment with sustainable development |

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|---|---|
| | 7. Communication: Communicate effectively on the economic activities with the community and the society through the acquiring knowledge of the national and the global economy |
| Program Specific Outcomes | 1. Understand Nature, Scope and At the end of the course the learner will have Ability<br>2. Problem analysis: recognize formulate and study the problems of various sectors of the Indian economy, regional economy and the global economy with the help of the economic ways of thinking, theories, concepts and laws<br>3. Design/development of solutions: Design policies and solutions for the economic problems of India and the global economy at large.<br>4. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern IT tools for economic analysis |
| Course Outcomes | **Subject1:ECONOMIC GROWTH AND DEVELOPMENT**<br>At the end of the course the learner will have ability -<br>• To relate and recognize the concept and indicators of Economic Development.<br>• To describe and analyze the concept and indicators of Human Development.<br>• To explain the characteristics of Developing and Developed Countries.<br>• To describe the constraints to the process of Economic Development.<br>• To describe and explain the process of Economic Planning.<br>• To describe and examine the changing structure of planning process in India.<br>• To describe and explain the relation between Economic Development and Environment.<br>**Subject2: (S3 International Economics )**<br>• Understand Nature, Scope and At the end of the course the learner will have Ability<br><br>• To relate and recall the concepts of International Economics and International Trade.<br>• To describe and apply the theories of international trade.<br>• To explain and comprehend the issues relating to Terms of trade and Balance of Payment.<br>• Ability to relate and explain the concept of Exchange Rate and Foreign Exchange Market.<br>• Ability to describe the trends in Growth, Composition and Direction of India's Foreign Trade.<br>• Ability to comprehend the issues relating to Foreign Capital and Regional and International<br>Co-Operation.<br>**Subject3 (S4 Public Finance)**<br>At the end of the course the learner will have ability-<br>• To relate and recognize the Nature and Scope of Public Finance.<br>• To describe and analyze the concept of Public Revenue and its components.<br>• To explain types of Public Expenditure and reasons for rising Public Expenditure.<br>• To explain the types of Public Debt and its effects.<br>• To explain and assess the components and instruments of Fiscal |

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|---|---|
| | Policy.<br>• To relate to the concepts of Budget and its components.<br>• To describe and analyze the concept of Deficit Financing and its effects.<br>• To describe and explain the Centre and State Financial Relationship. |
| **Program** | **M.A. ECONOMICS** |
| **Program Outcomes** | PO1: Aware the internal and external effects in developing market strategy. PO2: Express an understanding of the tools and techniques necessary for research in Economics.<br>PO3: Train the students' well-acquainted regarding current market structure. PO4: Versatile the nature of micro and macroeconomic study of linkage between demand and price.<br>PO5: Inculcate students to acquire sound knowledge, concept and structure of capital market and PO6: Develop competence with their usage in Industrial decision making and Growth of Economy.<br> PO7: Identify the role of Demography and indicators of Rural India.<br>PO8: Illustrate the implications of various Economic policies in decision making.<br>PO9: Correlate the market structure and welfare economy in developing India. PO10: Criticize the public debt policy and Budget of India. PO11: Gain ability to solve problems relating to Balance of payment, Foreign exchange and special types of Economics.<br> PO12: Equip with the advanced knowledge of techniques and methods of planning and executing the Indian Economy. |
| **Program Specific Outcomes** | 1 ) Versatile the nature of micro and macroeconomic study of linkage between demand and price.<br>2) Inculcate students to acquire sound knowledge, concept and structure of capital market and PO6: Develop competence with their usage in Industrial decision making and Growth of Economy.<br>3) Explain consumer theories with utility, demand, income and price<br>4) : Describe role of international trade agreements and institutions on trade |
| **Course Outcomes** | **MA SEM I Micro Economic Analysis**-:<br>    • CO1: Explain concept of micro and macro problems of economics.<br>    • CO2: Explain the concept of market and price mechanism of economy. CO3: Explain consumer theories with utility, demand, income and price. CO4: Explain concept of elasticity and consumer surplus of market.<br>    • CO5: Elaborate production theory with production function and producer's equilibrium.<br>    • CO6: Describe supply side of economics with revenue and producer's surplus.<br>    • CO7: Describe concepts of equilibrium as partial and general in competitive market.<br>    • CO8: Demonstrate concept of externality in relation with social welfare.<br><br>**SEM I Public Economics** :<br>    • CO1: Describe role of government in planning and development in organised societies.<br>    • CO2: Analyse comparatively private goods, public goods and merit goods. CO3: Explain models regarding to rational for public policies. |

- CO4: Illustrate provision of public goods in regards with allocation of resources.
- CO5: Explain theories and criteria's regarding to public expenditure and investment.
- CO6: Explain reforms and concepts in expenditure budgeting.
- CO7: Explain theories and principles of taxation.
- CO8: Describe problems and shifting of Tax burden in economy.

**SEM I International Trade**:
CO1: Describe the concept of comparative cost theory and Ricardo.
CO2: Describe new theories of trade with respect economies of scale and competitions in market.
CO3: Explain concepts of gross and net barter terms of trade.
CO4: Explain relations between terms of trade and economic development.
CO5: Illustrate difference between free trade and controlled trade.
CO6: Explain effects of tariffs and non- tariffs on trade equilibrium.
CO7: Describe role of international trade agreements and institutions on trade.
CO8: Describe growth of trade in services in developing countries in global trade.

**SEM I AGRICULTURE ECONOMICS**
CO1. Understand role of agriculture, industrial sector in Indian economy.
**CO2**. Understand nature, Basic Characteristics and Major issues of Indian economy
**CO3**. Understand population & economic development
**CO4.** Understand Poverty and Unemployment Concepts and their trends in Indian economy
**CO5**. Understand Salient Features of Economy of Maharashtra

**SEM II Micro Economic Analysis- II:**
CO1: Describe concept of classification of market in economy.
CO2: Explain type of competition of market as perfect competition with respect to short run and long run equilibrium.
CO3: Explain type of competition of market as monopoly with respect to short run and long run equilibrium.
CO4: Analyse comparison of monopoly and perfect competitive market conditions.
CO5: Illustrate type of imperfect competitions and models of monopolistic and oligopoly market.
CO6: Describe basic concepts of dominant strategy equilibrium and Nash equilibrium.
CO7: Describe alternative theories of firms with sales revenue maximisation.
CO8: Describe theories of distribution with marginal productivity and product exhaustion

**SEM II Public Economics II**:
CO1: Define concepts of Public Debt of Indian economy.
CO2: Describe fiscal policy and monetary policy of Indian economy.
CO3: Describe concept of Indian budget with components, presentation, types, execution and budget multiplier.
CO4: Describe trends in expenditure of Union, state and local bodies' science1991.
CO5: Explain Indian fiscal federalism with horizontal and vertical imbalance and sources of revenue.
CO6: Describe constitutional provisions, finance commission and planning commission.
CO7: Describe centre, state, local bodies and financial relations in India.

CO8: Describe Indian public finances with of tax its types, non-tax revenue, budget management and kelkar committee recommendations.

**SEM II  International Finance**:
CO1: Describe concept of balance of trade and balance of payment with equilibrium and disequilibrium.
CO2: Illustrate fiscal and monetary policies for internal external balance of payment.
CO3: Describe functions and transitions in foreign exchange market.
CO4: Explain exchange rate systems under foreign exchange management.
CO5: Explain classification of international capital flows and foreign aid.
CO6: Explain importance and role of foreign capital in international capital movement.
CO7: Describe international banking growth and expansion of non-banking financial companies.
CO8: Explain evolution and progression of international economic organizations.

**SEM II Labour Economics**
· Ability to analyze and evaluate the subject with reference to various aspects
of urban economies.
· Ability to develop an understanding of the urban spaces with its intricacies
and imperfections and to be able to construct intellectual dialogue on the
challenges of urbanization w.r.t. the Indian Economy.

**MA II SEM III Macro Economic Analysis**- I After successfully completing this course, students will be able to:

CO1: Define concepts of national income with GNP (Gross National Product), NDP (Net Domestic Product), and Nominal and Real methods of calculating national income.
CO2: Describe national income aggregates as saving, investment, income and consumption of national income accounting.
CO3: Describe Theories of classical approaches on Aggregate Supply (AS) and Aggregate Demand (AD).
CO4: Describe concept of Aggregate Supply (AS) and Aggregate Demand (AD) with theory of Keynes.
CO5: Explain concept of Investment and Saving Liquidity and Money (IS-LM) curve to achieve equilibrium in goods and assets in economy.
CO6: Describe Aggregate Demand in Monetary and Fiscal Policy with ISLM model.
CO7: Explain classical macroeconomics and open economy on the basis of life cycle, permanent income and savings.
CO8: Explain IS-LM, BPO's, Mundell- Fleming model in open economy.

**SEM III Growth and Development** I After successfully completing this course, students will be able to:

CO1: Describe concepts of growth and development in respect to income, development and per capita income.
CO2: Illustrate difficulties in measurement and comparability in the calculation of per capita income according to exchange rate and PPP. (Purchasing power parity)
CO3: Explain concepts of poverty, income inequality and its measurement. CO4: Explain impact of inequality and debit on poverty in India.
CO5: Explain theories of economic growth and development with respect to Harrod Domar, Solow & Cobb Douglas.
CO6: Explain theories of balance growth and unbalance growth with respect to Nurkse and Hirschman.

CO7: Describe population growth with respect to age ration, sex ration, migration and demographic transition.

CO8: Explain problems of urbanization formal and informal employment in employment market.

**SEM III Modern Banking** After successfully completing this course, students will be able to:

CO1: Describe concept of financial system, functions and theories of financial development.

CO2: Describe concept of investment policy of bank and balance sheet of commercial bank in India. . CO3: Describe modern banking in India with respect to evolution, role, functions, money market and capital market and changing trends in banking sector since 1991.

CO4: Analyse present status of cooperative banks, RRB, foreign banks, its impact, and progress, current status of E- Banking and challenges of banking sector.

CO5: Describe provisions of banking regulation Act 1949. CO6: Describe non-banking financial institutions (NBFI's) in India with nature, types, significance and its performance in private, public and foreign collaboration sector.

CO7: Describe Nature, role of foreign exchange market, recent trends in exchange rate, its impact on Indian economy and forms of foreign capital. CO8: Explain regulation of foreign investment, working and role of IMF, IBRD, IDA, IFC , role of euro dollar, euro currency market and global financial crisis 2008.

**SEM III  Demography**

CO1: Describe nature and scope of demography in relationship with population study in India.

CO2: Explain world population and distribution of population in developed and developing countries.

CO3: Explain classical and neoclassical theories of population.

CO4: Describe neoclassical theories with respect to optimum population, biological and demographic transition.

CO5: Describe population structure with respect to growth rate, sex ration, age structure and mortality.

CO6: Describe characteristics of Indian population and differentials internal migration in India.

CO7: Explain population distribution, density of population, world population distribution and urbanization.

CO8: Describe labour force with respect to active population, trends and levels of labour force in India.

**M.A.II Semester IV Course:  - Macro Economic Analysis**- II After successfully completing this course, students will be able to:

CO1: Describe money and measures of money supply of economy.

CO2: Describe determination of laws theories of alternative money stock measures.

CO3: Explain concept of demand for money and price.

CO4: Explain theories of demand of money like classical, Keynes, Friedman, income equation and quantity theory of money approaches.

CO5: Describe concept of money supply, in monetary policies.

CO6: Explain importance of RBI (Reserve Bank of India) and balancing measures to control inflation.

CO7: Describe monetary theories as Keynes, Fisher and Hicksian theories and role of interest rates in macroeconomics.

CO8: Analyse rules verses discretion of central bank autonomy and inconsistency of monetary policy

**SEM IV  Growth and Development II** After successfully completing this course, students will be able to:

CO1: Describe role of agriculture in development and disguised

| | unemployment.<br>CO2: Explain role of industry in low developed countries in social and physical infrastructure.<br>CO3: Illustrate policy environment for growth and development for employment, export, promotion and import substitution.<br>CO4: Describe monetary and fiscal policy in implication in growth and development of country.<br>CO5: Explain trade engine of growth for foreign borrowings, savings, investment and foreign exchange.<br>CO6: Explain types and measurements of international capital flows by IMF and World Bank in FFI and FDI.<br>CO7: Describe role of government in market in developmental process and poverty and alleviation.<br>CO8: Explain poverty alleviation programmes in relation with public distribution system and micro finance.<br>**SEM IV -Rural Development**<br> On completion of the course, students are able to<br>1. Students will be able to describe objective, importance and various approaches to Rural Development.<br>2. To understand the Rural Administrative machinery.<br>3. To understand and explain role of Rural Infrastructure in rural Development.<br>4. To understand Problems of Rural Development in India.<br>5. Students will be able to critical assessment of rural development programs as a part of inclusive and sustainable growth |
| **SEM IV Research Methodology**<br>After successfully completing this course, students will be able to:<br>CO1: Define concept of research, types, objectives, process, importance and limitations of research.<br>CO2: Explain data collection methods and sampling techniques of research.<br>CO3: Explain Hypothesis testing with respect to definition, formulation and importance in research.<br>CO4: Illustrate data analysis of research with various statistical methods and hypothesis testing.<br>CO5: Demonstration of use of information systems and knowledge management in research.<br>CO6: Explain methods of global information, internet surfing, downloading, blogs and mails.<br>CO7: Explain stages of report writing. CO8: Explain use of computerized data processing by using soft wares like Excel and SPSS.<br>. |

# Department of History
## 2018-2019

| PROGRAM | F.Y.B.A |
|---|---|
| PROGRAM OUTCOMES | To Introduce Innovative Study Techniques In The Study Of History Of Maratha To Make It Value Based,Conceptual And Thought Provocative |
| PROGRAM SPECIFIC OUTCOMES | To Understand The Socio –Economic,Cultural And Political Background Of 17th Century Maharashra |
| COURSE OUTCOMES | Subject: **Shivaji And Shivkaal**<br>To increase the spirit of healthy nationalism and secularism among the student<br>To encourage students to for competitive examinations<br>To promote in the discipline of history |
| **PROGRAM** | **S.Y.B.A** |
| COURSE OUTCOMES | Subject1:**Ancient India**<br>The course intends to provide and understanding of the social,economic , religious and institutional bases of ancient india<br>Subject2:**Medieval India**<br>The course intends to provide and understanding of the social,economic , religious and institutional bases of Medieval  india<br>Subject3:**Modern India**<br>The course intends to provide and understanding of the social,economic , religious and institutional bases of Modern   india |
| PROGRAM | T.Y.B.A. |
|  | Subject1**: Introduction To History**<br>Help In Developing Critique,Help Research In Terms Of Formulatiing Hypotheses<br>Subject2: **History Of Asia In 20th Century(1914-1992)**<br>To provide students with an overall view and broad perspective different movements connected with nationalist aspiration in the region of asia in general<br>To empoer students to cipe with the challenges of globalization<br>Subject3:**History Of World In 20th Century**<br>Understand the important developments in the 20th century world<br>To empoer students to cipe with the challenges of globalization |
| PROGRAM | M.A PART-I |
| PROGRAM OUTCOMES | The Paper Is Designed To Provide Adequate Conceptual Base,Bring Better Understanding Of History And Its Forces |

| COURSE OUTCOMES | Subject1: **History And Its Method** |
|---|---|
| | Help In Developing Critique,Help Research In Terms Of Formulatiing Hypotheses |
| | Subject2:**Evolution Of Ideas And Institution In Early India** |
| | The course intends to provide and understanding of the social,economic , religious and institutional bases of ancient india |
| | Subject3:**Approaches To History** |
| | Help In Developing Critique,Help Research In Terms Of Formulatiing Hypotheses |
| | Subject4:**Maratha Polity** |
| | The Course Is Study The Admimistrative System Of The Marathas In An Nalytical Way To Acquaint The Student With The Nature Of Maratha Polity |
| | Subject5:**Early History Of Maharashtra-Satavahana To Yadava** |
| | To Introduce The Student To Regional History With A Borad Framework Of Indian Culture. |
| | To Enable The Student To Understand The Internal Dynamics Of Maratha Culture |
| | Subject 6:**Approaches To History** |
| | Help In Developing Critique,Help Research In Terms Of Formulatiing Hypotheses |
| | Subject 7**: Ideas And Institutions In Medieval India** |
| | The course intends to provide and understanding of the social,economic , religious and institutional bases of Medieval  india |
| | Subject8**Social And Economic History Marathas** |
| | To Study Socia- Economic History Of The Mahathas In An Analytical Way |

## Department of English
## 2018-19
## COURSE OUTCOMES: B. A. English

| PROGRAM | **F.Y.B.A Compulsory English** |
|---|---|
| PROGRAM OUTCOMES | 1. Bridge up the gap of the students' knowledge between HSC and UG<br>2. To acquire the students with the basics of the subject of English. |
| PROGRAM SPECIFIC OUTCOMES | 1. The students know the nature of the subject in comparison to the secondary level. |
| COURSE OUTCOMES | 1.The students get more knowledge of structure and semantics<br>2.They have the literary sense and comprehension of the subject |
| PROGRAM | **F. Y. B. A. Optional English** |
| COURSE OUTCOMES | 1. To acquaint the students with English Language for further studies in English Language and Literature<br>2. To prepare the students with basic skills in language.<br>3. To prepare the students with the basics of phonology.<br>4. To prepare the students for vocabulary and basic Grammar. |
| PROGRAM | **S. Y. B.A.    Compulsory English** |
| PROGRAM OUTCOMES | To develop the skills of the students in English Language.<br>2. To prepare the students with vocabulary and Grammar.<br>3. To develop the comprehension level of the students. |
| COURSE OUTCOMES | 1. The students know the nature of the subject in comparison to the secondary level.<br>2. The students get more knowledge of structure and semantics.<br>3. The students have the literary sense and comprehension of the subject. |

| PROGRAM | **S. Y. B.A.    Optional English (G2)** |
|---|---|
| PROGRAM OUTCOMES | 1. To acquaints the students with Literature and Language.<br>2. To broaden the scope of the studies in English with different forms of literature. |

| | |
|---|---|
| | 3. To enrich vocabulary through learning literature.<br>4. To get in acquaints with linguistic aspects of English. |
| COURSE OUTCOMES | 1. The students know the forms of literature.<br>2. The students get know the literary values. .<br>3. The students also know about the word formation and vocabulary.<br>4. The students know well how to study Language and Literature. |
| PROGRAM | **S. Y. B.A.    English (S1)** |
| PROGRAM OUTCOMES | 1. To acquaints the students with the dramatic Poetry.<br>2. To broaden the scope of the studies in dramatic Poetry with the basics in Drama.<br>3. To develop the sense of humanity with the study of Drama.<br>4. To apply the literary values in practical life. |
| COURSE OUTCOMES | 1. The students know the Drama as a form of Literature<br>2. The students know Human life at the Universal Level<br>3. The students also know about the different streaks of human life.<br>4. The students can analyze the literary forms |
| PROGRAM | **S. Y. B.A.    English (S2)** |
| PROGRAM OUTCOMES | **1.** To acquaints the students with the Lyrical Poetry.<br>**2.** To broaden the scope of the studies in Lyrical Poetry with the basics in verse.<br>**3.** To develop the sense of humanity with the study of poetry.<br>**4.** To apply the literary values in practical life. |
| COURSE OUTCOMES | 1. The students know the Poetry as a form of Literature.<br>2. The students know Human life at the Universal Level.<br>3. The students also know about the different streaks of human life.<br>4. The students can analyze poetry as a form of literature. |
| PROGRAM | **T. Y. B.A.    Compulsory English** |
| PROGRAM OUTCOMES | 1. To develop the skills of the students in English communication skills.<br>2. To prepare the students with vocabulary and Grammar.<br>3. To develop the comprehension level of the students.<br>4. To develop soft communication skills in English. |
| COURSE OUTCOMES | 1. The students know the skills of communication in English.<br>2. The students know the different between prose and poetry.<br>3. The students have the literary sense and comprehension of the subject. |
| PROGRAM | **T. Y. B.A.    Optional English (G3)** |
| PROGRAM OUTCOMES | 1. To continue the knowledge of the students with literature and Language on the basis of G1and G2.<br>2. To broaden the scope of the studies in English with the poetry of particular country in English.<br>3. To enrich vocabulary through learning literature.<br>4. To get in acquaintance with structure of English. |
| COURSE OUTCOMES | 1. The students know literature of particular country.<br>2. The students know cultural background of the country.<br>3. The students also know about structure of English.<br>4. The students are ready for some jobs in any field of the society.<br>5. The students also prepare with vigor for competitive exams. |
| PROGRAM | **T. Y. B.A.    English Special (S3)** |
| PROGRAM OUTCOMES | 1. To acquaints the students with the novel as form of literature.<br>2. To broaden the scope of the studies in narrative Poetry with the basics in novel.<br>3. To develop the sense of humanity with the study of novel.<br>4. To apply the literary values in practical life |
| COURSE OUTCOMES | 1. The students know the novel as a form of Literature<br>2. The students know Human life at the Universal Level<br>3. The students also know about the different streaks of human life.<br>4. The students can analyze the novellas form of literature. |
| PROGRAM | **T. Y. B.A.    English Special (S-IV)** |
| PROGRAM OUTCOMES | **1.** To acquaintance the students with the nature of literary criticism.<br>**2.** To broaden the scope of critical studies in literature. |

| | |
|---|---|
| | **3.** To get in acquaintance with fine arts and poetry.<br>4 To get know different social trends through literary criticism. |
| COURSE OUTCOMES | 1. The students know how to criticize literature.<br>2. The students know the Human complexities.<br>3. The students also know about the different streaks of human life.<br>4. The students can analyze literature. |

# COURSE OUTCOMES: M. A. English

## M. A.-I PART

**Paper-1: English Literature from 1550- 1798**

| PROGRAM | **Paper-1: English Literature from 1550- 1798** |
|---|---|
| PROGRAM OUTCOMES | 1. To introduce students to major movements and figure of English literature through the study of selected literary texts.<br>2. To create literary sensibility and emotional response to the literary text and implant sense of appreciation of literary texts.<br>3. To expose student to the artistic and innovative use of language employment by the writers.<br>4. To instill values and develop human concern in student through exposure to literary texts.<br>5. To enhance literary and linguistic competence of student. |
| COURSE OUTCOMES | 1. The students know the scope of literary theory and the entire picture about literature.<br>2. The students can think about human life with universal attitude.<br>3. The students are ready for any competitive exam.<br>4. The student can join educational field for teaching or research. |
| PROGRAM | **Paper- II: English Literature From: 1798-to the present** |
| PROGRAM OUTCOMES | 1. To introduce students to major movements and figures of English literature through study of selected literary texts.<br>2. To create literary sensibility for appreciation in students and expose them to artistic and innovative use of language by writers and to various worldviews.<br>3. To instill values and develop human concern in students through exposure to literary texts.<br>4. To enhance literary and linguistic competence of students. |
| COURSE OUTCOMES | 1. The students know the scope of literary theory and the entire picture about literature.<br>2. The students can think about human life with universal attitude.<br>3. The students are ready for any competitive exam.<br>4. The student can join educational field for teaching or research. |
| PROGRAM | **Paper-III: Contemporary Studies in English Language** |
| PROGRAM OUTCOMES | 1. To introduce student to the basic tools essential for systematic study of language.<br>2. To acquaint student with the basic concept and issues in linguistic.<br>3. To introduce them into theoretical perspective and enable them to apply the acquired Linguistic skills in real life situation.<br>4. To initiate them to various sub-disciplines of linguistic. |
| COURSE OUTCOMES | 1. The students know the English language phonological .morphological and syntactical perspectives.<br>2. The students can join any field for job.<br>3. The students can go with knowledge in the teaching field. |
| PROGRAM | **Paper IV: Literary Criticism and Theory** |
| PROGRAM OUTCOMES | 1. To introduce students to the nature, function and relevance of literary criticism and theory.<br>2. To introduce them to various important critical approaches and their tenets.<br>3. To encourage them to deal with highly intellectual and radical content and thereby develop their logical thinking and analytical ability.<br>4. To develop sensibility and competence in them for practical application of critical approach to literary |
| COURSE | 1. The students know the social issues with critical attitude. |

| OUTCOMES | 2. The students know complex human nature.<br>3. The student's attitude is humane. |
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# COURSE OUTCOMES: M. A. English

## M.A.II PART

| PROGRAM | **Paper: I -Indian Writing in English** |
|---|---|
| PROGRAM OUTCOMES | 1. To introduce students to major movements and figure of Indian literature in English.<br>2. To create literary sensibility and emotional response to the literary text and implant sense of appreciation of literary texts.<br>3. To expose student to the artistic and innovative use of language employment by the writers.<br>4. To instill values and develop human concern in student through exposure to literary texts.<br>5. To enhance literary and linguistic competence of student. |
| COURSE OUTCOMES | 1. To introduce students to major movements and figure of Indian literature in English.<br>2. To create literary sensibility and emotional response to the literary text and implant sense of appreciation of literary texts.<br>3. To expose student to the artistic and innovative use of language employment by the Writers.<br>4. To instill values and develop human concern in student through exposure to literary texts.<br>5. To enhance literary and linguistic competence of student. |
| PROGRAM | **Paper: II-Applied Linguistics** |
| PROGRAM OUTCOMES | 1. To acquaint the students with different theoretical and practical aspect of language and Literature Teaching.<br>2. To acquaint them with different approaches, methods and techniques of teaching English Language and Literature.<br>3. To sensitize the students to the major issues in ELLT in the Indian context. |
| COURSE OUTCOMES | 1. The students acquaints with the method of teaching.<br>2. The students acquaints with the language.<br>3. The students know the teaching of language skills and Testing.<br>4. The students know the instructional material and classroom issues. |

| PROGRAM | **Paper: III-Indian Literatures in English Translations** |
|---|---|
| PROGRAM OUTCOMES | 1. To introduce students to major movements related to Indian literatures and English translations.<br>2. To create literary sensibility for appreciation in students and expose them to artistic and innovative use of Language by writers and to various world views.<br>3. To instill values and develop human concern in student through exposure to literary texts.<br>4. To enhance literary and linguistic competence of student. |
| COURSE OUTCOMES | 1. The students know the literatures and English translations.<br>2. The students can think about the human psychology.<br>3. To expose student to the artistic and innovative use of language employment by the writers.<br>4. The students know Human life at the Universal Level<br>5. The students also know about the different streaks of human life. |
| PROGRAM | **Paper: IV American Literature.** |
| PROGRAM OUTCOMES | 1. To introduce students to the major literary movements in America, literary works and writers through selected texts.<br>2. To enhance the literary sensibility of students by exposing them to the American writers of various times. |

| | 3. To instill values and develop human concern in student through exposure to literary texts. |
|---|---|
| | 5. To enhance literary and linguistic competence of students. |
| COURSE OUTCOMES | 1. The students know the literary movements of America and its history. |
| | 2. The students know the cultural aspect of America through literary works. |
| | 3. The students acquaints with the history of America. |
| | 4. The students acquaints with literary and linguistic competency. |

# Department of Hindi
## 2018-19

| Program | B.A. |
|---|---|
| Program specific Outcomes | 1.हिंदी भाषा का व्यवस्थित और यथोचित ज्ञान<br><br>2. भावात्मक और सौदर्यात्मकविकास<br><br>3.निवेदक और सूत्र संचालक<br><br>4. प्रकाशक,संपादक,सावददाता |
| | **F.Y.B.A. हिंदी सामान्य -1** |
| Course Outcomes Subjectwise | 1.छात्रो को गद्य एवं पद्य के रचनाकारो का परिचय देना|<br><br> 2.छात्रो में राष्ट्रभाषा हिंदी का प्रचार-प्रसार कारना| |
| | **S.Y.B.A. (G2) (कहानी,काव्य एवं लेखन)** |
| Course Outcomes Subjectwise | 1.हिंदी भाषा के व्यावहारिक क्षेत्रो से परिचित करना|<br><br>2. छात्रो को हिंदी शब्द-युग्म का ज्ञान करना| |
| | **S.Y.B.A. (S1) हिंदी विशेष-1 (हिंदी भाषा का विकास)** |
| Course Outcomes Subjectwise | 1.छात्रो को भाषा की परिभाषा,विशेषताएँ तथा भाषा के विविध रूपो की जानकारी देना|<br><br>2. भाषा विज्ञान के अन्य विज्ञानो से सबंध विशद करना | |
| | **S.Y.B.A. (S2) हिंदी विशेष-2 (उपन्यास,नाटक तथा मध्ययुगीन हिंदी काव्य)** |
| Course Outcomes Subjectwise | 1.मध्ययुगीन संत एवं भक्तो के काव्य से छात्रो को परिचित करना|<br><br>2. हिंदी उपन्यास एवं नाटक के विविध मानदंडो के आधार पर छात्रो में समीक्षण की |

| | क्षमता                     निर्माण करना| |
|---|---|
| | **T.Y.B.A.(G3) हिंदी सामान्य-3 (सृजन संदर्भ और मै:आत्मकथांश)** |
| Course Outcomes Subjectwise | 1.छात्रो को हिंदी आत्मकथा विधा का परिचय करना|<br><br>    2.छात्रो में अंग्रेजी से हिंदी में अनुवाद करने की कला को विकसित कराना| |
| | **T.Y.B.A.(S3) हिंदी विशेष-3 (आदिकाल से आधुनिक काल तक)** |
| Course Outcomes Subjectwise | 1.हिंदी साहित्य के इतिहास के माध्यम साहित्य और युग जीवन का संबध विशद करना|<br>  2. हिंदी साहित्य के इतिहास कालखंडो और पृष्ठभूमि का परिचय करना | |
| | **T.Y.B.A.(S4) हिंदी विशेष-4 (काव्यशास्र)** |
| Course Outcomes Subjectwise | 1.छात्रो को रस का स्वरूप,अंग,एवं भेदो का परिचय देना|<br><br> 2. छात्रो को अलंकार,छंदो का परिचय देना| |


| **Program** | **M.A.** |
|---|---|
| Program specific Outcomes | 1.अनुसंधान के क्षेत्र में अनुसंधान दाता के रूप में अवसर|<br>2.अनुवाद के रूप में अनुवादक के रूप में अवसर|<br>3. साहित्य के क्षेत्र में अवसर|<br>4.राष्ट्रीयकृत बैक,सरकारी कार्यालय में राजभाषा अधिकारी |
| | **1. प्राचीन मध्ययुगीन और काव्य (अमीर खुसरो तथा जायसी)** |

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| | |
| Course Outcomes Subjectwise | 1.छात्रो में राष्ट्रभाषा हिंदी का प्रचार-प्रसार कारना| |
| | **2 आधुनिक हिंदी कथा साहित्य (उपन्यास और कहानी)** |
| Course Outcomes Subjectwise | 1.छात्रो में राष्ट्रभाषा हिंदी का प्रचार-प्रसार कारना| |
| | **3 भारतीय साहित्याशास्र के सिदाधंत** |
| Course Outcomes Subjectwise | 1. छात्रो को रस का स्वरूप,अंग,एवं भेदो का परिचय देना| <br> 2. छात्रो को अलंकार,छंदो का परिचय देना| |
| | **4 विशेष साहित्यकार कबीर** |
| Course Outcomes Subjectwise | 1.छात्रो को कबीरदास के सामाजिक योगदान की जानकारी देना| |
| | **5 मध्ययुगीन हिंदी काव्य (सूरदास,बिहारी तथा भूषण)** |
| Course Outcomes Subjectwise | 1. मध्ययुगीन संतो के योगदान की जानकारी देना| |
| | **6 आधुनिक हिंदी नाटक और निबंध** |
| Course Outcomes Subjectwise | 1.छात्रो को नाटक की जानकारी देना| |
| | **7 पाश्च्यात्य साहित्यशास्त्र** |
| Course Outcomes Subjectwise | 1.छात्रो को रस का स्वरूप,अंग,एवं भेदो का परिचय देना| <br> 2. छात्रो को अलंकार,छंदो का परिचय देना| |
| | **8 हिंदी उपन्यास** |
| Course Outcomes Subjectwise | 1.छात्रो को उपन्यास के प्रति जागृत कारना| |
| | **9 आधुनिक काव्य (महाकाव्य तथा खंडकाव्य)** |
| Course Outcomes Subjectwise | 1.छात्रो को महाकाव्य और खंडकाव्य के तत्व और उसकी जानकारी देणा| |
| | **10 भाषा विज्ञान** |

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| Course Outcomes Subjectwise | 1.छात्रो को भाषा की परिभाषा,विशेषताएँ तथा भाषा के विविध रूपो की जानकारी देना|<br>2. भाषाज्ञान के अन्य विज्ञानो से सबंध विशद करना | |
| | **11 हिंदी साहित्य का इतिहास**<br>**(आदिकाल,भाक्तीकाल,रीतीकाल)** |
| Course Outcomes Subjectwise | 1.हिंदी साहित्य के इतिहास के माध्यम साहित्य और युग जीवन का संबध विशद करना|<br>2. हिंदी साहित्य के इतिहास कालखंडो और पृष्ठभूमि का परिचय करना | |
| | **12. जनसंचार माध्यम और हिंदी** |
| Course Outcomes Subjectwise | 1. छात्रो को जनासंचार मध्योमो में हिंदी का योगदान बताना| |
| | **13.आधुनिक काव्य -2 (विशेष कवि कुवर नारायण तथा नई कविता)** |
| Course Outcomes Subjectwise | 1. नई काव्य और कुवर नारायण की जानकारी देना| |
| | **14. हिंदी भाषा का ऐतिहासिक विकास** |
| Course Outcomes Subject wise | 1. छात्रो को भाषा की परिभाषा,विशेषताएँ तथा भाषा के विविध रूपो की जानकारी देना|<br>2. भाषाज्ञान के अन्य विज्ञानो से सबंध विशद करना | |
| | **15. हिंदी साहित्य का इतिहास (आधुनिक काल)** |
| Course Outcomes Subjectwise | 1.हिंदी साहित्य के इतिहास के माध्यम साहित्य और युग जीवन का संबध विशद करना|<br>2. हिंदी साहित्य के इतिहास कालखंडो और पृष्ठभूमि का परिचय करना | |
| | **16. अनुसंधान प्रक्रिया स्वरूप और क्षेत्र** |
| Course Outcomes Subjectwise | 1.शोध दृष्टी का विकास करना|<br>2.शोध प्रक्रिया एवं शोध प्रबंध लेखन |

| | कौशल विकसित करना| |
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**Programme Outcomes BA Marathi 2018-19**

| Department of Marathi | After Successful completion of three year degree progree program in Marathi a students should be able to |
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| Programme Outcomes | 1.साहित्या संबंधी -मराठी साहित्यासंबंशी रुची निर्माण होते. |
| | 2.विशिष्ट कालखंडाच्या पाश्वर्भूमीवर साहित्यामागील प्रेरणा प्रवृत्तीचे ज्ञान करुन घेणे. |
| | 3.विविध प्रकारची लेखनकौशल्ये विकसित करणे |
| | 4.साहित्याभ्यासातून जीवनविषयक समज विकसित करण्यास मदत होते |
| | 5.आस्वाद घेण्याची डोळस क्षमता विकसित करणे. |
| | 6.जागतिकिकरणाच्या विविध क्षेत्रांना सामोरे जाण्यासाठी भाषिक क्षमता विकसित करण्यास मदत होते. |
| | 7.व्यक्तिमत्व विकास करण्यास मदत होते. |
| Programme specific Outcomes | 1.समीक्षा करण्याची क्षमता विकसित होते. |
| | 2. विद्यार्थ्याच्या वाङमयीन अभिरुचीचा विकास होतो. |
| | 3.मराठी साहित्यातील भिन्न भिन्न साहित्य प्रवाह आणि लक्षात घेण्यास मदत होते. |
| | 4. विविध लेखनकौशल्ये विकसित करणे. |
| | 5.वाङमयीन व्यवहार आणि जीवन व्यवहारांचे स्वरुप समजून घेणे. |

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**Course Outcomes B.A. Marathi**

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| Course | Outcomes |
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| Marathi- 1024 सामान्यस्तर -पेपर क्र .1 आधुनिक मराठी वाङमय | 1.मराठी साहित्य मराठी भाषा आणि मराठी संस्कृती यांचा क्रमशः परिचय करुन घेतो. 2.वाङमयीन अभिरुचीचा विकास होतो. 3.मराठी साहित्यासंबंधी रुची निर्माण होते. 4.मराठी साहित्यातील भिन्न भिन्न प्रवाह व प्रकार लक्षात येतात. 5.व्यक्तिमत्व विकासात भाषेचे महत्व स्पष्ट होते. |
| Marathi- 2024 सामान्यस्तर -पेपर क्र .2 आधुनिक मराठी साहित्य आणि उपयोजित मराठी | 1.शुध्द लेखनाची ओळख होते. 2.पारिभाषिक संज्ञांची ओळख होते. 3. चरित्र आत्मचरित्र या साहित्यप्रकाराच्या तात्विक घटकांचे ज्ञान करुन घेण्यास मदत होते. 4.चरित्र या वाङमय प्रकाराचे आकलन आस्वद आणि मूल्यमापन करण्याची क्षमता विद्यार्थ्यांमध्ये निर्माण होते. |
| Marathi- 2025 विशेष स्तर पेपर क्र. 1 मराठी साहित्यातील विविध साहित्य प्रकार - | 1.मराठी साहित्याविषयी अभिरुची तयार होते. 2.साहित्यकृतीचे आकलन आस्वाद आणि मूल्यमापन करण्याची दृष्टी निर्माण होते. 3. साहित्याचा सूक्ष्म पातळीवर अभ्यास करण्याची विकसित करता येते. 4.मराठी साहित्यप्रकारांच्या तात्विक घटकांचे ज्ञान प्राप्त होते. 5.साहित्यकृतीला मुक्त प्रतिसाद देण्याची क्षमता विकसित होते. |
| Marathi- 2026 विशेष स्तर पेपर क्र. 1 अर्वाचीन मराठी वाङमयाचा इतिहास ञ(इ.स. 1818 ते 1960) | 1.अभ्यासाच्या प्रारंभी विद्यार्थ्यांमध्ये मराठी साहित्याच्या ऐतिहासिक परंपरेचे स्थूल ज्ञान प्राप्त होते. 2.विशिष्ट कालखंडाच्या पाश्वर्भूमीवर साहित्यामागील प्रेरणा प्रवृत्तीचे ज्ञान करुन घेतो. 3. साहित्यप्रकारच्य विकसनशील परंपरेचे स्थूल ज्ञान प्राप्त करुन घेतो. 4.विद्यार्थी पदव्युत्तर अभ्यासाची तयारी करतो. |
| Marathi-83112 मराठी विज्ञान साहित्य आणि व्यवहारिक मराठी | 1.मराठी विज्ञान साहित्याबद्दल अभिरुची निर्माण होते. 2.विज्ञानविषयक जाणीवा तयार होतात. 3.विज्ञान उद्योगातील विविध प्रवाह संधी इ. चा परिचय होतो. 4.लेखन वाचन आकलन आणि संभाषण ही भाषिक कौशल्ये विकसित होतात |
| Marathi-1521 मराठी साहित्य आणि व्यवहारिक मराठी | 1.विविध क्षेत्राची भाषा व्यवहाराचे स्वरुप समजावून देण्यास मदत होते. 2.व्यवहार क्षेत्रातील मराठी भाषेचे स्थान स्पष्ट करण्यास मदत होते. 3.प्रसार माध्यमातील विविध लेखन प्रकारांचा अब्यास व प्रत्यक्ष लेखन करता येते. |

| Marathi – 3024 आधुनिक मराठी साहित्य व व्यावहारीक व उपयोजित मराठी | 1.आधुनिक मराठी साहित्यातील विविध साहित्यप्रकारांचा परिचय होतो. <br> 2.साहित्याबद्दलची अभिरुची विकसित होऊन कलाकृतीचा आस्वाद घेण्याची क्षमता विकसित होते. <br> 3.भाषेचे यथोचित आकलन करुन तिचा वापर करण्याची क्षमता विकसित होते. <br> 4.निबंध व प्रवासवर्णन या साहित्य प्रकाराचे तात्विक विवेचन आत्मसात करतो. |
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| Marathi – 3025 साहित्यविचार विशेष स्तर 3 | 1. साहित्याचे स्वरुप समजून घेतो. <br> 2.वाङ्मयीन मूल्यांचा परिचय होतो. <br> 3.साहित्याचे प्रयोजने जाणून घेतो. <br> 4.साहित्य आणि समाज यांच्यातील परस्पर संबंध समजून घेतो. <br> 5.साहित्य निर्मितीचे तत्व जाणतो. |
| Marathi -3026 भाषाविज्ञान विशेष स्तर 4 | 1.भाषेचे स्वरुप व कार्य , भाषेच्या अभ्यासाचे महत्व भाषेच्या प्रमुख अंगाचा परिचय करुन घेतो. <br> 2. भाषेचे मानवी जीवनातील कार्य व महत्व जाणून घेतो. <br> 3.वेगवेगळ्या भाषाभ्यास पध्दतीचे वेगळेपण व महत्व जाणून घेतो. <br> 4.मराठी भाषेचा उत्पत्तीकाल जाणून तत्कालीन भाषिक स्थित्यंतराचा परिचय होतो. <br> 5.मराठी भाषेचा ऐतिहासिक परिचय होतो. |

# Course Outcomes M.A. Marathi

| Department of Marathi | After successful completion of two year degree program in Marathi a student should be able to; |
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| Programme Outcomes | 1.विद्यार्थ्याला आपल्या आवडीचे संशोधन क्षेत्र निश्चित करता येते. <br> 2.मराठी भाषा आणि वाङ्मयाचे प्रगत ज्ञान प्राप्त होते. <br> 3.समकालीन वाङ्मयीन प्रवाहांचे नीट आकलन होते. <br> 4.वाङ्मयीन प्रश्नांविषयी विचार करण्याची जाण निर्माण होते. <br> 5.वाङ्मयीन आणि जीवनविषयक जाणीव प्रौढ होते. <br> 6.चिकित्सक अभ्यासाची क्षमता विकसित होते. <br> 7.विद्यार्थ्यांच्या लेखन गुणांना उत्तेजन मिळते. |
| Programme specific Outcomes | 1.विशिष्ट कालखंडातील साहित्याच्या व्याप्ती बद्दल जाण निर्माण होण्यास मदत करणे.अशा विषयाच्या चिकित्सेची समज वाढविणे., <br> 2.साहित्यकृतीच्या साहित्यप्रकाराच्या तौलनिक अभ्यासाबाबत दिशा,व्याप्ती आणि मर्यादा यांची समज निर्माण होण्यास मदत करणे, अशा अभ्यासाची क्षमता वाढविणे. <br> 3.साहित्याच्या व्यवच्छेदक लक्षणाबाबत विचारांची आणि वाङ्मयीन मूल्यमापनाच्या दृष्टीची समज वाढते. <br> 4.भाषेचे विविध व्यवहार आणि साहित्याच्या संदर्भातील भाषाव्यवहार याविषयी आकलनाची क्षमता वाढविणे. <br> 5.साहित्याभ्यासाच्या संदर्भातील विषयांची, त्यांच्या प्रस्तुततेविषयीची जाण निर्माण करणे. |
| Course Sem-I | Outcomes |
| Marathi – 10431 व्यावहारिक आणि उपयोजित मराठी भाग 1 | 1.विविध स्तरावरील भाषिक कौशल्ये व क्षमता विकसित होते . <br> 2.भाषाव्यवहाराचे औपचारिक व अनौपचारिक क्षेत्रनिहाय स्वरुप समजते. <br> 3.व्यक्तिमत्व विकासासाठी भाषिक कौशल्ये आत्मसात होतात. <br> 4.प्रसारमाध्यमांचे स्वरुप व भाषाव्यवहाराचे स्वरुप लक्षात येते. |
| Mar – 10432 मध्ययुगीन मराठी वाङ्मयाचा इतिहास प्रारंभ ते 1600 | 1.प्राचीन धर्मपंथ संप्रदाय व वाङ्मय यांचे परस्पर संबंध समजून घेतो. <br> 2.राजकीय स्थित्यंतरे आणि मराठी साहित्य निर्मितीतील संबंध जाणून घेतो. <br> 3.मराठी संतपरंपरेचे योगदान व महत्व जाणतो. <br> 4.महानुभाव संप्रदायाचे कार्य जाणतो. |
| Mararathi – 10433 भाषाविज्ञान वर्णनात्मक | 1.भाषेचे मानवी जीवनातील कार्य व महत्व जाणून घेतो. <br> 2.वेगवेगळ्या भाषाभ्यास पध्दतीचे वेगळेपण व महत्व जाणून घेतो. <br> 3.स्वनिमनिर्मितीची प्रक्रिया समजावून घेतो. <br> 4.वागिंद्रियाची रचना व कार्य समजावून घेतो. <br> 5.वाक्यविन्यास व अर्थविन्यास संकल्पनांचा परिचय होतो. |
| Mar – 10434 ग्रामीण साहित्य | 1.स्वातंत्र्यानंतरच्या कालखंडात ग्रामीण साहित्याच्या निर्मितीची कारण परंपरा समजावून घेतो. <br> 2.ग्रामीण साहित्याचे स्वरुप व कार्य यांची चिकित्सा करतो. <br> 3.ग्रामीण साहित्यातील विविध वाङ्मय प्रकाराचा विकास कसा होत गेला याचे मूल्यमापन करतो. |

| | 4.ग्रामीण साहित्याने दिलेले योगदान,त्याच्या विकासाची गती,दिशा यांची मीमांसा करतो. |
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| **Course Sem-II** | **Outcomes** |
| Marathi – 20431 व्यावहारिक आणि उपयोजित मराठी भाग 2 | 1.वाङ्मयीन व्यवहार आणि प्रकाशन व्यवहाराचे स्वरुप समजते. <br> 2.मुलाखत लेखनाची तंत्र व कौशल्ये यांचा वापर करता येतो. <br> 3.अर्जलेखन आणि पत्रलेखनाचा व्यवहारिक वापर करता येतो.. <br> 4.भाषांतर आणि अनुवाद प्रक्रिया यांची तातत्विक व व्यावहारिक माहिती मिळते. <br> 5.निवेदन कौशल्याची माहिती होते. |
| Marathi – 20432 मध्ययुगीन मराठी वाङ्मयाचा इतिहास इ.स.1600 ते 1818 | 1.मराठी साहित्यातील विविध धर्मसंप्रदायाचे महत्व जाणतो. <br> 2.मराठी साहित्यातील राजकीय स्थित्यंतराचे स्वरुप समजावून घेतो. <br> 3.पंडिती काव्याची वैशिष्टे जाणतो. <br> 4.शाहिरी काव्याचे महत्व जाणतो. |
| Marathi – 20433 भाषाविज्ञान सामाजिक | 1. भाषा आणि समाज यांचे महत्व जाणतो. <br> 2.सामाजिक भाषा विज्ञानाची नवी संकल.पना जाणतो. <br> 3.समाजातील भाषा उपयोजनातील विविधता समजावून घेतो. <br> 4.भाषा आणि विविध क्षेत्रीय वापराचे महत्व समजावून घेतो. <br> 5.प्रमाणभाषा आणि परभाषा संपर्काचे स्वरुप जाणतो. |
| Marathi – 20434 दलित साहित्य | 1.स्वातंत्र्यप्राप्तीनंतरच्या कालखंडात दलित साहित्याच्या निर्मितीची कारणपरंपरा समजावून घेतो. <br> 2.दलित साहित्याचे स्वरुप कार्य यांची चिकित्सा करतो. <br> 3.दलित साहित्याने निर्माण केलेल्या विविध वाङ्मयप्रकाराच्या विकासाचे मूल्यमापन करतो. <br> 4.दलित साहित्यातून व्यक्त होणाऱ्या वेदनांचे व विद्रोहाचे स्वरुप जाणून घेतो. |
| **Course Sem-II** | **Outcomes** |
| Marathi – 30431 प्रसारमाध्यमे आणि साहित्यव्यवहार | 1.प्रसारमाध्यमांसाठी लेखन कौशल्ये आत्मसात करतो. <br> 2.प्रसारमाध्यमांचो समाजातील महत्व जाणतो <br> 3.प्रसारमाध्यमात सेवेचे संधी मिळविण्यासाठी भाषिक क्षमता विकसित होते. <br> 4.मुद्रित माध्यमातील विविध कौशल्ये आत्मसात करतो. <br> 5.विविध कलांच्या आस्वाद प्रक्रिया जाणून घेतो |
| Marathi – 30432 साहित्य समीक्षा आणि संशोधन | 1. साहित्य आणि समीक्षा व्यवहाराची समज वाढीस लागते <br> 2.समीक्षेची संकल्पना समजावून घेतो. <br> 3.समीक्षा व्यवहारातील मूल्यकल्पनांचा परिचय करुन घेतो. <br> 4.विविध समीक्षा पध्दती जाणून घेतो. <br> 5.मराठी साहित्य समीक्षकांची परंपरा समजावून घेतो. |
| Marathi – 30433 विशेष लेखकाचा अभ्यास (प्राचीन/अर्वाचीन) | 1.एका लेखकाचे वाङ्मयीन आकलन ,लेककाच्या व्यक्तिमत्वाची जडण घडण समजावून घेतो. <br> 2. लेखकाचा काळ व त्याची साहित्य निर्मिती तील संबंधाचा शोध व त्याव्दारे लेकनातील कलातत्व व चिरंतनत्व याचा मागोवा घेतो. <br> 3.साहित्य निर्मितीतील वैविध्य व त्यातील लेखकाचे स्थान व वाङ्मयीन योगदान समजावून घेतो. |
| Marathi – 30434 लोकसाहित्याची मुलतत्वे आणि मराठी लोकसाहित्य | 1.लोकसाहित्याचे स्वरुप समजावून घेतो. <br> 2.लोकसाहित्याची व्यापकता व सर्वसमावेसकता समजून घेतो. <br> 3.लोकसाहित्यातील व्यापकता व सर्वसमावेसकता समजून घेतो. <br> 4.लोकसाहित्यातील सामाजिक ,धार्मिक सांस्कृतिक जाणिवा स्पष्ट होतात. |
| **Course Sem- III** | **Outcomes M.A. Marathi** |
| Marathi – 30431 प्रसारमाध्यमे आणि साहित्य व्यवहार | 1.प्रसारमाध्यमातील लेखन कौशल्य आत्मसात करतो. <br> 2.प्रसारमाध्यमांचे समाजातील महत्व जाणतो. <br> 3.प्रसारमाध्यमात सेवेची संधी मिळविण्यासाठी भाषिक क्षमता विकसित होते. <br> 4.मुद्रित माध्यमातील विविध कौशल्ये आत्मसात करतो. <br> 5.विविध कलांच्या आस्वाद प्रक्रिया जाणून घेतो |
| Marathi – 30432 साहित्य समीक्षा आणि संशोधन | 1.साहित्य आणि समीक्षा व्यवहाराची समज वाढीस लागते. <br> 2.समीक्षेची संकल्पना समजून घेतो. <br> 3.समीक्षा व्यवहारातील मूल्यकल्पनांचा परिचय करुन घेतो. <br> 4.विविध समीक्षा पध्दती जाणून घेतो. |

| | 5.मराठी साहित्य  समीक्षकांची परंपरा समजून घेतो |
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| Marathi – 40433 विशेष लेखकाचा अभ्यास (प्राचीन/अर्वाचीन) | 1.विविध कलाकृतीतून लेखकाचे योगदान व त्याचे तौलनिक आकलन करुन घेतो. 2.मध्ययुगीन  वारकरी संत परंपरा व तिचे स्वरुप समजून घेतो. 3.मध्ययुगीन  कालखंडातील सामाजिक ,सांस्कृतिक व धार्मिक पर्यावरण जाणून घेतो. 4.आधुनिक कालखंडातील लेककाच्या प्रेरणा जाणतो. 5.आधुनिक लेखकांची वैशिष्ट्ये जाणतो |
| Marathi – 30434 लोकसाहित्याची मुलतत्वे आणि मराठी लोकसाहित्य | 1. लोकसाहित्याचे स्वरुप समजून घेतो. 2.लोकसाहित्याची व्यापकता व सर्वसमावेशकता समजून घेतो. 3.लोकसाहित्यातील विविध कला प्रकार समजून घेतो. 4.लोकसाहित्यातील सामाजिक ,धार्मिक अनुबंध  स्पष्ट  करुन घेतो |

## PROGRAMME OUTCOMES: B.Com (2018-19)

| Department of Commerce (B.Com) | After successful completion of three year degree program in Bachelor of Commerce a student should be able to; |
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| **Programme Outcomes** | **PO-1** This program could provide Industries, Banking Sectors, Insurance Companies, Financing companies, Transport Agencies, Warehousing etc., well trained professionals to meet the requirements. **PO-2** After completing graduation, students can get skills regarding various aspects like Marketing Manager, Selling Manager, over all Administration abilities of the Company. **PO-3** Capability of the students to make decisions at personal & professional level will increase after completion of this course. **PO-4** Students can independently start up their own Business **PO-5** Students can get thorough knowledge of finance and commerce. **PO- 6** The knowledge of different specializations in Accounting, costing, banking and finance with the practical exposure helps the students to stand in organization. |
| **Programme Specific Outcomes** | **PSO 1**:  The students can get the knowledge, skills and attitudes during the end of the B.com degree course. . **PSO-2**  Students will prove themselves in different professional exams like C.A. , C S, CMA, MPSC, UPSC. As well as other coerces. problem. **PSO-3** The students will acquire the knowledge, skill in different areas of communication, decision making, innovations and problem solving in day to day business activities. |

| | | **PSO-4** Students will gain thorough systematic and subject skills within various disciplines of finance, auditing and taxation, accounting, management, communication, computer. |
| | | **PSO-5** Students will be able to do their higher education and can make research in the field of finance and commerce. |

## Course Outcomes B.Com

| S.N. | Course | Course Outcomes |
|------|--------|-----------------|
| 1 | F.Y. B.Com.<br>Financial Accounting (102) | **Outcomes:-**<br>1) To impart the knowledge of various accounting concepts<br>2) To create awareness about application of these Concepts in business world.<br>3) To impart skills regarding Computerized Accounting<br>4)To impart knowledge regarding finalization of accounts Of various establishments. |
| 1 | F.Y. B.Com.<br>Business Economics (Micro)(103) | **Outcomes:-**<br>1)To impart knowledge of business economics<br>2) To clarify micro economic concepts<br>3) To analyze and interpret charts and graphs<br>4) To understand basic theories, concepts of micro economics and their application |
| 1 | F.Y. B.Com.<br>Business Mathematics & Statistics (104-A) | **Outcomes:-**<br>1)To introduce the basic concepts in Finance and Business Mathematics and Statistics<br>2) To familiar the students with applications of Statistics and Mathematics in Business<br>3) To acquaint students with some basic concepts in Statistics.<br>4) To learn some elementary statistical methods for analysis of data.<br>5)The main outcome of this course is that the students are able to analyze the data by using some elementary statistical methods |
| 1 | F.Y.B.Com.<br>BANKING & FINANCE (Fundamentals of Banking I) (105-b) | **Outcomes:-**<br>1) To provide knowledge of fundamentals of Banking<br>2)To create awareness about various banking concepts<br>3) To conceptualize banking operations. |
| 1 | F.Y.B.Com.<br>Marketing and Salesmanship (Fundamentals of Marketing) (106 – C) | **Outcomes:-**<br>1) To introduce the basic concepts in Marketing.<br>2) To give the insight of the basic knowledge of Market Segmentation and Marketing Mix<br>3) To impart knowledge on Product and Price Mix.<br>4) To establish link between commerce, business and Marketing.<br>5) To understand the segmentation of markets and Marketing Mix.<br>6)To enable students to apply this knowledge in practicality by enhancing their skills in the field of Marketing. |

| 2 | S.Y. B.Com. <br> Business Communication ( 201) | **Outcomes:-** <br> 1) To understand the concept, process and importance Of communication. <br> 2) To develop awareness regarding new trends in Business communication. <br> 3) To provide knowledge of various media of Communication. <br> 4) To develop business communication skills through the Application and exercises. |
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| 2 | S.Y. B.Com <br> Corporate Accounting (202) | **Outcomes:-** <br> To enable the students to develop awareness about Corporate Accounting in conformity with the provisions of Companies Act and Accounting as per Indian Accounting Standards. <br> 1) To make aware the students about the conceptual aspect of corporate accounting <br> 2) To enable the students to develop skills for Computerized Accounting <br> 3) To enable the students to develop skills about accounting standards |
| 2 | S.Y. B.Com <br> Business Economics (Macro) (203) | **Outcomes:-** <br> 1) The objective of the course is to familiarize the students the basic concept of Macro Economics and application. <br> 2) To Study the behavior of the economy as a whole. 3) To Study the relationship among broad aggregates. 4) To apply economic reasoning to problems of the economy. |
| 2 | S.Y. B.Com <br> Business Management(204) | **Outcomes:-** <br> 1) To provide basic knowledge & understanding about business management concept. <br> 2) To provide an understanding about various functions of management. |
| 2 | S.Y. B.Com <br> Elements of Company Law (205) | **Outcomes:-** <br> 1) To impart students with the knowledge of fundamentals of Company Law. <br> 2) To update the knowledge of provisions of the Companies Act of 2013. <br> 3) To apprise the students of new concepts involving in company law regime. <br> 4) To acquaint the students with the duties and responsibilities of Key Managerial Personnel. <br> 5) To impart students the provisions and procedures under company law. |
| 2 | S.Y. B.Com <br> Banking & Finance - I <br> (Indian Banking System – I)( 206 – B) | **Outcomes:-** <br> 1)To create the awareness among the students of Indian banking system. <br> 2)To enables students to understand the reforms and other developments in the Indian Banking <br> 3) To provide students insight into the functions and role of Reserve Bank of India. |
| 2 | S.Y. B.Com <br> Cost and Works Accounting –I (206-E) | **Outcomes:-** <br> To Impart The Knowledge Of: <br> 1) Basic Cost concepts. <br> 2) Elements of cost. <br> 3) Ascertainment of Material and Labour Cost. |

| 2 | S.Y. B.Com<br>Marketing Management-I | **Outcomes:-**<br>1) To orient the students recent trends in marketing management<br>2)To create awareness about marketing of ecofriendly products in the society through students<br>3)To inculcate knowledge of various aspects of marketing management through practical approach<br>4)To acquaint the students with the use of E-Commerce in competitive environment<br>5)To help the students understand the influences of marketing management on consumer behavior |
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| 3 | T.Y. B.Com.<br>Business Regulatory Framework (Mercantile Law) ( 301) | **Outcomes:-**<br>1)To acquaint students with the basic concepts, terms & provisions of Mercantile and Business Laws.<br>2. To develop the awareness among the students regarding these laws affecting business, trade and Commerce. |
| 3 | T.Y. B.Com.<br>Advanced Accounting (302) | **Outcomes:-**<br>1)To impart the knowledge of various accounting Concepts.<br>2)To instill the knowledge about accounting Procedures, methods and techniques.<br>3)To acquaint them with practical approach to Accounts writing by using software package. |
| 3 | T.Y. B.Com.<br>Indian & Global Economic Development [303 (A)] | **Outcomes:-**<br>1) To expose students to a new approach to the Study of the Indian Economy.<br>2) To help the students in analyzing the present status of the Indian Economy.<br>3) To enable students to understand the process of Integration of the Indian Economy with other economics of the world.<br>4) To acquaint students with the emerging issues in Policies of India's foreign trade. |
| 3 | T.Y. B.Com.<br>Auditing & Taxation (304) | **Outcomes:-**<br>The Study of Various Components of this course will enable the students:<br>1)To acquaint themselves about the concept and principles of Auditing, Audit process, Assurance Standards, Tax Audit, and Audit of computerized Systems.<br>2) To get knowledge about preparation of Audit report.<br>3) To understand the basic concepts and to acquire knowledge about Computation of Income, Submission of Income Tax Return, Advance Tax, and Tax deducted at Source, Tax Collection Authorities under the Income Tax<br>   Act, 1961. |
| 3 | T.Y. B.Com.<br>Banking & Finance Special Paper II (305 – b) | **Outcomes:-**<br>1) To acquaint the students with Financial Markets And it's various segments.<br>2) To give the students and understanding of the Operations and developments in financial markets in India.<br>3) To enable them to gain an insight into the Functioning and role of financial institutions in the Indian Economy. |
| 3 | T.Y. B.Com.<br>Cost and Works Accounting Special Paper II (305 – e) | **Outcomes:-**<br>1) To provide Knowledge about the concepts and principles application of Overheads<br>2) To provide also understanding various methods of |

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| | | costing and their applications. |
| 3 | T.Y. B.Com.<br>Marketing Management Special Paper II<br>(305 – h.) | **Outcomes:-**<br>1)To understand the concept and functioning of marketing planning and sales management<br>2) To know marketing strategies and organization 3)To inform various facets of marketing with regulatory aspects<br>4)To understand marketing in globalize scenario |
| 3 | T.Y. B.Com.<br>Banking & Finance Special Paper III<br>(306 – b) | **Outcomes:-**<br>1)To acquaint the students with Banking Law and Practice in relation to the Banking system in India<br>2) To understand the legal aspects of Banking transactions and its implications as Banker and Customer.<br>3)To make the Students aware of the Banking Law and Practice in India |
| 3 | T.Y. B.Com.<br>Cost and Works Accounting Special Paper III<br>(306 – e) | **Outcomes:-**<br>1)To impart knowledge regarding costing Techniques.<br>2)To provide training as regards concepts, Procedures and legal Provisions of cost audit. |
| 3 | T.Y. B.Com.<br>Marketing Management Special Paper III<br>(306 – h.) | **Outcomes:-**<br>1) To know detailing of Marketing Research<br>2) To understand the role Brand and Distribution Management in marketing<br>3) To inform about Marketing and Economic Development<br>4) To Know of the importance of control on marketing activities |

| Department of Commerce (B.Com) | After successful completion of three year degree program in Bachelor of Commerce a student should be able to; |
|---|---|
| **Programme Outcomes** | **PO-1** This program could provide Industries, Banking Sectors, Insurance Companies, Financing companies, Transport Agencies, Warehousing etc., well trained professionals to meet the requirements. <br> **PO-2** After completing graduation, students can get skills regarding various aspects like Marketing Manager, Selling Manager, over all Administration abilities of the Company. <br> **PO-3** Capability of the students to make decisions at personal & professional level will increase after completion of this course. <br> **PO-4** Students can independently start up their own Business <br> **PO-5** Students can get thorough knowledge of finance and commerce. <br> **PO- 6** The knowledge of different specializations in Accounting, costing, banking and finance with the practical exposure helps the students to stand in organization. |
| **Programme Specific Outcomes** | **PSO 1**: The students can get the knowledge, skills and attitudes during the end of the B.com degree course. . <br> **PSO-2** Students will prove themselves in different professional exams like C.A. , C S, CMA, MPSC, UPSC. As well as other coerces. problem. <br> **PSO-3** The students will acquire the knowledge, skill in different areas of communication, decision making, innovations and problem solving in day to day business activities. <br> **PSO-4** Students will gain thorough systematic and subject skills within various disciplines of finance, auditing and taxation, accounting, management, communication, computer. <br> **PSO-5** Students will be able to do their higher education and can make research in the field of finance and commerce. |

## Course Outcomes M.Com

| S.No. | Course | Course Outcomes |
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| 1 | M.Com. Part I (Semester I) Management Accounting (101) | **Outcomes:-** <br> The objective of the course is to enable students to acquire sound Knowledge of concepts, methods and techniques of management accounting and to make the students develop competence with their usage in Managerial decision making and control. |
| 1 | M.Com. Part I (Semester I) Strategic Management (102) | **Outcomes:-** <br> 1)To introduce the students to the emerging changes in the modern business environment <br> 2)To develop the analytical , technical and managerial |

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| | | skills of students in the various areas of Business Administration<br>3)To empower to students with necessary skill to become<br>    effective future managers and leaders<br>4)To develop Technical skills among the students for<br>    designing and developing effective Functional strategies<br>    for growth and sustainability of business |
| 1 | M.Com. Part I       (Semester I)<br>Production & Operation Management<br>(113-F) | **Outcomes:-**<br>1)To understand and develop deep insight of Production<br>    & Operation Management.<br>2)To understand & identity business problems involving<br>    operational function, planning and control, design<br>    Development and quality management.<br>3)Demonstrate awareness and importance of application,<br>    Operation and supply chain management.<br>4)To develop skills necessary to effectively analyze and<br>    synthesize the many inter relationship inherent in<br>    Complex socio-economic productive systems.<br> 5) To increase the knowledge and perspective to gain<br>      from emerging trends in production and operation<br>      Management. |
| 1 | M.Com. Part I       (Semester I)<br>Financial Management (114-F) | **Outcomes:-**<br> 1)To acquaint the student with knowledge of various<br>     Financial Management terminologies ( Investment<br>     ,Credit Planning , Working Capital Management<br> 2)To understand the concepts relating to Financing &<br>     Financial Statement Analysis<br> 3)To utilize the information gathered to reach an<br>      optimum conclusion by a process of reasoning<br> 4)To enable the students to use their learning to<br>     evaluate , make decisions and provide<br>     recommendations |
| 1 | M.Com. Part I       (Semester II)<br>Financial Analysis & Control<br>(201) | **Outcomes:-**<br>The objective of the course is to enable students to acquire sound knowledge of concepts, methods and techniques of management accounting and to make the students develop competence with their usage in managerial decision making and control. |
| 1 | M.Com. Part I       (Semester II)<br>Industrial Economics  (202-A) | **Outcomes:-**<br> 1)   To study the basic concepts of Industrial<br>       Economics.<br> 2)To study the significance and problems of<br>     Industrialization.<br> 3)To study the impact of Industrialization on Indian<br>     Economy. |

| 1 | M.Com. Part I    (Semester II)<br>Business Ethics and Professional Values<br>(213-F) | **Outcomes:-**<br>1)To understand How companies ethically<br>   Operate.<br>2) To understand how CSR activities help the<br>   Society for better living.<br>3) To understand how ethical practices can be<br>   Adopted in different areas of business.<br>4)Awareness on the importance of<br>   environmental issues and Sustainable<br>   Development. |
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| 1 | M.Com. Part I    (Semester II)<br>Elements of Knowledge Management<br>(214-F) | **Outcomes:-**<br>1) Conceptual Clarity<br>2) Analytical ability<br>3) Application Oriented Skills<br>4) Managerial skills |
| 2 | M.Com. Part II    (Semester III)<br>Business Finance. (301) | **Outcomes:-**<br>To enable students to acquire sound knowledge of concepts, nature and structure of business finance. |
| 2 | M.Com. Part II    (Semester III)<br>Research Methodology for Business.<br>(302) | **Outcomes:-**<br>1)To acquaint the students with the areas of<br>   Business Research Activities.<br>2)To enhance capabilities of students to<br>   conduct the research in the field of business<br>   and social sciences.<br>3)To enable students, in developing the most<br>   appropriate methodology for their research<br>   studies.<br>4) To make them familiar with the art of using<br>   different research methods and techniques |
| 2 | M.Com. Part II    (Semester III)<br>Human Resource Management (313-F) | **Outcomes:-**<br>1)To acquaint the students with in-depth knowledge<br>   Of HRM.<br>2)To inculcate among students various practices<br>   Followed by HR managers.<br>3)To create understanding about recent trends in<br>   HRM |
| 2 | M.Com. Part II    (Semester III)<br>Organizational Behavior (314-F) | **Outcomes:-**<br>1) To make the students understand various<br>   concepts of organisation behaviour<br>2)To provide in depth knowledge about<br>   process of formation of group behaviour in<br>   an organization set up |

| 2 | M.Com. Part II (Semester IV) Capital Market and Financial Services (401) | **Outcomes:-** To enable students to acquire sound knowledge, concept and structure of capital market and financial services. |
|---|---|---|
| 2 | M.Com. Part II (Semester IV) Industrial Economic Environment. (402-A) | **Outcomes:-** 1. To study the basic concepts of Industrial Finance. 2. To study the effects of New Economic Policy. 3. To study the impact of Labor reforms on Industries. |
| 2 | M.Com. Part II (Semester IV) Recent Advances in Business Administration (413-F) | **Outcomes:-** 1) To familiarize the students with the recent advancements in business administration 2) To develop an understanding about tools and their Application in the business. |

## PROGRAMME OUTCOMES: B.B.A.(C.A.) (2018-19)

### Course Outcomes B.C.A.

| S.N. | Course | Course Outcomes |
|---|---|---|
| 1 | FYBBA (CA) Modern Operating Environment And MS Office (101) | 1.The objectives of the Programme shall be to provide sound academic base from which an advanced career in Computer Application can be developed. 2.Conceptual grounding in computer usage as well as its practical business application will be provided. |
| 1 | FYBBA (CA) Financial Accounting (102) | 1.To Employ critical thinking skills to analyze financial data as well as the effects of differing financial accounting methods on the financial Statements. |
| 1 | FYBBA (CA) Principles of Programming and Algorithms (103) | 1.This course introduces two different programming styles, imperative and functional programming. 2. Its primary intention is to develop key programming and problem solving skills but it has a secondary aim, which is to build students' confidence in their ability to take on and learn new programming languages within a short space of time |
| 1 | FYBBA (CA) Business Communication (104) | 1.To prepare students for the challenges of a society that is shaped by communication. As participants in the program, students develop and integrate knowledge, creativity, ethical practice, and skills. 2. Students also examine and produce work in oral, written, and visual communication and practice skills in group and intercultural communication. |
| 1 | FYBBA (CA) Principles of Management (105) | 1.Students will examine the fundamental roles and processes of planning, leading, organizing and controlling that comprise the managers' role. 2. It focuses on the entire organization from both a short and long-term perspective for strategic vision, setting objectives, crafting a strategy and then implementing it. |

| 1 | FYBBA (CA) Procedure Oriented Programmingusing C  (201) | 1.Students should be able to: understand the basic components of an object-oriented program including methods and attributes, the distinction between classes and instances, the structures required to write basic algorithms. |
|---|---|---|
| 1 | FYBBA (CA) Database Management Systems(202) | 1.This course is intended to provide you with an understanding of the current theory and practiceof database management systems.<br>2. These include data independence, integrity, security, recovery, performance, database design principles, and database administration |

| 1 | FYBBA (CA) Organizational Behavior(203) | 1) To equip the students to understand the impact that individual, group & structures have on their behavior within the organizations.<br>2)To help them enhance and apply the knowledge they have received for the betterment of the organization. |
|---|---|---|
| 1 | FYBBA (CA) Elements of Statistics (204) | 1. To understand the power of excel spreadsheet in computing summary statistics.<br>2. To understand the concept of various measures of central tendency and variation and their importance in business. |
| 1 | FYBBA (CA) E-Commerce Concepts (205) | 1.This course introduces the concepts, vocabulary, and procedures associated with E-Commerce andthe Internet..<br>2.Topics include development of the Internet and E-Commerce, options available for doing business on the Internet, features of Web sites and the tools usedto build an E-Commerce web site, marketing issues, payment options, security issues, and customer service. |
| 2 | SYBBA (CA) RDBMS (Relational DatabaseManagement System) (301) | 1.Enables students to understand relational database concepts and transaction management concepts in database system.<br>2.Enables student to write PL/SQL programs that use: procedure, function, package, cursor and trigger. |
| 2 | SYBBA (CA) Data Structure Using C (302) | Objective:-<br>1. To understand different methods of organising large amounts of data<br>2. To efficiently implement different data structure |
| 2 | SYBBA (CA) Introduction to Operating System(303) | Objective -:<br>1. To know system programming<br>2. To know the Scheduling concepts |
| 2 | SYBBA (CA)  Business Mathematics (304) | 1. Understanding basic terms in the areas of business calculus and financial mathematics, Independently solving of business problems. |
| 2 | SYBBA (CA)  Software Engineering (305) | Objective: This course enables students to understand system concepts and its application in Software development. |

| 2 | SYBBA (CA)  Object Oriented Programming Using C++  (401) | Objectives:<br>1. Acquire an understanding of basic object-oriented concepts and the issues involved in effective class design.<br>2. Enables student to write C++ programs that use: object-oriented concepts such as information hiding, constructors, destructors, inheritance. |
|---|---|---|
| 2 | SYBBA (CA)  Programming in Visual Basic (402) | Objectives:-<br>1.To learn properties and events, methods of controls and how to handle events of different controls.<br>2.To understand the use of active controlsand how to design VB application<br>To learn connectivity between VB and databases. |
| 2 | SYBBA (CA)  Computer Networking (4 03) | 1.To understand different topologies used in networking<br>2.To learn different types of network.<br>3.To understanding the use of connecting device used in network. |
| 2 | SYBBA (CA) Enterprise Resource Planning and Management. (4 04) | Objectives -:<br>1. To know what is ERP.<br>2. To learn different ERP technologies. |
| 2 | SYBBA (CA)  Human Resource Management(405) | Objective: To acquaint the students with theHuman Resource Management its different functions in an organization and the Human Resource Processes that are concerned with planning, motivating and developing suitable<br>employees for the benefit of the organization. |
| 3 | TYBBA (CA ) 501 : Core Java | 1.Students will be able to program Java classes and methods using a subset of data types and using assignment, method calls, while loops, for loops, and conditionals.<br>2.Students will learn how to use and manipulate several core data structures: Arrays, linked lists, trees, stacks, and queues. |
| 3 | TYBBA (CA ) 502 : Web Technologies | 1. Write JavaScript programs using functions, for loops, and conditional statements<br>3.To understand how to develop web based applications using PHP.<br>4.To know & understand concepts of internet programming.<br>5. To understand how to develop web based applications using PHP. |
| 3 | TYBBA (CA ) 503 : Dot Net Programming | 1. Students will able to design web applications using .NET<br>2. Students will be able to debug and deploy.NETweb applications<br>3. Students will be able to create database driven.NET web applications and web services |
| 3 | TYBBA (CA ) 504 : Object Oriented SoftwareEngineering | 1. To Understand concept of system design using UML.<br>2. To understand system development through object oriented techniques. |

| 3 | TYBBA (CA ) 601 : Advanced Web Technologies | 1.Student is able to understand and use the basics of the XML based technologies<br>3.To understand the concepts of XML and AJAX. |
|---|---|---|
| 3 | TYBBA (CA ) 602 : Advanced Java | 1. To know the concept of Java Programming.<br>2. To develop programming logic.. |
| 3 | TYBBA (CA ) 603 : Recent Trends in IT | 1. To introduce upcoming trends in Information technology.<br>2. To study Eco friendly software development. |
| 3 | TYBBA (CA ) 604 : Software Testing | 1. To understand how to test bugs in software.<br>2. To develop programming logic. |

# Department of Political Science
## AY 2018-19

**Program Outcomes: BA POLITICAL SCIENCE**

**After completion of BA programme students should be able to …**

• Students enable to develop academic proficiency in the subfields of Indian Government and Politics, Comparative Government, International Relations, Public Administration, Political Theory, and Political Ideology.

• Students enable to develop and be able to demonstrate skills in conducting as well as presenting research in political science.

• Students enable to analyze political and policy problems and formulate policy options.

• Students enable to discuss the major theories and concepts of political science and its subfields, and also deliver thoughtful and well articulated presentations of research findings.

## PROGRAM SPECIFIC OUTCOMES: BA Political Science

**On Completion of the BA (Political Science) Students are able to:**

1. Serve as a politician

2. Work as a teacher in colleges, schools and high schools

3. Serve as political party member, political adviser, and well citizen of India.

4. Work in elections and political as well as administrative system.

5. Serve in forest department as forest conservator.

6. Can admit to MA Politics, LLB, MSW, MBA,

7. Work in NGOs.

8. Can Prepare for Competitive exams.

## FYBA

## Indian Government and Politics (G-1)

• Students enable to understand the philosophy of Indian constitutions.

• Students enable to identify the causes, impact of British colonial rule.

• Students enable to appreciate the various phases of Indian national movement.

• Students enable to create value in young youth regarding the patriotism.

• Students enable to understand the various Government of Indian acts their provision and reforms.

• Students enable to know the salient features in making of Indian constitution

• Students enable to appreciate the socio-economic political factors which lead to the freedom struggle.

• Students enable to appreciate the fundamental rights and duties and the directive principle of state policy

• Students enable to evaluate the evolution, functioning and consequences of political parties in India.

• Students enable to identify how electoral rules and procedure in India effect election outcomes.

## SYBA

## Political Theory (G-2)

• Students enable to understand the nature and scope of political theory.

• Students enable to understand the significance of political theory.

• Students enable to acquaint with the theories, approaches, concepts and principles of political theory.

• Students enable to appreciate the procedure of different theoretical ideas in political theory.

• Students enable to Interpret and assess information regarding a variety of political theory.

• Students enable to understand the various traditional and modern theories of political science.

• Students enable to evaluate the theories of origin of the state.

## Western Political Thought (S-1)

Students enable to:-

• Examine political thought through the Classical, Renaissance, and Enlightenment periods based on the works of Plato, Aristotle, Machiavelli, Hobbes, Locke, Rousseau, Tocqueville, and Marx;

• Compare and contrast the concepts of justice, freedom, equality, citizenship, and sovereignty in the works of Machiavelli, Hobbes, Locke, and Rousseau;

• Explain the different versions of, and importance of, the state of nature to political thought;

• Explain Karl Marx's worldview, with particular regard to his critique of democracy and the modern, politically liberal state; how it came to be; and its fundamental link to

capitalism; and

• Explain John Stuart Mill's theory on utilitarianism and how he applies it to society and the state.

## Political Sociology (S-2)

• Have good knowledge about main issues and topics in political sociology.

• Be able to understand basic principles of the exercise of power, of the state relations with civil society; individual and group interactions in the political realm.

• Achieve practical skills of analysis of social phenomena in their political settings.

• Acquire habits of socio-political information finding, sorting and critical examining.

• Foster skills of public presentations and discussions.

## TYBA

## Evaluation of Local Government in Maharashtra (G-3)

• Students enable to explain the role of British imperial on local government in India.

• Students enable to understand the contributions of various committees on local government.

• Students enable to describe the features and provisions of Constitutional Amendment Acts regarding Local Government Institutions.

• Students enable to equip the learner to play an active and responsible leadership role in the functioning of Local Government Institutions.

• Students enable to describe the significance and role of Grama Sabha in Maharashtra.

## Public Administration (S-3)

• Students enable to demonstrate understanding of various activities of governmental administrators that fall under the rubric of public administration to include rule-making, ratemaking, and other regulatory activities, policy making and the delivery of services and programs

• Students enable to understand the 20th century emergence of the modern administrative state as a result of the technological, social, economic and political pressures that have emerged in national industrialized and developed complex, interdependent systems.

• Students enable to understanding of public administration as a career field in government.

## International Politics (S-4)

• Students enable to understand the evolution, scope and significance of international relations

- Students enable to demonstrate an understanding of: the key historical events and also they enable to understand contemporary international system; and the key actors which shaped the international Politics.
- Students enable to discuss the main international relations theories.
- Students enable to analyze importance of International relation in process of nation progress.
- Students enable to appreciate the foreign policy their determinants features& its relevance.

## PROGRAM OUTCOMES: M.A. POLITICAL SCIENCE

- Post Graduate Course in Political Science seeks to offer students advance knowledge of political concepts and practices in a manner that enables students to relate them to the contemporary local, national and international event.
- It seeks to emphasize both the knowledge and skill element by exposing students to new ideas not only by classroom teaching, but by also engaging in continuous experiential learning through field visits, seminars, discussions etc.
- Understanding of the institutions, processes, constitutional background, and policy outcomes of Indian government and the ability to compare Indian government to other countries around the world.
- Knowledge of key theories and concepts, historical developments, organizations, and modern issues in international relations.
- Understanding of government institutions, electoral processes, and policies in a variety of countries around the world and the ability to compare the effectiveness or impact of differing political arrangements across countries.
- Knowledge of some of the philosophical underpinnings of modern politics and government and the legal principles by which political disputes are often settled.
- Ability to use the comparative case study method of analysis, quantitative forms of analysis, and legal analysis in oral communication and in written research.

## PROGRAM SPECIFIC OUTCOMES: MA POLITICAL SCIENCE

## On completion of the M.A. (POLITICAL SCIENCE), students are able to work in various fields:

**Public Administrator:**

As a Public Administrator, MA Political Science graduates can utilize their knowledge to inform

policy decisions and administer those decisions effectively.

**Academician:**

Those who choose to pursue further education can in turn become lecturers and professors.

**Archivist:**

A political archivist is responsible for assessing, collecting, processing, organizing, maintaining

and preserving important records which possess long term value.

**Correspondent:**

A political correspondent is responsible for relaying important political events primarily for news

channels.

**Political Content Writer:**

A Political content writer"s job is to write about various contemporary and historical political issues majorly for online media outlets for news and information.

**Consultant:**

A political consultant is a professional who helps an organization make politically informed choices. Their knowledge about political philosophy comes in handy in such roles.

**Manager:**

MA in Political Science helps understand the broad administrative system in India, thus making

them the right fit for managerial positions.

**Subject Matter Expert:**

Nowadays many IT and knowledge processing companies require subject matter experts for different subjects.

**PR Executive**

Public Relations is also a good option as exposure to political practices also acquaints one with

culture and social systems of a place and hence making them ideal for a role as Public Relations

executive.

**Competitive Examinations**:

It is learn that in the NET/SET, MPSC/UPSC and other competitive examinations.

# M.A. (Semester -I)

### PO-C1 : Political Theory

• Students got ability introduces Political Theory as a distinctive area of inquiry that is integral to the study of politics.

• Students got ability to highlights contemporary normative debates and place them in a historical perspective.

• Students enable to projects the global and interdisciplinary orientation of Political Theory. It also emphasizes the interplay of theory and practice in the political process.

### PO-C2 : Public Administration

• Student enable to understand important concepts, approaches and theories of public administration

• Student enables to equip students with understanding of the latest developments in the field of Public Administration.

• Student enables to understand and analyze broad transformations in the study of public administration in the course of changes in socio-economic and political life.

### PO-C3 : Political Institutions in India

• Students enable to introduce the leading institutions of the Indian political system and to the changing nature of these institutions. Apart from explaining the structure and functions of the main institutions.

• Student enable to understanding the institutional balance of power as discussed in the Indian constitution and as developed during the functioning of Indian democracy over the past decades.

### PO-O1 : Modern Political Ideologies

• Student enables to understand the difference between ideology and thought as well as between theory and ideology.

• Students enable to understand the relationship between ideas and politics.

• Student enables to understand the core doctrines of each of the ideologies and to make sense of politics through different ideological perspectives.

### M.A. (Semester -II)

### PO-C4 : Public policy

• Student enables to understand basic concepts, theories and process of public policy.

• Student enables to understand policy processes and actors involved in it by studying specific policies.

• Student enables to understand and analyze policy making in practical context.

## PO-C5 : Issues in World Politics

• Students enable to apply the theories and used to illustrate how each level of analysis the international system, the state, and the individual- to help in organizing and conceptualizing the issues.

• Student enables to understand the major issues of the twenty first century- security, economics and transnational issues are presented and analyzed.

## PO-C6 : Comparative Politics

The purpose of this course is to acquaint the students with the sub-discipline of Comparative Politics with the following outcomes.

• Students enable to understand the trajectory of the sub-discipline.

• Student enable to understand the significance of the comparative methodology

• Student enables to understand the dynamics of domestic politics across the countries.

## PO-O5 : Political Process in Maharashtra

• Student enables to study one state in an in-depth manner to understand how the political process evolves at the state level.

• Student enables to do assignments based on field studies. The study is to be done from socio-historical as well as political economy perspectives.

• Students enable to know the changes in the political process over the period of over half a century from Congress domination to a bipolar competition and from Maratha hegemony to the crisis of hegemony.

# M.A. (Semester -III)

## PO-C7: Political Thinking in Modern India

• Student knows the key ideas of political thinking in modern India as it shaped in the colonial context.

• Student enable to understand and decipher the diverse and often contesting ways in which ideas of nationalism, democracy and social transformation were discussed by leading Indian thinkers.

## PO-C8: Political Sociology

• Student enables to introduce the overall scope of the sub-discipline of political sociology.

• Student enables to know power of political Sociology.

• Students enable to understand different forms of justifications of power and the role of ideology in this regard.

• They studied as a repository of power in society while class and patriarchy are two instances of how the nature of power is shaped by social factors.

**PO - C9: Theory of International Relations**

• Students enable to introduces the evolution and important of various theories.

• Students know a brief history of international politics.

• They understanding what are happening in the world and the levels of analysis. Competing theories are presented.

**PO-O10: Indian Administration**

• Student knows the key dimensions of Indian Administration functioning at different levels.

• Students understand and analyze the administrative reforms introduced recently to make administration people-centric and to what extent that goal has been realized.

# M.A. (Semester -IV)

# PO-C10: Traditions of Political Thought

• Student enables to know major traditions of thought that have shaped political discourse in different parts of the world over the last three millennia.

• Student stresses the great diversity of social contexts and philosophical visions that have informed the ideas of key political thinkers across epochs.

• The chief outcome is Student project the history of political thought as a series of critical, interconnected and open-ended conversations about the ends and means of the good life.

# PO-C11: Political Process in India

• Student knows how to introduce the key issues and details of the political process in post independence India.

• Students enable to understand and analyze Indian politics.

• student understand the expansive meaning of political process as it shapes in the arena of electoral and party politics, in the form of mass mobilizations and as politics of interests.

# PO-C12: Political Participation

• Student knows Political socialization is the process that shapes the durable set of attitudes and beliefs which affect nature and extent of participation.

• Student knows Public opinion also shapes political activity.

- Students are going beyond the study of routine participation.

- Student understand the relevance of collective action in the form of social movements

## PO-O14: Party System in India

- Student understands the nature of party system in India.

- Student understands the functioning of main political parties operating in the system.

- Student focused on analytical perspectives on party politics in India.

PO-O14: Party System in India