



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 2020-21

Program	F.Y. B.Sc. Mathematics
Program Outcomes	<p>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.</p> <p>PO2: Reflecting the broad nature of the subject and developing mathematical tools for continuing further study in various fields of science and technology.</p> <p>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.</p> <p>PO4: Enabling students to develop a positive attitude towards mathematics as an interesting and valuable subject of study.</p>
Program Specific Outcomes	<p>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.</p> <p>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.</p> <p>PSO3: A student should get adequate exposure to global and local concerns that explore them many aspects of Mathematical</p>

	<p>Sciences.</p> <p>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.</p> <p>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.</p>
Course Outcomes	<p>MT-111: Algebra After completing the course, students will able to –</p> <ol style="list-style-type: none"> 1. Understand relation, equivalence relation and different types of function. 2. Solve various problems on properties of integers and use the basic concepts of divisibility, congruence and their applications in basic algebra. 3. Apply factor theorem, remainder theorem to solve problems on polynomials and by using given relations between roots he will find the roots of polynomials. 4. Understand complex numbers and its properties. <p>MT-112 Calculus-I</p> <p>After completing the course, students will able to –</p> <ol style="list-style-type: none"> 1. Identify algebraic and order properties of real numbers. 2. Student will be able to decide convergence of the sequences. 3. Identify and apply the function properties of real number system such as the completeness property. 4. Verify the values of limit of a function at a point using the definition of a limit. <p>MT-121 Geometry</p> <p>After completing the course, students will able to –</p> <ol style="list-style-type: none"> 1. Solve the problem of translation and rotational axes. 2. Solve the problem related plane, distance between two planes and bisector planes. 3. Solve the problems of lines in three dimension, planes, spheres, and how geometry is related to algebra by using their algebraic equations.

	<p>MT- 122 Calculus-II</p> <p>1. Students will be familiar with the techniques of differentiation of function with real variables. Identify and apply the intermediate value theorem and Mean value theorem.</p> <p>3. Identify and apply in determinant forms in limit and Hospitals rule. Techniques of expansion of functions by using Taylors Series.</p> <p>4. Identify types of differential equations and solve differential equations such as Exact, homogeneous, non -homogeneous, and linear and Bernoulli differential equations etc.</p>
Program	S. Y. B. Sc.
Program Outcomes	<p>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.</p> <p>PO2: Reflecting the broad nature of the subject and developing mathematical tools for continuing further study in various fields of science.</p> <p>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.</p> <p>PO4: Enabling students to develop a positive attitude towards mathematics as an interesting and valuable subject of study.</p>
Program Specific Outcomes	<p>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.</p> <p>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.</p> <p>PSO3: A student should get adequate exposure to global and local concerns that explore them many aspects of Mathematical Sciences.</p> <p>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.</p> <p>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.</p>
Course Outcomes	MT 231:Calculus of Several Variables After completing the course,

students will be able to –

1. Students learn analysis of multivariable functions and solve problems related to limit and continuity of function of several variables.
2. Learn the concept of partial derivatives and solve problems of differentiability of function of several variables.
3. Solve problems of finding maxima and minima of function of several variables.
4. Learn the concepts of multiple integrals and their Application to area and volumes

MT232 (A): Numerical Analysis and It's Application

After completing this course student will be able to-

1. Understand errors and the methods to solve Algebraic and Transcendental Equations.
2. Study discrete function and interpolate it by using numerical methods.
3. Learn different numerical methods to solve differentiation and integration of discrete function.
4. Learn different numerical methods to solve ordinary differential equations.

MT 241: Linear Algebra After completing this course student will be able to-

1. Solve system of linear equations, Understand different types of matrices and its rank, Homogenous and non-homogeneous systems.
2. Use the concept of basis and dimension of vector spaces linear dependence and linear independence, to solve problems.
3. Identify dimension of matrix and determine rank and nullity of matrices.
4. 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.

MT242(A): Vector Calculus

After completing this course student will be able to-

1. Understand vector function, solve limit and continuity of vector valued function. Determine length of the curve.
2. Learn line integral and its application to calculate work done by the

	<p>force field. Understand the divergence theorem.</p> <p>3. Learn the concept of surface integral and how to evaluate it.</p> <p>4. Learn the application of line and surface integral. Understand the Stoke's theorem.</p>
Program	T.Y. B.Sc. Mathematics
Program Outcomes	<p>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.</p> <p>PO2: Reflecting the broad nature of the subject and developing mathematical tools for continuing further study in various fields of science.</p> <p>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.</p> <p>PO4: Enabling students to develop a positive attitude towards mathematics as an interesting and valuable subject of study.</p>
Program Specific Outcomes	<p>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.</p> <p>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.</p> <p>PSO3: A student should get adequate exposure to global and local concerns that explore them many aspects of Mathematical Sciences.</p> <p>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.</p> <p>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.</p>
Course Outcomes	<p>MT 331 :Metric Spaces After completing this course student will be able to -</p> <ol style="list-style-type: none"> 1. Learn the basic abstract ideas of analysis. 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. 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.

MT 332: Real Analysis-I After completing the course, students will be able to –

Understand countable and uncountable sets, sequence and series of real numbers and their convergence and divergence.

MT 334: Group Theory After completing the course, students will be able to –

1. Identify the various algebraic structures with their corresponding binary operations.
2. Generalize the groups on the basis of their orders, elements, order of elements and group relations.
3. Compare two groups of same orders on the basis of isomorphism Criteria.
4. Compute the possible subgroups of given group of specific orders and will recognize them.

MT 335: Ordinary Differential Equations After completing the course, students will be able to –

Solve linear differential equations with constant coefficients, non-homogeneous differential equations, system of first order equations, solution of differential equations by Power series method

MT 337(A): Operations Research After completing the course, students will be able to –

1. Formulate and model a LPP from a word problem and solve them graphically in 2 – D.
2. Modify a primal problem and use the LPP to identify the new solution
3. Understand basic notions like feasibility, infeasibility, basic solutions, unbounded solutions etc.

MT 337(F): Number Theory After completing the course, students will be able to –

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 be able to –

1. Solve problems on basic concepts of modulus, argument of a complex number, DeMoivre'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

	<p>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 be able to –</p> <ol style="list-style-type: none"> 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. <p>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.</p> <p>MT 347(A) : Optimization Techniques After completing this course students will have the knowledge and skills to:</p> <ol style="list-style-type: none"> 1. Solve the project management related problems by using the concepts of CPM, PERT so as to find out the project completion time. 2. Find 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. <p>MT 347(F): Computation Geometry After completing the course, students will be able to –</p> <ol style="list-style-type: none"> 1. Design, analyse and develop algorithm and method for solving geometric problems efficiently. 2. Assess theoretical and practical problems that involves geometry. 3. Generalize basic notions of reflection, rotation, projection with real life examples
--	--

Department of Physics

AY 2020-21

Program	F.Y. B.Sc. Physics
Program Outcomes	<p>SEMESTER-I Course code and title: PHY-111 Mechanics and Properties of Matter</p> <p>The curriculum for the B. Sc. (Physics) 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</p>

	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 PO2: understood Work Energy Relations PO3: to study Concept of viscous force and viscosity PO4: understanding Properties of Matter
Program Outcomes	Course code and title: PHY-112 Physics Principles and Applications On successful completion of this course students will be able to do the following: 1. To understand the general structure of atom, spectrum of hydrogen atom .2. To understand the atomic excitation and LASER principles. 3. To understand the bonding mechanism and its different types. 4. To demonstrate an understanding of electromagnetic waves and its spectrum. 5. Understand the types and sources of electromagnetic waves and applications. 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 PO2: study of laser PO3: to study Concept of molecules PO4: understanding Properties of electromagnetic waves PO5: to study the applications of em waves
Program Outcomes	Course code and title: PHY-113 Physics Laboratory 1A As per syllabus of university
Program Specific Outcomes	We take 8 experiments properly by using various instruments as per university of Pune.
Program Outcomes	SEMISTER-II Course code and title: PHY-121 Heat and Thermodynamics 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, review of research articles/papers, participation in scientific events, study visits, etc. To familiarize with recent scientific and technological developments. To create foundation for research and development in Physics.
Program Specific Outcomes	PO1: to understanding of Concept of thermodynamic PO2: study of Conversion of heat into work and it's converse PO3: understood of various engines. PO4: to study Concept of heat & temperature
Program Outcomes	Course code and title: PHY-122 Electricity and Magnetism On successful completion of this course students will be able to do the following: 1.To understand the concept of the electric force, electric field and electric potential for stationary charges 2) Able to calculate electrostatic field and potential of charge distributions using Coulomb's law and Gauss's law. 3) To understand the dielectric phenomenon and effect of electric field on dielectric. 4) To Study magnetic field for steady currents using Biot- Savart and Ampere's Circuital laws. 5) To study magnetic materials and its properties. 6) Demonstrate quantitative problem solving skills in all the topics covered.
Program Specific Outcomes	PO1: to study concept of electrostatics

	<p>PO2:to understood of dielectrics</p> <p>PO3:to study the concept of magnetism and their properties</p> <p>PO4: knowing about the magnetic material</p> <p>PO5:To study the properties of magnetism</p>
Program Outcomes	<p>Course code and title: PHY-123 Physics Laboratory 1B</p> <p>As per syllabus of university</p>
Program Specific Outcomes	we take 8 experiments properly As per syllabus of university by using various instruments
Program	S.Y. B.Sc Physics
Program Outcomes	<p>S.Y.B.Sc. (Physics) (Sem-III) PHY-231: Mathematical Methods in Physics-I</p> <p>Understand the complex algebra useful in physics courses.</p> <p>2. Understand the concept of partial differentiation.</p> <p>3. Understand the role of partial differential equations in physics.</p> <p>4. Understand vector algebra useful in mathematics and physics.</p> <p>5. Understand the concept of singular points of differential equations.</p>
Program Specific Outcomes	<p>POS1:- To study complex number in various forms</p> <p>POS2 :- Detail study and solving the problem on partial differentiation</p> <p>POS3:- to know how the physical quantity having magnitude and direction</p> <p>POS4 :- understanding basic knowledge of order ,degree linearity of Differential equation</p>
Course Outcomes	<p>S.Y.B.Sc. (Physics) (Sem-III) PHY-232(B): Instrumentation</p> <p>1.Learning outcomes: After successful completion of this course,</p> <p>2. the student will be able to Understand the concept of measurement.</p> <p>3. Understand the performance of measuring instruments.</p> <p>4. Design experiments using sensors.</p>
Program Specific Outcomes	<p>PO1:- understanding of static and dynamic characteristics of measurement</p> <p>PO2:- to basic knowing of transducer and its types</p> <p>PO3:- to basic knowing of Pressure and its types</p> <p>PO4:- To study of signal conditioning and processing by using Op-amp</p>
Course Outcomes	<p>S.Y.B.Sc. (Physics) (Sem-III) PHY-233: Physics Laboratory-2A</p> <p>After completing this practical course students will be able to Use various instruments and equipment.1.</p> <p>1.Design experiments to test a hypothesis and/or determine the value of an unknown quantity</p> <p>2. Investigate the theoretical background of an experiment.</p> <p>3. Setup experimental equipment to implement an experimental approach</p> <p>4. Analyze the data, plot appropriate graphs and reach conclusions from data analysis</p> <p>5. Work in a group to plan, implement and report on a project/experiment.</p> <p>6. Keep a well-maintained and instructive laboratory logbook</p>
Program Specific Outcomes	<p>Minimum 10 experiment</p> <p>PO1.Circuit Theorems</p> <p>PO 2. Transistor Characteristics(Input and Output characteristics of CE Configuration)</p> <p>PO 3. Single Stage Transistor Amplifier</p> <p>PO 4. Study f Rectifiers (Half, Full Wave and Bridge) with different filters</p>

	<p>PO 5. I-V Characteristics of UJT/ UJT as Relaxation Oscillator</p> <p>PO 6. Zener as a Regulator (Line and Load Regulation)</p> <p>PO 7. Op-amp as inverting and non-inverting amplifier</p> <p>PO 8. Study of Wein Bridge / Phase Shift Oscillator using 741</p> <p>PO 9. Op-amp as an adder and subtractor</p> <p>PO 10. Study of logic gates and verification of de Morgan's theorems</p> <p>PO11. To measure displacement using potentiometer/variable inductor/ variable capacitor</p> <p>PO 12. Use of CRO(AC/DC Voltage measurement, Frequency measurement)</p> <p>PO 13. To measure force using load cell</p> <p>PO 14. To measure pressure using elastic diaphragm(In Variable Capacitor / Bourdon Tube) 1</p> <p>PO 15. To measure magnetic field using Hall Probe for a system of ring magnets</p> <p>Using Computer</p> <p>PO16 Plotting of various trigonometric functions using spread sheet/any graphic software viz. Microsoft Excel, Origin: $\sin x$, $\cos x$, $\tan x$, e^x, e^{-x}, $\log x$, $\ln x$, x^n</p> <p>2. Plotting of conic sections using spreadsheet /any graphic software viz. Microsoft Excel, Origin: circle, ellipse, parabola, hyperbola</p> <p>3. Inverse, determinant of matrix, solution of linear equations using Microsoft Excel or Origin software</p>
Course Outcomes	<p>S.Y.B.Sc. (Physics) (Sem-IV) PHY-241: Oscillations, Waves and Sound</p> <p>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.</p> <p>3. To explain oscillations in terms of energy exchange with various practical applications.</p> <p>4.To solve numerical problems related to undamped, damped, forced oscillations and superposition of oscillations.</p> <p>5. To study characteristics of sound, decibel scales and applications.</p>
Program Specific Outcomes	<p>PO1: to understanding of linear S.H.M. and its solution.</p> <p>PO2: basic knowledge of Differential equation for damped harmonic oscillator and its solution, discussion of different cases.</p> <p>PO3: give the knowledge of forced oscillations- LCR series circuit.</p> <p>PO4 understanding the concept of waves ,its types and its solution.</p> <p>PO5: basic knowledge of sound Intensity, Loudness, Pitch, Quality and timbre.</p>
Course Outcomes	<p>S.Y.B.Sc. (Physics) (Sem-IV) PHY-242: Optics</p> <p>1.On successful completion of this course the students will be able to Acquire the basic concept of wave optics.</p> <p>2.Describe how light can constructively and destructively interfere.</p> <p>3.Explain why a light beam spread out after passing through an aperture</p> <p>4.Summarize the polarization characteristics of electromagnetic wave</p> <p>5.Understand the operation of many modern optical devices that utilize wave optics</p> <p>6.Understand optical phenomenon such polarization, diffraction and interference in terms of the wave model</p>
Program Specific Outcomes	<p>PO1: understanding Geometrical optics and Lens aberrations</p> <p>PO2: to study Types of optical instruments: Simple Microscope, Compound Microscope</p> <p>PO3:to study interference and diffraction</p> <p>PO4:understanding of polarization</p>

Course Outcomes	<p>S.Y.B.Sc. (Physics) (Sem-IV) PHY-243: Physics Laboratory-2B</p> <p>After completing this practical course students will be able to Use various instruments and equipment.</p> <p>Design experiments to test a hypothesis and/or determine the value of an unknown quantity.</p> <p>Investigate the theoretical background of an experiment.</p> <p>Setup experimental equipment to implement an experimental approach. Analyze the data, plot appropriate graphs and reach conclusions from data analysis.</p> <p>Work in a group to plan, implement and report on a project/experiment. Keep a well-maintained and instructive laboratory logbook.</p>
Program Specific Outcomes	As per syllabus of university we take 10 experiments properly using various devices.
Course Outcomes	<p>T.Y.B.Sc. (Physics) (Sem-III)</p> <p>As far as possible to promote:</p> <ol style="list-style-type: none"> 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	<p>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.</p> <p>PSO2: A student should get a relational understanding of mathematical concepts and concerned structures, and should be able to follow the patterns involved.</p> <p>PSO3: A student should get adequate exposure to global and local concerns that explore them many aspects of physical Sciences.</p> <p>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.</p> <p>PSO5: A student should be made aware of history of physics and hence of its</p>

	past, present and future role as part of our culture.
Course Outcomes	<p>PH331: Mathematical Methods in Physics II After completing this course student will be able to -</p> <ol style="list-style-type: none"> 1. Learn the basic abstract ideas of analysis. 2. Learn the basic ideas of mathematical method in physics . 3. Learn the theorems on completeness, compactness, and connectedness and use them to solve the problems. Identify the on metric spaces, using different theorems. <p>PH332: Classical Electrodynamics After completing the course, students will able to – Understand the concept of electrostatics and magneto statics and electrodynamics.</p> <p>PH333: Classical Mechanics After completing the course, students will able to –</p> <ol style="list-style-type: none"> 1. Identify the various motion of particles 2. Generalize the groups on the basis of their motions, laws and its applications. 3. Compare the classical mechanics and quantum mechanics. <p>PH334: Atomic and Molecular Physics After completing the course, students will able to – Understood the concept atoms and various structures of atoms. And solving the problems of regarding of atoms.</p> <p>PH335: Computational Physics After completing the course, students will able to – Understood the concept programs and various programs using ‘c’ and ‘c++’. And solve by using algorithm , flow chart and outline of program.</p> <p>PH336: Elective: I:B: Elements of Materials Science After completing the course, students will able to – Study the concept of molecules, structure of atoms and how to make the molecules by combination of atoms.</p> <p>T.Y.B.Sc. (Physics) (Sem-IV)</p> <p>PH341: Solid State Physics After completing this course student will be able to -</p> <ol style="list-style-type: none"> 1. Learn the basic idea of solid state physics. 2. Learn the basic ideas of metal, non-metals and insulators 3. Learn the theorems on molecular structures of bcc, fcc <p>PH342: Quantum Mechanics . After completing this course student will be able to -</p> <ol style="list-style-type: none"> 1. Learn the basic knowledge of quantum mechanics. 2. Learn equation on time dependant and time independent. 3. Learn the theorems on quantum mechanics. <p>PH343: Thermodynamics and Statistical Physics After completing the course, students will able to –</p> <ol style="list-style-type: none"> 1. Understood the all concept heat and thermodynamics and statistics. <p>PH344: Nuclear Physics After completing the course, students will able to –</p> <ol style="list-style-type: none"> 1.study the basic concept of nuclear physics 2. Basic idea of the structure of nuclear physics. 3. Understood the application of nuclear fission and nuclear fusion. <p>PH345: Electronics II /Advanced Electronics After completing the course, students will able to –</p> <ol style="list-style-type: none"> 1. Study the basic concept of electronics.

	<p>2. Basic idea of the advanced electronics. 3. Understood the application of advanced electronic in various field.</p> <p>PH346: Elective II: J: Lasers After completing the course, students will able to –</p> <ol style="list-style-type: none"> 1. Study the basic concept of laser. 2. Basic idea of the material types of laser. 3. Understood the application of lasers in different places. <p>PH347: Laboratory Course I 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</p> <p>Phy348: Laboratory Course II 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.</p> <p>PH349: Laboratory Course III (Project) 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 and practical background of an experiment.</p>
--	---

FY 2020-21

Program	F.Y. B.Sc. Zoology
Program outcome	<ol style="list-style-type: none"> 1. PO1 - Students gain knowledge and skill in the fundamentals of animal sciences, understands the complex interactions among various living organisms 2. PO2 – Analyse complex interactions among the various animals of different phyla, their distribution and their relationship with the environment 3. PO3 – Apply the knowledge of internal structure of cell, its functions in control of various metabolic functions of organisms. 4. PO4 – Understands the complex evolutionary processes and behaviour of animals 5. PO5 – Correlates the physiological processes of animals and relationship of organ systems 6.

	<p>PO6 – Understanding of environmental conservation processes and its importance, pollution control and biodiversity and protection of endangered species 7.</p> <p>PO7 – Gain knowledge of Agro based Small Scale industries like sericulture, fish farming, butterfly farming and vermicompost preparation.</p> <p>8. PO8 – Understands about various concepts of genetics and its importance in human health</p> <p>9. PO9 - Apply ethical principles and commit to professional ethics and responsibilities in delivering his duties</p> <p>10. PO10 – Apply the knowledge and understanding of Zoology to one’s own life and work</p>
<p>Program Specific Outcomes</p>	<p>PSO1.To foster curiosity in the students for Zoology.</p> <p>PSO2.To create awareness amongst students for the basic and applied areas of Zoology.</p> <p>PSO3.To orient students about the importance of abiotic and biotic factors of environment and their conservation.</p> <p>PSO4.To provide an insight to the aspects of animal diversity.</p> <p>PSO5.To inculcate good laboratory practices in students and to train them about proper handling of lab instruments.</p> <p>PSO6. To understand the Animal diversity around us.</p> <p>PSO7. To understand the underlying principles of classification of animals.</p> <p>PSO8. To understand the terminology needed in classification.</p> <p>PSO9. To understand the differences and similarities in the various aspects of classification.</p> <p>PSO10. To classify invertebrates and to be able to understand the possible group of the invertebrate observed in nature.</p> <p>PSO11. To understand our role as a caretaker and promoter of life.</p> <p>PSO 12. To understand the origin and advancement of higher vertebrates (tetrapoda).</p> <p>PSO 13. To understand general characters of different groups of higher vertebrates.</p> <p>PSO 14. To classify vertebrates and to become able to understand the possible group of vertebrates observed in nature.</p> <p>PSO15. To understand different behaviours and adaptations in higher vertebrates</p> <p>PSO16. To understand affinities among different groups of higher vertebrates.</p>

	<p>PSO17. To provide thorough knowledge about various animal sciences from primitive to highly evolved animal groups.</p> <p>PSO 18. To make the students aware of applications of Zoology subject in various industries</p>
<p>Course outcome</p>	<p>COURSE TITLE: ANIMAL DIVERSITY –I & II</p> <p>.CO1. The student will be able to understand classify and identify the diversity of animals.</p> <p>CO 2. The student understands the importance of classification of animals and classifies them effectively using the six levels of classification.</p> <p>CO 3. The student knows his role in nature as a protector, preserver and promoter of life which he has achieved by learning, observing and understanding life.</p> <p>COURSE TITLE: ANIMAL ECOLOGY</p> <p>CO1. The learners will be able to identify and critically evaluate their own beliefs, values and actions in relation to professional and societal standards of ethics and its impact on ecosystem and biosphere due to the dynamics in population.</p> <p>CO 2.To understand anticipate, analyse and evaluate natural resource issues and act on a lifestyle that conserves nature.</p> <p>CO3.The Learner understands and appreciates the diversity of ecosystems and applies beyond the syllabi to understand the local lifestyle and problems of the community.</p> <p>CO4.The learner will be able to link the intricacies of food chains, food webs and link it with human life for its betterment and for non-exploitation of the biotic and abiotic components.</p> <p>CO 5.The working in nature to save environment will help development of leadership skills to promote betterment of environment.</p> <p>COURSE TITLE: CELL BIOLOGY</p>

	<p>CO1. Learning outcomes for Cell Biology.</p> <p>CO2. The learner will understand the importance of cell as a structural and functional unit of life.</p> <p>CO3.The learner understands and compares between the prokaryotic and eukaryotic system and extrapolates the life to the aspect of development.</p> <p>CO4.The dynamism of bio membranes indicates the dynamism of life. Its working mechanism and precision are responsible for our performance in life.</p> <p>CO5.The cellular mechanisms and its functioning depends on endo-membranes and structures. They are best studied with microscopy. agricultural importance and Pest control practices.</p>
Program	S.Y.B.SC.
Program Outcomes	<ol style="list-style-type: none"> 1. PO1 - Students gain knowledge and skill in the fundamentals of animal sciences, understands the complex interactions among various living organisms 2. PO2 – Analyse complex interactions among the various animals of different phyla, their distribution and their relationship with the environment 3. PO3 – Apply the knowledge of silk worm rearing 4. PO4 – Understands the complex evolutionary processes and behaviour of animals 5. PO5 – Correlates the physiological processes of animals and relationship of organ systems 6. PO6 – Understanding of environmental conservation processes and its importance, pollution control and biodiversity and protection of endangered species 7. PO7 – Gain knowledge of Agro based Small Scale industries like sericulture, fish farming, butterfly farming and vermicompost preparation. 8. PO8 – Understands about various concepts of genetics and its importance in human health 9. PO9 - Apply ethical principles and commit to professional ethics and responsibilities in delivering his duties

	<p>10. PO10 – Understands concepts of fisheries, fishing tools and site selection</p> <p>11PO11- Aqua culture systems, induced breeding techniques, post harvesting techniques</p> <p>12PO12 Understands about composition of blood, blood born diseases, autopsy and biopsy</p> <p>13PO13 Types of immunity, antigens-antibodies and their properties</p>
<p>Program Specific Outcomes</p>	<p>PSO1.To foster curiosity in the students for Zoology.</p> <p>PSO2.To create awareness amongst students for the basic and applied areas of Zoology.</p> <p>PSO3.To orient students about the importance of abiotic and biotic factors of environment and their conservation.</p> <p>PSO4.To provide an insight to the aspects of animal diversity.</p> <p>PSO5.To inculcate good laboratory practices in students and to train them about proper handling of lab instruments.</p> <p>PSO6. To understand the Animal diversity around us.</p> <p>PSO7. To understand the underlying principles of classification of animals.</p> <p>PSO8. To understand the terminology needed in classification.</p> <p>PSO9. To understand the differences and similarities in the various aspects of classification.</p> <p>PSO10. To classify invertebrates and to be able to understand the possible group of the invertebrate observed in nature.</p> <p>PSO11. To understand our role as a caretaker and promoter of life.</p> <p>PSO 12. To understand the origin and advancement of higher vertebrates (tetrapoda).</p> <p>PSO 13. To understand general characters of different groups of higher vertebrates.</p> <p>PSO 14. To classify vertebrates and to become able to understand the possible group of vertebrates observed in nature.</p> <p>PSO15. To understand different behaviours and adaptations in higher vertebrates</p> <p>PSO16. To understand affinities among different groups of higher vertebrates.</p> <p>PSO17. To provide thorough knowledge about various animal sciences from primitive to highly evolved animal groups.</p> <p>PSO 18. To make the students aware of applications of Zoology subject in various industries</p>

<p>Course outcome</p>	<p>ANIMAL DIVERSITY III & IV</p> <p>CO1. The students will be able to understand, classify and identify the diversity of higher vertebrates.</p> <p>CO2. The students will be able to understand the complexity of higher vertebrates</p> <p>CO3. The students will be able to understand different life functions of higher vertebrates.</p> <p>CO4. The students will be able to understand the linkage among different groups of higher vertebrates.</p> <p>CO5. The student will become aware regarding his role and responsibility towards nature as a protector, to understand his role as a trustee and conservator of life which he has achieved by learning, observing and understanding life.</p> <p>APPLIED ZOOLOGY I AND II</p> <p>CO1. To understand the basic life cycle of the honeybees, beekeeping tools and equipments.</p> <p>CO 2. To learn for managing beehives for honey production and pollination.</p> <p>CO 3. To understand the basic information about fishery, cultural and harvesting methods of fishes.</p> <p>CO 4. To understand fish preservation techniques.</p> <p>CO 5. To understand the biology, varieties of silkworms and the basic techniques of silk production and harvesting of cocoons.</p> <p>CO 6. To learn the different silkworm species and their host plants.</p> <p>CO 7. To study types of agricultural pests and Major insect pests of agricultural importance.</p> <p>36 Page</p> <p>CO 8. To study Pest control practices.</p> <p>CO 9. The learner understands the basics about beekeeping tools, equipment, and managing beehives.</p>
-----------------------	---

	<p>CO10. The learner understands the basic information about fishery, cultural and harvesting methods of fishes and fish preservation techniques.</p> <p>CO11. The learner understands the biology, varieties of silkworms and the basic techniques of silk production.</p> <p>CO12. The learner understands the types of agricultural pests, Major insect pests of</p>
--	---

Department of Botany

AY 2020-21

Program	F.Y. B.Sc. Botany (Sem I)
Program Outcomes	<p>BO111 (Plant Life & Utilization I): Help to study knowledge of basic science, diversity of algae, fungi, lichen, bryophytes. studied life cycle patterns by dissecting plant specimen.</p> <p>BO112 (Plant Morphology & Anatomy): Distinguishing knowledge of morphology, of inflorescence, floral parts, fruit types. Gives importance of anatomy in different branches of Botany.</p> <p>BO113 (Practical based on BO111 & BO112): Encourage the curiosity about the practical knowledge of cryptogams (lower plants group) as well as industrial knowledge of Botany.</p>
Program Specific Outcomes	<p>BO111 (Plant Life & Utilization I): Students able to understand the morphological and anatomical difference between the algae, fungi, lichen and bryophytes.</p> <p>BO112 (Plant Morphology & Anatomy): Primary study of morphology & anatomy helps to understand the internal organizations of primary plant body of dicotyledons and monocotyledon root, stem & leaf</p> <p>BO113 (Practical based on BO111 & BO112): It gives thoroughly knowledge of anatomical differentiation between dicotyledonous and monocotyledonous root, stem & leaf and industrial application and cultivation of oyster mushroom.</p>
Program	F. Y. B. Sc. Botany (Sem II)

Program Outcomes	<p>BO121 (Plant Life & Utilization II): Inculcate the knowledge of plant groups (higher cryptogams-Pteridophytes & Phanerogams-Gymnosperms & Angiosperms).</p> <p>BO122 (Principles of Plant Science): Enlightening the study of plant cell structure & function as well as plant metabolic pathways through the study of Plant Physiology.</p> <p>BO123 (Practicals based on BO121 & BO 122): Incorporate the knowledge of classification system of Bentham & Hooker whereas study of life cycle of <i>Nephrolepis</i> & <i>Cycas</i>. It helps to understand the economic importance of angiosperms as food, fodder & fibre.</p>
Program Specific Outcomes	<p>BO121 (Plant Life & Utilization II): Students are able to understand the classification, reproduction, distribution, habit, habitat of plant groups. Students come to know the utilization & economic importance of Pteridophytes and Phanerogams like food, fodder, fibre, medicines, horticulture for the society.</p> <p>BO122 (Principles of Plant Science): A student should get a understanding of Structure of DNA & RNA types of chromosomes, their role in pant body in the form of genomic expressions.</p> <p>BO123 (Practicals based on BO121 & BO 122): A student should get adequate exposure to identify mitotic and meiotic cell division, chlorophyll a and b estimation- how much amount of chlorophyll presents in different plant species.</p>
Program	S.Y. B.Sc. Botany (Sem-III)
Program Outcomes	<p>BO231 (Taxonomy of Angiosperms & Plant Ecology): Gain sound knowledge of fundamentals of taxonomy, classification systems-artificial, natural, APG system, phylogenetic system, study of plant families by using the classification system.</p> <p>BO232 (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.</p> <p>BO233 (Practical based on BO231 & BO232): Practical based on taxonomy of angiosperms and ecological adaptations. In this course students can go through the studies of families and adaptations in hydrophytes, xerophytes as per the internal morphology. Helps to understand the use of different ecological instruments.</p>
Program Specific Outcomes	<p>BO231 (Taxonomy of Angiosperms & Plant Ecology): It gives detail idea about the binomial nomenclature system, plant ecological grouping according to their habitat, hence students come to know morphological adaptations due to different environmental conditions.</p> <p>BO232 (Plant Physiology): Student will get complete understanding about the mechanism of transpiration, gaseous exchange of plants through stomata, development of flowering, water & food</p>

	<p>translocation in plants.</p> <p>BO233 (Practical based on BO231 & BO232): Importance of ecological instruments in daily life to know the soil pH, humidity, temperature etc. Importance of plants classification.</p>
Program	S.Y. B.Sc. Botany (Sem-IV)
Course Outcomes	<p>BO241 (Plant Anatomy & Embryology): This course gives thoroughly knowledge of type of epidermal tissues in plants, Stomatal structure and function, trichomes types, types and functions of mechanical tissues, secondary growth, pollination, fertilization and embryo development.</p> <p>BO242 (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.</p> <p>BO243 (Practical based on BO241 & BO242): Study of epidermal tissue system, mechanical tissues and their distribution in root, stem & leaves, study of normal and anomalous secondary growth with the help of example <i>Bignonia</i>, study of tetrasporangiate anther and types of ovule, plant tissue culture.</p>
Program Specific Outcomes	<p>BO241 (Plant Anatomy & Embryology): It gives the detailed knowledge of reproduction method of flowering plants.</p> <p>BO242 (Plant Biotechnology): Theoretical knowledge of plant tissue culture and single cell protein will help to understand the methods and commercial importance of it. Whereas students will understand the biofuel technology and bioremediation application with the help of plants.</p> <p>BO243 (Practical based on BO241 & BO242): Students can come to know practical methods of preparation of MS-medium for plant tissue culture, surface sterilization and its importance, inoculation of plant materials, introduction of transgenic plants and their role in human life like Bt cotton & golden rice. Hence they understand the role of Plant Biotechnology in human life development.</p>
Program	T.Y. B.Sc. Botany (Sem-III)
Course Outcomes	<p>BO . 331 CRYPTOGAMIC BOTANY-</p> <p>CO-1. Study of cryptogams to understand their Diversity.</p> <p>CO-2. Know the systematics, morphology and structure of algae, fungi, bryophytes, and Pteridophytes.</p> <p>CO- 3. Know life cycle pattern of cryptogams.</p> <p>CO-4. Know economic importance of cryptogams.</p> <p>CO-5. Know evolution of algae, fungi, bryophytes and Pteridophytes.</p> <p>BO.332 CELL & MOLECULAR BIOLOGY</p> <p>CO-1. Gain knowledge about cell and its function.</p> <p>CO-2. Learn the scope and importance of molecular biology.</p> <p>CO-3. Understand ultra structure of cell wall, plasma membrane and cell organelles</p> <p>CO-4. Understand the biochemistry of cell.</p> <p>CO-5. Understand the biochemical nature of nucleic acid and their role in living systems.</p> <p>BO. 333 GENETICS AND EVOLUTION</p>

	<p>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.</p> <p>BO.334 SPERMATOPHYTIC AND PALAEOBOTANY CO-1. Systematic study of gymnosperms and angiosperms. CO-2.Understand the morphological and reproductive character of spermatophytic plants. CO-3.Understand economic importance of gymnosperms and angiosperms. CO-4.Understand the diversity among spermatophyte. CO-5.To bring investigation of palaeobotanical study in India. CO-6.Know, scope and application of Palaeobotany. CO-5.Know types of fossils, geological time scale.</p> <p>BO.335 HORTICULTURE & FLORICULTURE CO-1.Understand economic importance of plant and plant product. CO-2. Know the methods of plant propagation. CO-3.Understand the fruit & vegetables production technology. CO-4.Understand the scope & importance of floriculture. CO-5.Understand the methods of cultivation of different flowering plants.</p> <p>BO.336 COMPUTATIONAL BOTANY CO-1.Understand the scope & importance of biostatistics. CO-2.Understand the scope and some basic commonly used terms like sampling, data, dispersion, population, central tendency etc. CO-3.Knowledge to apply statistical analysis to biological data for testing different hypothesis</p>
Program	T.Y. B.Sc. Botany (Sem-IV)
Course Outcomes	<p>BO. 341 PLANT PHYSIOLOGY & BIOCHEMISTRY. CO-1.Know scope and importance of plant physiology. CO-2Understand plant & water relation. CO-3.Understand process of photosynthesis, C3 , C4, CAM pathways. CO-4.Understand the process of respiration, growth and developmental process in plant. CO-5.Understand the biochemistry of cell. CO-6.Understand the different biochemical reaction of biomolecules in plant cell.</p> <p>BO. 342 PLANT ECOLOGY AND BIODIVERSITY. CO-1.Know the biotic and abiotic components of ecosystem. CO-2.Food chain & food web in ecosystem. CO-3.Understand diversity among various groups of plant kingdom. CO-4.Understand plant community & ecological adaptation in plants. CO-5. Scope , importance and management of biodiversity.</p> <p>BO. 343 PLANT PATHOLOGY. CO-1.Understand scope and importance of plant pathology. CO-2.Know disease cycle and disease development . CO-3.Know the effect of plant diseases on economy of crops. CO-4.Know the methods of studying plant diseases.</p>

	<p>CO-5.They can identify the plant diseases like bacterial , nematodal, and fungal.</p> <p>CO-6.Know the disease forecasting.</p> <p>CO-7.Know the prevention and control measures of plant diseases.</p> <p>BO. 344 MEDICAL AND ECONOMIC BOTANY</p> <p>CO-1.Understand scope and importance of pharmacognosy.</p> <p>CO-2.Know the cultivation, collection, processing & importance of various herbal drugs.</p> <p>CO-3.Understand the scope of economic botany.</p> <p>CO-4.Know the botanical resources like non wood forest products.</p> <p>CO-5.Understand the concept of Ayurvedic pharmacy.</p> <p>BO. 345 PLANT BIOTECHNOLOGY</p> <p>CO-1.Understand the fundamental of recombinant DNA technology.</p> <p>CO-2.Understand tissue culture techniques.</p> <p>CO-3.Role of microbes in agriculture , medicine & industry.</p> <p>CO-4.Know the fermentation technology.</p> <p>CO-5.Understand the concept of bioinformatics, genomics & proteomics.</p> <p>CO-6.Understand technical germplasm & cryopreservation.</p> <p>BO. 346 PLANT BREEDING & SEED TECHNOLOGY.</p> <p>CO-1.Understand the scope & importance of plant breeding.</p> <p>CO-2.Know the technique of production of new superior crop varieties.</p> <p>CO-3.Know the about heterosis, hybrid vigor etc.</p> <p>CO-4.Know the process of hybrid variety, development & their release.</p> <p>CO-5.Know about seed germination, processing , production etc.</p>
--	--

Department Of Chemistry

Year-2020-21

Programme Outcomes	<p>PSO-1. To appreciate the achievements in Chemistry and to know the role of Chemistry in nature and in society</p> <p>PSO-2. To explain nomenclature, stereochemistry, structures, reactivity,and mechanism of the chemical reactions.</p> <p>PSO-3. To develop problem solving skills.</p> <p>PSO-4. Use modern chemical tools, Models, Chem-draw, Charts and Equipments.</p> <p>PSO-5. Know structure-activity relationship.</p> <p>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.</p>
---------------------------	---

Course Outcome B.Sc. Chemistry
T.Y.B.Sc. Semester-III

Course	Outcomes After completion of these courses students should be able to;
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 understand 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	<p>CO-1. Know the theories of covalent bond formation.</p> <p>CO-2. Know the meaning of various terms involved in co-ordination chemistry</p> <p>CO-3. Calculation of charge on complex ion and oxidation number.</p> <p>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.</p>
CH-333 Organic Chemistry	<p>CO-1. Define organic acids and bases.</p> <p>CO-2. Distinguish between geometrical and optical isomerism.</p> <p>CO-3. Discuss kinetics, mechanism and stereochemistry of SN1 and SN2 reactions.</p> <p>CO-4. Compare between E1 and E2 reactions.</p> <p>CO-5. Understand the evidences, reactivity and mechanism of various elimination and substitution reactions.</p>
CH-334 Analytical Chemistry	<p>CO-1. Know the different terms related with gravimetric analysis.</p> <p>CO-2. To understand different TGA techniques.</p> <p>CO-3. To study emr and its interaction with matter.</p> <p>CO-4. To understand different voltametric techniques.</p> <p>CO-5. To know the concept of AAS.</p> <p>CO-6. To understand emission spectra by FES.</p>
CH-335 Industrial Chemistry	<p>CO-1. Know the various industrial aspects.</p> <p>CO-2. Classify various insecticides, fungicides, pesticides.</p> <p>CO-3. Study the food deterioration factors and their control.</p> <p>CO-4. Understand Non-starch polysaccharides-cellulose-occurrence.</p> <p>CO-5. Study the various operations involved in the manufacture and compositions of cement, Glass.</p>
CH-336-B Polymer Chemistry	<p>CO-1 History of polymers.</p> <p>CO-2 Difference between simple compounds and polymer.</p> <p>CO-3 Names of polymers.</p> <p>CO-4 Various methods of nomenclature.</p> <p>CO-5 Difference between natural synthetic, organic and inorganic polymers.</p> <p>CO-6 Terms-Monomer, Polymer, Polymerization, Degree of polymerization, Functionality, Number average, Weight average molecular weight. Mechanisms of polymerization. Polymerization techniques.</p> <p>CO-7 Importance of silicone polymers. Derivatives of cellulose polymers & their applications. Ingredients added to polymer fillers.</p> <p>CO-8 Polymer reactions and applications. Polymer reactions and their effect on physical and chemical properties.</p> <p>CO-9 Advantages of polymer reactions to change their properties.</p>

Semester-IV

Course	Outcomes
	After completion of these courses students should be able to;

CH-341 Physical Chemistry	<p>CO-1. Understand Mechanics of system of particles.</p> <p>CO-2. Know the concept of electrode, cell reaction, types of electrode.</p> <p>CO-3. Solve the cell reaction and calculate E_{cell}, pH.</p> <p>CO-4. Calculate wavelength, angle, interplanar spacing.</p> <p>CO-5. Understand De-Broglie hypothesis and Uncertainty principle</p> <p>CO-6. Derive Schrodinger's time dependent and independent equations</p>
CH-342 Inorganic Chemistry	<p>CO-1 Understand the behaviour of f-block elements.</p> <p>CO-2. Know the band theory of metal.</p> <p>CO-3. Understand the nature of solid.</p> <p>CO-4. Define catalysis and various terms involved in it.</p> <p>CO-5. Understand biological role of inorganic ions and compounds.</p>
CH-343 Organic Chemistry	<p>CO-1. To study UV, IR and NMR spectroscopy.</p> <p>CO-2. Discuss different types of rearrangement reactions.</p> <p>CO-3. Determine structure of compound by spectroscopic methods.</p> <p>CO-4. Understand the difference between carbocation and carbanion.</p> <p>CO-5. To study alkaloids, Ephedrine, citral molecule with their properties and application.</p>
CH-344 Analytical Chemistry	<p>CO-1. Know the different analytical techniques.</p> <p>CO-2. To understand different types of separation techniques.</p> <p>CO-3. To study principle, construction and working of GC and HPLC.</p> <p>CO-4. To give an extended knowledge about chromatographic techniques used for separation of amino acids.</p> <p>CO-5. Discuss the problem based on distribution coefficient and extraction techniques.</p>
CH-345 Industrial Chemistry	<p>CO-1. Know the classification of pharmaceutical drugs, their nomenclature, application and synthesis.</p> <p>CO-2. To study the waste management.</p> <p>CO-3. To understand the classification and uses of dyes, paints and pigments.</p> <p>CO-4. To study the different types of soap products.</p> <p>CO-5. To know importance of sugar industry.</p> <p>CO-6. To study the basics of polymer nomenclature.</p>
CH-346-B Polymer Chemistry	<p>CO- 1 Polymer degradation, Chemical and geometric structures of polymers.</p> <p>CO-2 Important polymers like PVC, polystyrene, polyvinyl alcohol, Teflon, Resins, nylon, epoxy polymer, Uses & properties of polymers.</p> <p>CO- 3 Role of polymer industry in the economy. , Advantages of polymers, Some industrially important polymers polymer processing?</p> <p>CO-4 Different polymer processing techniques. Polymer testing and analysis, Properties of polymers & testing., Various fiber spinning techniques, Reinforcement & compounding of polymers.</p>
CH-347 Physical Chemistry practical.	<p>CO-1. To find the rate constant of reaction k and relative strength.</p> <p>CO-2. Study the energy of activation for second order reaction.</p> <p>CO-3. To find order of reaction.</p> <p>CO-4. Find out the acidity, Basicity and PK_a value on pH meter.</p>

	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.

S.Y.B.Sc. CBCS Semester-III

Course	Outcomes
	After completion of these courses students should be able to;
CH-301 Physical and Analytical Chemistry	CO-1. Concept of kinetics , terms used , rate laws , types of order CO-2. Concept of adsorption and absorption, Types of adsorption, Application adsorption. CO-4. Chemical analysis and its applications 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-302 Inorganic and Organic Chemistry	CO-1 Know the Molecular Orbital Theory CO-2 Know the terms related to the coordination chemistry CO-3 Identify and draw the structures aromatic hydrocarbons. CO-4 Identify and draw the structures alkyl / aryl halides. CO-5 Able to differentiate between alcohols and phenols
CH-303 Practical course in Chemistry	CO-1 Verify theoretical principles experimentally CO-2 Interpret the experimental data CO-3 Know balanced equation for the chemical reactions CO-4 Know the Set up the apparatus / prepare the solutions

Semester-IV

Course	Outcomes
	After completion of these courses students should be able

CH-401 Physical and Analytical Chemistry	CO-1. Ideal and non ideal solutions and laws governing these solutions CO-2. Concept of phase , component, degree of freedom. Examples of one and two component system.. CO-4. Types and role of indicators.
CH-402 Inorganic and Organic Chemistry	CO-1 Know the principles of VBT. CO-2. Know the crystal field theory to different type of complexes. CO-3. Identify and draw the structures aldehydes and ketones CO-4. Identify and draw the structures carboxylic acids CO-5. discuss synthesis of carboxylic acids. CO-6 Identify and draw the structures amines CO -7 Draw the structures of different conformations of cyclohexane
CH-403 Practical Course in Chemistry	CO-1. Correlate the theory to the experiments CO-2. Perform the complete chemical analysis of the given organic compound CO-3. Understand systematic methods of identification of substance CO-4. Perform the quantitative chemical analysis. CO-5. Perform organic and inorganic synthesis

F.Y.B.Sc. CBCS Semester-I

Course	Outcomes
	After completion of these courses students should be able to;
Chem.Paper I-Physical Chemistry	CO-1.Laws of thermodynamics, important definition. Kirchoffs equation. Entropy concept, Problems. CO-2. Concept of free energy, equilibrium constant, vantHoffs equation, problems. CO -3. Concept of electrolyte and its types, degree of ionization, pH concept, solubility product, problems.
Chem. Paper II-Organic 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-2Structural effects and their applications in determining strength of acids and bases. CO-3The common and IUPAC names of alkanes, alkenes, alkynes and homocyclic, polycyclic aromatic hydrocarbons CO-4Skeleton 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.

Semester-II

Course	Outcomes
	After completion of these courses students should be able to;
Chem. Paper I-Inorganic Chemistry	CO-1. Know the Various theories and principles applied to reveal atomic structure. CO-2. Find the Origin of quantum mechanics and its need to understand structure of hydrogen atom. CO -3. Know the electronic configuration of an atom and anomalous electronic configurations. CO-4. Know the various types of chemical bonds
Chem. Paper II-Analytical Chemistry	CO-1 Know the branch of Analytical Chemistry CO-2 Know the Calculations of mole, molar concentrations and various units of concentrations. CO-3 Know Separation of binary mixtures and analysis. CO-4 Identify the Basics of chromatography and types of chromatography CO-5 Know the pH meter and electrodes for pH measurement
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. CO-5 Acquire skill of various chemical methods

Programme Outcomes: M. Sc Organic Chemistry

Department of Chemistry	After successful completion of two year degree program in chemistry a student should be able to;
Programme Outcomes	PO-1. Determine molecular structure by using UV, IR and NMR. . To give students a comprehensive understanding of the principles of Chemistry PO-3. Improve the Skill of student in organic research area. . To gain the skill to design and carry out scientific experiments and interpret the data. PO-5. Study of Asymmetric synthesis.

	PO-6. Determine the aromaticity of different compounds. PO-7. To be able to define and resolve new problems in Chemistry and participate in the future development of Chemistry.
--	---

Program Specific Outcome M.Sc. (Organic Chemistry)

PSO1	To develop the post graduate department on the modern lines of education and training levels.
PSO2	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.
PSO3	To trained students and make them eligible for accessing integrated multidimensional fields.
PSO4	Anticipation of new/upcoming areas in academics as well as in technology.

Course Outcomes M.Sc. (Organic Chemistry)

Semester-I

1	CCTP-1 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.
---	---	---

	<p>CCTP-2 CHI-130</p> <p>2 Molecular Symmetry & Chemistry of p-block elements</p>	<p>CO-1. Student should visualize/ imagine molecules in 3 dimensions. To understand the concept of symmetry and able to pass various symmetry elements through the molecule. Understand the concept and point group and apply it to molecules. To understand product of symmetry operations. To apply the concept of point group for determining optical activity and dipole moment.</p> <p>CO-2. Student should understand the importance of Orthogonality Theorem. They should be able to learn the rules for constructing character table. Using reduction formulae should be able to find out the possible type of hybridization. Student should know the concept of SALC. Student able to find out character for reducible representation.</p> <p>CO-3. To know about projection operator. Apply projection operator to find out the normalized wave function for atomic orbital. Student should correlate the application of symmetry to spectroscopy. Students able to find out the possible modes of vibration. From the previous knowledge of symmetry student must be able to find out which modes are IR active.</p> <p>CO-4. Student should understand the detail chemistry of S and P block elements w.r.t. their compounds, their reactions and applications. To learn the advanced chemistry of boranes, fullerene, zeolites, polymers etc. Organometallic chemistry of some important elements from the main groups and their applications</p>
	<p>CCTP-3 CHO-150 Basic Organic Chemistry</p> <p>3</p>	<p>CO-1. . To understand some fundamental aspects of organic chemistry, to learn the concept of aromaticity, to understand the various types of aromaticity To study heterocyclic compound containing one and two hetero atoms with their structure, synthesis and reactions..</p> <p>CO-2. To know stereochemistry of organic compounds; able to do interconversion of Fischer to Newmann, Newmann to Sawhorse and vice versa, Able to assign R and S to given molecules; understand stereoselective and stereospecific reactions; acquire knowledge on topicity. To study structure, formation, stability and related name reaction of intermediates like Carbocation, Carbanion, Free Radical, Carbenes and nitrenes; Recognize neighboring group participation .</p> <p>CO-3. To study rearrangement reaction with specific mechanism and migratory aptitude of different groups. To study Ylides and their reaction. CO-4. Student should be aware about reaction mechanism.</p> <p>CO-4. To understand the basis of redox reaction; acquire knowledge about the reagents which cause selective oxidation / reduction in various compounds; learn the basic mechanism of oxidation / reduction in organic compounds.</p>

4	<p>CBOP-1 CHG – 190 General Chemistry-I</p> <p>SECTION-I: Theory Course</p> <p>Elective Option-C: Introduction to Chemical Biology-I</p>	<p>CO-1. The goal of this course is to introduce students to fundamental concepts in Chemical Biology and methods of chemistry used to solve problems in molecular and cell biology.</p> <p>CO-2. Students will be able to explore new areas of research in both chemistry and allied fields of science and technology. Students will be able to function as a member of an interdisciplinary problem solving team.</p> <p>CO-3 To impart the students thorough idea in the chemistry of carbohydrates, amino acids, proteins and nucleic acids etc. Be able to describe the chemical basis for replication, transcription, translation and how each of these central processes can be expanded to include new chemical matter.</p> <p>CO-4 Develop skills to critically read the literature and effectively communicate research in a peer setting.</p>
5	<p>CBOP-1: CHG – 190 General Chemistry-I</p> <p>Section-II: General Chemistry Practical Elective Option-A</p>	<p>Inorganic Chemistry-Material Analysis, Synthesis and Applications</p>
6	<p>CCPP-1 CHP-107 Practical Course – I</p> <p>Basic Practical Chemistry-I</p> <p>Sec-I: Physical Chemistry Practical Sec-II: Organic Chemistry</p>	<p>CO-1. The Students are made aware of necessary guidelines of safety in chemical laboratory and good laboratory practice.</p> <p>CO-2. Students get acquainted with different types of hazards at work place, use of personal protective.</p> <p>CO-3 Students also aware about types of fire extinguisher inventory management, storage and disposal material safety data sheets.</p> <p>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.</p> <p>CO-5 Students are trained to different purification techniques in organic chemistry like recrystallization, distillation, steam distillation and extraction.</p> <p>CO-6 This practical course is designed to make student aware of green chemistry and role of green chemistry in pollution reduction.</p> <p>CO-7. Students are made aware of Chemical kinetics and reaction dynamics topics.</p>

	<p>CO-8. To find the rate constant of reaction k and relative strength.</p> <p>CO-9. To find order of reaction.</p>
--	---

Semester- II

5	<p>CHP-210 Fundamentals of Physical Chemistry II</p>	<p>CO-1. The course aims to provide understanding of physical chemistry;</p> <p>CO-2 In this course fundamentals of molecular spectroscopy are introduced. Students learn basic elements of rotational, vibrational, raman and electronic spectroscopy.</p> <p>CO-3. Nuclear and radiation Chemistry concepts are introduced. Students get familiar with Chemical Bonding.</p> <p>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.</p>
6	<p>CHI- 230 Coordination and Bioinorganic Chemistry</p>	<p>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.</p> <p>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.</p> <p>CO-3 It explains biochemistry of Na, K, Ca, with respect to Na/K pumps.</p>

7	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.
8	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.

9	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.
10	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, Condurometer etc.
11	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

12	CHO-350 Organic reaction mechanism	<p>CO-1 The main aim of this course is to learn and understand the basic concept in reaction mechanism.</p> <p>CO-2 This course helps the students to understand the role of recent reagent, catalyst in mechanism of reaction.</p> <p>CO-3 This course also helps to improve the thinking ability of the students towards reaction mechanism.</p>
13	CHO-351 Spectroscopic Methods in Structure Determination.	<p>CO-1.This course enables to the students learn the basic of spectroscopic methods like UV, $^1\text{H-NMR}$, $^{13}\text{C-NMR}$, IR, Mass spectrometry and their application.</p> <p>CO-2.This course gives idea of structure determination of known and unknown organic molecules by using spectroscopic data.</p>
14	CHO-352 Organic Stereochemistry	<p>CO-1. This course helps to aware the students to understand the stereochemistry of organic reactions.</p> <p>CO-2. Also gives detail idea regarding stereochemistry of alicyclic rings, fused, bridge and caged rings.</p> <p>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</p>
15	CH-353 Photochemistry, pericyclic Reactions and Heterocyclic Chemistry	<p>CO-1. The aim of this course is to furnish the students with fundamental and theoretical understanding of heterocyclic chemistry.</p> <p>CO-2.This course includes photochemistry and pericyclic reactions which help the students to improve their imagination power.</p> <p>CO-3.Heterocyclic chemistry gives basic idea to the students in synthesis of different heterocyclic derivatives.</p>

Semester- IV

16	CHO-450 Chemistry of Natural products	<p>CO-1. In this course PG students learn the different pathways of synthesis of natural products.</p> <p>CO-2. It also helps stereochemistry and structure determination of some natural products.</p> <p>CO-3. The biogenesis develops the synthetic strategies to prepare different important natural compounds in the laboratory.</p> <p>CO-4.This course involves multistep synthesis of coumarins, flavonoids, isoflavonoids and terpenoids.</p>
----	--	--

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

Department of Electronics

AY 2020-21

Program	F.Y. B.Sc. Electronics
Program Outcomes	Objective Paper I: Paper I: EL- 111: Basics of Applied Electronics 1. To understand importance of Electronics in day today life 2. To understand basics of electronic circuits 3. To make the students learn through problem solving 4. To understand few electronic
Program Specific Outcomes	After completion of this course student will be able: Pos1 To identify different parameters/functions/specifications of components used in electronic circuits Pos2. To solve problems based on network theorems. Pos3. To perform simulations using simulator for analyzing network performance
Program Outcomes	Paper I: EL-121: Fundamentals of Digital Electronics 1. To know about different number systems and codes 2. To understand logic gates and truth tables 3. To understand combinational logical circuits 4. To understand sequential logical circuits 5. To encourage the students for making use of simulation software for testing and building the circuits before experimentation.
Program Specific Outcomes	After completion of this course student will be able Pos1. To solve problems based on inter conversion of number systems Pos 2. To reduce the expression using Boolean theorems Pos 3. To reduce expressions using K maps in SOP and POS forms Pos 4. To understand how to use flip flops to build modulus counter Pos 5 To familiarize with applications of counters like ring counter or event Counter
Program Outcomes	Paper II EL- 122: Analog and Digital Device applications important facts resulting from their studies. To know basics of operational amplifier 2. To compare performance parameters of op-amp ICs available in market 3. To understand basic application circuits of op-amp. 4. To basics of timer IC 555 and its applications 5. To understand data converters and their performance parameters
Course Outcomes	After completion of this course student will be able Pos1. To compare different opamps as per specifications or performance parameters Pos2. To understand op-amp circuits and its usefulness in different applications Pos 3. To know operating principle of IC 555 in different configurations Pos4. To understand different types of DAC and their performance parameters Pos 5. To study different types of ADC and their performance parameters
Program Outcomes	EL- 113: ELECTRONICS LAB IA 1. To teach students how to draw different symbols and circuit diagrams 2. To develop skill of circuit connections 3. To familiarize the student with different components and devices used in the laboratory and the device Manuals 4. To familiarize students with laboratory instruments like Ammeter, voltmeter,

	<p>DMM, Signal Generator, Function Generator, CRO and tools like cutter, stripper etc.</p> <p>5. To train them to design and analyze the circuits for specific purpose</p> <p>6. To teach the students how to analyze the results and calculate performance parameters</p> <p>7. To motivate them to work on different mini projects</p>
Program Specific Outcomes	<p>After completion of this course student will be able</p> <ol style="list-style-type: none"> 1. To identify different components and devices as well as their types 2. To understand basic parameters associated with each device 3. To know operation of different instruments used in the laboratory 4. To connect circuit and do required performance analysis 5. To compare simulated and actual results of given particular experiment
Program	S.Y. B.Sc. Electronics
Program Outcomes	<p>EL-231: Paper – I: Communication Electronics</p> <p>This course provides basic knowledge of analog (continuous wave) and digital communication systems. After study through lectures and assignment, student will be able to</p> <ol style="list-style-type: none"> 1:- Understand different blocks in communication systems, types of noise in communication systems and its different parameters 2:- Understand need of modulation, modulation process and amplitude modulation and demodulation methods 3:- Analyse generation of FM Modulation and demodulation methods and comparison between amplitude and frequency modulation 4:- Identify different radio receivers and their performance parameters.
Program Specific Outcomes	<p>POS1:- Solve problems based on AM and FM performance parameters</p> <p>POS2 :- Compare pulse modulation techniques such as PAM, PPM, PWM and compare TDM and FDM techniques used in communication</p> <p>PoS3:- Understand need of sampling and sampling theorem as well as know about performance parameters of digital communication</p> <p>POS4 :- Analyze difference between ASK, FSK, PSK as well as PCM and its applications</p>
Course Outcomes	<p>EL-232: Paper- II: Digital Circuit Design</p> <p>This course provides basic knowledge about systematic methodology of designing digital systems. After study through lectures and assignment, student will be able to</p>
Program Specific Outcomes	<p>PO1:- Distinguish between different logic families based on their performance parameters</p> <p>PO2:- Analyze basic combinational logic circuits for simple applications</p> <p>PO3:- Design combinational logic circuits using K maps for identified applications</p> <p>PO4:- Design Sequential logic circuits using state diagram, excitation table for identified applications</p> <p>CO5 Understand and compare different types of ADC and their performance parameters using data sheets/manuals</p> <p>CO6 Understand and compare different types of DAC and their performance parameters using data sheets/manuals</p>
Course Outcomes	<p>EL-241: Paper - I: Analog Circuit Design Semester IV</p> <p>This course provides basic knowledge about systematic methodology of designing analog systems. After study through lectures and assignment, student will be able</p>
Program Specific Outcomes	<p>PO1:- Design single/multistage amplifier using transistor and analyze their frequency response base on gain-bandwidth product due to coupling /bypass capacitors</p>

	<p>PO2:- Classify and compare different power amplifiers</p> <p>PO3:- Understand and design push pull amplifier and need of heat sinks</p> <p>PO4:- Distinguish between Op-amp Feedback circuits based on their configurations</p> <p>PO5:- Analyze the effect of negative and positive feedback on characteristics of Op-amp</p> <p>PO6:- Understand and analyze the need of positive feedback in oscillator circuits</p> <p>PO7:- Design , develop and build circuits for identified applications</p>
Course Outcomes	<p>EL-242: Paper II: Microcontroller and Python Programming Semester IV</p> <p>This course introduces students with microcontroller using Arduino as well as develops programming ability using python language . After study through lectures and assignment, student will be able to</p>
Program Specific Outcomes	<p>PO1:Identify the features and architectural details of Microcontroller (arduiono)</p> <p>PO2:-Write code/program using open source programming language(ardiuno) for basic identified applications</p> <p>PO3:- Understand programming basics of python programming language</p> <p>PO4 Understand special features of python programming language such as importing modules, directory, tuples</p> <p>PO5:-Design , build and implement applications using arduino and python</p>
Course Outcomes	<p>Practical Course</p> <p>Laboratory requirements: Instruments</p> <ol style="list-style-type: none"> 1. Power Supply(single and dual) 2. Signal Generator and function generators 3. CRO 4. Digital multi-meters <p>. Communication training kits/breadboards/tag boards Software requirements</p> <ol style="list-style-type: none"> 1. Arduino 10.0 programming enviornment and add on hardware modules 2. Python 3.0 and above Guidelines for conducting practical: As the practical in each semester is of 2 credits i.e.duration of 4 hours and 20 minutes. General guidelines for teachers to engage the students are as follows
Program Specific Outcomes	<ol style="list-style-type: none"> 1. Utilization of allotted time for hardware practicals <ol style="list-style-type: none"> a. Understanding the purpose of performing particular expt b. Understanding the knowhow of the expt such as circuit diagram, connections, performing the expt, analyzing and verifying the results, plotting the graphs, interpretation of results c. Expt can be performed on breadboard/circuit boards/tag boards d. Getting familier with datasheets for ICs or components e. extension of expt (if possible) f. Continuous assessment activity(Viva etc.) g. Simulation of experiment using softwares like proteus,pSpice etc h. Project like /skill development activity i. Poster presentation/project documentation 2. Utilization of allotted time for software experiment <ol style="list-style-type: none"> a. Understand the software (Arduino and python) : its features and facilities b. Self learning through small programs *for through understanding c. Understand step by step procedure to execute the program d. Understand interfacing of various modules to Arduino e. Exploring different features of Python programming f. Learning algorithms and flowchart

	g. Building different application programs using arduino and python h. Project like/skill development activity
--	---

Department Of History

2020-2021

Program	F.Y.B.A
PROGRAM OUTCOMES	Subject1: Early India: From Prehistory To Yhe Age Of The Mauryas Sem-2- Early India : Post Mauryan Age To The Rashtrakutas
COURSE OUTCOMES	The course intends to provide and understanding of the social,economic , religious and institutional bases of ancient india
PROGRAM	S.Y.B.A.
COURSE OUTCOMES	<p>Subject1:History Of The Marathas(1630-1707)</p> <p>Student will develop the ability to analyse sources for Maratha history</p> <p>Student will learn significance of regional history and political foundation of the region</p> <p>Subject2:Medieval India-Sultanate Period Sem-4 Medieval India- Mugal Period</p> <p>Provides examples of sources used to study various periods in history</p> <p>Relates key historical developments during medieval period occurring in one place with another</p> <p>Subject3:Glimpses Of The Modern World Part-1 Glimpses Of The Modern World Part-2</p> <p>It will enable students to develop the overall understanding of the modern world</p> <p>It will enhance their perception of the history of the modern world</p>
PROGRAM	T.Y.B.A.
COURSE OUTCOMES	<p>Subject1: Introduction To History</p> <p>Help In Developing Critique,Help Research In Terms Of Formulatiing Hypotheses</p> <p>Subject2: History Of Asia In 20th Century(1914-1992)</p> <p>To provide students with an overall view and broad perspective different movements connected with nationalist aspiration in the region of asia in general</p> <p>To empoeer students to cipe with the challenges of globalization</p> <p>Subject3: History Of World In 20th Century</p> <p>Understand the important developments in the 20th century world</p> <p>To empoeer students to cipe with the challenges of globalization</p>

PROGRAM	M.A. I-II
COURSE OUTCOMES	<p>Subject1: History And Its Method Help In Developing Critique,Help Research In Terms Of Formulatiing Hypotheses</p> <p>Subject2:Histori: Theory And Method Help In Developing Critique,Help Research In Terms Of Formulatiing Hypotheses</p> <p>Subject3:Intellectual History Of Modern World To help the student situate and interpret the cultural manifestation across historical memory which have contributed to the creation of the geopolitical region of modern</p> <p>Subject4:Economic History Of Modern India To acquaint the student with structural and conceptual in Indian economy after coming of the british. To help them understand the process of internalization by Indian s of new economic ideas,principles</p> <p>Subject5:East Asia: Japan (1853-200) To Help The Students To Know Japanese History Especially Afther The Opening Up Of Japan</p> <p>Subject6:Marathas In 17th 18th Century Power Polities Intends To Study The Role Played By The Marathas In The Context Of India</p> <p>Subject7:Early History Of Maharashtra-Satavahana To Rashtrakuto help the understand distinctive features of the developments in Maharashtra</p> <p>Subject8: Ideas And Institutions In Medieval India The course intends to provide and understanding of the social,economic , religious and institutional bases of Medieval india</p> <p>Subject9: Socia- Economic History Of The Mahathas To Study Socia- Economic History Of The Mahathas In An Analytical Way</p> <p>Subject10:Marathas In 17th 18th Century Power Polities Intends To Study The Role Played By The Marathas In The Context Of India</p> <p>Subject11: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</p> <p>Subject12:Approaches To History Help In Developing Critique,Help Research In Terms Of Formulatiing Hypotheses</p> <p>Subject13: Ideas And Institutions In EarlyIndia The course intends to provide and understanding of the social,economic , religious and institutional bases of Medieval india</p> <p>Subject14East Asia: Japan (1853-200) To Help The Students To Know Japanese History Especially Afther The Opening</p>

Up Of Japan
Subject 15 Early History Of Maharashtra-Satavahana To Rashtrakuta help the understand distinctive features of the developments in Maharashtra
Subject 16: Social- Economic History Of The Mahathas To Study Social- Economic History Of The Mahathas In An Analytical Way

Department of English

2020-21

COURSE OUTCOMES: B. A. English

PROGRAM	F.Y.B.A Compulsory English
PROGRAM OUTCOMES	1. 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 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 2. To prepare the students with basic skills in language. 3. To prepare the students with the basics of phonology. 4. To prepare the students for vocabulary and basic Grammar. 5. To prepare the students for better received pronunciation
PROGRAM	S. Y. B.A. Compulsory English
PROGRAM OUTCOMES	1. To develop the skills of the students in English Language. 2. To prepare the students with vocabulary and Grammar. 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. 2. The students get more knowledge of structure and semantics. 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. 2. To broaden the scope of the studies in English with different forms of literature. 3. To get in acquaints with linguistic aspects of English.
COURSE OUTCOMES	. 1. The students get know the literary values. . 2. The students also know about the word formation and vocabulary.

	3. 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. 2. To broaden the scope of the studies in dramatic Poetry with the basics in Drama. 3. To apply the literary values in practical life.
COURSE OUTCOMES	1. The students know the Drama as a form of Literature 2. The students know Human life at the Universal Level 3. The students also know about the different streaks of human life. 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. 2. To broaden the scope of the studies in Lyrical Poetry with the basics in verse. 3. To develop the sense of humanity with the study of poetry.
COURSE OUTCOMES	1. The students know the Poetry as a form of Literature. 2. The students know Human life at the Universal Level. 3. 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. 2. To prepare the students with vocabulary and Grammar. 3. To develop the comprehension level of the students.
COURSE OUTCOMES	1. The students know the skills of communication in English. 2. The students know the different between prose and poetry. 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 G1 and G2. 2. To broaden the scope of the studies in English with the poetry of particular country in English. 3. To enrich vocabulary through learning literature. 4. To get in acquaintance with structure of English.
COURSE OUTCOMES	1. The students know literature of particular country. 2. The students know cultural background of the country. 3. The students also know about structure of English. 4. The students are ready for some jobs in any field of the society.
PROGRAM	T. Y. B.A. English Special (S3)
PROGRAM OUTCOMES	1. To acquaints the students with the novel as form of literature. 2. To broaden the scope of the studies in narrative Poetry with the basics in novel. 3. To apply the literary values in practical life
COURSE OUTCOMES	1. The students know the novel as a form of Literature 2. The students know Human life at the Universal Level 3. The students also know about the different streaks of human life. 4. The students can analyze the novel as 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. 2. To broaden the scope of critical studies in literature. 3. To get in acquaintance with fine arts and poetry. 4 To get know different social trends through literary criticism.
COURSE OUTCOMES	1. The students know how to criticize literature. 2. The students know the Human complexities. 3. The students also know about the different streaks of human life.

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	<ol style="list-style-type: none"> 1. To introduce students to major movements and figure of English literature through the study of selected literary texts. 2. To create literary sensibility and emotional response to the literary text and implant sense of appreciation of literary texts. 3. To expose student to the artistic and innovative use of language employment by the writers. 4. To instill values and develop human concern in student through exposure to literary texts. 5. To enhance literary and linguistic competence of student.
COURSE OUTCOMES	<ol style="list-style-type: none"> 1. The students know the scope of literary theory and the entire picture about literature. 2. The students can think about human life with universal attitude. 3. The students are ready for any competitive exam. 4. The student can join educational field for teaching or research.
PROGRAM	Paper- II: English Literature From: 1798-to the present
PROGRAM OUTCOMES	<ol style="list-style-type: none"> 1. To introduce students to major movements and figures of English literature through study of selected literary texts. 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. 3. To instill values and develop human concern in students through exposure to literary texts. 4. To enhance literary and linguistic competence of students.
COURSE OUTCOMES	<ol style="list-style-type: none"> 1. The students know the scope of literary theory and the entire picture about literature. 2. The students can think about human life with universal attitude. 3. The students are ready for any competitive exam. 4. The student can join educational field for teaching or research.
PROGRAM	Paper-III: Contemporary Studies in English Language
PROGRAM OUTCOMES	<ol style="list-style-type: none"> 1. To introduce student to the basic tools essential for systematic study of language. 2. To acquaint student with the basic concept and issues in linguistic. 3. To introduce them into theoretical perspective and enable them to apply the acquired Linguistic skills in real life situation. 4. To initiate them to various sub-disciplines of linguistic.
COURSE OUTCOMES	<ol style="list-style-type: none"> 1. The students know the English language phonological .morphological and syntactical perspectives. 2. The students can join any field for job. 3. The students can go with knowledge in the teaching field.
PROGRAM	Paper IV: Literary Criticism and Theory
PROGRAM OUTCOMES	<ol style="list-style-type: none"> 1. To introduce students to the nature, function and relevance of literary criticism and theory. 2. To introduce them to various important critical approaches and their tenets. 3. To encourage them to deal with highly intellectual and radical content and thereby develop their logical thinking and analytical ability. 4. To develop sensibility and competence in them for practical application of critical approach to literary
COURSE OUTCOMES	<ol style="list-style-type: none"> 1. The students know the social issues with critical attitude. 2. The students know complex human nature. 3. The student's attitude is humane.

COURSE OUTCOMES: M. A. English**M.A.II PART**

PROGRAM	Paper: I -Indian Writing in English
PROGRAM OUTCOMES	<ol style="list-style-type: none"> 1. To introduce students to major movements and figure of Indian literature in English. 2. To create literary sensibility and emotional response to the literary text and implant sense of appreciation of literary texts. 3. To expose student to the artistic and innovative use of language employment by the writers. 4. To instill values and develop human concern in student through exposure to literary texts. 5. To enhance literary and linguistic competence of student.
COURSE OUTCOMES	<ol style="list-style-type: none"> 1. To introduce students to major movements and figure of Indian literature in English. 2. To create literary sensibility and emotional response to the literary text and implant sense of appreciation of literary texts. 3. To expose student to the artistic and innovative use of language employment by the Writers. 4. To instill values and develop human concern in student through exposure to literary texts. 5. To enhance literary and linguistic competence of student.
PROGRAM	Paper: II-Applied Linguistics
PROGRAM OUTCOMES	<ol style="list-style-type: none"> 1. To acquaint the students with different theoretical and practical aspect of language and Literature Teaching. 2. To acquaint them with different approaches, methods and techniques of teaching English Language and Literature. 3. To sensitize the students to the major issues in ELLT in the Indian context.
COURSE OUTCOMES	<ol style="list-style-type: none"> 1. The students acquaints with the method of teaching. 2. The students acquaints with the language. 3. The students know the teaching of language skills and Testing. 4. The students know the instructional material and classroom issues.

PROGRAM	Paper: III-Indian Literatures in English Translations
PROGRAM OUTCOMES	<ol style="list-style-type: none"> 1. To introduce students to major movements related to Indian literatures and English translations. 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. 3. To instill values and develop human concern in student through exposure to literary texts. 4. To enhance literary and linguistic competence of student.
COURSE OUTCOMES	<ol style="list-style-type: none"> 1. The students know the literatures and English translations. 2. The students can think about the human psychology. 3. To expose student to the artistic and innovative use of language employment by the writers. 4. The students know Human life at the Universal Level 5. The students also know about the different streaks of human life.
PROGRAM	Paper: IV American Literature.
PROGRAM OUTCOMES	<ol style="list-style-type: none"> 1. To introduce students to the major literary movements in America, literary works and writers through selected texts. 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

2020-21

Program	B.A.
Program specific Outcomes	.1हिंदी भाषा का व्यवस्थित और यथोचित ज्ञान .2भावात्मक और सौंदर्यात्मकविकास .3निवेदक और सूत्र संचालक .4प्रकाशकसावददाता,संपादक,
	F.Y.B.A. Sem-I, वैकल्पिक हिंदी प्रश्नपत्र -1A
Course Outcomes Subjectwise	1.छात्रो को गद्य एवं पद्य के रचनाकारो का परिचय देना। 2. छात्रो में राष्ट्रभाषा हिंदी का प्रचार-प्रसार कारना।
	F.Y.B.A. Sem-II, वैकल्पिक हिंदी प्रश्नपत्र -1A
Course Outcomes Subjectwise	1.छात्रो को गद्य एवं पद्य के रचनाकारो का परिचय देना। 2. छात्रो में राष्ट्रभाषा हिंदी का प्रचार-प्रसार कारना।
	S.Y.B.A.Sem-III, (G2) आधुनिक काव्य,कहानी तथा व्यावहारिक हिंदी
Course Outcomes Subjectwise	1.हिंदी भाषा के व्यावहारिक क्षेत्रो से परिचित करना। 2. छात्रो को हिंदी शब्द-युग्म का ज्ञान करना।
	S.Y.B.A.Sem-IV, (G2) आधुनिक हिंदी व्यंग साहित्य तथा व्यावहारिक हिंदी
	1.व्यंग विधा से परिचित कराना।

	2.हिंदी भाषा के व्याकरण की जानकारी देना।
	S.Y.B.A.Sem-III, (S1) काव्यशास्त्र
Course Outcomes Subjectwise	1.छात्रों को रस का स्वरूप,अंग,एवं भेदों का परिचय देना। 2. छात्रों को अलंकार,छंदों का परिचय देना।
	S.Y.B.A.Sem-IV, (S1) साहित्य के भेद
Course Outcomes Subjectwise	1.छात्रों को रस का स्वरूप,अंग,एवं भेदों का परिचय देना। 2. छात्रों को अलंकार,छंदों का परिचय देना।
	S.Y.B.A. III, (S2) मध्ययुगीन काव्य तथा उपन्यास साहित्य
Course Outcomes Subjectwise	1.मध्ययुगीन संत एवं भक्तों के काव्य से छात्रों को परिचित करना। 2. हिंदी उपन्यास के विविध मानदंडों के आधार पर छात्रों में समीक्षण की क्षमता निर्माण करना।
	S.Y.B.A. IV, (S2) मध्ययुगीन काव्य तथा नाटक साहित्य

Course Outcomes Subjectwise	1.मध्ययुगीन संत एवं भक्तों के काव्य से छात्रों को परिचित करना। 2. हिंदी नाटक के विविध मानदंडों के आधार पर छात्रों में समीक्षण की क्षमता निर्माण करना।
	S.Y.B.A. III, MILहिंदी भाषा शिक्षण
Course Outcomes Subjectwise	1.लघुकथा सृजन कौशल विकसित करना । 2.छात्रों में हिंदी भाषा श्रवण,वाचन,भाषण कौशल विकसित करना।
	S.Y.B.A. IV, MILहिंदी भाषा शिक्षण
Course Outcomes Subjectwise	1.लघुकथा सृजन कौशल विकसित करना । 2.छात्रों में हिंदी भाषा श्रवण,वाचन,भाषण कौशल विकसित करना।
	S.Y.B.A. IV, SEC2A अनुवाद स्वरूप एवं व्यवहार (सेम-3)
Course Outcomes Subjectwise	1.अनुवाद के कौशल विकसित करना। 2.अनुवाद के प्रति रुचि निर्माण करना।
	S.Y.B.A. IV, SEC2B माध्यम लेखन
Course Outcomes Subjectwise	1. रोजगार परकदृष्टी का विकास करना। 2. मध्यमो में लेखन के प्रति जागृत करना।
	T.Y.B.A.(G3) हिंदी सामान्यसृजन संदर्भ) 3- (आत्मकथांश:और मैं

Course Outcomes Subjectwise	1. छात्रों को हिंदी आत्मकथा विधा का परिचय करना। 2. छात्रों में अंग्रेजी से हिंदी में अनुवाद करने की कला को विकसित कराना।
	T.Y.B.A.(S3) हिंदी विशेष-आदिकाल से आधुनिक) 3- (काल तक
Course Outcomes Subjectwise	1. हिंदी साहित्य के इतिहास के माध्यम साहित्य और युग जीवन का संबंध विशद करना। 2. हिंदी साहित्य के इतिहास कालखंडों और पृष्ठभूमि का परिचय करना ।
	T.Y.B.A.(S4) हिंदी विशेष-4 काव्यशास्त्र
Course Outcomes Subjectwise	1. छात्रों को रस का स्वरूप, अंग, एवं भेदों का परिचय देना। 2. छात्रों को अलंकार, छंदों का परिचय देना।

Program	M.A.
Program specific Outcomes	अनुसंधान के क्षेत्र में अनुसंधान दाता के रूप में अवसर। अनुवाद के रूप में अनुवादक के रूप में अवसर। साहित्य के क्षेत्र में अवसर। राष्ट्रीयकृत बैंक सरकारी कार्यालय में राजभाषा , अधिकारी

	1. मध्ययुगीन काव्य
Course Outcomes Subjectwise	1. छात्रों को मध्ययुगीन कविओं से परिचित कराना। 2. हिंदी भाषा के प्रचार प्रसार के लिये प्रोत्साहित करना।
	2. कथा साहित्य
Course Outcomes Subjectwise	1. छात्रों को हिंदी के कथा साहित्य से परिचित करना। 2. छात्रों में राष्ट्रभाषा हिंदी का प्रचार-प्रसार कराना।
	भारतीय काव्यशास्त्र
Course Outcomes Subjectwise	1. छात्रों को रस का स्वरूप, अंग, एवं भेदों का परिचय देना। 2. छात्रों को अलंकार, छंदों का परिचय देना।
	4 हिंदी पत्रकारिता
Course Outcomes Subjectwise	1. रोजगार परकदृष्टी का विकास करना। 2. पत्रकारिता का कौशल विकसित करना।
	5 कथेतर गद्य साहित्य
Course Outcomes Subjectwise	1. गद्य विधा की जानकारी देना।
	6 शोध प्रविधि

Course Outcomes Subjectwise	1.शोध दृष्टी का विकास करना। 2.शोध प्रक्रिया एवं शोध प्रबंध लेखन कौशल विकसित करना।
	पाश्च्यात्य काव्यशास्त्र
Course Outcomes Subjectwise	1.छात्रो को रस का स्वरूप,अंग,एवं भेदो का परिचय देना। 2. छात्रो को अलंकार,छंदो का परिचय देना।
	8 हिंदी उपन्यास साहित्य
Course Outcomes Subjectwise	1.छात्रो को उपन्यास विधा का परिचय देना । 2.छात्रो को उपन्यास के प्रति जागृत कारना।
	9 आधीनिक काव्य (आदर्शवादी ,छायावादी तथा अन्य काव्य)
Course Outcomes Subjectwise	1.हिंदी साहित्य के इतिहास के माध्यम साहित्य और युग जीवन का संबध विशद करना। 2. हिंदी साहित्य के इतिहास कालखंडो और पृष्ठभूमि का परिचय करना ।
	10 भाषा विज्ञान
Course Outcomes Subjectwise	1.छात्रो को भाषा की परिभाषा,विशेषताएँ तथा भाषा के विविध रूपो की जानकारी देना। 2. भाषाज्ञान के अन्य विज्ञानो से संबंध विशद करना ।
	11 हिंदी साहित्य का इतिहास (आदिकाल,भाक्तीकाल,रीतीकाल)
Course Outcomes Subjectwise	1.हिंदी साहित्य के इतिहास के माध्यम साहित्य

	<p>और युग जीवन का संबंध विशद करना।</p> <p>2. हिंदी साहित्य के इतिहास कालखंडों और पृष्ठभूमि का परिचय करना ।</p>
	12. संचार माध्यम सिद्धांत और स्वरूप और
Course Outcomes Subjectwise	<p>1. छात्रों को जनासंचार मध्यमों में हिंदी का योगदान बताना।</p> <p>2 छात्रों को संचार मध्यमों के सिद्धांत और स्वरूप से जागृत करना</p>
	13. आधुनिक कविता
Course Outcomes Subjectwise	1.आधुनिक कविता के प्रति रुचि निर्माण करना।
	14. हिंदी भाषा का विकास
Course Outcomes Subjectwise	<p>1.छात्रों को भाषा की परिभाषा विशेषताएँ , तथा भाषा के विविध रूपों की जानकारी देना</p> <p>2.हिंदी भाषा के विकास का क्रम छात्रों को बताना।</p>
	15. हिंदी साहित्य का इतिहास (आधुनिक काल)
Course Outcomes Subjectwise	<p>1.हिंदी साहित्य के इतिहास के माध्यम साहित्य और युग जीवन का संबंध विशद करना।</p> <p>2. हिंदी साहित्य के इतिहास कालखंडों और पृष्ठभूमि का परिचय करना ।</p>
	16:भारतीय लोकसाहित्य

Course Outcomes Subjectwise	1.महाराष्ट्र के लोकसाहित्य का परिचय देना। .2.लोकसाहित्य के विविध प्रकारों से परिचित करना।
-----------------------------	--

BA Marathi 2020-21

Department of Marathi	After Successful completion of three year degree program in Marathi a students should be able to
Programme Outcomes	<ol style="list-style-type: none"> 1.साहित्या संबंधी -मराठी साहित्यासंबंधी रुची निर्माण होते. 2.विशिष्ट कालखंडाच्या पार्श्वभूमीवर साहित्यामागील प्रेरणा प्रवृत्तीचे ज्ञान करून घेणे. 3.विविध प्रकारची लेखनकौशल्ये विकसित करणे 4.साहित्याभ्यासातून जीवनविषयक समज विकसित करण्यास मदत होते 5.आस्वाद घेण्याची डोळस क्षमता विकसित करणे. 6.जागतिकीकरणाच्या विविध क्षेत्रांना सामोरे जाण्यासाठी भाषिक क्षमता विकसित करण्यास मदत होते. 7.व्यक्तिमत्व विकास करण्यास मदत होते.
Programme specific Outcomes	<ol style="list-style-type: none"> 1.समीक्षा करण्याची क्षमता विकसित होते. 2. विद्यार्थ्यांच्या वाङ्मयीन अभिरुचीचा विकास होतो. 3.मराठी साहित्यातील भिन्न भिन्न साहित्य प्रवाह आणि लक्षात घेण्यास मदत होते. 4. विविध लेखनकौशल्ये विकसित करणे. 5.वाङ्मयीन व्यवहार आणि जीवन व्यवहारांचे स्वरूप समजून घेणे.
Course Outcomes B.A. Marathi	
Course	Outcomes
FYBA Marathi Sem. I	
Marathi CC-1A मराठी साहित्य कथा आणि भाषिक कौशल्य विकास	<ol style="list-style-type: none"> 1.मराठी भाषा आणि मराठी साहित्य ,मराठी संस्कृती यांचे अध्ययन करण्यास मदत होते. 2.साहित्यभ्यासातून जीवनविषयक समज विकसित होण्यास मदत होते. 3.कथा या साहित्यप्रकाराची ओळख,होऊन प्रकार ,स्वरूप विकास व वाटचाल लक्षात येते 4.भाषिक कौशल्य विकास होण्यास मदत होते.

<p>Marathi CC-1A</p> <p>मराठी साहित्य एकांकिका आणि भाषिक कौशल्य विकास</p>	<ol style="list-style-type: none"> 1.एकांकिका या साहित्य प्रकाराची ओळख होते. 2.एकांकिका या साहित्यप्रकाराचे स्वरुप,प्रकार, आणि वाटचाल याची माहिती होते. 3.मराठीतील निवडक एकांकिकांचे आकलन आस्वाद आणि मूल्यमापन होण्यास मदत होते. 4.भाषिक कौशल्य विकास करताना जीवनविषयक दृष्टी निर्माण होते.
<p>FYBCom Marathi Sem. I</p>	
<p>Marathi 117 AEC भाषा, साहित्य आणि कौशल्य विकास</p>	<ol style="list-style-type: none"> 1.विविध क्षेत्रातील भाषा व्यवहाराचे स्वरुप समजून घेण्यास मदत होते. 2.विविध क्षेत्रातील मराठी भाषेच्या वापराची कौशल्ये विकसित करण्यासाठी मदत होते. 3.विविध क्षेत्रातील कर्तृत्ववान व्यक्तीच्या कार्याची व विचाराची ओळख करून घेणे. 4.विद्यार्थ्यांमध्ये नैतिक ,व्यावसायिक व वैचारिक मूल्यांची जोपासना करणे.
<p>Marathi 117 AEC भाषा आणि कौशल्येविकास</p>	<ol style="list-style-type: none"> 1.विविध क्षेत्रातील प्रशासकीय भाषा व्यवहाराचे स्वरुप समजून घेण्यास मदत होते. 2.विविध क्षेत्रातील मराठी भाषेच्या वापराची कौशल्ये विकसित करण्यासाठी मदत होते. 3. विविध लेखन प्रकारांचा अभ्यास व प्रत्यक्ष लेखनाची कौशल्य वापरण्यास सक्षमता प्राप्त होते.
<p>SYBA Marathi Sem. I</p>	
<p>Marathi – CC -1C</p> <p>भाषिक कौशल्य विकास आणि आधुनिक मराठी साहित्य प्रकार कादंबरी</p>	<ol style="list-style-type: none"> 1.कादंबरी या साहित्यप्रकाराची ओळख होते. 2.कादंबरी या साहित्य प्रकाराचे स्वरुप,घटक वाटचाल,प्रकार याचे आकलन होते. 3.नेमलेल्या कादंबरीचे आकलन , आस्वाद आणि मूल्यमापन करण्याची दृष्टी प्राप्त होते. 4.भाषिक कौशल्य विकास करून घेण्यास मदत होते.
<p>Marathi – DSE 1A</p> <p>आधुनिक मराठी साहित्य प्रकार प्रकाशवाटा</p>	<ol style="list-style-type: none"> 1.आत्मचरित्र या साहित्यप्रकाराचे स्वरुप ,संकल्पना समजून घेण्यास मदत होते. 2. आत्मचरित्र या साहित्यप्रकाराच्या प्रेरणा आणि वाटचाल याचे ओळख करून घेतात येते. 3.ललित गद्यातील अन्य साहित्यप्रकारांच्या तुलनेत आत्मचरित्राचे वेगळेपण समजून घेता येते. 4.नेमलेल्या आत्मचरित्राचे आकलन ,आस्वाद व मूल्यमापनाची दृष्टी निर्माण होते.
<p>Marathi – DSE 2A</p> <p>साहित्यविचार</p>	<ol style="list-style-type: none"> 1. साहित्याचे स्वरुप समजून घेतो. 2.वाङ्मयीन मूल्यांचा परिचय होतो. 3.साहित्याचे प्रयोजने जाणून घेतो. 4.साहित्य आणि समाज यांच्यातील परस्पर संबंध समजून घेतो. 5.साहित्य निर्मितीचे तत्व जाणतो.
<p>Marathi – CC -1D</p> <p>भाषिक कौशल्य विकास आणि</p>	<ol style="list-style-type: none"> 1.ललितगद्य या साहित्यप्रकाराचे स्वरुप ,घटक व वाटचाल याविषयी अकलन होते.

आधुनिक मराठी साहित्य प्रकार ललितगद्य	2.नेमलेल्या ललित गद्याचे आकलन , आस्वाद आणि विश्लेषण करण्याची दृष्टी प्राप्त होते. 3.भाषिक कौशल्यविकास होण्यास मदत होते.
Marathi – DSE 2A मध्ययुगीन मराठी साहित्य निवडक मध्ययुगीन मराठी गद्य पद्य	1. marazl saaih%yaatlla ivaivaQa Qama- saMP` adayaamCao mah%va jaaNatao. 2. वाङ्मयेतिहासाची संकल्पना ,स्वरूप,प्रेरणा प्रवृत्ती समजून घेता येते. 3.मराठी वाङ्मयाचा कालखंड आणि त्याची भाषा याचे आकलन होते. 4. पंडित कवी,शाहिर कवी व बखर वाङ्मयाचे स्वरूप समजून घेता येते .
Marathi – DSE 2B साहित्यासमीक्षा	1.समीक्षेची संकल्पना,स्वरूप यांचा परिचय करून घेता येतो. 2. साहित्य आणि समीक्षा यांचे परस्पर संबंध लक्षात येतात. 3.साहित्यप्रकारानुसार समीक्षेचे स्वरूप समजून घेण्यास मदत होते. 4. ग्रंथ परिचय ,परीक्षण व समीक्षण यातील फरक समजून घेता येतो.
Marathi- SEC 2A प्रकाशन व्यवहार आणि संपादन	1.प्रकाशन व्यवहार आणि संपादन यासाठी आवश्यक कौशल्ये संपादन करता येतात. 2.प्रकाशन व्यवहार आनि संपादन यासाठी आवश्यक प्रशिक्षण घेता येते. 3. प्रकाशन व्यवहार आणि संपादन यासाठी प्रात्यक्षिकासह उपयोजनाची कौशल्ये मिळविण्यास मदत होते. 4. प्रकाशन संस्था जाहिरात,छापखाने,वृत्तपत्र कार्यालये,वितरण संस्था ,ग्रंथविक्री दुकाने, फ्लेक्स निर्मिती केंद्र, वार्ताहर यांना भेटी देऊन प्रशिक्षण घेता येते.
Marathi- SEC 2B उपयोजित लेखन कौशल्य	1.जाहिरात लेखन ,मुलाखत लेखन आणि संपादन यासाठी आवश्यक कौशल्ये मिळण्यास मदत होते. 2 .जाहिरात लेखन ,मुलाखत लेखन आणि संपादन यासाठी आवश्यक प्रशिक्षण घेता येते. 3.जाहिरात लेखन ,मुलाखत लेखन आणि संपादन यासाठी प्रत्यक्षिकासह उपयोजनाची कौशल्ये मिळतात.
SYBSc Marathi	
उपयोजित मराठी AECC 2A	1.मराठी भाषा आणि साहित्य यांच्या परस्पर संबंधांची जाणीव करून घेता येते 2.भाषा उपयोजनातील विविध कौशल्याचा विकास होतो. 3.प्रसारमाध्यमांसाठी लेखन कौशल्याचा विकास होतो.
मराठी साहित्य AECC 2B	1.मराठी साहित्याविषयी आवड निर्माण होण्यास मदत होते. 2.विज्ञान साहित्यविषयक आकलन क्षमता वाढते. 3.साहित्याच्या अभ्यासातून जीवनविषयक समज निर्माण होण्यास मदत होते.
TYBA Marathi (Annual Pattern)	
Marathi – 3024 आधुनिक मराठी साहित्य व व्यावहारीक व उपयोजित मराठी	1.आधुनिक मराठी साहित्यातील विविध साहित्यप्रकारांचा परिचय होतो. 2.साहित्याबद्दलची अभिरुची विकसित होऊन कलाकृतीचा आस्वाद घेण्याची क्षमता विकसित होते. 3.भाषेचे यथोचित आकलन करून तिचा वापर करण्याची क्षमता विकसित होते.

	4.निबंध व प्रवासवर्णन या साहित्य प्रकाराचे तात्विक विवेचन आत्मसात करतो.
Marathi – 3025 साहित्यविचार विशेष स्तर 3	1. साहित्याचे स्वरूप समजून घेतो. 2.वाङ्मयीन मूल्यांचा परिचय होतो. 3.साहित्याचे प्रयोजने जाणून घेतो. 4.साहित्य आणि समाज यांच्यातील परस्पर संबंध समजून घेतो. 5.साहित्य निर्मितीचे तत्व जाणतो.
Marathi -3026 भाषाविज्ञान विशेष स्तर 4	1.भाषेचे स्वरूप व कार्य , भाषेच्या अभ्यासाचे महत्व भाषेच्या प्रमुख अंगांचा परिचय करून घेतो. 2. भाषेचे मानवी जीवनातील कार्य व महत्व जाणून घेतो. 3.वेगवेगळ्या भाषाभ्यास पध्दतीचे वेगळेपण व महत्व जाणून घेतो. 4.मराठी भाषेचा उत्पत्तीकाल जाणून तत्कालीन भाषिक स्थित्यंतराचा परिचय होतो. 5.मराठी भाषेचा ऐतिहासिक परिचय होतो.

Course Outcomes M.A. Marathi

Department of Marathi	After successful completion of two year degree program in Marathi a student should be able to;
Programme Outcomes	1.विद्यार्थ्याला आपल्या आवडीचे संशोधन क्षेत्र निश्चित करता येते. 2.मराठी भाषा आणि वाङ्मयाचे प्रगत ज्ञान प्राप्त होते. 3.समकालीन वाङ्मयीन प्रवाहांचे नीट आकलन होते. 4.वाङ्मयीन प्रश्नांविषयी विचार करण्याची जाण निर्माण होते. 5.वाङ्मयीन आणि जीवनविषयक जाणीव प्रौढ होते. 6.चिकित्सक अभ्यासाची क्षमता विकसित होते. 7.विद्यार्थ्यांच्या लेखन गुणांना उत्तेजन मिळते.
Programme specific Outcomes	1.विशिष्ट कालखंडातील साहित्याच्या व्याप्ती बदल जाण निर्माण होण्यास मदत करणे.अशा विषयाच्या चिकित्सेची समज वाढविणे., 2.साहित्यकृतीच्या साहित्यप्रकाराच्या तौलनिक अभ्यासाबाबत दिशा,व्याप्ती आणि मर्यादा यांची समज निर्माण होण्यास मदत करणे, अशा अभ्यासाची क्षमता वाढविणे. 3.साहित्याच्या व्यवच्छेदक लक्षणाबाबत विचारांची आणि वाङ्मयीन मूल्यमापनाच्या दृष्टीची समज वाढते. 4.भाषेचे विविध व्यवहार आणि साहित्याच्या संदर्भातील भाषाव्यवहार याविषयी आकलनाची क्षमता वाढविणे. 5.साहित्याभ्यासाच्या संदर्भातील विषयांची, त्यांच्या प्रस्तुततेविषयीची जाण निर्माण करणे.
Course Sem-I	Outcomes

भाषा व्यवहार आणि भाषिक कौशल्य भाग 1	<ol style="list-style-type: none"> 1.प्रमाणभाषा संकल्पना स्वरुप आणि आवश्यकता याचे महत्वलक्षात येते. 2.विविध साहित्यसंस्थांचे वाडमयीन कार्य लक्षात घेता येते. 3.मुलाखतीचे स्वरुप प्रयोजन व प्रकार यांची अपखख होते. 4.अर्जलेखन, पत्रलेखन याचे स्वरुप व प्रकार लक्षात घेतो.
आर्वाचीन मराठी वाडमयाचा इतिहास 1818 ते1920	<ol style="list-style-type: none"> 1.वाडमयेतिहासाची संकल्पना ,स्पष्ट होते. 2.वाडमयनिर्मितीमागील प्रेरणा प्रवृत्तीचा कालिक संदर्भ लक्षात येतो. 3.अर्वाचीन कालखंडातील सामाजिक धार्मिक, राजकीय, सांस्कृतिक आणि वाडमयीन पार्श्वभूमी लक्षात येते. 4.अर्वाचीन कालखंडातील विविध साहित्य प्रकारांचे स्वरुप व वाटचाल लक्षात घेतो.
Mararathi – 10433 ऐतिहासिक भाषाविज्ञान	<ol style="list-style-type: none"> 1.भाषेचे मानवी जीवनातील कार्य व महत्व जाणून घेतो. 2.वेगवेगळ्या भाषाभ्यास पध्दतीचे वेगळेपण व महत्व जाणून घेतो. 3.भाषा कुलसंकल्पना स्वरुप व कार्य समजावून घेतो. 4.मराठी भाषा विकासाचे कालिक टप्पे लक्षात घेतो. 5.भाषिक परिवर्तनाची संकल्पना स्वरुप व कारणे यांची माहिती होते.
Mar – 10434 ग्रामीण साहित्य	<ol style="list-style-type: none"> 1.स्वातंत्र्यानंतरच्या कालखंडात ग्रामीण साहित्याच्या निर्मितीची कारण परंपरा समजावून घेतो. 2.ग्रामीण साहित्याचे स्वरुप व कार्य यांची चिकित्सा करतो. 3.ग्रामीण साहित्यातील विविध वाडमय प्रकाराचा विकास कसा होत गेला याचे मूल्यमापन करतो. 4.ग्रामीण साहित्याने दिलेले योगदान,त्याच्या विकासाची गती,दिशा यांची मीमांसा करतो.
Course Sem-II	Outcomes
भाषा व्यवहार आणि भाषिक कौशल्य भाग 2	<ol style="list-style-type: none"> 1.भाषांतराचे स्वरुप,आवश्यकता व महत्व लक्षात घेतो. 2.भाषांतर ,अनुवाद,भावानुवाद आणि रुपांतर यातील साम्यभेद लक्षात घेतो. 3.निवेदन कौशल्याची आवश्यकता,तंत्रे,शैली व गुणविशेष याविषयी माहिती घेतो. 4.वाडमयीन प्रकल्पलेखनाचे स्वरुप ,घटक याचे आकलन होते.
आर्वाचीन मराठी वाडमयाचा इतिहास 1920 ते 2010	<ol style="list-style-type: none"> 1.अर्वाचीन मराठी साहित्यातील सामाजिक ,धार्मिक राजकीय विचारप्रवाह व साहित्याचा सहसंबंध लक्षात येतो. 2.स्वातंत्र्यानंतरच्या कालखंडातील सामाजिक ,धार्मिक,राजकीय विचाराच्या बदलाची जाणीव होते. 3.साहित्यात निर्माण झालेल्या नवपरिवर्तनाची जाणीव होते. 4.खाजगिकरण उदारीकरण व जागतिकिकरणाच्या धोरणाचा स्वीकार झाल्यानंतर साहित्याचे वेगळेपण स्पष्ट होते.
Marathi – 20433 सामाजिक भाषाविज्ञान सामाजिक	<ol style="list-style-type: none"> 1. भाषा आणि समाज यांचे महत्व जाणतो. 2.सामाजिक भाषा विज्ञानाची नवी संकल्पना जाणतो.

	<p>3.समाजातील भाषा उपयोजनातील विविधता समजावून घेतो.</p> <p>4.भाषा आणि विविध क्षेत्रीय वापराचे महत्व समजावून घेतो.</p> <p>5.प्रमाणभाषा आणि परभाषा संपर्काचे स्वरूप जाणतो.</p>
<p>Marathi – 20434</p> <p>दलित साहित्य</p>	<p>1.स्वातंत्र्यप्राप्तीनंतरच्या कालखंडात दलित साहित्याच्या निर्मितीची कारणपरंपरा समजावून घेतो.</p> <p>2.दलित साहित्याचे स्वरूप कार्य यांची चिकित्सा करतो.</p> <p>3.दलित साहित्याने निर्माण केलेल्या विविध वाङ्मयप्रकाराच्या विकासाचे मूल्यमापन करतो.</p> <p>4.दलित साहित्यातून व्युक्त होणाऱ्या वेदनांचे व विद्रोहाचे स्वरूप जाणून घेतो.</p>
Course Sem-III	Outcomes
<p>प्रसारमाध्यमांसाठी लेखन कौशल्ये भाग 1</p>	<p>1.प्रसारमाध्यमांसाठी लेखन कौशल्ये आत्मसात करता येते.</p> <p>2. दृकश्राव्य नवमाध्यमासाठी लेखनाची क्षमता विकसित होते.</p> <p>3.प्रसारमाध्यमांच्या स्वरूपाचे ज्ञान करून घेता येते.</p> <p>4.प्रसारमाध्यमांचे समाजातील महत्व लक्षात येते.</p>
<p>साहित्य समीक्षा</p>	<p>1. साहित्य आणि समीक्षा व्यवहाराची समज वाढीस लागते.</p> <p>2.समीक्षेची संकल्पना समजून घेतो.</p> <p>3.समीक्षा व्यवहारातील मूल्यकल्पनांचा परिचय करून घेतो.</p> <p>4. विविध समीक्षा पध्दती जाणून घेतो.</p> <p>5.मराठी साहित्य समीक्षेची परंपरा समजून घेतो</p>
<p>नेमलेल्या मध्ययुगीन साहित्यकृतीचा अभ्यास</p>	<p>1.मध्ययुगीन कालखंडातील साहित्यप्रकाराची ,संकल्पना व स्वरूप लक्षात घेता येते.</p> <p>2.साहित्यकृतीची वैशिष्ट्ये जाणून घेता येतात.</p> <p>3. मध्ययुगीन मराठी साहित्यकृतीची वाङ्मयीन व जीवनमूल्ये जाणून घेता येतात.</p>
<p>Marathi – 30434</p> <p>लोकसाहित्याची मुलतत्वे आणि मराठी लोकसाहित्य</p>	<p>1.लोकसाहित्याचे स्वरूप समजावून घेतो.</p> <p>2.लोकसाहित्याची व्यापकता व सर्वसमावेसकता समजून घेतो.</p> <p>3.लोकसाहित्यातील व्यापकता व सर्वसमावेसकता समजून घेतो.</p> <p>4.लोकसाहित्यातील सामाजिक , धार्मिक सांस्कृतिक जाणिवा स्पष्ट होतात.</p>
Course Sem- IV	Outcomes
<p>प्रसारमाध्यमांसाठी लेखन कौशल्ये भाग 2</p>	<p>1.माहितीपटासाठी लेखनकौशल्याची क्षमता विकसित होते.</p> <p>2.चित्रपटासाठी पटकथालेखनाचे स्वरूप समजून घेण्यास मदत होते.</p> <p>3.लिखित स्वरूपाच्या नवमाध्यमांसाठी लेखन क्षमता प्राप्त करता येते.</p> <p>4.दृकश्राव्य स्वरूपाच्या नवसमाजमाध्यमांसाठी लेखन कौशल्य प्राप्त करता येते.</p>
<p>साहित्य संशोधन</p>	<p>1.संशोधनाची संकल्पना ,प्रयोजने आणि विविध संशोधन पध्दती समजावून घेता येतात.</p>

	<p>2.वाङ्मयीन संशोधनाच्या विविध अभ्यास क्षेत्राचा परिचय करून घेता येतो.</p> <p>3.आंतर्विद्याशाखीय संशोधनाचे स्वरूप आणि महत्त्व लक्षात येते.</p> <p>4.संशोधन करण्याची क्षमता व दृष्टी विकसित होते.</p>
नेमलेल्या मध्ययुगीन साहित्यकृतीचा अभ्यास	<p>1.कालखंड आणि साहित्यकृतीच्या निर्मितीचा अनुबंध शोधता येतो.</p> <p>2.मध्ययुगीन संत परंपरेचा अभ्यास करण्यास मदत होते.</p> <p>3.संत साहित्य आणि समज जीवन यांचा अनुबंध लक्षात येतो.</p>
Marathi – 30434 लोकसाहित्याची मुलतत्वे आणि मराठी लोकसाहित्य	<p>1. लोकसाहित्याचे स्वरूप समजून घेतो.</p> <p>2.लोकसाहित्याची व्यापकता व सर्वसमावेशकता समजून घेतो.</p> <p>3.लोकसाहित्यातील विविध कला प्रकार समजून घेतो.</p> <p>4.लोकसाहित्यातील सामाजिक ,धार्मिक अनुबंध स्पष्ट करून घेतो</p>

PROGRAMME OUTCOMES: B.Com (2020-21)

Course Outcomes B.Com

S.N.	Course	Course Outcomes
1	F.Y. B.Com. Semester: I Financial Accounting- I (112)	<p>Outcomes:-</p> <p>1) To impart the knowledge of various accounting concepts</p> <p>2) To create awareness about application of these Concepts in business world.</p> <p>3) To impart skills regarding Computerized Accounting</p> <p>4)To impart knowledge regarding finalization of accounts Of various establishments.</p>
1	F.Y. B.Com. Semester: I Business Economics (Micro)-I (113)	<p>Outcomes:-</p> <p>1)To impart knowledge of business economics</p> <p>2) To clarify micro economic concepts</p> <p>3) To analyze and interpret charts and graphs</p> <p>4) To understand basic theories, concepts of micro economics and their application</p>
1	F.Y. B.Com. Semester: I Business Mathematics & Statistics- I (114 (A)	<p>Outcomes:-</p> <p>1)To introduce the basic concepts in Finance and Business Mathematics and Statistics</p> <p>2) To familiar the students with applications of Statistics and Mathematics in Business</p> <p>3) To acquaint students with some basic concepts in Statistics.</p> <p>4) To learn some elementary statistical methods for analysis of data.</p> <p>5)The main outcome of this course is that the students are able to analyze the data by using some elementary statistical methods</p>
1	F.Y.B.Com. Semester: I BANKING & FINANCE- I (Fundamentals of Banking I) (115 – B)	<p>Outcomes:-</p> <p>1) To provide knowledge of fundamentals of Banking</p> <p>2)To create awareness about various banking concepts</p> <p>3) To conceptualize banking operations.</p>

1	F.Y.B.Com. Semester: I Marketing and Salesmanship- I (Fundamentals of Marketing) (116 – C)	Outcomes:- 1) To introduce the basic concepts in Marketing. 2) To give the insight of the basic knowledge of Market Segmentation and Marketing Mix 3) To impart knowledge on Product and Price Mix. 4) To establish link between commerce, business and Marketing. 5) To understand the segmentation of markets and Marketing Mix. 6) To enable students to apply this knowledge in practicality by enhancing their skills in the field of Marketing.
1	F.Y.B.Com. Semester: II Financial Accounting- II (122)	Outcomes:- 1) To impart knowledge of various software used in accounting 2) To impart knowledge about final accounts of charitable trusts 3) To impart knowledge about valuation of intangible assets 4) To impart knowledge about accounting for leases

1	F.Y.B.Com. Semester: II Business Economics (Micro) - II (123)	Outcomes:- 1) To understand the basic concepts of Micro economics. 2) To understand the tools and theories of economics for solving the problem of decision making by consumers and Producers. 3) To understand the problem of Scarcity and choices.
1	F.Y.B.Com. Semester: II Business Mathematics and Statistics – II (124 (A))	Outcomes:- 1) To introduce the basic concepts in Finance and Business Mathematics and Statistics 2) To familiar the students with applications of Statistics and Mathematics in Business 3) To acquaint students with some basic concepts in Statistics. 4) To learn some elementary statistical methods for analysis of data. 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. Semester: II Banking and Finance FUNDAMENTALS OF BANKING – II [125(B)]	Outcomes:- 1) To develop the working capability of students in banking sector 2) To Make the Students aware of Banking Business and practices. 3) To enlighten the students regarding the new concepts introduced in the banking system.

1	F.Y.B.Com. Semester: II Marketing and Salesmanship- Fundamental of Marketing- II [126 (C)]	Outcomes:- 1)To introduce the concept of Salesmanship. 2)To give insight about various Techniques required for the salesman. 3)To inculcate the importance of Rural Marketing. 4)To acquaint the students with recent trends in marketing and social media marketing.
2	S Y B Com (Semester III) Business Communication-I(231)	Outcomes:- 1) To understand the concept, process and importance Of communication. 2) To develop awareness regarding new trends in Business communication. 3) To provide knowledge of various media of Communication. 4) To develop business communication skills through the Application and exercises.
2	S Y B Com (Semester III) CORPORATE ACCOUNTING –III (232)	Outcomes:- 1)To acquaint the student with knowledge about various Concepts , Objectives and applicability of some important accounting standards associated with to Corporate accounting. 2. To develop understanding among the students on the difference between commencement and incorporation of a company and the accounting treatment for transactions during the two phases. 3. To update the students with knowledge for preparation of final accounts of a company as per Schedule III of the Companies Act 2013 4. To empower to students with skills to interpret the financial statements in simple and summarized manner for Effective decision making process. 5. To acquaint the student with knowledge about various Concepts , Objectives and applicability of some important accounting standards associated with to Corporate accounting.
2	S.Y. B. Com (Semester III) BUSINESS ECONOMICS (MACRO) (233)	Outcomes:- 1) The objective of the course is to familiarize the students the basic concept of Macro Economics and Application. 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. 5) To introduce the various concepts of National Income.

2	S.Y. B.Com (Semester III) BUSINESS MANAGEMENT -I (234)	Outcomes:- 1)To provide basic knowledge and understanding About various concepts of Business Management. 2)To help the students to develop cognizance of the Importance of management principles. 3) To provide an understanding about various functions of management 4)To provide them tools and techniques to be used in The performance of the managerial job.
2	S.Y. B.Com (Semester III) Elements of Company Law (235)	Outcomes:- 1) To impart students with the knowledge of Fundamentals of Company Law. 2) To update the knowledge of provisions of the Companies Act of 2013. 3) To apprise the students of new concepts involving in company law regime. 4) To acquaint the students with the duties and Responsibilities of Key Managerial Personnel. 5) To impart students the provisions and procedures Under company law.
2	S.Y. B.Com (Semester III) Banking and Finance-I (Indian Banking System - I)	Outcomes:- 1.To provide the knowledge about Indian Banking System. 2.To create the awareness about the role of banking in Economic development. 3. To provide the knowledge about working of Central Banking in India. 4. To know the functioning of Private and public-sector banking in India.
2	S.Y. B.Com (Semester III) Cost and Works Accounting –I (BASICS OF COST ACCOUNTING) 236(E)	Outcomes:- To Impart The Knowledge Of: 1)To prepare learners to know and understand the basic Concepts of cost. 2) To understand the elements of cost. 3) To enable students to prepare a cost sheet. 4) To facilitate the learners to understand, develop and Apply the techniques of inventory control.
2	S.Y. B.Com (Semester III) Marketing Management-I (236(H))	Outcomes:- 1) To introduce the concept of Marketing Management. 2) To give the students the basic knowledge of 3) Marketing Management to be a successful modern marketer. 4) To inculcate knowledge of various aspects of marketing management through practical approach. 5) To interpret the issues in marketing and their solutions by using relevant theories of marketing management.
2	S.Y.B.Com. (Semester IV) BUSINESS COMMUNICATION-II	Outcomes:- 1) To understand the concept, process and importance of communication. 2) To acquire and develop good communication skills requisite for business correspondence. 3) To develop awareness regarding new trends in business communication. 4) To provide knowledge of various media of communication. 5) To develop business communication skills through the application and exercises.

2	S.Y.B.Com. (Semester IV) CORPORATE ACCOUNTING-II	Outcomes:- 1) To acquaint the student with knowledge of corporate policies of investment for expansion and growth through purchase of stake in or absorption of smaller units. 2) To develop the knowledge among the student about consolidation of financial statement with the process of holding. 3) To update the students with knowledge of the process of liquidation of a company 4) To introduce the students with the recent trends in the field of accountancy
2	S.Y.B.Com. (Semester IV) BUSINESS ECONOMICS (MACRO)-II	Outcomes:- 1) To familiarize the students to the basic theories and Concepts of Macro Economics and their application. 2) To understand the theories of money. 3) To understand the phases of trade cycle and policy Measures to elongate the trade cycle. 4) To understand various concepts related to public Finance. 5) To understand credit creation of banks and money Measures of RBI.
2	S.Y.B.Com. (Semester IV) BUSINESS MANAGEMENT-II	Outcomes:- 1) To provide basic knowledge and understanding About various concepts of Business Management. 2) To help the students to develop cognizance of the Importance of management principles. 3) To provide an understanding about various functions of management 4) To provide them tools and techniques to be used in The performance of the managerial job.
2	S.Y.B.Com. (Semester IV) ELEMENTS OF COMPANY LAW-II (245)	Outcomes:- 1) To develop general awareness among the students about management of company 2) To have a comprehensive understanding about Key managerial Personnel of company and their role in Company administration. 3) To acquaint the students about E Governance and E Filing under the Companies Act, 2013. 4) To equip the students about the various meetings of Companies and their importance. 5) To make students capable of becoming good human Resource of the corporate sector.
2	S.Y.B.Com. (Semester IV) BANKING & FINANCE-II [246(B)]	Outcomes:- 1) To provide the knowledge of Cooperative Banking in India 2) To analyze the functioning of Development Banking 3) To create the awareness about Banking Sector Reforms 4) To understand the role of various committees on Banking Sector Reforms.
2	S.Y.B.Com. (Semester IV) COST & WORKS ACCOUNTING-II (246-E)	Outcomes:- 1) To know the documents that are used in stores and How to calculate the issuing price of material. 2) To provide knowledge to students on classification And codification. 3) To equip students with knowledge regarding the Ascertainment of labour cost. 4) To understand the concept of payroll.

		<p>5) To know the concepts of labour turnover and merit Rating.</p> <p>6) To understand recent trends in cost Accounting.</p>
2	S.Y.B.Com. (Semester IV) MARKETING MANAGEMENT –II (246-H)	<p>Outcomes:-</p> <p>1) To create awareness and impart knowledge about the basics of Marketing Management which is the basic Foundation of Marketing subject.</p> <p>2) To orient the students in recent trends in marketing Management.</p> <p>3) To understand the concept of Green Marketing.</p> <p>4) To enable students to apply this knowledge in practical by enhancing their skills in the field of Marketing.</p>
3	T.Y. B.Com. Business Regulatory Framework (Mercantile Law) (301)	<p>Outcomes:-</p> <p>1) To acquaint students with the basic concepts, terms & provisions of Mercantile and Business Laws.</p> <p>2. To develop the awareness among the students regarding these laws affecting business, trade and Commerce.</p>
3	T.Y. B.Com. Advanced Accounting (302)	<p>Outcomes:-</p> <p>1) To impart the knowledge of various accounting Concepts.</p> <p>2) To instill the knowledge about accounting Procedures, methods and techniques.</p> <p>3) To acquaint them with practical approach to Accounts writing by using software package.</p>
3	T.Y. B.Com. Indian & Global Economic Development [303 (A)]	<p>Objectives:</p> <p>1) To expose students to a new approach to the Study of the Indian Economy.</p> <p>2) To help the students in analyzing the present status of the Indian Economy.</p> <p>3) To enable students to understand the process of Integration of the Indian Economy with other economics of the world.</p> <p>4) To acquaint students with the emerging issues in Policies of India's foreign trade.</p>
3	T.Y. B.Com. Auditing & Taxation (304)	<p>Outcomes:-</p> <p>The Study of Various Components of this course will enable the students:</p> <p>1. To acquaint themselves about the concept and principles of Auditing, Audit process, Assurance Standards, Tax Audit, and Audit of computerized Systems.</p> <p>2. To get knowledge about preparation of Audit report.</p> <p>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 Act, 1961.</p>
3	T.Y. B.Com. Banking & Finance Special Paper II (305 – b)	<p>Outcomes:-</p> <p>1) To acquaint the students with Financial Markets And it's various segments.</p> <p>2) To give the students and understanding of the Operations and developments in financial markets in India.</p> <p>3) To enable them to gain an insight into the Functioning and role of financial institutions in the Indian Economy.</p>

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

PROGRAMME OUTCOMES: M.Com (2020-21)

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

Course Outcomes M.Com

S.No.	Course	Course Outcomes
1	M.Com. Part I (Semester I) Management Accounting (101)	Outcomes:- 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:- 1)To introduce the students to the emerging changes in the modern business environment 2)To develop the analytical , technical and managerial skills of students in the various areas of Business Administration 3)To empower to students with necessary skill to become effective future managers and leaders 4)To develop Technical skills among the students for designing and developing effective Functional strategies for growth and sustainability of business
1	M.Com. Part I (Semester I) Production & Operation Management (113-F)	Outcomes:- 1)To understand and develop deep insight of Production & Operation Management. 2)To understand & identity business problems involving operational function, planning and control, design Development and quality management. 3)Demonstrate awareness and importance of application, Operation and supply chain management. 4)To develop skills necessary to effectively analyze and synthesize the many inter relationship inherent in Complex socio-economic productive systems. 5) To increase the knowledge and perspective to gain from emerging trends in production and operation Management.
1	M.Com. Part I (Semester I) Financial Management (114-F)	Outcomes:- 1)To acquaint the student with knowledge of various Financial Management terminologies (Investment ,Credit Planning , Working Capital Management 2)To understand the concepts relating to Financing & Financial Statement Analysis 3)To utilize the information gathered to reach an optimum conclusion by a process of reasoning 4)To enable the students to use their learning to evaluate , make decisions and provide recommendations
1	M.Com. Part I (Semester II) Financial Analysis & Control (201)	Outcomes:- 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) Industrial Economics (202-A)	Outcomes:- 1) To study the basic concepts of Industrial Economics. 2)To study the significance and problems of Industrialization. 3)To study the impact of Industrialization on Indian Economy.

1	M.Com. Part I (Semester II) Business Ethics and Professional Values (213-F)	Outcomes:- 1)To understand How companies ethically Operate. 2) To understand how CSR activities help the Society for better living. 3) To understand how ethical practices can be Adopted in different areas of business. 4)Awareness on the importance of environmental issues and Sustainable Development.
1	M.Com. Part I (Semester II) Elements of Knowledge Management (214-F)	Outcomes:- 1) Conceptual Clarity 2) Analytical ability 3) Application Oriented Skills 4) Managerial skills
2	M.Com. Part II (Semester III) Business Finance. (301)	Outcomes:- To enable students to acquire sound knowledge of concepts, nature and structure of business finance.
2	M.Com. Part II (Semester III) Research Methodology for Business. (302)	Outcomes:- 1)To acquaint the students with the areas of Business Research Activities. 2)To enhance capabilities of students to conduct the research in the field of business and social sciences. 3)To enable students, in developing the most appropriate methodology for their research studies. 4) To make them familiar with the art of using different research methods and techniques
2	M.Com. Part II (Semester III) Human Resource Management (313-F)	Outcomes:- 1)To acquaint the students with in-depth knowledge Of HRM. 2)To inculcate among students various practices Followed by HR managers. 3)To create understanding about recent trends in HRM
2	M.Com. Part II (Semester III) Organizational Behavior (314-F)	Outcomes:- 1) To make the students understand various concepts of organisation behaviour 2)To provide in depth knowledge about process of formation of group behaviour in an organization set up
2	M.Com. Part II (Semester IV) Capital Market and Financial Services (401)	Outcomes:- 1.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.
---	--	--

Dept-BBA(C.A)(2020-2021)

Department of BCA	After successful completion of three year degree program in Computer a student should be able to;
Programme Outcomes	PO1 :To produce skill oriented human resource. PO2:To impart practical skills among students. • PO3:To make industry ready resource. • PO4: To bring the spirit of entrepreneurship.
Programme Specific Outcomes	PSO1: Graduates will demonstrate knowledge and understanding of computer science principles and apply these to manage projects and in multi-disciplinary environment.
	PSO2: Graduates will show the understanding of impact of computer based solution on the society and also will be aware of contemporary issues
	PSO3: Graduates will demonstrate knowledge of professional and ethical responsibilities.
	PSO4: Graduates are asked to demonstrate an environmental projects to overcome the issues related to environment and have a detailed overview of environmental issuesolutions.

Programme outcomes, Programme Specific Outcomes and Course Outcomes(2020-21)

Sr. No.	Course	Course Outcomes
1.	FYBBA(C.A) Business Communication Skills (101)	1The role of communication in personal and business world 2. To understand system and communication and their utility 3. To develop proficiency in how to write business letters and other communications in required
1	FYBBA(C.A) Principles of Management (102)	1.To understand basic concept regarding org. Business Administration 2.To examining how various management principles 3. To develop managerial skills among the students

1	FYBBA(C.A) C Language (103)	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 .
1	FYBBA(C.A) DBMS (104)	1.This course is intended to provide you with an understanding of the current theory and practice of database management systems. 2.To help you more fully appreciate their nature, the course provides a solid technical overview of database management systems, using a current database product as a case study.
1.	FYBBA(C.A) Business Statistics (105)	1.. To develop skills related with basic statistical technique 3. Develop right understanding regarding regression, correlation and data interpretation
1.	FYBBA(C.A) Organizational Behavior & Human Resource Management (201)	1.To understand basic concept of HRM & OB 2.To make aware students about traditional & modern methods of procurement & development in organization.
1.	FYBBA(C.A) Financial Accounting (202)	1.To develop right understanding regarding role and importance of monetary and financial transactions in business 2.) To develop proficiency preparation of basic financial as to how to write basis accounting statement - Trading and P&L
1	FYBBA(C.A) Business Mathematics(203)	1.To understand role and importance of Mathematics in various business situations and while developing softwares. 2.To develop skills related with basic mathematical technique
1	FYBBA(C.A) Relational DataBase(204)	1. Enables students to understand relational database concepts and transaction management concepts in database system. 2. Enables student to write PL/SQL programs that use: procedure, function, package, cursor and trigger.
1	FYBBA(C.A) Web Technology (HTML-JSS-CSS)(205)	i) To know & understand concepts of internet programming. ii) To understand how to develop web based applications using JavaScript
2	SYBBAS(C.A) Digital Marketing (301)	1.The aim of this syllabus is to give knowledge about using digital marketing in and as business. 2. To make SWOT analysis, SEO optimization and use of various digital marketing tools.

2	SYBBA (CA) Data Structure Using C (302)	<ol style="list-style-type: none"> 1. To understand the concepts of ADTs 2. To learn linear data structures – lists, stacks, and queues 3. To understand sorting, searching and hashing algorithms 4. To apply Tree and Graph structures
2	SYBBA (CA) Software Engineering(303)	<ol style="list-style-type: none"> 2. To understand Software Engineering concepts. 3. To understand the applications of Software Engineering concepts and Design in Software development
2	SYBBA (CA) PHP (304)	<p>Understand how server-side programming works on the web.</p> <ol style="list-style-type: none"> 2. Using PHP built-in functions and creating custom functions 3. Understanding POST and GET in form submission.
2	SYBBA (CA)Big Data(305)	<ol style="list-style-type: none"> 1. To enable learners to develop expert knowledge and analytical skills in current and developing areas of analysis statistics, and machine learning 2. To enable the learner to identify, develop and apply detailed analytical, creative, problem solving skills.

2	SYBBA (CA) Networking(401)	<ol style="list-style-type: none"> 1.knowledge about Computer Networks concepts. 2. To know about working of networking models, addresses, transmission medias and connectivity devices.
2	SYBBA (CA) Object Oriented Concepts Through CPP(402)	<ol style="list-style-type: none"> 1.Acquire an understanding of basic object-oriented concepts and the issues involved in effective class design. 2. Enable students to write programs using C++ features like operator overloading, constructor and destructor, inheritance, polymorphism and exception handling.
2	SYBBA (CA) Operating System(403)	<ol style="list-style-type: none"> 1.To know the services provided by Operating System 2. To know the scheduling concept 3. To understand design issues related to memory management and various related algorithms.
2	SYBBA (CA) Advance PHP(404)	<ol style="list-style-type: none"> To know & understand concepts of internet programming. 2. Understand how server-side programming works on the web. 3. Understanding How to use PHP Framework (Joomla / Druple)
3	TYBBA (CA) 501 : Core Java	<ol style="list-style-type: none"> 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. 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	<ol style="list-style-type: none"> 1. Write JavaScript programs using functions, forloops, and conditional statements 3.To understand how to develop web based applications using PHP. 4.To know & understand concepts of internet programming. 5. To understand how to develop web based applications using PHP.

3	TYBBA (CA) 503 : Dot Net Programming	<ol style="list-style-type: none"> 1. Students will able to design web applications using .NET 2. Students will be able to debug and deploy .NET web applications 3. Students will be able to create database driven .NET web applications and web services
3	TYBBA (CA) 504 : Object Oriented Software Engineering	<ol style="list-style-type: none"> 1. To Understand concept of system design using UML. 2. To understand system development through object oriented techniques.
3	TYBBA (CA) 601 : Advanced Web Technologies	<ol style="list-style-type: none"> 1. Student is able to understand and use the basics of the XML based technologies 3. To understand the concepts of XML and AJAX.
3	TYBBA (CA) 602 : Advanced Java	<ol style="list-style-type: none"> 1. To know the concept of Java Programming. 2. To develop programming logic..
3	TYBBA (CA) 603 : Recent Trends in IT	<ol style="list-style-type: none"> 1. To introduce upcoming trends in Information technology. 2. To study Eco friendly software development.
3	TYBBA (CA) 604 : Software Testing	<ol style="list-style-type: none"> 1. To understand how to test bugs in software. 2. To develop programming logic.