#### **Department of Physics**

#### **Programme Specific outcomes**

1) After completion of program, students have deep knowledge of basic concepts in Physics.

2) Students are expected to acquire core knowledge in Physics, including the major premises of Mechanics and Properties of matter, Modern Physics, Classical and Quantum mechanics, Electricity and Magnetism, Digital Electronics, Optics, Relativity, Heat and Thermodynamic, Solid State Physics, Mathematical and Statistical physics, Atomic, Molecular and Nuclear Physics, Laser and nonconventional energy sources.

3) Students are also expected to develop written and oral communication skills in communicating physics-related topics.

4) Students should learn how to design and conduct an experiment and understand the basic physics behind it.

5) Students will develop the proficiency in the handling of laboratory instruments.

6) Students will realize and develop an understanding of the impact of Physics on society and apply conceptual understanding of the physics in real life.

7) Students develop aptitude of doing research through undertaking small projects and research centre visit.

8) Students can develop interdisciplinary approach.

#### **Program Outcomes**

1) The syllabi are framed in such a way that it bridges the gap between the plus two and post graduate levels of Physics by providing a more complete and logical framework in almost all areas of basic Physics.

2) By the end of the first year (2<sup>nd</sup> semester), the students should have attained a common level in basic mechanics, Optics, Heat and Thermodynamics and Electricity and Magnetism. They were developed their experimental and data analysis skills through experiments at laboratories.

3) By the end of the second year (4<sup>th</sup>semester), the students should have been introduced to powerful tools for tackling a wide range of topics in, Modern Physics, General Electronics, Mathematical and Statistical Physics and Solid State Physics They develop their experimental and data analysis skills through a wide range of experiments through practical at laboratories.
4) By the end of the third year (6<sup>th</sup> semester), the students should have developed their understanding of core Physics by covering a range of topics in almost all areas of physics

including Classical and Quantum Mechanics, Electrodynamics, Laser, Fiber optics, semiconductor devices and Non-conventional Energy Sources.

5) They had experience of independent work such as projects; seminars etc. The experimental skills were developed through a series of experiments. Students will design and conduct an experiments and processes. Students will demonstrate an understanding of the impact of physics on Society.

### Learning outcomes of the physics undergraduate program

# F.Y. B. Sc.

### (SEMESTER – I & II)

Sr.	Course	Learning Outcomes
No		
		1. Understanding of Newton's law and apply them into calculation of the
1		motion of simple system.
1		2. The properties of solids especially knowledge of elasticity help the students
	Physics Paper I	to identify the materials suitable for the construction of buildings, houses etc.
	Mechanics	3. Properties of fluids especially knowledge of viscosity and surface tension
	Due a stier of Motter	help the students in their daily life and agriculture.
	Properties of Matter	4 Use of Bernoulli's theorem in real life problems
	and Sound	
		5. Sound gives knowledge or reverberation of hall, echoes and will helpful for
		the construction of good acoustical condition of hall.
		1. This course gives knowledge about the heat flow, thermal conductivity real
2	Physics Paper II	gases and transport phenomena.
2		2. Study of Van der waal's equation and constants of it.
		3. Understood mean free path and transport phenomenon of gas.
	Heat and	4. Analyze heat engines and calculate Thermal efficiency
	Thermodynamics	5 Understood property entropy and derive some thermodynamically relations
		using entropy concept.
3	Physics paper III	1. Acquire technical and manipulative skills in using laboratory equipment,
	Practical	tools and Materials
	. inclicut	2. Demonstrate to collect data and interpret it.

		3.Demonstrate an understanding of laboratory procedures including safety and scientific methods
	Physics paper IV	1.Acquire knowledge of optical system
4	Geometrical and	2. Understanding of Ramsden's and Huygens's eyepiece.
	Physical optics	3. Covering the very important and fascinating areas of interference, diffraction
		and polarization with many experiments associated with it.
5	Physics Paper V	1. Understands dot cross product, vector triple product, curl, divergence, Gauss
		divergence theorem and Stokes theorem.
		2. To understand Coulombs law and Gauss law in details.
	Electricity and	3. Demonstrate and understanding of Biot-Savart and Ampere's law
	Magnetism	4. Understanding of L. C and D concent and study LCD Circuits
		4. Understanding of L, C and K concept and study LCK Circuits.
6	Physics paper VI	1.Acquire technical and manipulative skills in using laboratory equipment, tools
	Duration	and Materials
	Practical	2. To understand theories behind the experiments.
		3. Make a set up carry out practical's independently.

### S.Y. B. Sc.

### SEMESTER – III & IV

Sr. No.	Course	Learning Outcomes
1	Physics Paper VII Mathematical, Statistical Physics and Relativity	<ol> <li>Understanding of Scalar and Vector product and various Physical concepts using mathematical tools</li> <li>Understand Partial equations</li> <li>To study the Probability concept in details and study Maxwell-Boltzmann law</li> <li>Understand Bose-Einsteins and Fermi- Dirac Principle</li> <li>This course is intended to introduce principles of spectroscopy and special theory of relativity.</li> </ol>
2	Physics Paper VIII	<ol> <li>This course gives knowledge about the Photoelectric effect.</li> <li>Study of X-rays, bragg's law and laue method</li> <li>Understood different Nuclear forces and models</li> </ol>

	Modern and Nuclear	4. Understood different accelerators and Counters.
	Physics	5. Understood working of nuclear models, fission and fusion.
	Physics paper IX	1. Acquire knowledge of instruments able to use it.
3	Practical	2. Determine the different constants using experimental values.
		3. Comapre the result by Calculation and graph.
4	Physics paper X	4. Design the circuit and calculate the unknown values
	Practical	5. Study spectroscopic techniques for to study Newton's Law and R.P. of Telescope.
		6. Analyse the data and plot appropriate graphs.
5	Physics Paper XI	1. Understands Diode, transistor and FET in detail with Circuit diagram.
		2. To understand amplifiers and Op-Amp in details.
	General Electronic	3. Demonstrate and understanding of Oscillators and Multivibrators
		4.Understanding of Modulation and demodulation
6	Physics Paper XII	1. This course is intended to provide an introduction to the physics of Solid Matter.
	Solid State 1 hysics	2. This study attempts to explain various types of phenomena like electro-magnetic properties, super-conductivity.
		3. Material science is a very wide branch where extensive research is going on.
		4.Thermal, electrical, optical and magnetic properties of matter provide a strong foundation in that direction
7	Physics paper XIII	1. To design and Run experiments like Carry Fosters Bridge, thermister and Oscillating Disc
	Practical	2. To understand the basic physic behind the experiments.
		3. Keep well maintained and instructive laboratory manuals.
8	Physics paper XIV	4. Design the circuit and analyze the outputs of the circuit.
		2. Find the unknown Parameters of the Oscillators.
		3. Understood the Theory behind the Practical's

Practical	4. Analyse the data and plot appropriate graphs and reach the
	conclusions from your data analysis.

### T.Y. B. Sc.

### SEMESTER - V & VI

Sr. No.	Course	Learning Outcomes
1	Physics Paper XV Classical and Quantum Mechanics	<ol> <li>Understanding of Newton's law and apply them into calculation of the motion of simple system.</li> <li>Solve problems related to Lagrangian Equation</li> <li>This course is a prelude to advanced theoretical studies in Condensed Matter Physics, Spectroscopy and Hamiltonian, Schrödinger Theory and applications of it.</li> </ol>
2	Physics Paper XVI	1. Students can use Maxwell equations in analysing the electromagnetic field due to time varying charge and current distribution.
	Electrodynamic	<ol> <li>2. They can describe the nature of electromagnetic wave and its propagation through different media and interfaces.</li> <li>3. Understood Faraday's, Lenz and Maxwell's Equation</li> <li>4. Explain Electromagnetic wave concept in details</li> </ol>
		5. Understood B,E, D and H and boundary conditions
3	Physics paper XVII	1. To increase the understanding depth of theoretical concept thermodynamics, magnetism and dielectric concepts.
	Practical	2. Understanding and Analysis of data and plot appropriate graphs and reach the conclusions from your data analysis using Excel Shit
4	Physics paper XVIII	1. To increase the understanding depth of theoretical concept Semiconductors, impedance and grating.
	Practical	2. The student will demonstrate the ability to think critically and to use appropriate concepts to analyze qualitatively problems or situations involving fundamental principles of Physics

		3. Practise of setting up and conducting experiments with due regards to minimizing error.
5	Physics Paper XIX	1. Understands dot cross product, vector triple product, curl, divergence, Gauss divergence theorem and Stokes theorem.
	Atomic, Molecular	2. To understand Coulombs law and Gauss law in details.
	Physics and LASER	3. Demonstrate and understanding of Biot-Savart and Ampere's law
		4. Understanding of L, C and R concept and study LCR Circuits.
		5. The basic of LASER is insisted and different types of LASERS.
6	Physics Paper XX	1. This course is expected to provide necessary back ground for applications of nonconvential energy sources.
	energy sources and	2. Students will familiarise with Photovoltaic systems and applications of it.
	optical fiber	3. Understanding concept of fiber cables and optical fibbers and fabrication processes.
		4. Useful to understand the applications of Fiber cables.
7	Physics paper XXI	1. The student will demonstrate the ability to think critically and to use appropriate concepts to analyze qualitatively problems or situations involving fundamental principles of Physics
	Practical	2. Understanding and Analysis of data and plot appropriate graphs and reach the conclusions from your data analysis using Excel Shit
		3. Understand concept of Refractive Index, Thermocouple and spectroscopic techniques.
8	Physics paper XXII	1. Practise of setting up and conducting experiments with due regards to minimizing error.
	Practical	2. Handling of LASER Sources and precautions to be taken at the time experiment.
		3. Understand concept of optical fiber and e/m techniques.

4. Understanding and Analysis of data and plot appropriate graphs and reach the conclusions from your data analysis using Excel Shit
5. Work in group to plan, implement and report on a project/experiment.

## **Department of Chemistry (UG)**

### Programme outcome

B.Sc. Chemistry introduces basic concepts, experimental techniques and applications of chemical sciences and introduces cheminformatics, Green chemistry and micro analytical techniques.

### **B.Sc.** Chemistry

### **Programme Specific Outcome**

- ✓ Inorganic Chemistry
- ✓ Methodology and Perspectives of Sciences and General Informatics
- ✓ Organic Chemistry
- ✓ Physical Chemistry
- Practical papers– Inorganic, Volumetric, Organic, Physical and Gravimetric experiments

### **Course Outcome**

Course	Name of Course	Outcome
Code		
B-2143	Inorganic Chemistry I	The student will acquire knowledge in
		✓ Atomic Structure
		✓ Periodic properties
		<ul> <li>Electronic Configuration and Periodicity</li> </ul>
		✓ S block element
		✓ P block element
B-2144	Organic Chemistry II	The student will acquire knowledge in
	Lab course I	<ul> <li>Structure and bonding</li> <li>Reaction Mechanisms</li> <li>Stereochemistry</li> <li>Alkane and alkene</li> <li>Arenes and Aromaticity</li> <li>Alkyal and Aryl halides</li> <li>Volumetric analysis</li> <li>Qualitative Analysis by microscale methods of a mixture containing two acidic and two basic radicals</li> <li>Eudiometer ,viscometer, Staglanometer</li> <li>Chemical kinetics</li> </ul>

L-2001	Physical Chemistry IV	The student will acquire knowledge in
		✓ Mathematical concept
		✓ Gaseous states
		✓ Liquid states
		$\checkmark$ Solids states
		✓ Colloidal states
		✓ Chemical kinetics and catalysis
L-2002	Inorganic Chemistry V	The student will acquire knowledge in
		✓ Chemistry of Nobel gases
		✓ Chemical bonding
		✓ Nuclear chemistry
		$\checkmark$ Theory of volumetric analysis
	Lab course II	✓ Organic qualitative analysis
		<ul> <li>✓ Organic estimation</li> </ul>
L-2145	Organic Chemistry VII	The student will acquire knowledge in
		✓ Alcohols, Phenols
		✓ Aldehydes and Ketones
		✓ Carboxylic acids
		<ul> <li>✓ Organic compounds of nitrogen</li> </ul>
L-2146	Physical Chemistry VIII	✓ Thermodynamic I
		✓ Thermodynamic II
		✓ Chemical Equilibrium
	Lab course III	✓ Non instrumental experiment
		<ul> <li>Inorganic gravimetric estimation</li> </ul>
		✓ Coplexometric titration
1 2005	In a mania Chamistan V	The student will ecovire be evaled as in
L-2005	Inorganic Chemistry A	The student will acquire knowledge in
		<ul> <li>✓ Chemistry of element of first Transition series</li> </ul>
		✓ Co-ordination compounds
		<ul> <li>Chemistry of lanthanides</li> </ul>
		<ul> <li>Chemistry of actinides</li> </ul>
		✓ Acids and bases
1.2006		✓ Non aqueous solution
L-2006	Physical Chemistry XI	The student will acquire knowledge in
		✓ Phase Equilibrium
		✓ Electro-chemistry I
		✓ Electro-chemistry II

	Lab course IV	✓ Instrumentation –
		✓ Conductometric, pH,Polarimeteric,Colourimetric
		✓ Organic derivatives
		✓ Organic estimation
L-2143	Physical Chemistry XIII	The student will acquire knowledge in
		<ul> <li>✓ Elementary quantum mechanics</li> </ul>
		✓ Spectroscopy
		✓ Photo chemistry
		<ul> <li>Physical properties and molecular structure</li> </ul>
		✓ Nano material
L-2144	Organic Chemistry XIV	✓ Spectroscopy
		✓ Organometallic compound
		<ul> <li>✓ Organic synthesis via enolates</li> </ul>
		✓ Fats, oils, Detergents
	Lab course V	✓ Binary mixture
		<ul> <li>Inorganic qualitative analysis</li> </ul>
		✓ Gravimetric estimation
		✓ Volumetric estimation
L-2003	Inorganic Chemistry XVI	
		$\checkmark Metal ligand bonding in transition metal complexes$
		$\checkmark$ Electronic spectra of transition metal complexes
		<ul> <li>✓ Organometallic chemistry</li> </ul>
		<ul> <li>✓ Bioinorganic chemistry</li> </ul>
		✓ Chromatography
L-2004	Organic Chemistry XVII	The student will acquire knowledge in
		✓ Heterocyclic Compounds
		✓ Carbohydrate
		✓ Synthetic Polymers
		✓ Synthetic dyes and Drugs
	Practical VI	✓ Organic estimation
		$\checkmark$ Organic preparation
		✓ Instrumental and Non instrumental experiment

#### Dept. Of Mathematics <u>Programme outcome:</u>

- 1. A student should be able to understand the proof techniques in Mathematics and importance of theorems for sorting out typical examples.
- 2. A student should acquire sufficient technical competence to solve the problems of varying difficulty levels and high notational complexity.
- 3. A student should be able to make observations, experimentation and pattern recognition which would stimulate the research potential
- A student should acquire the communication skill to present technical Mathematics so as to take up a career in Teaching Mathematics at various levels including schools, colleges, universities, etc.

#### Programme Specific outcome

- 1. Mathematicians develop important analytical skills and problem-solving strategies to assess a broad range of issues in commerce, science and the arts
- 2. Mathematical models and simulations, and the interpretation of their results, are being called on increasingly in global decisions, as business, politics and management all become more quantitative in their methods
- 3. The application of mathematics is also in demand in the social sciences, particularly economics, where mathematical tools are used to formulate models of the complex interactions in an economic system
- 4. Communicate effectively both orally and in writing
- 5. Work effectively in teams
- 6. Exhibit ethical and professional behaviour
- 7. Propose new mathematical and statistical questions and suggest possible software packages and /or computer programming to find solutions to these questions
- 8. Learn tactics that can improve student motivation through interactive problem-solving activities
- 9. Give students the confidence and skills to successfully transition to college
- 10. Teach mathematical skills to prepare students for college level courses
- 11. Students will simplify and evaluate algebraic expressions
- 12. Enhance critical thinking skills through self-exploration and class experiences
- 13. Foster positive relationships with peers, faculty, and staff at Goodwin College
- 14. Reflecting the broad nature of the subject and developing mathematical tools for continuing further study in various fields of science
- 15. 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

16. Enabling students to develop a positive attitude towards mathematics as an interesting and valuable subject of study.

#### **Curriculum outcomes**

#### F.Y. B.Sc.

#### **Calculus:**

- 1. To study the basics of calculus
- 2. To study calculus in advance level
- 3. To discuss Del operator ( $\nabla$ ) and Laplace operators
- 4. Applications of Stoke's theorem
- 5. To be able to integrate various types of functions
- 6. To study different integrals
- 7. To understand the concept of integral as antiderivative
- 8. Find maxima, minima and critical points of functions
- 9. Be able to sketch the graph of function
- 10. Expand the function using Taylor's and Maclaurin's series

#### **Differential Equations:**

- 1. Distinguish between linear, nonlinear, partial and ordinary differential equations.
- 2. Recognise and solve variable separable differential equations.
- 3. Recognise and solve linear differential equations.
- 4. Recognise and solve an exact differential equation.
- 5. Find particular solution to initial value problem.
- 6. Solve basic application problems described by first order differential equation.
- 7. To study about some important models that can be apply to population growth, carbon dating, medicine and ecology.
- 8. Find the complimentary function and particular integrals of linear differential equation

#### S.Y. B.Sc.

#### **1 Number Theory**

- 1. Prove results involving divisibility and g.c.d.
- 2. Solve system of linear equations.
- 3. Define the concepts of divisibility, congruence relation, and prime factorisation.
- 4. To classify numbers as primitive roots and quadratic non residues.
- 5. Produce proofs centred at material of number theory most notably in the mathematical induction and well ordering principle.
- 6. To improve the ability of mathematical thinking.

#### 2. Numerical Methods

1. Be familiar with notion bonding off numbers to n significant digits and decimal places.

- 2. Find the solution of algebraic and transcendental equation using bisection method and the method of false position.
- 3. Able to find solution of first order ordinary differential equation using Taylor series method, Euler's method and Runge Kutta method.
- 4. Integral Transforms
- 5. Understands how integral transform can be used to solve variety of differential equations.
- 6. Ability to demonstrate range of applications of all the methods studied in the course.
- 7. Analyze different forms of equations and finding their roots
- 8. Derive numerical methods for approximating the solution of problems of continuous mathematics

#### 3. Mechanics.

- 1. To describe relative motion, inertial and non inertial reference frames.
- 2. Application of vector theorems of mechanics and interpretation of their result
- 3. To describe Newton's laws of motion and conservation principal
- 4. Introduction to analytical mechanics as a systematic tool for problem solving

#### T.Y. B.Sc.

#### **Real Analysis:**

- 1. Explain the completeness of system of real numbers, least upper bound, and greatest lower bound of real numbers.
- 2. Describes fundamental properties of real numbers that lead to the formal development of real analysis.
- 3. Define and utilise the concepts of sequence, sub sequence, monotone sequence, Cauchy sequence and discontinuous sequence.
- 4. Justify convergence and divergence of given series.
- 5. Define Riemann integrals and Riemann sum.
- 6. Gives knowledge of some simple technique of convergence of sequence and series of functions and confidence in applying them to get an idea of examples for problem solving.

#### Absract Algebra.

- 1. To understand the basic concepts of Group and their applications in algebraic and geometric context
- 2. To build mathematical thinking and skill
- 3. To focus on elementary concepts of Rings and Fields and focus on their results
- 4. To build up more interest in further studies

#### **Ordinary Differential Equations**

- 1. To find solution of higher order differential equations.
- 2. Solve basic application problems described by second order linear differential equations with constant coefficient.

#### **DEPARTMENT OF BOTANY**

#### **Programme Outcomes**

- Students know about different types of lower & higher plants their volution in from algae to angiosperm & also their economic and ecological importance.
- Students know about different types of lower & higher plants their evolution in from algae to angiosperm & also their economic and ecological importance.
- Cell biology gives knowledge about cell organelles & their functions
- Molecular biology gives knowledge about chemical properties of nucleic acid and their role in living systems.
- Genetics provides knowledge about laws of inheritance, various genetic interactions, chromosomal abrasions & multiple alleles.
- Structural changes in chromosomes.
- Student can describe morphological & reproductive characters of plant and also identified different plant families and classification.
- They know economic importance of various plant products & artificial methods of plant propagation.
- Use modern Botanical techniques and decent equipment's.
- To inculcates the scientific temperament in the students and outside the scientific community

#### **Programme Specific Outcomes**

- Students acquire fundamental Botanical knowledge through theory and practical's.
- To explain basis plant of life, reproduction and their survival innature.
- Helped to understand role of living and fossil plants in our life.
- Understand good laboratory practices and safety.
- To create awareness about cultivation, conservation and sustainable utilization of biodiversity.
- To know advance techniques in plant sciences like tissue culture, Phytoremediation, plant disease management, formulation of newherbal drugs etc.
- Students able to start nursery, mushroom cultivation, bio fertilizersproduction, fruit preservation and horticultural practices.

Semesters	Name of Papers	Outcomes
Sem. I	Diversity of Cryptogams -I	<ul> <li>Study of cryptogams to understand their Diversity.</li> <li>Know the systematics, morphology and structure of algae, fungi</li> <li>Know life cycle pattern of cryptogams.</li> <li>Know economic importance of cryptogams.</li> </ul>
Sem. I	Morphology of Angiosperms	<ul> <li>Understand the habit of the angiosperm plant body.</li> <li>Know the vegetative characteristics of the plant.</li> <li>Learn about the reproductive characteristics of the plant.</li> <li>Understand the plant morphology</li> </ul>
Sem. II	Diversity of Cryptogams – II	<ul> <li>Learn about the importance of the plant diversity</li> <li>Know the systematics, morphology and structure of algae, fungi ,bryophytes, and Pteredophytes</li> <li>Know evolution of algae, fungi, bryophytes and Pteredophytes.</li> </ul>
Sem. II	Histology, Anatomy and Embryology	<ul> <li>Be enlightened about the mechanism of pollination and basic structure of the embryo.</li> <li>Understand external and internal structure of plants</li> <li>Get knowledge on structure anddevelopment plant embryo.</li> <li>Acquire knowledge on the physiological functions of plants.</li> </ul>
Sem. III	Taxonomy of Angiosperms	<ul> <li>Understand economic importance of angiosperms.</li> <li>The Students will understand various Angiosperm plant habits.</li> <li>Learn about vegetative and reproductive structural features of Angiosperms.</li> <li>Comprehend the concepts of plant taxonomy and classification of Angiosperms</li> <li>Learn about various Angiosperm families and its economic value.</li> </ul>
Sem. III	Plant Ecology	<ul> <li>Know the biotic and abiotic components of ecosystem.</li> <li>Food chain &amp; food web in ecosystem.</li> <li>Understand diversity among various groups of plant kingdom.</li> <li>Understand plant community &amp; ecological adaptation in plants.</li> <li>Scope, importance and management of biodiversity</li> </ul>
Sem. IV	Gymnosperms and Utilization of Plants	<ul> <li>Systematic study of gymnosperms</li> <li>Understand economic importance of gymnosperms.</li> <li>Understand the scope of economic botany.</li> <li>Know the botanical resources like non wood forest products.</li> <li>Understand the scope of economic botany.</li> </ul>

		Know the botanical resources like non wood forest products
Sem. IV	Plant Physiology	<ul> <li>Know scope and importance of plant physiology.</li> <li>Understand plant &amp; water relation.</li> <li>Understand process of photosynthesis, C3, C4, CAM pathways.</li> <li>Understand the process of respiration, growth and developmentalprocess in plant.</li> <li>Understand the biochemistry of cell.</li> <li>Understand the different biochemical reaction of biomolecules inplant cell.</li> <li>The Students will learn about absorption, translocation and utilization of water and other minerals.</li> </ul>
Sem. V	Cell Biology and Molecular Biology	<ul> <li>Gain knowledge about cell and its function.</li> <li>Learn the scope and importance of molecular biology.</li> <li>Understand ultra-structure of cell wall, plasma membrane and cellorganelles</li> <li>Understand the biochemistry of cell.</li> <li>Understand the biochemical nature of nucleic acid and their role inliving systems.</li> </ul>
Sem. V	Plant Pathology	<ul> <li>Know the concept, scope and importance of Plant pathology.</li> <li>Account of Plant disease classification.</li> <li>Know disease cycle and disease development.</li> <li>Know the effect of plant diseases on economy of crops.</li> <li>Know the methods of studying plant diseases.</li> <li>They can identify the plant diseases like bacterial, fungal and nematodal disease.</li> <li>Know the disease forecasting.</li> <li>Know the prevention and control measures of plant diseases.</li> </ul>
Sem. VI	Genetics and Biotechnology	<ul> <li>Understand the Mendelian and neo Mendelian genetics.</li> <li>Know about interaction of genes, multiple alleles and linkage andcrossing over.</li> <li>Know about sex linked inheritance, chromosomal aberrations.</li> <li>Know the evolutionary sequence of various groups of plants.</li> <li>Understand the fundamental of recombinant DNA technology.</li> </ul>
Sem. VI	Microbiology and Disease Management	<ul> <li>The student will understand how to analysethe basic concepts, methods, scopes, classifications, characterization, diseases andeconomic importance of microorganisms.</li> <li>Understand the importance of microorganisms.</li> <li>Learn about the pathogenic microorganisms and their mode of entry and control measures.</li> </ul>

## **Department of Zoology**

#### **Programme Outcomes**

- 1. Demonstrate, solve and an understanding of major concepts in all disciplines of Zoology.
- 2. Solve the problem and also think methodically, independently and draw a logical conclusion.
- 3. Understand the evolution, history of phylum.
- 4. Create an awareness of the impact of Zoology on the environment, society, and development outside the scientific community.

5. To study and understand the classification of whole phyla includes in Non chordates with the help of charts/models/pictures.

- 6. To inculcate the scientific temperament in the students and outside the scientific community.
- 7. Use modern techniques and decent equipments
- 8. To help students build-up a progressive and successful career in Zoology

#### **Programme Specific Outcomes**

- 1. Gain the knowledge of Zoology through theory and practical's.
- 2. Study and understand the DNA Recombinant technology.
- 3. Understand the testing of hypothesis.
- 4. Use modern Zoological tools, Models, Charts and Equipments.
- 5. Know structure-activity relationship.
- 6. Understand good laboratory practices and safety.
- 7. Develop research oriented skills.
- 8. Make aware and handle the sophisticated instruments/equipments.
- 9. After completion of program, students will be able to have in-depth knowledge of basic concepts in Zoology.
- 10. Students develop aptitude of doing research through undertaking small projects.
- 11. Student will have set his foundation to pursue higher education in Zoology.
- 12. After completing the program student will have developed interdisciplinary approach and can pursue higher studies in subjects other than Zoology
- 13. To learn the basics of systematic and understand the hierarchy of different categories. To learn the diagnostic characters of different phyla through brief studies of examples.
- 14. To obtain an overview of economically important invertebrate fauna. Impart to the student a concrete idea of the evolution, hierarchy and classification of invertebrate phyla
- 15. Understanding the basics of systematic by learning the diagnostic and general characters of various groups
- 16. Getting an overview of typical examples in each phyla
- 17. To study the economic importance of invertebrates.

### **Course outcomes**

Semesters	Name of Papers	Outcomes	
	ZOL-101 Paper – I	1 Understand the evolution history of phylum	
SEM I	(Protozoa to Annelida)	<ol> <li>Understand about the Non Chordate animals.</li> </ol>	
~~~~~	(=	3. To study the external as well as internal characters of non chordates.	
		4. To study the distinguishing characters of non chordates.	
	701 201 Danam IV	5. Understand the economical importance of Molluscs 6. Understand the various internal systems like Digestive system pervous	
	$\Delta three reprint repr$	system with the help of charts.	
	Fchinodermata	<ol> <li>Understand the functions of Gemmules and spicules.</li> </ol>	
	Eximoutimata	8. Understand the economical importance of Molluscan shells.	
	And Protochordata	9. To obtain an overview of economically important invertebrate fauna.	
		10. Impart to the student a concrete idea of the evolution, hierarchy and	
		classification of invertebrate phyla To inculcate in the student a love	
		and understanding of the fascinating world of invertebrates	
		11. Impart to the student a concrete idea of the evolution, hierarchy and classification of invertebrate phyla	
		12. Understanding the basics of systematic by learning the diagnostic and	
		general characters of various groups	
		13. Getting an overview of typical examples in each phyla	
SEM I	ZOL-102 Paper – II	1. Understand the Scope of cell biology, because cell is the basic	
	Cell Biology	unit of life.	
		2. Understand the Main distinguishing characters between	
		prokaryotic and eukaryotic cell.	
		3. To study and understand the whole cell organelles with their	
		structure and function.	
		4. Understand the cell cycle and know the importance of various	
		cells in body of organism.	
		5. Understand the various applications of cells by using cell biology	
		like study of various cancer tumours.	
		6. To prepare and observe chromosomal arrangements during cell division	
		7. To study chromosomal aberrations in man	
		8. Understand the Animal cells and various cell organelles by using	
		microphotographs.	
		9. Aware the students for Cancer.	
SEM H	701 202 Daman V	10. Understand the Tools and Techniques in cytology.	
SEM II	ZOL-202 Paper – V	1. Depicting the mechanism of sex determination and dosage	
	Geneucs - I	2 To understand basic principles of Mendelian inheritance	
		2. To study cell division & chromosome segregation	
		4. To acquire the chromosome structure, chromatin organization and	
		variation.	
		5. To learn the concepts of Linkage concept of sex determination and sex	
		linked inheritance.	
		6. To perform routine blood analysis.	

SEM III	ZOL-301 Paper – VII	1. Understand the evolution, history of phylum.
	Vertebrate Zoology	2. Understand about the Chordate animals.
		3. To study the external as well as internal characters of chordates.
		4. To study the distinguishing characters of chordates.
		5. Understand the various internal systems like Digestive system, nervous system etc. with the help of charts.
		6. To obtain an overview of economically important vertebrate fauna.
		7. Impart to the student a concrete idea of the evolution, hierarchy and
		classification of vertebrate phyla
		8. To inculcate in the student a love and understanding of the fascinating
		world of vertebrates
		9. Impart to the student a concrete idea of the evolution, hierarchy and
		classification of vertebrate phyla
		10. Understanding the basics of systematic by learning the diagnostic and
		general characters of various groups
		11. Getting an overview of typical examples in each phyla
SEM III	ZOL-302 Paper – VIII	1. To educate the students on the underlying genetic mechanism operating
	Genetics- II	in man and state of the art bio-techniques
		2. To learn the mechanism of crossing over and inheritance patterns in
		man.
		3. Evolution of the concept of the gene and fine structure of gene.
		4. To understand the principles and techniques involved in DNA
		technology.
		5. Strengthening of genetics and cytogenetics principle in light of
		advancements in understanding human genome and genomes of other
		model organisms.
		6. Description of expression of genome revealing multiple levels of
		regulation and strategies to manipulate the same in the benefit of the
		mankind.
		7. Imparting knowledge regarding gene mutation, types of gene
		mutations methods for detection of induced mutations
		8. To study the structure of population
SEM IV	ZOL-401 Paper – XI	1. To understand Reproductive organ: male and female gonads, duct
	1	systems and sex accessories, external sexual dimorphisms
	Animal Physiology	2. Understand the Reproductive patterns: Environmental factors and
		breeding, continuous and seasonal breeders.
	(Special Emphasis On	3. Understand the Sexual cycles: puberty, oestrous and menstrual cycles.
	animals)	4. Ovarian event: follicular phase, cycling of non-pregnant uterus and
		vagina. 5 To understando Drognonous concention and blockeyest formation
		5. To understands Pregnancy: conception and biastocyst formation,
		functions hormones in pregnancy
SEM.IV	ZOL-402 Paper – XII	1. To learn the structure and functions of bio-molecules and their role in
	Biochemistry &	metabolism
	Endocrinology	2 Understand the structure and function of carbohydrate amino acids
	Linuvermonogy	proteins and linids
		3 Understand the concept Enzymes and also Vitamins and minorals
1		5. Onderstand the concept Enzymes and also vitalinits and minerals.

		4. Understand the Principle role of Vitamins in metabolism and deficiency
		diseases.
		5 To improve the student's perspective of health and biology through in-
		depth study of human Physiology
		6 Describe the structure of the major human organ and Explain their role
		in the maintenance of healthy individuals
		7 Explain the interplay between different organ system & how organs &
		cells interact to maintain biological equilibria in changing environment
SEM V	ZOL 501 Daman XV	Know the histic and chistic components of consuster
SEIVI V	ZOL-SUI Paper – AV	<ol> <li>Know the blotte and ablotte components of ecosystem.</li> <li>Each shain &amp; food wash in accounter</li> </ol>
	Ecology	2. Food chain & food web in coosystem. 3. Understand diversity among various groups of animal kingdom
		4 Understand Animal community & ecological adaptation in animals
		5 To understand Scope importance and management of biodiversity
		6 Understand the Population and community ecology wetland forest and
		their conservation.
		7. Appreciate concepts and method from ecological and physical science
		and their application in environmental problem solving.
		8. Be able to collect and analyse environmental sample, perform statistical
		analysis of data and interpretation and presentation of research results
		9. Knowledge of chemical properties of different compound and a
		bilogical effects and important cycles, understanding environmental
		pollution and toxicology
SEM V	ZOL-502 Pape XVI	1. To understand the origin, evolution and inter relationship of insects with
	(Elective)	other arthropods.
	(Elective)	2. 10 understand classification and phylogeny of Apterygoles,
	Entomology I	3 To understand the comparative and histological studies of systems such
	8/ _	as digestive, respiratory, nervous, circulatory, excretory and
		reproductive system.
		4. To understand Integument and its derivatives.
		5. Understand the Studies of the following systems: Digestive,
		reproduction, nervous co-ordination
		6. To understand Light and sound producing organ.
		7. To understands Integument: Structure, Chemistry, sclerotization,
		functions.
0		8. Ventilators mechanisms and their control.
SEM VI	ZOL-601 Paper XIX	1. To understand Origin of life with respect to prokyariotic and eukaryotic
	Evolution	2 Understand the evidences of organic evolution by anatomical
		embryological list, paleontological, physiological, genetics and
		molecular biology evidences.
		3. Understand theories of organic evolution, isolation, and speciation.
		4. Understand geological time scale, methods and classification of animal
		distribution and factors affecting animal distribution
		5. To create a deep understanding of how evolution worked and general
		knowledge about the how evolution works.
		6. To introduce the student major principles of evolutionary theory and
		origin of life.
SEM VI	ZOL-602 Paper XX	1. Understand the fundamentals of agricultural, forest, medical and
	Entomology II	veterinary entomology.
		<ol> <li>Understand Morphology and Anatomy of Insects.</li> <li>Understand intra analific and inter analific relationships are an interview.</li> </ol>
		5. Understand intra specific and inter specific relationships among insects.
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# **Department of Computer Science**

Programme	• To attract young minds to the potentially rich & employable field of computer
Outcomes	science.
	• To train & equip the students to meet the requirements of the Industrial
	standards.
	• To develop problem solving abilities using a computer.
	• To build the necessary skill set and analytical abilities for developing computer- based solutions for real life problems.
	• To develop scientific attitude and critical thinking among student.
	• To prepare necessary knowledge base for research and development in
	Computer Science.
	• Understand the basic concepts of system software, hardware and evolution of computer graphics.
	• Apply the technologies in various fields of Computer Science, including Web
	site development and management, databases, and computer networks.
	• To help students to build-up a successful career in Computer Science.
Programme	• To impart basic introduction to computer hardware components, the working of
Specific	CPU, fundamentals of algorithms and flowchart as well as different type of
Outcomes	software.
	• To impart basic knowledge in digital logic and circuits and to understand the
	concept of Number System, Logic Gates, Boolean Laws, Theorems, Flip flops
	and Counter
	• To introduce students the basic functioning of operating systems process states,
	scheduling, Memory and I/O Management techniques.
	• To expose students to algorithmic thinking and problem solving to impart moderate skills in programming using C Language.
	• To teach students various data structures and to explain algorithms for
	performing various operations on these data structures.
	• To understand object-oriented programming concepts using C++ Programming Language.
	• To educate students with fundamental concepts of Data Base Management
	System, Data Models, Relational Algebra and Normalization.
	• To familiar with the basics of data communication and various types of computer networks
	<ul> <li>To assist the students in understanding the basic theory of software engineering</li> </ul>
	and to apply these basic theoretical principles to a group software development
	project.
	• 10 develop web based applications by H1ML, JavaScript and CSS to have an interactive application
	To study Cyber Laws and reculatory tools
	<ul> <li>To study Cyber Laws and regulatory tools.</li> <li>To understand the role of covernment and invisition in technology.</li> </ul>
	• 10 understand the role of government and jurisdiction in technology.

	FYBSc			
Course Code	Subject Name	Course Outcomes		
CS01 CS02-	Computer Fundamentals DigitalElectroni	<ul> <li>Students will be able to:</li> <li>Understand the concept of input and output devices of computers and how it works and recognize the basic terminology used in computer programming</li> <li>Equipped with the of basic computer hardware architecture and are able to design fundamental logic circuits.</li> <li>Introduced five generations of computer system.</li> <li>Thrust with concept and need of primary and secondary memory.</li> <li>Students will be able to:</li> </ul>		
	C	<ul> <li>Understand the concept of Number System, Logic Gates, Boolean Laws, Theorems, flipflops and counter.</li> <li>Use De Morgan's Theorem to simplify a negated expression.</li> <li>Create circuits to solve problems using gates to replicate all logic functions.</li> </ul>		
CSO4	Operating System I	<ul> <li>Students will be able to:</li> <li>Notice the services provided by and the design of an operating system.</li> <li>Get knowledge of different types of operating system.</li> <li>Use different types of scheduling Algorithms.</li> <li>Introduced the concepts of deadlock.</li> </ul>		
CSO5	Programming in C	<ul> <li>Students will be able to:</li> <li>Analyze a given problem and develop an algorithm to solve the problem.</li> <li>Design, develop and test programs written in 'C'</li> <li>Use different data types in a computer program.</li> <li>Design programs involving decision structures, loops and functions.</li> <li>Differ one dimension and multidimensional array.</li> </ul>		
CS313	Practical Paper	<ul> <li>Students will be able to:</li> <li>Create, Save, Copy, Delete, Organize various types of files.</li> <li>Manage the desk top in general, use a standard word.</li> <li>Design and implement binary Adder subtract or shift registers using Flipflop</li> <li>Implement the different scheduling algorithm.</li> <li>Use the conditional expressions and looping statements to solve problems associated with conditions and repetitions.</li> </ul>		

SYBSc		
Course Code	Subject Name	Course Outcomes
CSO7	Advance in C	Students will be able to:
	Programming	<ul> <li>Understand a functional hierarchical code organization.</li> <li>Manage data structures based on problem subject domain.</li> <li>Work with textual information, characters and strings.</li> <li>Use concept of pointer and diff data conversion function.</li> <li>Work with different file handling function.</li> </ul>
CSO8	Data Structure	Students will be able to:
		<ul> <li>Understand concept of stack and linked list.</li> <li>Solve problems based upon different data structure &amp; also write programs.</li> <li>Choose an appropriate data structure for a particular problem.</li> <li>Work with queue and link.</li> </ul>
CS011	Programming ir	Students will be able to:
	C++	<ul> <li>Get knowledge of difference between object-oriented programming and procedural oriented language.</li> <li>Do program using C++ features such as composition of objects, Operator overloading, inheritance, Polymorphism etc.</li> <li>Simulate the problem in the subjects like Operating system, Computer networks and real-world problems.</li> <li>Understand the concept of constructor and destructors.</li> </ul>
CS012	DBMS Using	Students will be able to:
	SQL	<ul> <li>Gain a good understanding of the architecture and functioning of database management systems as well as associated tools and techniques.</li> <li>Acquired Principles of data modeling using entity relationship and develop a good database design and normalization techniques to normalize a database.</li> <li>Understand the concept of functional dependency anomalies.</li> <li>Acquired a good understanding of database systems concepts and to be in a position touse and design databases for different applications.</li> </ul>
CS813	Practical	Students will be able to:
	Paper- I	<ul> <li>Identity the appropriate data structure for given problem</li> <li>Get practical knowledge on the application of data structures.</li> <li>Handle operations like insertion, deletion, searching and traversing on various data structures.</li> </ul>

<ul> <li>Program with pointers and arrays, perform pointer arithmetic, and use the preprocessor         <ul> <li>Design and implement Data structures and related algorithms.</li> </ul> </li> <li>CS914 Practical Paper-II</li> <li>Students will be able to:         <ul> <li>Understand object-oriented concepts and how they are supported by C<sup>++</sup>.</li> <li>Use inheritance and Pointers when creating or using classes and create templates.</li> <li>Apply object-oriented programming features to program design and implementation.</li> <li>Analyze, use, and create functions, classes, to overload operators.</li> <li>Gain knowledge about SQL Fundamentals.</li> <li>Perform Unary &amp; Binary table operations.</li> <li>Normalize relation with INF 2NF and 3NF.</li> <li>Draw E-R Diagram of different relation.</li> </ul> </li> <li>Course Subject Name Course Outcomes         <ul> <li>Select and implement different software development process models.</li> <li>Extract and analyze software requirements specifications for different projects.</li> <li>Develop some basic level of software architecture/design.</li> <li>Develop some basic level of software project management concepts, Agility Process.</li> <li>Apply different principle that guide practice, Communication Principles, Construction principles.</li> </ul> </li> </ul>
CS914       Practical Paper-II       Students will be able to: <ul> <li>Understand object-oriented concepts and how they are supported by C<sup>++</sup>.</li> <li>Use inheritance and Pointers when creating or using classes and create templates.</li> <li>Apply object-oriented programming features to program design and implementation.</li> <li>Analyze, use, and create functions, classes, to overload operators.</li> <li>Gain knowledge about SQL Fundamentals.</li> <li>Perform Unary &amp; Binary table operations.</li> <li>Normalize relation with 1NF 2NF and 3NF.</li> <li>Draw E-R Diagram of different relation.</li> </ul> Course Code         Students will be able to:         TYBSc           Course Code         Students will be able to:         Students will be able to:           Code         Students will be able to:         Students will be able to:           Course Code         Students will be able to:         Students will be able to:           Course Code         Students will be able to:         Students will be able to:           Code         Students will be able to:         Students will be able to:           Code         Select and implement different software development process models.           Extract and analyze software requirements specifications for different projects.         Develop some basic level of software architecture/design.           Develop some basic level of software architecture/design.         Develop some basic concepts and importance of Software project management
CS914       Practical Paper-II       Students will be able to:         · Understand object-oriented concepts and how they are supported by C <sup>++</sup> .       · Understand object-oriented concepts and how they are supported by C <sup>++</sup> .         · Use inheritance and Pointers when creating or using classes and create templates.       · Apply object-oriented programming features to program design and implementation.         · Analyze, use, and create functions, classes, to overload operators.       · Gain knowledge about SQL Fundamentals.         · Perform Unary & Binary table operations.       · Normalize relation with 1NF 2NF and 3NF.         · Draw E-R Diagram of different relation.       TYBSc         Code       Students will be able to:         Code       Students will be able to:         · Engineering       · Select and implement different software development process models.         · Extract and analyze software requirements specifications for different projects.       · Develop some basic level of software architecture/design.         · Define the basic concepts and importance of Software project management concepts, Agility Process.       · Apply different principle that guide practice, Communication Principles, Construction principles.
CS914       Practical Paper-II       Students will be able to: <ul> <li>Understand object-oriented concepts and how they are supported by C<sup>++</sup>.</li> <li>Use inheritance and Pointers when creating or using classes and create templates.</li> <li>Apply object-oriented programming features to program design and implementation.</li> <li>Analyze, use, and create functions, classes, to overload operators.</li> <li>Gain knowledge about SQL Fundamentals.</li> <li>Perform Unary &amp; Binary table operations.</li> <li>Normalize relation with 1NF 2NF and 3NF.</li> <li>Draw E-R Diagram of different relation.</li> </ul> <li>Course Code</li> <li>Course Outcomes</li> <li>Software</li> <li>Engineering</li> <li>Select and implement different software development process models.</li> <li>Extract and analyze software requirements specifications for different projects.</li> <li>Develop some basic level of software architecture/design.</li> <li>Define the basic concepts and importance of Software project management concepts, Agility Process.</li> <li>Apply different principle that guide practice, Communication Principles, Construction principles.</li>
Paper-II       • Understand object-oriented concepts and how they are supported by C <sup>++</sup> .         • Use inheritance and Pointers when creating or using classes and create templates.         • Apply object-oriented programming features to program design and implementation.         • Analyze, use, and create functions, classes, to overload operators.         • Gain knowledge about SQL Fundamentals.         • Perform Unary & Binary table operations.         • Normalize relation with 1NF 2NF and 3NF.         • Draw E-R Diagram of different relation.         TYBSc         Course         Subject Name       Course Outcomes         Code       Students will be able to:         • Engineering       • Select and implement different software development process models.         • Extract and analyze software requirements specifications for different projects.         • Develop some basic level of software architecture/design.         • Define the basic concepts and importance of Software project management concepts, Agility Process.         • Apply different principle that guide practice, Communication Principles, Construction principles.
• Draw E-R Diagram of different relation.         TYBSc         Course Code       Subject Name       Course Outcomes         Code       Subject Name       Course Outcomes         CS015       Software       Students will be able to:         Engineering       • Select and implement different software development process models.         • Extract and analyze software requirements specifications for different projects.       • Develop some basic level of software architecture/design.         • Define the basic concepts and importance of Software project management concepts, Agility Process.       • Apply different principle that guide practice, Communication Principles, Construction principles.         CS016       Web Designing       Students will be able to:
TYBSc           Course Code         Subject Name Code         Course Outcomes           CS015         Software Engineering         Students will be able to: • Select and implement different software development process models. • Extract and analyze software requirements specifications for different projects. • Develop some basic level of software architecture/design. • Define the basic concepts and importance of Software project management concepts, Agility Process. • Apply different principle that guide practice, Communication Principles, Construction principles.           CS016         Web Designing         Students will be able to:
Course CodeSubject Name Course OutcomesCS015Software EngineeringStudents will be able to: • Select and implement different software development process models. • Extract and analyze software requirements specifications for different projects. • Develop some basic level of software architecture/design. • Define the basic concepts and importance of Software project management concepts, Agility Process. • Apply different principle that guide practice, Communication Principles, Construction principles.CS016Web DesigningStudents will be able to:
CodeSoftwareCS015SoftwareEngineeringStudents will be able to:• Select and implement different software development process models.• Extract and analyze software requirements specifications for different projects.• Develop some basic level of software architecture/design.• Define the basic concepts and importance of Software project management concepts, Agility Process.• Apply different principle that guide practice, Communication Principles, Construction principles.CS016Web DesigningStudents will be able to:
CS015Software EngineeringStudents will be able to:•Select and implement different software development process models.•Select and analyze software requirements specifications for different projects.•Develop some basic level of software architecture/design.•Define the basic concepts and importance of Software project management concepts, Agility Process.•Apply different principle that guide practice, Communication Principles, Construction principles.CS016Web DesigningStudents will be able to:
<ul> <li>Software Engineering</li> <li>Select and implement different software development process models.</li> <li>Extract and analyze software requirements specifications for different projects.</li> <li>Develop some basic level of software architecture/design.</li> <li>Define the basic concepts and importance of Software project management concepts, Agility Process.</li> <li>Apply different principle that guide practice, Communication Principles, Construction principles.</li> <li>CS016 Web Designing Students will be able to:</li> </ul>
<ul> <li>Select and implement different software development process models.</li> <li>Extract and analyze software requirements specifications for different projects.</li> <li>Develop some basic level of software architecture/design.</li> <li>Define the basic concepts and importance of Software project management concepts, Agility Process.</li> <li>Apply different principle that guide practice, Communication Principles, Construction principles.</li> <li>CS016 Web Designing Students will be able to:</li> </ul>
<ul> <li>Extract and analyze software requirements specifications for different projects.</li> <li>Develop some basic level of software architecture/design.</li> <li>Define the basic concepts and importance of Software project management concepts, Agility Process.</li> <li>Apply different principle that guide practice, Communication Principles, Construction principles.</li> <li>CS016 Web Designing Students will be able to:</li> </ul>
projects.Develop some basic level of software architecture/design.Define the basic concepts and importance of Software project management concepts, Agility Process.Apply different principle that guide practice, Communication Principles, Construction principles.CS016Web DesigningStudents will be able to:
<ul> <li>Develop some basic level of software architecture/design.</li> <li>Define the basic concepts and importance of Software project management concepts, Agility Process.</li> <li>Apply different principle that guide practice, Communication Principles, Construction principles.</li> <li>CS016 Web Designing Students will be able to:</li> </ul>
<ul> <li>Define the basic concepts and importance of Software project management concepts, Agility Process.</li> <li>Apply different principle that guide practice, Communication Principles, Construction principles.</li> <li>CS016 Web Designing Students will be able to:</li> </ul>
Apply different principle that guide practice, Communication Principles, Construction principles.     Students will be able to:
Construction principles.         CS016       Web Designing       Students will be able to:
CS016 Web Designing Students will be able to:
• Understand, analyze basic of languages like HTML, DHTML, CSS.
<ul> <li>Understand, analyze and create web pages using HTML, DHTML and Cascading Styles sheets.</li> </ul>
• Understand, analyze and build dynamic web pages using JavaScript.
• Understand, analyze and build interactive web applications.
• Student will be familiar with concepts of DOM.
CS019 Data Students will be able to:
• Familiar with the basics of data communication.
• Familiar with various types of computer networks:

		Understand different type of Transmission Media.		
		• Understand the fundamentals and various computational processing of		
		mobile networks.		
CSO20	Ethics and	Students will be able to:		
	Cyber Law			
		• Identify and analyze statutory, regulatory, constitutional, and		
		organizational laws that affect the information technology professional.		
		• Understand, Explore, And Acquire A Critical Understanding Cyber Law.		
		• Get the role and function of certifying authorities.		
		• Understand and follow professional ethics and responsibilities.		
		• Understand the ethics of computer security and related issue.		
CS1413	Practical	Students will be able to:		
	Paper- I	• Understand and demonstrate basic knowledge in software engineering.		
		• Identify requirements, analyze and prepare models.		
		• Implement interactive web page(s) using HTML CSS and JavaScript		
		<ul> <li>Design a responsive web site using HTML 5 and CSS3</li> </ul>		
		<ul> <li>Analyze a web page and identify its elements and attributes</li> </ul>		
CS1513	Practical	Students will be able to:		
C31313	Tactical			
	Paper-II	• Apply critical and creative thinking in the design of projects.		
	(Cominen and	• Plan and manage time effectively as a team.		
	(Seminar and	• Apply knowledge of the 'real world' situations that a professional engineer		
	Project)	can encounter.		
		• Design and develop a functional product prototype while working in a team		
		• Orally present and demonstrate your product to peers, academics, general		
		and industry community		
		• Manage any disputes and conflicts within and outside team.		
	L			

## English Course Outcomes

<b>B</b> A En	alich	Course Outcomes	
<b>D.</b> A. <i>En</i> Sr. No.	Programme	Course Objectives	Programme Specific Outcome
	<b>B. A.</b>	1. To provide in depth	1. After completion of
	English	knowledge of language and	programme, students will be
	8	literary concepts.	able to have in depth knowledge
		2. To familiarize with	of language and literary
		contemporary and recent	concepts.
		trends and advances in	2. They became familiarize with
		language and literature.	contemporary and recent trends
		3. To improve language	and advances in language and
		competence.	literature.
		4. To introduce students to	3. Language competence
		some advanced areas of	improved.
		language study.	4. Students got introduced to
		5. To prepare students to go	some advanced areas of
		for detailed study and	language study.
		understanding of literature and	5. They become confident to
		language.	prepare to go for detailed study
			and understanding of literature
	1		and language.

## Courses offered:Under graduate level

Sr.No	Class	Course	Course Outcomes
	<b>F.</b> Y, B. A.	Compulsory English:	1. Students familiarized with
		Visionary Gleam: A	excellent pieces of prose and
		Selection of Prose and	poetry in English so that they
		Poetry	realize the beauty and
			communicative power of
			English.
			2. Students got exposure to
			native cultural experiences and
			situations in order to develop
			humane values and social
			awareness.
			3. Developed overall linguistic
			competence and communicative
			skills of the student

	<b>Optional English: Interface:</b>	1. Students got exposure to the
	English Literature and	basics of literature and
	Language	language.
		2. They familiarized with
		different types of literature in
		English, the literary devices and
		terms so that they understand
		the literary merit, beauty and
		creative use of language
		3. Got introduced to the basic
		units of language so that they
		become aware of the technical
		aspects and their practical
		usage.
		4. Students prepared to go for
		detailed study and
		understanding of literature and
		language.
		5. Developed an integrated view
		about language and literature in
		them
S. Y. B. A.	Compulsory English:	1. Developed competence
	Literary Landscapes	among the students for self-
		learning.
		2. Students familiarized with
		excellent pieces of prose and
		poetry in English so that they
		realize the beauty and
		communicative power of
		English. 3.
		Developed students' interest in
		reading literary pieces.
		4. Got exposure to native
		cultural experiences and
		situations in order to develop
		humane values and social
		awareness.
		5. Developed overall linguistic
		competence and communicative
		skills of the students

General English(G-2): Study of English Language and Literature	<ol> <li>Students got exposure to the basics of short story, one of the literary forms.</li> <li>Familiarized with different types of short stories in English.</li> <li>They understood the literary merit, beauty and creative use of language.</li> <li>Got introduction to some advanced units of language so that they become aware of the technical aspects and their practical usage.</li> <li>Students prepared to go for detailed study and understanding of literature and language 6) Developed integrated view about language and literature in them</li> </ol>
Ontional English(S-1):	1. Students acquainted and
Optional English(S-1): Appreciating Drama	<ol> <li>Students acquainted and familiarized with the terminology in Drama Criticism (i.e. the terms used in Critical Analysis and Appreciation of Drama).</li> <li>Students got encouraged to make a detailed study of a few sample masterpieces of English Drama from different parts of the world</li> <li>Developed interest among the students to appreciate and analyze drama independently</li> <li>Enhanced students awareness in the aesthetics of Drama and to empower them to evaluate drama independently</li> </ol>
Optional English(S-2): Appreciating Poetry	<ol> <li>Students acquainted and familiarized with the terminology in poetry criticism (i.e. the terms used in critical analysis and appreciation of poems)</li> <li>Students got encouraged to make a detailed study of a few sample masterpieces of English poetry.</li> <li>Enhanced students awareness in the aesthetics of poetry and to empower them to read, appreciate</li> </ol>

		evaluate the poetry
		independently
<b>T. Y. B. A.</b>	Compulsory English:	1. Students introduced to the
	Literary Pinnacles	best uses of language in
		literature.
		2.Students familiarized with the
		communicative power of
		English.
		3. Students to become
		competent users of English in
		real life situations.
		4. Students got exposure to
		varied cultural experiences
		through literature.
		5 It contributed to students'
		overall personality development
		by improving their
		communicative and soft skills
	General English(G-3).	1) Students got exposure to
	Advanced Study of English	some of the best samples of
	Language and Literature	Indian English Poetry
	Language and Literature	2) Students experienced Indian
		English poetry expresses the
		ethos and culture of India
		3) They understood creative
		uses of language in Indian
		English Poetry
		4) Students got introduced to
		some advanced areas of
		language study
		5) It helped students to prepare
		to go for detailed study and
		understanding of literature and
		language
	Ontional English(S-3).	1 Students introduced to the
	Annreciating Novel	hasics of novel as a literary
		form
		2 Students got exposure to the
		historical development and
		nature of novel
		3 They became aware of
		different types and aspects of
		novel
		4. Developed literary sensibility
		and sense of cultural diversity
		in students
		5. Students got exposure to
		some of the best examples of
		novel
1		

	Optional English(S-4): Introduction to Literary Criticism	<ol> <li>Introduced students to the basics of literary criticism</li> <li>They became aware of the nature and historical development of criticism</li> <li>They became familiar with the significant critical approaches and terms</li> <li>Students got encouraged to interpret literary works in the light of the critical approaches</li> <li>Developed aptitude for critical analysis</li> </ol>
S. Y. BSc.,	<b>Optional English: Literary</b>	1. Students acquainted ith the
Comp. Sci.	Vistas	different modes of
and		Communication in the context
Biotech		of modern life. 2.
		They became effective and
		efficient users of language.
		3. They realized the importance
		and value of Communication in
		personality development and
		career prospects. 4. Enhanced
		their employment opportunities
		in communication based
D X7		careers.
F.Y.	Compulsory English: A	1. Students realized the beauty
DCOIII.	Failway to Success	English through good pieces of
		prose and poetry
		2 They got exposure to native
		cultural experiences and
		situations so that they
		understood the importance and
		utility of English language.
		3. Developed overall linguistic
		competence and communicative
		skills among the students.
		4. Developed oral and written
		communicative skills among the
		students so that their
		employability enhanced and
		English becomes the medium of
		their livelihood and personality.

F.Y.B.A.	Paper 1: An Introduction to	1. Students introduced to major
Functional	English Language and	features of spoken English
English	Writing Skills in English	2. Awareness about using
8	······································	language according to the
		situation
		3 Learners overcame common
		problems of Indian speakers of
		English
		4 Reinforcement of grammar
		studied up to std. XII 5
		Learners acquired the basic
		skills of effective writing
		1) improved oral competence
		2) acquainted with standard
		pronunciation 3)
	Paper II. Oral	Effective use of communicative
	Communication in English	manners
SVRA	Panar III. A dyanood	1 Enhanced students' ability to
Functional	Writing Skills and	communicate in written mode
Functional	Introduction to Electronic	2 Trained students in extended
English	Media	2. Trained students in extended
	Ivicula	3 Developed awareness about
		the need to change language
		according to situation
		4. Helped students to recognize
		4. Helped students to recognize
		5 Students acquainted to acrean
		5. Students acquainted to career
		options in electronic media and
		for the same
		6 Students became aware about
		o. Students became aware about
		the nature of Modia
		7 Initiated students into
		7. Initiated students into
		hibliography etc.
	Papar IV: Oral	1) Ruilt confidence in
	Laper IV. Oral Communication in English	communicative English through
	Intermediate & Koy	active participation
	Competency Modules	2) Students to learned through
	Competency Wouldes	2) Students to rearried through
		Students got introduction to a
		wide variety of conversational
		situations both formal and
		informal 4) Created
		awareness about what to say
		and when to say it
		5) Created awareness about
		developing voice quality for
		effective oral communication
	J	

NT	Ducanamana		
		Skill Developmetprogramm	develop a value-base among students through Key Competency Modules 7. Students exposed to work environment and work experience through visits and field work
			<ul> <li>study reports and interviews</li> <li>4. Students to overall development of personality through key competency modules</li> <li>5. Initiation by students into research through project report</li> <li>6. Basic information about ethics, business ethics, role of an individual in society so as to</li> </ul>
		English, auvanceu	<ul><li>2. Provided them with basic</li><li>sources of information</li><li>regarding SSI</li><li>3. Promoted the idea of self</li><li>employment through field work,</li></ul>
		Paper VI: Entrepreneurship development, Project Report & Oral Communication in English: advanced	<ol> <li>Encouraged students to thrash out the possibility of self employment</li> <li>Provided them with basic</li> </ol>
			<ul> <li>change from one media to the other</li> <li>4) Encouraged students to observe, compare and analyze the language activities of media through exposure</li> </ul>
			translation, technical writing, writing for mass media, advertising, free lancing 3) Awareness about language
	Lingiish	Competency Modules	for the same 2) Students prepared for various careers in language like
	T.Y.B.A. Functional English	Paper V: Introduction to Print Media and Writing for Mass Media & Key	1) Students acquainted with new career options and equipped them to be prepared
			during interaction or in video media
			6) Students became aware of

1	Soft skill for base-line staff	<ol> <li>To develop communication skills of the learnwrs.</li> <li>To develop self-confidence through soft skill trainig</li> </ol>	1. Learners should aquients with new career options and equipped them to be prepared for the same. 2. They prepared for various careers in language like translation, technical writing, writing for mass media, advertising, free lancing
		Remedial Course	

Sr No	Program	Course objectives	Program specific outcomes
1	Remedial	$\succ$ To prepare the student to	<ul> <li>Improvement of English</li> </ul>
	Course	reach at par with the average	proficiency.
		student with special care taken	
		on the weaker areas of the	
		students	
		To develop English	• Effective of the writing
		language skills-reading,	process method on students'
		writing, speaking and	performance in English
		listening.	composition
		Bridge Course	
Sr No	Program	Course objectives	Program specific outcomes
	Bridge	$\succ$ To develop the basic	
	Course	writing skills of students	
2		• To introduce the new	Developing basic skills in
		students to the basic language	English language.
		skills like Listening,	
		Speaking, Reading and	
		Writing.	
		• To encourage students to	Enhancing communicative
		develop their communicative	approach in English through self
		competence in English	exploration and class experiences.
		language.	

### **Dept of History**

### **Program outcomes:**

- 1. To get student vast knowledge
- 2. Students should understand academic honesty, a concept presented to them in all history classes
- 3. Students should understand the basic skills that historians use in writing
- 4. To Develop historical (subject specific) skills including the ability of critical and logical thinking
- 5. To develop view of historical research
- 6. To increase the students knowledge of the areas of history in which they wishes to specialize.
- 7. To understand the basic skills that historians use in research
- 8. To understand the basic tools of historical analysis.
- 9. To prepare students for history related careers in teaching and public govt. service.

### Program specific outcomes

- 1. They get related to history various type knowledge, its useful for public sector competitive examination, they introduce cultural, religious, Scio-economic, and political events and condition.
- 2. Increase Critical Thinking, Students will learn to apply historical methods to evaluate critically the record of the past and how historians and others have interpreted it.
- 3. Increase research skills, Students will acquire basic historical research skills, including (as appropriate) the effective use of libraries, archives, and databases.
- 4. Increase communication skills, students will learn to organize and express their thoughts clearly and coherently both in writing and orally.
- 5. Students were able to explain and critique the historical schools of thought that have shaped scholarly understand of their fields of study.
- 6. Students were able to demonstrate broad knowledge of historical events and periods and their significance.
- 7. Reviewing the state of the field to identify a new topic and locate their work within larger scholarly conversations.
- 8. Many students got greater success in teaching and public sector fields.

### **Course outcomes:**

### Chh. Shivaji and His Times (1630 to 1707)

- 1. Students got knowledge of concept of Shivaji and his times.
- 2. Student view increased of Nationalism and Secularism.
- 3. Students got knowledge of administration of Shivaji Maharaj.
- 4. Introduced to student social, economic and religious condition.

### History of Modern Maharashtra (1818-1960)

- 1. Student know the history of modern Maharashtra from an analytical perspective;
- 2. To point out to them the dialectical relationship between continuity and change in Maharashtra;

- 3. Students understand the ideas, institutions, forces and movements that contributed to the structural changes in Maharashtra.
- 4. Students understand various interpretative perspectives.
- 5. To helped them in articulating their own ideas and views leading to orientation for research.
- 6. To introduced the student to regional history within a broad national framework.

### History of Marathas (1707-1818)

- 1. Student's undrstand administrative system of the Marathas in an analytical way, to acquaint the student with the nature of Maratha Polity.
- 2. Students understood basic components of the Maratha administrative structure, to enable the student to understand the basic concepts of the Maratha polity.

### 20<sup>th</sup> century Maharashtra

- 1. Students got knowledge of concept History of modern Maharashtra.
- 2. Modern Maharashtra history is useful to student for MPSC examination.
- 3. National and social movement in Maharashtra Introduced to students.
- 4. Student got knowledge of Maharashtra Philosophers and their philosophy

### History of early India

- 1. It enables the students to engage with general issues regarding culture and civilization of the ancient period.
- 2. It inculcates awareness among the students about the cultural heritage of mankind.
- 3. It develops a sound knowledge about the changes that that took place among the major cultures of world civilization.
- 4. It gives an idea about the harmonious existence of the different sections of the people.

### History of Delhi sultans and Mugal India:

- 1. Students get an idea about the social, cultural and administrative features of India during medieval period.
- 2. It makes the students to aware the linkage effect of this period in subsequent centuries.
- 3. Students appreciate the administrative system and economic reforms of the Delhi sultans and the Mughals.
- 4. They also appreciate the architectural contributions of the Mughals.

### Historiography:

- 1. To acquaint the students with the culture, art, literature scriptures of that particular period
- 2. To familiar the students with the traditions, customs, spiritual and religious preaching's of the particular period

### History of Indian national Movement: (1885-1947)

- 1. Students get awareness about the causes, leaders, centers, results and nature of the revolt of 1857.
- 2. It provides in-depth information on the role of important socio-religious reformers and their organizations in the removal of evils that existed in the same realm of India during the second half of the 19<sup>th</sup> century.
- 3. It creates good socio-political reformers and leaders among students to protest against the evils that are existing in the contemporary India's social and political issues.

- 4. It creates the feeling of nationalism and patriotism among the students. Pupils get consciousness on the role of the India National Congress for the realization of India's independence.
- 5. It gives clear picture on different techniques adopted by the Moderates and the Extremists in India's struggle for independence.
- 6. Students become aware of the impact of the First World War on Indian nationalism.
- 7. Students clearly understand different techniques adopted by Mahatma Gandhi in the Indian national movement. It depicts the role of Mahatma Gandhi in connection with Non-co-operation, Civil Disobedience etc. for the attainment of India's freedom.
- 8. Students get clear picture about revolutionary movements in India especially the role played by Bhagat Singh.
- 9. Pupils become aware of the impact of the Second World War in India.
- 10. They get awareness on how communalism contributed to the partition of India in 1947

### History of India (1757-1885)

- 1. Students understood the history of 'Modern' India in an analytical perspective.
- 2. To made them awareness of the multi-dimensionality of Modern Indian History.
- 3. Students were the dialectical relationship between continuity and change in India
- 4. To highlight the ideas, institutions, forces and movements that contributed to the shaping of the Indian modernity
- 5. To acquainted the student with various interpretative perspectives
- 6. To helped them in articulating their own ideas and views leading to the research orientation.

### Fields of History (Archaeology, museology and tourism):

- 1. It develops the basic skills in Archaeology, museology and tourism
- 2. Students get functional knowledge in the field of Archaeology, museology and tourism.
- 3. It creates awareness about Archaeology, museology and tourism.
- 4. It creates awareness about social issues and concerns in the use of digital technology.
- 5. The students familiarize with the evolution of Indian culture with special reference to the society and polity of ancient period.
- 6. It helps students to develop understanding about the cultural heritage of India.

### Landmark in the history of Modern world

- 1. The students familiarize the various changes that took place in the history of modern world.
- 2. They get an idea about the various revolutions and their impacts.
- 3. They develop an understanding about the liberal ideas and freedom struggles.
- 4. They analyses the agenda of the imperialistic powers in Latin America and Africa.
- 5. Students familiarize the significance of the unification movement in Italy and Germany.
- 6. They get an idea about the First and Second World War.
- 7. They get an idea about the circumstances in which Germany and Italy emerged as world powers.
- 8. They evaluate the achievements and failure of the International organizations.

### Glimpses of the history of Marathwada

1. Students develop a clear idea about the early Marathwada history.

2. Students identify the geographical features which influences the History of Marathwada.

3. They get awareness about the rise of new kingdoms in Pre-modern Marathwada.

4. They familiarize with the different sources which reconstruct the early Marathwada history.

## **Political science**

### **Program Outcomes:**

- Students enable to develop academic proficiency in the subfields of Indian Government and Politics, Comparative Government, International Relations, Public Administration, Political Theory, and Political Ideology.
- 2. Students enable to develop and be able to demonstrate skills in conducting as well as presenting research in political science.
- 3. Students enable to analyze political and policy problems and formulate policy options.
- 4. Students enable to discuss the major theories and concepts of political science and its subfields, and also deliver thoughtful and well articulated presentations of research findings.

#### **Program specific outcomes**

- **1.** Serve as a politician
- 2. Work as a teacher in colleges, schools and high schools
- **3.** Serve as political party member, political adviser, and well citizen of India. Work in elections and political as well as administrative system.
- 4. Serve in forest department as forest conservator.
- 5. Can admit to MA Politics, LLB, MSW, MBA,
- 6. Work in NGOs.
- 7. Can Prepare for Competitive exams.

#### **Course outcomes**

### **Basic concepts of political science**

- 1. Political Science seeks to offer students advance knowledge of political concepts and practices in a manner that enables students to relate them to the contemporary local, national and international event.
- 2. It seeks to emphasize both the knowledge and skill element by exposing students to new ideas not only by classroom teaching, but by also engaging in continuous experiential learning through field visits, seminars, discussions etc.
- Understanding of the institutions, processes, constitutional background, and policy outcomes of Indian government and the ability to compare Indian government to other countries around the world.
- 4. Knowledge of key theories and concepts, historical developments, organizations, and modern issues in international relations.

- 5. Understanding of government institutions, electoral processes, and policies in a variety of countries around the world and the ability to compare the effectiveness or impact of differing political arrangements across countries.
- 6. Knowledge of some of the philosophical underpinnings of modern politics and government and the legal principles by which political disputes are often settled.
- 7. Ability to use the comparative case study method of analysis, quantitative forms of analysis, and legal analysis in oral communication and in written research.

### Government and politics of Maharashtra

- 1. Students enable to explain the role of British imperial on local government in India.
- 2. Students enable to understand the contributions of various committees on local government.
- 3. Students enable to describe the features and provisions of Constitutional Amendment
- 4. Acts regarding Local Government Institutions.
- 5. Students enable to equip the learner to play an active and responsible leadership role in the functioning of Local Government Institutions.
- 6. Students enable to describe the significance and role of Grama Sabha in Maharashtra.
- 7. Student enables to study one state in an in-depth manner to understand how the political process evolves at the state level.
- 8. Student enables to do assignments based on field studies. The study is to be done from socio-historical as well as political economy perspectives.
- 9. Students enable to know the changes in the political process over the period of over half a century from Congress domination to a bipolar competition and from Maratha hegemony to the crisis of hegemony.

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### Indian government and politics:

- 1. Students enable to understand the philosophy of Indian constitutions.
- 2. Students enable to identify the causes, impact of British colonial rule.
- 3. Students enable to appreciate the various phases of Indian national movement.
- 4. Students enable to create value in young youth regarding the patriotism.
- 5. Students enable to understand the various Government of Indian acts their provision and reforms.
- 6. Students enable to know the salient features in making of Indian constitution

- 7. Students enable to appreciate the socio-economic political factors which lead to the freedom struggle.
- 8. Students enable to appreciate the fundamental rights and duties and the directive principle of state policy
- 9. Students enable to evaluate the evolution, functioning and consequences of political parties in India.
- 10. Students enable to identify how electoral rules and procedure in India effect election outcomes.

#### **International Politics:**

- 1. Students enable to understand the evolution, scope and significance of international relations
- 2. Students enable to demonstrate an understanding of: the key historical events and also they enable to understand contemporary international system; and the key actors which shaped the international Politics.
- 3. Students enable to discuss the main international relations theories.
- 4. Students enable to analyze importance of International relation in process of nation progress.
- 5. Students enable to appreciate the foreign policy their determinants features& its relevance.
- 6. Students enable to introduces the evolution and important of various theories.
- 7. Students know a brief history of international politics.
- 8. They understanding what are happening in the world and the levels of analysis.
- 9. Competing theories are presented.

### **Indian political thinkers**

- 1. Student enables to know major traditions of thought that have shaped political discourse in different parts of the world over the last three millennia.
- 2. Student stresses the great diversity of social contexts and philosophical visions that have informed the ideas of key political thinkers across epochs.
- 3. The chief outcome is Student project the history of political thought as a series of critical, interconnected and open-ended conversations about the ends and means of the good life.
- 4. Student knows the key ideas of political thinking in modern India as it shaped in the colonial context.

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

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#### **Political ideologies**

- 1. Student enables to understand the difference between ideology and thought as well as between theory and ideology.
- 2. Students enable to understand the relationship between ideas and politics.
- 3. Student enables to understand the core doctrines of each of the ideologies and to make sense of politics through different ideological perspectives.

## **Economics Department**

**Programme Outcome: -** The Principal aims of objectives of the BA Economics programme are:

- 1) To provide students a well-founded education in Economics.
- To provide and adapt curricula that prepare our graduates for employment and further study as Economics.
- To provide the students with opportunity to pursuer course that emphasizes quantitative and theoretical aspects of Economics.
- To provide to students with opportunity to focus on applied and policy issues in Economics.
- To provide programmers that allow that students to choose from a wide range of Economics specialization.

Paper Name	Outcome
Micro Economics – ECO – 101	<ol> <li>This course is designed to provide basic understanding of micro Economic concepts behavior of Economic agent- consumer-producer and factor and factor owner-price-fluctuation in market.</li> </ol>
	2) The module includes in this course deal with the, concepts of consumer behavior production, market, factor pricing and welfare Economics.
Indian Economics ECO – 102	<ol> <li>Students will aware about recent Economic affairs such as demonetization, universal basic Income, cashless Economy skill and training development schemes, make in India etc.</li> <li>Student will get benefit about various</li> </ol>
	<ul> <li>Economics issues at local national and global level.</li> <li>3) Students will get knowledge about various business ideas such as Mall – e – commerce even management.</li> </ul>

Price Theory ECO – 103 Money Banking and Finance ECO- 104	<ol> <li>It provides basic understanding of price theory concepts. The students are expected to learn the simple relationship in theories of consumption, production, cost and revenues.</li> <li>Understanding the functioning of good and factor markets.</li> <li>Develop skill in Economics reasoning and solving aggregate economics problems.</li> <li>Students will learn the role of can central and commercial banks in the process of money creation and control.</li> </ol>
Macro Economics ECO – 105	<ol> <li>It provides basic understanding of macro economics concepts the students are expected to learn simple relationship in the theories of consumption production and revenue.</li> <li>This course equips the students to understand systems facts and the latest theoretical development in macro economics.</li> </ol>
Development Economics ECO 106	<ol> <li>The students are expected to develop an integrated approach to resource use and how properly measured and coefficient used measure inequalities.</li> <li>Students will get benefit on conceptual approach of growth mode is which are applied for the</li> </ol>
Public Finance ECO 107	<ol> <li>This course will be useful for students aiming towards, careers is in the government sector, policy analysis, business and journalism.</li> <li>Fostering the Economic activities via budget and fiscal policies.</li> </ol>
Statistical Method ECO 108	The students are expected to acquire statistical skill that are necessary for further studies in most branches of social sciences.
International Economics ECO 109	1) The students are expected to acquire skill that will help them to take a rational decision in issue relating to International Economics.

	2) The objectives of this course to arrive at
	an understanding of theories of
	International trade and to Examine the
	impact of the trade policies on the
	dynamic gains.
Agriculture Economics ECI 110	1) Students will obtain information
	regarding various agriculture issues in
	India and remedies for it.
	2) Student also can get information about co-
	operative movement in India and its
	performance and role in rural
	development.
	3) Making awareness about self employment
	through various local business like Agro
	turism, Travel agents, Horticultural,
	Floriculture fishery and animal
	husbandry.
Labour Economics ECO 111	1) Labour is the main input of any Industry.
	This paper provides a deep knowledge
	regarding recent labour policies in India.
	The main work of this paper is to provide
	detailed Information to students about
	labour market, employment were
	determination and industrial dispute.
Project Works ( Annually)ECO 112	1) Project work This course will inform
	students about the project writing skill as
	per the study of research methology
	techniques. It is also deals with the deep
	study of specific topic.
<b>Research Methodology ECO 113</b>	1) Studies will get ideas about application of
	various research method and
	mathematical tools, for analyzing and
	presenting Economics issues and theories.
	2) The Main works of this paper is to provide
	information about social sciences
	research to the students of Economics.
Industrial Economics ECO 114	The student aims to give students basic
	knowledge and skill to continue with
	Advanced studies in Industrial Economics.
	1) Interment evolution and encount of the
	and business.
	2) Apply methods for cost accounting and
	capital investment budgets.
	3) Conduct basic book-keeping and
	accounting for a smaller firm.
Economy of Maharashtra ECO 115	The Economy of Maharashtra is the largest in
	India. It is the third most Urbanized State
	with an Urban population of 45% of the
	population of $-5/0$ of the

	whole populate. The village Ralegaon sidhi in Ahmednagar District is heralded as a
	sustainable model of village development, tourism in Maharashtra, Industry, Agriculture, Transportation, Economy of different regions, greatest progress.
Project of Works ECO 116	It helps the students to develop their critical approach and creative thinking skill.

### **DEPARTMENT OF SOCIOLOGY**

#### Program Specific Outcomes:-

- a) Acquaintance with social transactions, social relations, social formations, social control, social values and culture.
- b) Knowing the significance of social institution, caste system, religion nationalism, integrity, equality and justice.
- c) Getting the knowledge of the works of social reformers all over the nation.
- d) Ability to follow new stream of thoughts and theories of social thinkers.
- e) Getting the deep knowledge about various social groups like tribal community, women bulk etc.
- f) Ability to deal with research in sociology.

	Paper Name	Course Outcome
I.	Introduction of sociology 1. Introduction 2. Basic concents	<ol> <li>To study the basic concepts of sociology</li> <li>To equip the students with the</li> </ol>
	<ol> <li>Basic concepts</li> <li>Perspective in Sociology</li> </ol>	importance and origin of sociology
	4. The uses of sociology	3. To understand the brief knowledge between human and society.
II.	Individual and society	1. To study the different section of
	1. Culture and socialization	society, social structure etc.
	<ol> <li>Social structure</li> <li>Social stratification</li> </ol>	2. To make the students aware with the social changes
	4. Social change	3. To acquaint the students with social
	5. Social control	stratification and different factors.
III.	Introduction to subfields of	1. To study the different issues related
	sociology.	to society.
	<ol> <li>Sociology and society – Urban sociology, Rural</li> </ol>	2. To study the sociology in terms of culture.
	sociology.	3. To thrust the different forms of
	2. Sociology and Interaction	applied sociology.
	Psychology, Political Society.	
	3. Sociology and culture	
	Anthropology.	
	4. Applied form of sociology	
	Industrial sociology.	
IV.	Indian Social Composition	1. To study the Indian social
	1. Features of Indian society	composition.
	unity, diversity, values.	2. To acquaint the students with
	2. Indian Population	problems due to population
	5. Democracy and secularism. 4. Rural and Agrarian culture	5. 10 study indian constitution and its
	S.Y.B.A.	
V.	Problems of Rural India.	1. To introduce the Indian rural
	1. Institutional Issues.	structure.

	2. Education and health.	2. To discuss the various problems in
	3 Rural Economy	Indian society
	4 Major issues in Development	3 To study the issues like dropout
	1. Mujor issues in Development.	illiterate malnutrition
VI	Contemporary Urban Issues	1 To study the concept of
V 1.	1 Urbanization	urbanization and its problems
	2 Problems of Urbanization	2 To study the importance of urban
	2. Floblenis of Ofbanization.	2. To study the importance of urban
	5. Utball Plaining.	planning in terms of housing and
	4. Giobalization and Orban	The standard have first a labeling tion
	changes.	3. To study the effect globalization
<b>X</b> 7 <b>X X</b>		and urban change.
VII.	Population in India.	1. To study the causes and
	1. Basic concepts	consequences of population.
	2. Human Population Dynamics	2. To study the various stages of
	3. Demographic Transition.	demographic transition.
	4. Population Policy	3. To study population policy in
		relation to world scenario.
<b>X/III</b>	Socialogy of Dovelopment	1 To study the socio aconomia
V 111.	1 Concentual perspectives on	1. To study the socio-economic disperities in society
	1. Conceptual perspectives on	alspartites in society.
	Development.	2. To equip in students with different
	2. Development issues	approaches.
	3. Development Approaches.	3. To study the development issues.
	4. Indian experience of	
	Development.	
	1.Y.B.A.	
IX.	Sociological Traditions.	1. To provide information with the
IX.	Sociological Traditions. 1. Emergence of sociological	1. To provide information with the understanding of historical, social
IX.	<ul><li>Sociological Traditions.</li><li>1. Emergence of sociological thought.</li></ul>	1. To provide information with the understanding of historical, social economics and intellectual forces of
IX.	<ol> <li>Sociological Traditions.</li> <li>Emergence of sociological thought.</li> <li>The pioneers – compete,</li> </ol>	1. To provide information with the understanding of historical, social economics and intellectual forces of the rise of sociological theories.
IX.	<ol> <li>Sociological Traditions.</li> <li>Emergence of sociological thought.</li> <li>The pioneers – compete, Spencer, Durkheim.</li> </ol>	<ol> <li>To provide information with the understanding of historical, social economics and intellectual forces of the rise of sociological theories.</li> <li>To acquaint the students with the</li> </ol>
IX.	<ol> <li>Sociological Traditions.</li> <li>Emergence of sociological thought.</li> <li>The pioneers – compete, Spencer, Durkheim.</li> <li>The classical trandition,</li> </ol>	<ol> <li>To provide information with the understanding of historical, social economics and intellectual forces of the rise of sociological theories.</li> <li>To acquaint the students with the sociological thoughts of different</li> </ol>
IX.	<ol> <li>Sociological Traditions.</li> <li>Emergence of sociological thought.</li> <li>The pioneers – compete, Spencer, Durkheim.</li> <li>The classical trandition, Marx, Weber.</li> </ol>	<ol> <li>To provide information with the understanding of historical, social economics and intellectual forces of the rise of sociological theories.</li> <li>To acquaint the students with the sociological thoughts of different sociologists.</li> </ol>
IX.	<ol> <li>Sociological Traditions.</li> <li>Emergence of sociological thought.</li> <li>The pioneers – compete, Spencer, Durkheim.</li> <li>The classical trandition, Marx, Weber.</li> <li>Introduction to Research</li> </ol>	<ol> <li>To provide information with the understanding of historical, social economics and intellectual forces of the rise of sociological theories.</li> <li>To acquaint the students with the sociological thoughts of different sociologists.</li> <li>To introduce the students with</li> </ol>
IX. X.	<ol> <li>Sociological Traditions.</li> <li>Emergence of sociological thought.</li> <li>The pioneers – compete, Spencer, Durkheim.</li> <li>The classical trandition, Marx, Weber.</li> <li>Introduction to Research Methodology.</li> </ol>	<ol> <li>To provide information with the understanding of historical, social economics and intellectual forces of the rise of sociological theories.</li> <li>To acquaint the students with the sociological thoughts of different sociologists.</li> <li>To introduce the students with various research skills.</li> </ol>
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IX. X. XI.	<ol> <li>Sociological Traditions.</li> <li>Emergence of sociological thought.</li> <li>The pioneers – compete, Spencer, Durkheim.</li> <li>The classical trandition, Marx, Weber.</li> <li>Introduction to Research Methodology.</li> <li>Basic concepts</li> <li>Types of Research</li> <li>Scientifics Research Process.</li> </ol> Social Problems in India. <ol> <li>Corruption and crime.</li> <li>Displacement and Rehabilitation.</li> <li>Problems of Inequality</li> </ol>	<ol> <li>To provide information with the understanding of historical, social economics and intellectual forces of the rise of sociological theories.</li> <li>To acquaint the students with the sociological thoughts of different sociologists.</li> <li>To introduce the students with various research skills.</li> <li>To study different types of research and issues in research.</li> <li>To motivate the students to undertake social research.</li> <li>To acquaint the students with corruption and crime.</li> <li>To find out solution for social</li> </ol>
IX. X. XI.	<ol> <li>Sociological Traditions.</li> <li>Emergence of sociological thought.</li> <li>The pioneers – compete, Spencer, Durkheim.</li> <li>The classical trandition, Marx, Weber.</li> <li>Introduction to Research Methodology.</li> <li>Basic concepts</li> <li>Types of Research</li> <li>Scientifics Research Process.</li> </ol> Social Problems in India. <ol> <li>Corruption and crime.</li> <li>Displacement and Rehabilitation.</li> <li>Problems of Inequality</li> </ol>	<ol> <li>To provide information with the understanding of historical, social economics and intellectual forces of the rise of sociological theories.</li> <li>To acquaint the students with the sociological thoughts of different sociologists.</li> <li>To introduce the students with various research skills.</li> <li>To study different types of research and issues in research.</li> <li>To study the social problems in India.</li> <li>To acquaint the students with corruption and crime.</li> <li>To find out solution for social problems.</li> </ol>
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IX. X. XI.	<ul> <li>Sociological Traditions.</li> <li>Emergence of sociological thought.</li> <li>The pioneers – compete, Spencer, Durkheim.</li> <li>The classical trandition, Marx, Weber.</li> <li>Introduction to Research Methodology.</li> <li>Basic concepts</li> <li>Types of Research</li> <li>Scientifics Research Process.</li> </ul> Social Problems in India. <ol> <li>Corruption and crime.</li> <li>Displacement and Rehabilitation.</li> <li>Problems of Inequality</li> </ol> OR Urban Sociology	<ol> <li>To provide information with the understanding of historical, social economics and intellectual forces of the rise of sociological theories.</li> <li>To acquaint the students with the sociological thoughts of different sociologists.</li> <li>To introduce the students with various research skills.</li> <li>To study different types of research and issues in research.</li> <li>To study the social problems in India.</li> <li>To find out solution for social problems.</li> <li>To study the nature and scope of urban society.</li> </ol>
IX. X. XI.	<ul> <li>Sociological Traditions.</li> <li>Emergence of sociological thought.</li> <li>The pioneers – compete, Spencer, Durkheim.</li> <li>The classical trandition, Marx, Weber.</li> <li>Introduction to Research Methodology.</li> <li>Basic concepts</li> <li>Types of Research</li> <li>Scientifics Research Process.</li> </ul> Social Problems in India. <ol> <li>Corruption and crime.</li> <li>Displacement and Rehabilitation.</li> <li>Problems of Inequality</li> </ol> OR Urban Sociology <ol> <li>Introduction</li> </ol>	<ol> <li>To provide information with the understanding of historical, social economics and intellectual forces of the rise of sociological theories.</li> <li>To acquaint the students with the sociological thoughts of different sociologists.</li> <li>To introduce the students with various research skills.</li> <li>To study different types of research and issues in research.</li> <li>To study the social problems in India.</li> <li>To acquaint the students with corruption and crime.</li> <li>To find out solution for social problems.</li> <li>To study the nature and scope of urban society.</li> <li>To acquaint the students with with solution for social problems.</li> </ol>

	2. Process of Urban development		
	3. Urban sociological Theories.		
XII.	Project Work		
XIII.	Sociological Theories.	1.	To acquaint the students with various
	1. Functionalism.	2	sociological theories.
	2. Conflict Theory	2.	To train the students in the
	3. Symbolic Interaction.		application of social theories to social situations.
XIV.	Social Research Methods.	1.	To study the techniques of
	1. Techniques of sociological		sociological investigation.
	Investigation.	2.	To introduce the students with
	<ol> <li>Computer application</li> <li>Utility of social Research.</li> </ol>		computer application and statistics.
XV.	Social Disorganization in	1.	To introduce the problems of
	contemporary India.		disorganization in contemporary
	1. Problems of Disorganization.		India.
	2. Violence and Social disorder.	2.	To acquaint the students with effects
	3. Regionalism.		of violence and social disorder.
	OR	1.	To Familiarizes social problems of urbanization.
XV. U	Urban Society in India.	2.	To introduce the students with the
			role of industrialization. In urban
1. Ur	ban India		society.
2. So	cial problems of Urbanization.		-
3. Ur	banization and Industrialization.		
XVI.	Project Work	1.	To study the significance of the research work.
		2.	To attract the students to understand
			various skills during practical work.

## **Department of Commerce**

## **Course Outcomes**

Year	Course	Name of Course	Outcomes
	Code		
B.Com-I		Financial Accounting	<ol> <li>To familiarize the students about the principles and concepts of financial accounting.</li> <li>To acquaint the students with the emerging issues in business.</li> <li>To introduce the trade and commerce regarding maintaining and presenting the accounting and financial facts.</li> </ol>
		Computer Application in Business	<ol> <li>To expose the students to the innovations in Computer Application and its potential application in business.</li> <li>To provide computer skills &amp; knowledge among students</li> <li>To enhance the students for understanding the use of computing skills in business operations.</li> </ol>
		Business Mathematics & Statistics	<ol> <li>To enable the students to apply statistical techniques</li> <li>To impart knowledge of logical reasoning.</li> <li>To thrust various statistical &amp; mathematical techniques for logical &amp; scientific decisions in business Operations.</li> </ol>
Year	Course Code	Name of Course	Outcomes
		Business & Industrial Economics	<ol> <li>To acquaint the students with the principles of business economics.</li> <li>To introduce the students with different concepts like flexibility,</li> </ol>

			demand & supply ratio etc.
			3) To insert leadership, motivation,
			management, SEBI etc
		Business Organization & Management	<ol> <li>To provide basic knowledge of organization &amp; management of business enterprises</li> <li>To study the concepts like marketing Maslow Need Hierarchy Theory, Make in India Movement</li> </ol>
			3) To inculcate social responsibility & ethics
		Entrepreneurship Development	1) Familiarize the students with latest programs of the government authorities in promoting small and medium industries.
			2) To motivate the students to start new entrepreneurship.
			3) To introduce the students with new principles of entrepreneurship.
B. Com-II		Corporate Accounting	<ol> <li>To expose the students to the accounting practices prevailing in the corporate sector</li> <li>To introduce the students with the knowledge regarding share market.</li> <li>To give information to the students about final accounts of joint company</li> </ol>
		IT Application in Business	1) To expose the students to the innovations in informatory technology and its potential application in business.
			2) To study the concepts like Ecommerce, Electronic market, E business etc.
			3) To introduce future trends of market among the students.
Year	Course	Name of Course	Outcomes
	Code		

		Principles of	1) To develop business skills among students
		Business	
		Management	theories like Leadership Theory, Business
			Theory, Traditional Theory etc.
		Business	1) To enable the students to apply the
		Regulatory Frame	activities.
		Work	2) To study the concepts of Human Rights.
		Marketing	1) To familiarize the students with the management practices.
		Management-II	
			2) To create awareness about E advertising, Green Marketing, Event Marketing, etc.
			3) To provide knowledge of social, ethical &
			legal aspects of marketing.
B. Com III		Advanced	1) To equip the students in preparation of
		Financial	accounts of various business areas.
		Accounting	2) To study the functioning of stock market.
			3) To enable the students to maintain different types of account.
		Management	1) To equip the students to interpret financial
		Accounting	statements with specific tools of management accounting.
			2) To equip the students with ability to analyze,
			to interpret, accounting information in managerial decisions.
			3) To study various types of budgets.
Year	Course	Name of Course	Outcomes
	Code		
		Cost Accounting	1) To familiarize the students with cost concepts
			<ul><li>2) To study the concepts like labour, overheads</li><li>&amp; different plans.</li></ul>

	<ul><li>3) To study the concepts &amp; objectives of material control.</li><li>4) To familiarize the students with cost concepts</li></ul>
Direct & Indirect Tax (GST/Income Tax)	<ol> <li>To impart the basic knowledge and understanding of the concepts and practices of income tax law in India.</li> <li>To expose the students with basic tax concepts &amp; legislations.</li> <li>To study various taxes as Central Excise, Custom Laws, Service Tax &amp; VAT. etc.</li> </ol>
New Auditing Trends	<ol> <li>To understand principles and practice of Auditing.</li> <li>To enable the students information about auditing procedure.</li> <li>To study the duties &amp; liabilities of an Auditor.</li> </ol>
Banking and Insurance	1) To expose the students to the changing scenario of Indian Banking.
	<ol> <li>2) To families students with banking&amp; practice of banking.</li> <li>3) To equip the students with the knowledge of modern banking.</li> <li>4) To develop employability of students in banking, financial &amp; other economic sectors.</li> </ol>

## Outcomes of Department of Public Administration

Year	Name of Paper	Outcomes
	Principles and	1. To know about the meaning of public
	Concepts of Public	administration
	Administration	2. To know about the Organizational principles
		3. To know the concepts of public administration
	Public Administration	1. To know about the Evolution of Indian
	in India	Administration.
		2. To know the Constitutional Framework.
		3. To Know the Central Legislature.
		4. To know the Right of Information Act-2005.
	Maharashtra	1. To know the formation of Maharashtra State.
	Administration	2. To know the State Executive, Judiciary and
		Legislature of Maharashtra.
		3. To Know the Constitutional and Statutory bodies
B.A-I		of Maharashtra
	District	1. To know the Evolution of District Administration
	Administration	2. To know the Power about District Collector.
		3. To know the District Police Administration.
	Personnel	1. To know the Public Services in India
	Administration	2. To know the Administrative Training Institutions in
		India 2 Talaa aha kuka Baddaa a ( Baasaa)
		3. TO KNOW about the Problems of Personnel
		Administration.
	Danchavat Pai and	To know the Evolution of Panchavat Pai in India
	Paricilayat Najariu	<ol> <li>To know the Panchavat Pai System in</li> </ol>
	Rural Development	2. To know the Fanendyat haj system in Maharashtra
		3 To know about the Rural Development
	Financial	1. To know about the Finance Ministry in India.
	Administration.	2. To know about the Account and Audit.
B.A-II	· · · · · · · · · · · · · · · · · · ·	3. To know about the Parliamentary Control
		4. To know about the New Economic Policy in India.
	Urban Local Self	1. To know about the Consequences of Urbanization.
	Governance and	2. To know about the Ministry of Urban
	Urban Development.	Development.
		3. To know about the Problems of Urbanization.
	Human Resource	1. To know about the Ministry of Human Resource
	Development	Development.
		2. To know about the Institutions in Human Resource
		Development.
		3. To know about the Human Resource Management
		and Planning.

	Education Administration in	1.	To know about the Historical Background of Education
	India.	2. 3.	To know about the Institution in Higher Education To know about the Globalization and Higher Education.
R A_III	Administrative	1.	To know about the Scientific Theory
D. A- III	Thinkers	2. 3.	To know about the Behavioral Theory. To know about the Ecological Approach.
	Public Policy and	1.	To know about the Formulation of Public Policy.
	Development	2.	To know about the Public Policies in India.
		3.	To know about the Challenges before Development.
	Health Administration	1.	To know about the Indian Health Care System.
	in India.	2.	To know about the Health Welfare Ministry.
		3.	To know about the Challenges of Health Care System in India.
	Recent Trends in	1.	To know about the Various Recent Trends in
	Public Administration		Public Administration.
	and Important Laws	2.	To know about the Various Important Laws

### **BCA (Bachelor of computer Application)**

#### **Program Outcomes:**

1) To provide thorough understanding of nature, scope and application of computer and computer languages

2) To develop interdisciplinary approach among the students

3) Improves communication skill so that the can effectively present technical information in oral and written reports.

4) Prepare to create design innovative methodologies for solving complex and real life problems for the betterment of the society.

5) Demonstrate use of appropriate techniques to effectively manage business challenges.

6) Develop programming skills, networking skills; learn applications, packages, programming languages and modern techniques of IT.

7) Get skill and info not only about computer and information technology but also in organization and management

#### **Program specific Outcomes:**

1. An ability to apply knowledge of mathematics, computer science and management in practice.

2. An ability to enhance not only comprehensive understanding of the theory but its application to in diverse field.

3. The program prepares the young professional for a range of computer applications, computer organization, techniques of computer networking, software engineering-Commerce, Web Designing, C, C++, VB, JAVA.

4. An ability to design a computing system to meet desired needs within realistic constraints such as safety, security and applicability in multidisciplinary teams with positive attitude.

5. An ability to communicate effectively.

6. In order to enhance programming skills of the young IT professionals, the program has introduced the concept of project development in each language/technology learnt during semester.

## **Course Outcomes**

Year	Course	Name of Course	Outcomes
	Code		
BCA- I		Financial	1) To familiarize the students with cost
		Accounting(I&II)	concepts
		& Cost Accountancy	2) To study the concepts like labour,
			overheads& different plans.
			3) To study the concepts & objectives
			of material control.
			4) To familiarize the students with cost
			Concepts
			5) To familiarize the students with cost
			concepts
			6) To study the concepts like labour,
			overheads& different plans.
			7) To study the concepts & objectives
			of material control.
			8) To familiarize the students with cost
			concepts
			<ul> <li>overheads&amp; different plans.</li> <li>7) To study the concepts &amp; objectives</li> <li>of material control.</li> <li>8) To familiarize the students with cost</li> <li>concepts</li> </ul>

Industrial Economics	<ol> <li>Identify and compare different market structures (Perfect competition, monopolistic competition, monopoly and oligopoly), as well as, compare their price and output implications</li> <li>Describe and apply the fundamentals of game theory and its application to entry deterrence, and oligopoly theory in respect of price and quantity competition, and international trade</li> <li>Identify and assess the implications of product differentiation for welfare. Implications of asymmetric information for quality of goods. Implications of market structure for vertical dominance</li> <li>Describe and compare different views of profits persistence based on market structure and innovation</li> <li>Use course materials to judge the behavior of firms in today's economy</li> </ol>
Business Statistics&Mthematics	<ol> <li>To develop an understanding of the theory of probability, rules of probability and probability distributions.</li> <li>To comprehend the decision making process under uncertainty using statistical tools.</li> <li>To become aware of the concepts in sampling, sampling distributions and estimation.</li> <li>To understand the meaning and process of hypothesis testing including one-sample and two- sample tests.</li> <li>To appreciate the importance and application of non-parametric tests in hypothesis testing.</li> <li>To understand the meaning and importance of correlation and regression analysis including both simple and multiple correlation and regression.</li> <li>To understand the concept of different tapes of matrices.</li> <li>To understand the concept of permutation combination &amp; binomial theorem.</li> </ol>

Programming in C	<ol> <li>Learn how to build by the algorithms for problems.</li> <li>Learn how to create pictorial representations of the program.</li> <li>Learn how to apply logic for problems.</li> <li>Enhance their programming skills.</li> </ol>
Principal of Management	<ol> <li>1) 1) To develop business skills among students relevant to various business situations.</li> <li>2)To enable the students to study the different theories like Leadership Theory, Business Theory, Traditional Theory etc.</li> </ol>
Business Communication	<ol> <li>To enable the learner to communicate effectively and appropriately in real life situation</li> <li>To use English effectively for study purpose across the curriculum.</li> <li>To develop and integrate the use of four language skills:         <ul> <li>a) Reading</li> <li>b) Writing</li> <li>c) Listening</li> <li>d) Speaking</li> </ul> </li> <li>4) To revise and reinforce structure already learnt.</li> <li>5) To know the process of Interview Techniques&amp; Group discussion.</li> </ol>
Basic Web Technology(I&II)	<ol> <li>Ability to develop web pages using HTML and Cascading Style Sheets.</li> <li>Skill to create XML documents and Schemas.</li> </ol>

		<ul> <li>3) Knowledge of client-side (JavaScript) and server-side scripting (PHP, ASP.NET) languages to build dynamic web pages.</li> <li>4) Familiarization with Web Application Terminologies, Internet Tools, E – Commerce and other web services.</li> <li>5) Ability to develop database applications with MySQL.</li> </ul>
BCA- II	OPPS Using C++	<ol> <li>Familiarization with a widely used programming concept – Object Oriented Programming.</li> <li>Develop logical thinking.</li> <li>Skill to write codes in C++ by applying concept of OOP, such as Objects, Classes, Constructors, Inheritance etc., to solve mathematical or real world problems .</li> <li>Ability to isolate and fix common errors in C++ programs.</li> </ol>
	Buisness Law(I,II&III)	<ol> <li>On completion of this course, learners will be able to: appreciate the relevance of business law to individuals and businesses and the role of law in an economic, political and social context.</li> <li>Identify the fundamental legal principles behind contractual agreements.</li> <li>Examine how businesses can be held liable in tort for the actions of their employees.</li> <li>Understand the legal and fiscal structure of different forms of business organizations and their responsibilities as an employer.</li> </ol>

		5) Acquire problem solving techniques and to be able to present coherent, concise legal argument.
	DBMS	<ol> <li>1) Familiarization with Database Management System.</li> <li>2) Comprehensive knowledge of database models.</li> <li>3) Ability to code database transactions using SQL.</li> <li>4) Skill to write SQL Quries.</li> </ol>
	E-BuisnessEssiential	<ol> <li>Demonstrate an understanding of the foundations and importance of E- commerce</li> <li>Analyze the impact of E-commerce on business models and strategy</li> <li>Describe Internet trading relationships including Business to Consumer, Business-to-Business, Intra-organizational.</li> <li>Describe the infrastructure for E- commerce</li> <li>Describe the key features of Internet, Intranets and Extranets and explain how they relate to each other.</li> <li>Discuss legal issues and privacy in E-Commerce</li> <li>Assess electronic payment systems</li> <li>Recognize and discuss global E- commerce issues</li> </ol>
	Data Structure &Algorithm	1)Skill to analyze algorithms and to determine algorithm correctness and their time efficiency.

		<ol> <li>2) Knowledge of advanced abstract data type (ADT) and data structures and their implementations.</li> <li>3) Ability to implement algorithms to perform various operations on data structures.</li> </ol>
	Java Programming	<ol> <li>Skill to write Java application programs using OOP principles and proper program structuring.</li> <li>Ability to create packages and interfaces.</li> <li>Ability to implement error handling techniques using exception handling.</li> </ol>
	MIS&DSS	<ol> <li>Relate the basic concepts and technologies used in the field of management information systems;</li> <li>Compare the processes of developing and implementing information systems.</li> <li>Outline the role of the ethical, social, and security issues of information systems.</li> <li>Translate the role of information systems in organizations, the strategic management processes, with the implications for the management.</li> <li>Apply the understanding of how various information systems like DBMS work together to accomplish the information objectives of an organization.</li> </ol>
	Entrepreneurship development	<ol> <li>Familiarize the students with latest</li> <li>programs of the government authorities</li> <li>in promoting small and rnedium</li> </ol>

		industries.
		2) To motivate the students to start new
		entrepreneurship.
		3) To introduce the students with new
		principles of entrepreneurship
		4) To familiarise the students with the fundamentals of entrepreneurship and its role in economic development and to motivate them towards entrepreneurial activities.
	Advance Networking	
		<ol> <li>Knowledge of uses and services of Computer Network.</li> <li>Ability to identify types and topologies of network.</li> <li>Understanding of analog and digital transmission of data.</li> <li>Familiarization with the techniques of Network Security.</li> <li>Know the basic of network, network type's reference model and layers in network</li> <li>Understand the routing algorithm and protocols that are used in network communication</li> </ol>
BCA-III	Management Accounting	1) To understand the basic concepts and processes used to determine product costs, 2) To be able to interpret cost accounting statements.

	3) To be able to analyze and evaluate information for cost ascertainment, planning, control and decision making
OrganizationalBehavior	1) Demonstrate the applicability of the concept of organizational behavior to understand the behavior of people in the organization.
	2) Demonstrate the applicability of analyzing the complexities associated with management of individual behavior in the organization.
	3)Analyze the complexities associated with management of the group behavior in the organization.
	4) Demonstrate how the organizational behavior can integrate in understanding the motivation (why) behind behavior of people in the organization
Business Elective –I (banking and insurance)	1) To make the students understand the concept of role of banking sector in the services of banks
	2) To enable the students to understand the application of marketing principles in banking sector.
RDBMS Using ORACLE	<ol> <li>To prepare students to acquire front end development skills using Visual Basic.</li> <li>The students can be able to build the front end application using the latest industry required technology.</li> </ol>
VB	1)know the working environment of visual basics using a control structure

		· · · · · · · · · · · · · · · · · · ·
		2) Understand the module, components and menu editor and its
		concept in a simple manner
		<b>3</b> ) Analyze a controls such text box, rich text box and etcwrite
		coding easily
		<b>4</b> ) develop the project with database using ODBC, DAO, ADO and
		visual data manager
		<b>5</b> ) Include the active controls and other control to perform particular
		task
	Soetware Testing and Quality Assurance	1) Familiarization with the concept of software engineering and its relevance.
		<ol> <li>Onderstanding of various methods or models for developing a software product.</li> </ol>
		<ol> <li>Ability to analyze existing system to gather requirements for proposed system.</li> </ol>
		<ul><li>4) Skill to design and code a software.</li><li>5)familiar with different testing</li></ul>
		techniques 6) Understand tools and techniques of software engineering
	System Programming	
		1) Detailed knowledge of Compilation process of a program.
		2) Knowledge of internal working of macro processor.
		3) Familiarization with Assembly language.

		4) Understanding the working of linker and loaders – components used during the process of program execution.
	Service Marketing	<ol> <li>The students will be able to explain the nature and scope of services marketing</li> <li>The students will be able to provide a theoretical and practical basis for assessing service performance using company examples</li> <li>effectively understand what quality means in service delivery and how perceptions of service quality are developed by customers</li> <li>Identify critical issues in service design including the nature of service products &amp;markets, building the service model.</li> </ol>
	Project	<ol> <li>1) Skill to apply Software Development Cycle to develop a software module.</li> <li>2) Ability to use the techniques, skills and modern engineering tools necessary for software development.</li> <li>3) Develop a software product along with its complete documentation</li> </ol>

#### Shri. Amolak Jain Vidya Prasarak Mandal Kada

# Smt. S.K. Gandhi Art's, Amolak Sci. & P.H. Gandhi Comm. College Kada Tq. Ashti Dist. Beed 414202 Department of Geography (UG & PG)

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### 1. B. A. Geography (UG) Program Outcomes:

- 1. Demonstrate knowledge of physical condition and environment that shape human experience and civilization.
- 2. Acquire knowledge in the field of map making or exploration, remote sensing and GIS.
- 3. Career choice is GIS planning, environmental work and population and site analysis.
- 4. Entry into government agencies such as census Bureau, Forestry service.
- 5. Start their career as climate change analyst, geomorphologist, meteorologist, Remote sensing analyst soil conservationist.
- 6. Understand the structure of atmosphere and different type of climate and its characteristics.

### 2. Subject & Learning Outcomes:

### A. Knowledge of Geographic Principles:

Students will demonstrate a proficiency in knowledge of essential concepts of physical and human geography including:

- 1. Describing human-environment, and nature-society interactions as well as global human and environmental issues.
- 2. Identifying and explaining the planet's human and physical characteristics and processes, from global to local scales.

### **B.** Scientific Inquiry, Tools and Critical Thinking:

Students will demonstrate the ability to analyze, interpret, and draw conclusion about geographic problems and information including:

- 1. Demonstrating proficiency in using geographical research tools including spatial statistics, cartography, remote sensing, GIS and GPS.
- 2. Identifying, interpreting and analyzing geographic problems and processes.
- 3. Formulating a research methodology and executing a formal student-led research project.
- 4. Applying knowledge of global issues to a unique scientific problem.
- 5. Identifying human and environmental issues on global, regional, and local scales and critically assess various perspectives on the issue.
- 6. Evaluating the impacts of human activities on natural environments.
- 7. Applying knowledge of global issues to local circumstances to evaluate the local effects of the issues.

### C. Communication Skills:

Students will demonstrate the ability to communicate geographic information utilizing both oral and written outlets by:

- 1. Defending and communicating facts, ideas and research results via written, oral, graphical and quantitative outlets.
- 2. Demonstrating the ability to evaluate and solve geographic problems effectively in collaborative settings working with other students.

### D. Ethical and Social Responsibility:

Students will appreciate the relevance of geographical knowledge to everyday living by:

- 1. Applying geographical knowledge to everyday living.
- 2. Demonstrating an appreciation and respect for the diversity of perspectives, world-views and cultures.
- 3. Showing an awareness and responsibility for the environment.

### M.A. Geography Program Outcomes:

M.A. in Geography by completing an M.A. program, a student will be able to:

1. Demonstrate knowledge of physical condition and environment that shape human experience and civilization.

- 2. Acquire knowledge in the field of map making or exploration, remote sensing and GIS.
- 3. Career choice is GIS planning, environmental work and population and site analysis.
- 4. Entry into government agencies such as census Bureau, Forestry service.
- 5. Start their career as climate change analyst, geomorphologist, meteorologist, Remote sensing analyst soil conservationist
- 6. Understand the structure of atmosphere and different type of climate and its characteristics.
- 7. Brief knowledge of history & development of geographical thoughts.
- 8. Understand the Science of Remote Sensing and the use of GIS and GPS Software.
- 9. Understand the structure, composition of different Sphere of the Earth.

### A. Geography master's Subject & learning Outcomes:

#### A) Scientific Inquiry, Tools and Critical Thinking:

Students will demonstrate the ability to analyze, interpret, and draw conclusion about geographic problems and information including:

- 1. Demonstrating proficiency in using geographical research tools including spatial statistics, cartography, remote sensing, GIS and GPS.
- 2. Identifying, interpreting and analyzing geographic problems and processes.
- 3. Formulating a research methodology and executing a formal student-led research project.

#### **B.** Communication Skills:

Students will demonstrate the ability to communicate geographic information utilizing both oral and written outlets throughout their thesis research by defending and communicating facts, ideas and research results via written, oral, graphical and quantitative outlets.