

**Rizvi College of Arts, Science and Commerce**  
Off Carter Road, Bandra (West), Mumbai - 400 050

**Course Outcome**

**B.Sc. Zoology**

Programme	Course	Name of Unit	
B. Sc. (First Year)	USZO101 (Course 1)	Wonders of Animal World, Biodiversity and its Conservation	<p>Curiosity will be ignited in the mind of learners, to know more about the fascinating world of animals which would enhance their interest and love for the subject of Zoology.</p> <p>Learners would appreciate treasure of Biodiversity, its importance and hence would contribute their best for its conservation.</p> <p>Minds of learners would be impulse to think differently and would be encouraged ipso facto to their original crude ideas from the field of biological sciences.</p>
	USZO102 (Course 2)	Instrumentation and Animal Biotechnology	<p>Learners would work safely in the laboratory and avoid occurrence of accidents (mishaps) which will boost their scholastic performance and economy in use of materials/chemicals during practical sessions</p> <p>Learners would understand recent advances in the subject and their applications for the betterment of mankind; and that the young minds would be tuned to think out of the box.</p> <p>Students will be skilled to select and operate suitable instruments for the studies of</p>

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			<p>different components of Zoology of this course and also of higher classes including research.</p>
	<p>USZO201 (Course:3)</p>	<p>Ecology and Wildlife Management</p>	<p>This unit would allow learners to study about nature of animal population, specific factors affecting its growth and its impact on the population of other life form.</p> <p>Learners will grasp the concept of interdependence and interaction of physical, chemical and biological factors in the environment and will lead to better understanding about implications of loss of fauna specifically on human being, erupting spur of desire for conservation of all flora and fauna.</p> <p>Learners would be inspired to choose career options in the field of wild life conservation, research, photography and ecotourism.</p>
	<p>USZO 202 (Course 4)</p>	<p>Nutrition, Public health and Hygiene</p>	<p>Healthy dietary habits would be inculcated in the life style of learners in order to prevent risk of developing health hazards in younger generation due to faulty eating habits.</p> <p>Promoting optimum conservation of water, encouragement for maintaining adequate personal hygiene, optimum use of electronic gadgets, avoiding addiction, thus facilitating achievement of the goal of healthy young India in</p>

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			<p>true sense.</p> <p>Learners will be able to promptly recognize stress related problems at initial stages and would be able to adopt relevant solutions which would lead to psychologically strong mind set promoting positive attitude important for academics and would be able to acquire knowledge of cause, symptoms and precautions of infectious diseases.</p>
<p>B. Sc. (Second Year)</p>	<p>USZO301 (Course 5)</p>	<p>Fundamentals of Genetics, Chromosomes and Heredity and Nucleic Acids</p>	<p>Understand and apply the principles of inheritance.</p> <p>Understand the concept of multiple alleles, linkage and crossing over.</p> <p>Learners would understand the structure and types of chromosomes.</p> <p>Learners would understand mechanisms of sex determination.</p> <p>Learners would be able to correlate the disorders linked to a particular sex chromosome.</p> <p>Learner would understand the importance of nucleic acids as genetic material.</p> <p>The learners would understand and appreciate the regulation of gene expressions.</p>
	<p>USZO301 (Course 6)</p>	<p>Nutrition, Excretion, Respiration, Circulation, Control and Co-</p>	<p>Learners would understand the increasing complexity of nutritional, excretory and osmoregulatory physiology in evolutionary</p>

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		ordination, Locomotion and Reproduction	<p>hierarchy.</p> <p>Learners would be able to correlate the habit and habitat with nutritional, excretory and osmoregulatory structures.</p> <p>Learners would understand the increasing complexity of respiratory and circulatory physiology in evolutionary hierarchy.</p> <p>Learners would be able to correlate the habit and habitat with respiratory and circulatory structures.</p> <p>Learners would understand the process of control and coordination by nervous and endocrine regulation.</p> <p>Learners would be fascinated by various locomotory structures found in the animal kingdom.</p> <p>Learners would be acquainted with various reproductive strategies present in animals.</p>
	USZO 303 (Course 7)	Amazing animals, Ethology and Conservation biology, Applied Zoology	<p>Learners will become familiar with the enthralling animal world.</p> <p>Learners will appreciate the use of unique abilities of animals in development of technology.</p> <p>Learners would gain an insight into different types of animal behavior and their role in adaptation.</p>

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			<p>Learners would become sensitized to protect and manage biodiversity in a sensible and sustainable manner.</p> <p>Learner will understand the science of vermicomposting and dairy.</p> <p>Learner will appreciate and respect domestic pets through proper care.</p>
	USZO 401 (Course 8)	Comparative Embryology, Aspects of Human Reproduction and Scientific Attitude, Methodology, Writing and Ethics	<p>Learner will be able to understand and compare the different pre- embryonic stages</p> <p>Learner will be able to appreciate the functional aspects of extra embryonic membranes and classify the different types of placentae</p> <p>Learners will be able to understand human reproductive Physiology</p> <p>Learners will become familiar with advances in ART and related ethical issues.</p> <p>The learner will develop qualities such as critical thinking and analysis.</p> <p>The learner will develop the skills of scientific communication.</p> <p>Learner will understand the ethical aspects of research</p>
	USZO 402 (Course 9)	Cell Biology, Endo membrane System and Biomolecules	<p>Learner would acquire insight of transport mechanisms for the maintenance and composition of cell</p> <p>Learner would appreciate the intricacy of</p>

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			<p>endomembrane system.</p> <p>Learner would understand the interlinking of endomembrane system for functioning of cell.</p> <p>The learner will realize the importance of biomolecules and their clinical significance.</p>
	USZO 403 (Course 10)	Holistic Health, Neurological and genetic diseases and Pollution	<p>Learners will apply the knowledge to adopt a healthy life style.</p> <p>The learner will become cognizant about genetic and neurological disorders as well as genetic counseling, its requisites and significance.</p> <p>Learner will be able to relate various anthropogenic activities with environmental degradation and its harmful effects on human health.</p> <p>Learner will become more sensitive towards the environmental issues.</p>
B. Sc. ( Third Year)	USZO 501 (Course 11)	Holistic Health, Neurological and genetic diseases and Pollution	<p>Learners will develop conceptual clarity with regard to the anatomy of animals at different levels. Learners shall comprehend the evolutionary perspective of each level of organization.</p> <p>Learners will know the importance of the significance and advantages of each level of organization.</p> <p>Learners will understand that scientific</p>

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			<p>classification of animals is based on certain characteristics they have in common.</p> <p>Learners will be able to recall characteristics features and examples of each phylum. Learners will be familiar with protozoan and helminth parasites.</p> <p>Learners will get an idea of higher groups of invertebrate animal life and their classification.</p> <p>Learners will get an idea of general characteristics and details of invertebrate animal systems.</p>
	<p>USZO 502 (Course 12)</p>	<p>Haematology and Immunology</p>	<p>Learners would be able to realize the fundamental concepts in haematology.</p> <p>Learners will be familiar with different terminologies and diagnostic tests performed in a pathological laboratory. Learners will be better equipped for taking any further pathological course or working in a diagnostic laboratory.</p> <p>Learners would comprehend the types of immunity and the components of immune system. Learners would realize the significant role of immune system in giving resistance against diseases.</p> <p>Learners would understand immune related pathologies. Learners would understand</p>

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			<p>the principle and applications of vaccines. Learners would develop basic understanding of immunology of organ transplantation and cancer treatment.</p>
	<p>USZO 601 (Course 15)</p>	<p>Minor Phyla, Taxonomy and Type Study</p>	<p>Learners will get an idea of basic morphological and physiological details of minor phyla and protochordates. Study of phylogeny will help learners to understand the evolutionary relationships between organisms.</p> <p>Learners will be able to identify classes of fish and amphibians by their anatomical features. Learners will be able to compare and contrast characters of fishes and amphibians. Learners will be able to describe evolutionary trends implied by their classification.</p> <p>Learners will understand that scientific classification of animals is based on certain characteristics they have in common. Learners will be able to recall characteristic features and examples of each class of Reptilia, Aves and Mammalia.</p> <p>Learners will get an idea of vertebrate animal life and its classification.</p>
	<p>USZO 602 (Course 16)</p>	<p>Enzymology, Homeostasis, Histology and General Pathology</p>	<p>Learners must be able to understand basics of enzyme structure and function. Learners must comprehend variations in enzyme activity</p>



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			<p>and kinetics. Learners must appreciate the enzyme assay procedures and the therapeutic application of enzymes.</p> <p>Learners would be able to understand the concept of positive and negative feedback mechanisms. Learners would comprehend the adaptive responses of animals to environmental changes.</p> <p>Learners would appreciate the well planned organization of tissues and cells in the organ systems</p> <p>Learners will gain knowledge of various infective agents and diseases caused by them. Learners will be familiar with various medical terminology pertaining to pathological condition of the body caused due to disease.</p>

## B.Sc. (Physics)

Class	Sem	Course	Outcomes
F Y B Sc	Sem I	Classical Physics	<ol style="list-style-type: none"> <li>1. Understand Newton's laws and apply them in calculations of the motion of simple systems</li> <li>2. Use the free body diagrams to analyze the forces on the object.</li> <li>3. Understand the concepts of friction and the concepts of elasticity, fluid mechanics and be able to perform calculations using them</li> <li>4. Understand the concepts of lens system and interference</li> <li>5. Apply the laws of thermodynamics to formulate the relations necessary to analyze a thermodynamic process</li> <li>6. Demonstrate quantitative problem solving skills in all the topics covered</li> </ol>
		Modern Physics	<ol style="list-style-type: none"> <li>1. Understand nuclear properties and nuclear behavior</li> <li>2. Understand the type isotopes and their applications</li> <li>3. Demonstrate and understand the quantum mechanical concepts</li> <li>4. Demonstrate quantitative problem solving skills in all the topics covered</li> </ol>
F Y B Sc	Sem II	Mathematical Physics	<ol style="list-style-type: none"> <li>1. Understand the basic mathematical concepts and applications of them in physical situations</li> <li>2. Demonstrate quantitative problem solving skills in all the topics covered</li> </ol>
		Electricity and Electronics	<ol style="list-style-type: none"> <li>1. Understand the alternating current theory, AC bridges &amp; circuit theorem</li> <li>2. Understand Digital electronics, DC power supply</li> <li>3. Understand static electric and magnetic fields</li> </ol>
S Y B Sc	Sem III	Mechanics and Thermodynamics	<ol style="list-style-type: none"> <li>1. Understand the concepts of mechanics &amp; properties of matter &amp; to apply them to problems.</li> <li>2. Comprehend the basic concepts of</li> </ol>

			<p>thermodynamics &amp; its applications in physical situation.</p> <ol style="list-style-type: none"> <li>Learn about situations in low temperature.</li> <li>Demonstrate tentative problem solving skills in all above areas</li> </ol>
		Vector calculus, Analog Electronics	<ol style="list-style-type: none"> <li>Understand the basic concepts of mathematical physics and their applications in physical situations.</li> <li>Understand the basic laws of electrodynamics and be able to perform calculations using them.</li> <li>Understand the basics of transistor biasing, operational amplifiers, their applications.</li> <li>Understand the basic concepts of oscillators and be able to perform calculations using them.</li> <li>Demonstrate quantitative problem solving skill in all the topics covered.</li> </ol>
		Applied Physics - I	<ol style="list-style-type: none"> <li>Appreciate the role of Physics in 'interdisciplinary areas related to materials, Bio Physics, Acoustics etc.</li> <li>Understand the scope of the subject in Industry &amp; Research.</li> </ol>
S Y B Sc	Sem IV	Optics and Digital Electronics	<ol style="list-style-type: none"> <li>Understand the diffraction and polarization processes and applications of them in physical situations.</li> <li>Understand the working of digital circuits</li> <li>Use IC 555 timer for various timing applications.</li> <li>Demonstrate quantitative problem solving skills in all the topics covered.</li> </ol>
		Quantum Physics	<ol style="list-style-type: none"> <li>Understand the postulates of quantum mechanics and to understand its importance in explaining significant phenomena in Physics.</li> <li>Demonstrate quantitative problem solving skills in all the topics covered.</li> </ol>
		Applied Physics - II	<ol style="list-style-type: none"> <li>Understand the concepts of geophysics.</li> <li>Understand 8085 microprocessor, basic assembly language programming, instruction set of 8085 microprocessor</li> <li>Write programs for 8085 microprocessor</li> <li>Understand the concept of radiation, its types and the concept of radio communication.</li> </ol>
F Y B Sc		Practical Course	<ol style="list-style-type: none"> <li>To understand and practice the skills while</li> </ol>

& S Y B Sc	Sem I,II,III, IV		<p>doing physics practical</p> <ol style="list-style-type: none"> <li>To understand the use of apparatus and their use without fear</li> <li>To correlate their physics theory concepts through practical</li> <li>Understand the concepts of errors and their estimation</li> </ol>
T Y B Sc	Sem V	Mathematical, Thermal and Statistical Physics	<ol style="list-style-type: none"> <li>Learn some mathematical techniques required to understand the physical phenomena at the undergraduate level</li> <li>Get exposure to important ideas of statistical mechanics</li> <li>Solve simple problems in probability, understand the concept of independent events and work with standard continuous distributions.</li> <li>Get idea of the functions of complex variables; solve non homogeneous differential equations and partial differential equations using simple methods.</li> </ol>
		Solid State Physics	<ol style="list-style-type: none"> <li>Understand the basics of crystallography, Electrical properties of metals, Band Theory of solids, demarcation among the types of materials, Semiconductor Physics and Superconductivity.</li> <li>Understand the basic concepts of Fermi probability, distribution function, Density of states, conduction in semiconductors and BCS theory of superconductivity.</li> <li>Demonstrate quantitative problem solving skills in all the topics covered.</li> </ol>
		Atomic and Molecular Physics	<ol style="list-style-type: none"> <li>The application of quantum mechanics in atomic physics</li> <li>The importance of electron spin, symmetric and antisymmetric wave functions and vector atom model</li> <li>Effect of magnetic field on atoms and its application</li> <li>Learn Molecular physics and its applications.</li> </ol>
		Electrodynamics	<ol style="list-style-type: none"> <li>Understand the laws of electrodynamics and be able to perform calculations using them.</li> <li>Understand Maxwell's electrodynamics and its relation to relativity.</li> <li>Understand how optical laws can be derived from electromagnetic principles.</li> <li>Develop quantitative problem solving skills.</li> </ol>

T Y B Sc	Sem V	Elective I  Applied Component  Electronic Instrumentation	<ol style="list-style-type: none"> <li>1. Understand the difference between a transducer and a sensor.</li> <li>2. Understand the construction, working and uses of different types of transducers.</li> <li>3. Understand the concept of signal conditioning, devices used and their operations.</li> <li>4. Get acquainted with the measuring instruments used in laboratory.</li> <li>5. Get the insight of the modern medical instruments in principle, which are used in day to day life.</li> </ol>
T Y B Sc	Sem VI	Classical Mechanics	<ol style="list-style-type: none"> <li>1. Understand the kinds of motions that can occur under a central potential and their applications to planetary orbits.</li> <li>2. Learn the concepts needed for the important formalism of Lagrange's equations and derive the equations using D'Alembert's principle.</li> <li>3. Appreciate the drastic effect of adding nonlinear corrections to usual problems of mechanics and nonlinear mechanics can help understand the irregularity we observe around us in nature.</li> </ol>
		Electronics	<ol style="list-style-type: none"> <li>1. Understand the basics of semiconductor devices and their applications.</li> <li>2. Understand the basic concepts operational amplifier: its prototype and applications as instrumentation amplifier, active filters, comparators and waveform generation.</li> <li>3. Understand the basic concepts of timing pulse generation and regulated power supplies</li> <li>4. Understand the basic electronic circuits for universal logic building blocks and basic concepts of digital communication.</li> <li>5. Develop quantitative problem solving skills in all the topics covered.</li> </ol>
		Nuclear Physics	<ol style="list-style-type: none"> <li>1. Understand the fundamental principles and concepts governing classical nuclear and particle physics</li> <li>2. Have knowledge of their applications interactions of ionizing radiation with matter the key techniques for particle accelerators the physical processes involved in nuclear power generation.</li> </ol>

			<ol style="list-style-type: none"> <li>Understand the fundamental constituents of matter and lay foundation for the understanding of unsolved questions about dark matter, antimatter and other research oriented topics.</li> </ol>
		Special Theory of Relativity	<ol style="list-style-type: none"> <li>Understand the significance of Michelson Morley experiment and failure of the existing theories to explain the null result</li> <li>Understand the importance of postulates of special relativity, Lorentz transformation equations and how it changed the way we look at space and time, Absolutism and relativity, Common sense versus Einstein concept of Space and time.</li> <li>Solve problems based on length contraction, time dilation, velocity addition, Doppler effect, mass energy relation and resolve paradoxes in relativity like twin paradox etc.</li> </ol>
		Elective II  Applied Component  Electronic Instrumentation	<ol style="list-style-type: none"> <li>Analyze/design and implement combinational logic circuits.</li> <li>Develop assembly language programming skills and real time applications of microprocessor.</li> <li>Illustrate how to interface the I/O peripheral (PPI) with 8085 microprocessor</li> <li>Understand architecture, silent features, instruction set, programming and interfacing of 8051 microcontroller.</li> <li>Develop the programming skills in programming Language C++.</li> <li>Train their practical knowledge through lab experiments.</li> </ol>
T Y B Sc	Sem V & VI	Practical Course  Core & Applied Component	<ol style="list-style-type: none"> <li>Understanding relevant concepts.</li> <li>Planning of the experiments</li> <li>Layout and adjustments of the equipments</li> <li>Understanding designing of the experiments</li> <li>Attempts to make the experiments open ended</li> <li>Recording of observations and plotting of graphs</li> <li>Calculation of results and estimation of possible errors in the observation of results</li> </ol>

## **Chemistry**

- To infuse in the learner a spirit of inquiry into the fundamental aspects of the various core areas of Chemistry.
- To make the learner proficient in analysing the various observations and chemical phenomena presented to him during the course.
- To make the learner capable of solving problems in the various units of this course
- To give the learner an opportunity to get hands on experience of the various concepts and processes in the various branches of chemistry
- To impart various skills of handling chemicals, reagents, apparatus, instruments and the care and safety aspects involved in such handling
- To make the learner capable of analysing and interpreting results of the experiments he conducts or performs
- To make the learner capable of acquiring or pursuing a source of livelihood like jobs in chemical industry
- To arouse the interest to pursue higher levels of learning in chemistry.

## **B.Sc. (Botany)**

- To recognize and identify major groups of non-vascular and vascular plants and their phylogenetic relationships.
- To understand the phylogeny of plants and study various systems of classification.
- To explore the morphological, anatomical, embryological details as well as economic importance of algae, fungi, bryophytes, pteridophytes, gymnosperms and angiosperms.
- To understand physiological processes and adaptations of plants.
- To provide knowledge about environmental factors and natural resources and their importance in sustainable development.
- To be able to carry out phytochemical analysis of plant extracts and application of the isolated compounds for treatment of diseases.
- To be able to deal with all microbes and the technologies for their effective uses in industry and mitigation of environmental concerns.
- To explain how current medicinal practices are often based on indigenous plant knowledge and to get introduced to different perspectives on treating ailments according to ethnomedicinal principles.
- To understand patterns of heredity and variation among individuals, species and populations and apply principles for improvement of quality and yield.
- To be able to apply statistical tools to gain insights into significantly different data from different sources.
- To acquire recently published knowledge in molecular biology, such as DNA technology; PTC and bioinformatics and their applications



## **Arts (Economics)**

### **FYBA Economics**

#### **Semester – I**

##### **1) Micro Economics - I : Paper I**

##### **Course Outcome**

This course is designed to introduce the students to elementary concepts in microeconomics. The student should be able to use these concepts to understand the relevance of microeconomics to the real world. The student should be able to build on these concepts in the future to develop deeper understanding of the Economy.

#### **Semester II**

##### **1) Macro Economics –II: Paper II**

##### **Course Outcome**

This course is designed to introduce the student to the basic building blocks of macroeconomics. Using an open economy framework, the course develops an understanding of the constituents of the open economy. The student should be able to build on these constituents in the later years so as to be able to analyse macroeconomic policies.

### **SYBA Economics**

#### **Semester - III**

##### **1) Micro Economics - II : Paper III**

##### **Course Outcome**

The aim of this paper is to make student aware microeconomics analysis and it considers the operation of a market economy and problem of how best to allocate society's scarce resources.

##### **2) Indian Economy: Contemporary Concerns : Paper IV**

##### **Course Outcome**

The aim of this paper is to make the students aware of the various contemporary issues of Indian economy in a particular year.

#### **Semester - IV**

##### **1) Macro Economics - II : Paper V**

##### **.Course Outcome**

The course introduces economics analysis of aggregate demand, supply, total employment, income And prices

##### **2) Economic Survey of Maharashtra : Paper VI**

##### **Course Outcome**

The aim of this paper is to make the students aware of the various contemporary issues of economy of Maharashtra in a particular concerned year.

# **TYBA Economics**

## **Semester V**

### **Course Outcome**

#### **1) Micro Economics III: Paper VII**

The course is designed to provide sound understanding in microeconomic theory. Since Students have been taught perfect competition; this course focuses on three aspects, Which are the study of imperfect competition, general equilibrium and welfare Economics.

#### **2) Economics of Development : Paper VIII**

This course is designed to inculcate diverse concepts related to economic growth and development by giving special emphasis on structural issues related to the process of development. In order to create awareness on policy options, the pressing problems on the path of development such as inequality, poverty and technological aspects are dealt in.

#### **3) Industrial and Labour Economics : Paper IX**

There has been a paradigm shift in the structure of the Indian industrial sector and the policies governing it ever since the new era of globalisation and liberalisation has ushered in. This paper intends to equip the students with the knowledge about the fundamentals of Industrial Economics.

#### **Industrial and Labour Economics : Paper IX**

This paper intends to prepare the students with the knowledge of the changing policies related to the Indian industry in the globalised era.

#### **4) Research Methodology: Paper X**

This paper is designed with the view to introduce the concepts, principles and methods of economic research based on qualitative and quantitative data. The course will enable the students to get an insight into the applications of modern analytical tools and techniques related economic decision making. The student gets an opportunity to learn how to collect and analyze primary and secondary data. Practical sessions will strengthen the knowledge related to computer applications to research analysis.

#### **5) Environmental Economics: Paper XI**

This course focuses on economic causes of environmental problems. In particular, economic principles are applied to environmental questions and their management. Economic implications of environmental policy are addressed as well as valuation of environmental improvements.

#### **6) History of Economic Thought: Paper XII**

This course provides basic understanding about the celebrated economists and their contributions starting from the classical period. This paper aims at to make the students aware of the contribution of Classical, Neo Classical, Modern and Nobel Laureate Economists.

## **Semester VI**

### **Course Outcome**

#### **1) Macro Economics III: Paper XIII**

This course introduces the students to formal modelling of a macroeconomic theory with analytical tools. It focuses on goods market with fixed exchange rate, the money market, uncovered interest rate parity and the benefits and costs of fixed and flexible exchange rates.

**2) International Economics: Paper XIV**

This course develops a systematic exposition of models which explains the composition, direction, and consequences of international trade and determinants and effects of trade policy. It then builds on the models of open economy macroeconomics focussing on national policies as well as international monetary systems. It concludes with analytical accounts of the causes and consequences of the rapid expansion of international financial flows in recent years.

**3) Industrial and Labour Economics : Paper XV**

Issues pertaining to the labour market, trade unions and amicable solution to industrial disputes have become vital for developing countries, especially for India, where the bulk of the labour force is employed in the organised sector, and the organised sector is witnessing a phenomenon of jobless growth.

This paper intends to provide knowledge of the same and also discuss the importance of labour welfare and social security measures for the growing labour force in India.

**4) Research Methodology: Paper XVI**

This paper is designed with a goal to strengthen the critical thinking and listening skills in conducting economic research and to device research outcomes in an impeccable way. The entire course is based on the broad social sciences spectrum.

**5) Indian Economic Thought: Paper XVII**

This paper provides insights into both economic issues and the workings of the Indian mind. It will give the student an introduction to major Indian thinkers and their ideas on Indian economic policy.

**6) International Trade, Policy and Practice: Paper XVIII**

This course is designed for addressing changing phase of International Trade Policy and Practice. The main purpose of this course is to expose students to current trends in International developments.

## Sociology

Program code	Program name	Course code	Name of the new course	Course objectives
	BA SEM- I	UASOC 101	Foundations of Sociology	<p>Students are Introduced to the basic concepts in Sociology</p> <p>Students are familiarized with the theoretical aspect of different concepts</p>
	SEM- II	UASOC102	Fundamentals of Sociology	<p>Students are introduced to the emerging issues in Sociology</p> <p>Students are enthuse and to introduce them to the relevance and varied possibilities for future studies in Sociology.</p>
	SEM-III PR-II	UASOC 301	Indian Society: Structure And Change	<p>Students are introduced to the Indian Sociological Traditions.</p> <p>Students are with the Research traditions in Indian Sociology</p> <p>Students are acquainted with the Emerging Issues in Indian society</p>
	SEM III- PR-III	UASOC302	Contemporary Issues In Indian Society	<p>Students are awarded towards contemporary issues.</p> <p>Students inculcate</p>

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				responsibilities and promote equality.
	SEM-IV PR- II	UASOC401	Sociology Of Development	<p>Students are introduce various theoretical perspectives in Indian society that have shaped the concept of development.</p> <p>Gained an insight into emerging issues and contemporary debates within the development discourse.</p>
	SEM –IV PR -III	UASOC402	Emerging Fields In Sociology	<p>Students are introduced to the relevance and varied possibilities for future studies in sociology.</p> <p>Students are aware about the new vibrant fields in sociology.</p> <p>Students are understanding of struggle and survival in today’s competitive scenario.</p>
	SEM-V PR- IV	UASOC 501	Social Theory	Students are trained in Sociology with the understanding

<b>Program code</b>	<b>Program name</b>	<b>Course code</b>	<b>Name of the new course</b>	<b>Course objectives</b>
				<p>of Sociological Theory.</p> <p>Students are trained in the application of these theories to social situations.</p>
	SEM- V PR- V	UASOC A 502	Sociology Of Agrarian Society	<p>Students are introduced to the dynamics of traditional &amp; contemporary agrarian society.</p> <p>Understood the dynamics of agrarian formations and assess the development measures since 1947.</p>
	SEM-V- PR-VI	UASOC 503	Sociology of Gender	<p>Trace the evolution of Gender as a category of social analysis.</p> <p>Trace the emergence of women's movement in India</p> <p>Sensitized the students on gender issues</p>
	SEM-V- PR-VII	UASOC B 504	Urban Sociology	<p>Students introduced the basic concepts, theories, nature &amp; dynamics of urbanization in India</p> <p>Understood the trends of India's contemporary urbanization</p>

<b>Program code</b>	<b>Program name</b>	<b>Course code</b>	<b>Name of the new course</b>	<b>Course objectives</b>
				pattern
	SEM-V- PR-VIII	UASOC D 505	State, Civil Society and Social Movements	<p>Developed an understanding of social movements in terms of various concepts and theories of social movements.</p> <p>Explained the emergence of new social movements in a post globalised and liberalised India</p>
	SEM-V- PR-IX	UASOC 506	Quantitative Social Research	<p>Students are oriented with an orientation to Quantitative Social Research</p> <p>Students acquainted with the important concepts, techniques and processes in quantitative research</p> <p>Students worked on meaningful, minor research projects</p>
	SEM- VI PR- IV	UASOC 601	Theoretical Anthropology	<p>Student is with the understanding of Theoretical Anthropology.</p> <p>Students are trained in the</p>

<b>Program code</b>	<b>Program name</b>	<b>Course code</b>	<b>Name of the new course</b>	<b>Course objectives</b>
				application of these Theories to social situations.
	SEM-VI- PR-V	UASOC A602	Development and Changes in Agrarian Society	Analyzed attempts at financial inclusion of agrarian community. Evaluated present development initiatives and critique the role of globalization on agriculture.
	SEM-VI- PR-VI	UASOC 603	Gender and Society in India: Emerging Issues	Understood new and emerging issues in the Indian Women's movement Understood newer methods of protest and resistance
	SEM-VI- PR-VII	UASOC B 604	Urbanisation In India: Issues And Concerns	Understood urban development in the neo-liberal era. Understood newly emerging issues and concerns in the changing scenario.
	SEM-VI- PR-VIII	UASOC D 605	Sociology of Marginalised Groups	Sensitized students to the sociological significance of the study of marginalized groups To create awareness of



<b>Program code</b>	<b>Program name</b>	<b>Course code</b>	<b>Name of the new course</b>	<b>Course objectives</b>
				historically disprivileged groups in Indian society
	SEM-VI- PR- IX	UASOC 606	Qualitative Social Research	<p>Students are oriented with an orientation to Qualitative Social Research</p> <p>Students are with the important concepts, techniques and processes in qualitative research</p>

## **Philosophy**

- The subject develops the philosophical ideas & enriches the values of action.
- Philosophy helps the learners in various ways. It is based on idealism, naturalism, pragmatism, realism, spiritualism. Philosophy develops the thoughts & ideas of the existence of God.
- It gives importance of Niskamakarma in the Bhagvat Gita. Undergraduate philosophy learner will be able to think creatively and independently, exploring possibilities beyond those entrenched in prevailing opinion and practice. This creativity and independence are also evident in the learners' ability to rigorously analyze the rhetoric encountered in various media, an ability that liberates the learner from being a prisoner to common patterns of fallacious reasoning. Finally, this creativity and independence are also evident in the learners' use of inductive reasoning skills to make inferences that move beyond conditions that are known, given, or accepted.
- The department seeks to serve those students who intend to pursue graduate studies, those pursuing interdisciplinary career programs, and those who simply desire to understand human reflective traditions in order to enlarge their own horizon of awareness.

## English

### Course Outcomes

Sr. No.	Class/ Sem	Paper- Nomenclature	Course Outcomes / Objectives
1	FYBA Sem I & II	Communication Skills in English	<p style="text-align: center;">To enhance language proficiency by providing adequate exposure to reading and writing skills</p> <p style="text-align: center;">To orient the learners towards the functional aspects of language</p> <p style="text-align: center;">To increase the range of lexical resource through a variety of exercises</p>
2	FYBA Sem I & II	Introduction to Literature Paper I	<p style="text-align: center;">To acquaint students with the characteristics of various literary genres</p> <p style="text-align: center;">To develop analytical skills and critical thinking through close reading of literary texts</p> <p style="text-align: center;">To cultivate appreciation of language as an artistic medium and to help them understand the importance of forms, elements and style that shape literary works</p> <p style="text-align: center;">To enable students to understand that literature is an expression of human values within a historical and social context.</p>
3	FYBCom Sem I & II	Business Communication	<p style="text-align: center;">To develop an awareness about the complexity of communication in a dynamic business environment.</p> <p style="text-align: center;">To develop effective oral, writing and listening skills among learners.</p>

Sr. No.	Class/ Sem	Paper- Nomenclature	Course Outcomes / Objectives
			<p>To demonstrate the effective use of communication technology.</p>
4	SYBA Sem III & IV	Indian Literature in English Paper II	<p>To introduce learners to the uniqueness of Indian Literature in English</p> <p>To acquaint learners to the pluralistic dimensions of Indian Literature in English</p> <p>To help them understand the different genres of Indian Literature in English</p> <p>To familiarise learners with different perspectives of approaching this literature</p> <p>To make learners aware of prominent Indian Writers in English</p>
5	SYBA Sem III & IV	American Literature Paper III	<p>To acquaint the learners of literature with the various genres and literary terms of twentieth century American Literature</p> <p>To sensitize them to the themes and styles of American Literature</p> <p>To introduce them to the socio-cultural milieu of twentieth century America through literary texts</p> <p>To enhance their understanding of American, African American and Multicultural sensibilities by introducing them to the literary works representing them</p> <p>To facilitate cross-cultural perspectives and</p>

Sr. No.	Class/ Sem	Paper- Nomenclature	Course Outcomes / Objectives
			discussions on American Literature
7	SYBA Sem III & IV	Mass Communication Paper I & II	<p>To introduce the students to some major aspects of communication and mass communication.</p> <p>To develop among the students a broad perspective of the past and the present status of Mass Media in India.</p> <p>To develop among the students a critical understanding of the Mass Media with regard to their presentation formats, roles and audiences in Indian context.</p> <p>To develop among the students a critical understanding of some special roles of different Mass Media in India.</p> <p>To help the students to assess the contribution of Indian mass media to national development.</p> <p>To acquaint the students with some issues and laws related to mass media in India.</p> <p>To introduce the students to various job and career opportunities in media industry.</p>
9	TYBA Sem V and VI	Paper IV Elizabethan and Jacobean Periods	<p>To introduce the students to English Literature of the 16, 17 and 18 centuries.</p> <p>To show them how background influences shaped the writer's thinking.</p> <p>To introduce them to literary masters who</p>

Sr. No.	Class/ Sem	Paper- Nomenclature	Course Outcomes / Objectives
			<p>dominated the scene</p> <p>To familiarize the students with the different writing styles that each age adopted.</p>
10	TYBA Sem V and VI	Paper V Literary Theory and Practical Criticism	<p>To introduce the learners of literature to the basics of literary criticism</p> <p>To sensitize them to critical approaches and literary theories</p> <p>To impart the technique of close reading of literary texts</p> <p>To enable the learners to analyze, interpret, explicate and evaluate literary texts</p> <p>To familiarize the learners with the tenets of practical criticism</p>
11	TYBA Sem V and VI	Paper VI GRAMMAR AND ART OF WRITING	<p>To develop among students an insight in the process of word formation and transformation.</p> <p>To develop among students an insight into the structure of English language and develop their skills of grammatical analysis and description.</p> <p>To provide knowledge of the underlying 'rules' of grammar.</p> <p>To introduce rhetorical structures for effective writing.</p>

## **Urdu**

- Conducting under graduate teaching effectively.
- Supervising and identifying new areas of research & conducting independent research through various research projects.
- Organizing seminars, conferences, workshops, symposia, Mushaira & Musical Programmes.
- Publishing research monographs, bibliographies & scholarly books. Conducting visiting lectures for students by eminent Urdu scholars.

## Hindi

Sr. No.	Degree Programme	Year of Programme	Course Outcomes
1	BA Hindi	First Year	<p><b>Hindi Poetry &amp; Story : Sem-1 and 2</b></p> <ol style="list-style-type: none"> <li>1. To create interest as well as introduce the students the genres of literature</li> <li>2. To introduce poet and their poems to the students</li> <li>3. To emphasize on the skills of listening, reading and writing in Hindi</li> <li>4. To develop emotional quotient through essays, stories, one act play, sketch, reports, memories, Caricature etc.</li> <li>5. To create awareness about the national values</li> </ol>
		Second Year	<p><b>(UAHIN301) Sem-3 and (UAHIN401):Sem-4</b></p> <ol style="list-style-type: none"> <li>1. To create interest as well as introduce the students the genres of literature</li> <li>2. To introduce poet and their poems to the students</li> <li>3. To emphasize on the skills of listening, reading and writing in Hindi</li> <li>4. To develop emotional quotient through essays, stories, one act play, sketch, reports, memories, caricature etc.</li> <li>5. To create awareness about the national values</li> </ol>
			<p><b>(UAHIND302)Sem-3 and (UAHIN402) Sem-4</b></p> <ol style="list-style-type: none"> <li>1. To create awareness among students about Medieval literature and to imbibe in them the basic skills of life</li> <li>2. To acquaint students with an outline of Hindi literature create interest as well as introduce the students the genres of literature</li> <li>3. To introduce poet and their poems to the students</li> </ol>



		<p>4. To emphasize on the skills of listening, reading and writing in Hindi</p> <p>5. To develop emotional quotient through essays, stories, one act play, sketch, reports, memories, caricature etc.</p> <p>6. To create awareness about the national values</p>
	Third Year	<p><b>(UAHIN501): Sem-5 and (UAHIN601)Sem-6</b></p> <p>1. To create interest of students in Hindi literature by acquainting students with great thoughts instilled in it.</p> <p>2. To emphasize on the skills of listening, reading and writing in Hindi</p> <p>3. To develop analytical skills through the interpretation of essays, stories, one act play, etc.</p> <p>4. To focus on research skills through seminars and projects</p>
		<p><b>(UAHIN502) and (UAHIN602)</b></p> <p>1. To create interest as well as introduce the students the genres of literature</p> <p>2. To introduce novelists and their works to the students such as Ana Is Desh (A message of reconciliation through love) and Dohara Abhishap (A message of eradication of caste system and imbibe humanitarian values)</p> <p>3. To emphasize the skills of listening, reading and writing in Hindi</p> <p>4. To develop emotional quotient through essays, stories, one act play, sketch, reports, memories, caricature etc.</p> <p>5. To create awareness about the national values</p> <p>6. To create interest of students in criticism</p> <p>7. To emphasize on the skills of listening, reading and writing in Hindi</p> <p>8. To develop analytical skills through the interpretation of essays, stories, one act play, etc.</p> <p>9. To focus on research skills through seminars and projects</p>

**(UAHIN503) and (UAHIN603)**

1. To create interest of students in language through electronic and print media
2. To emphasize on the skills of listening, reading and writing in Hindi
3. To develop analytical skills through the interpretation of language, grammar, dialects, etc.
4. To focus on research skills through seminars and Projects

## Foundation Course

The Undergraduate programme is designed to prepare graduates to attain the following programme outcomes:

1. **Basic Knowledge of the society**  
Students get aware of the various issues that are important for the society and which directly or indirectly influence us.

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2. **Communication Skills**  
Effective Communication skills are a part of the course and it is the need of the hour. It will help the students to plan his/her career, such as realistic goals, behave in a more matured manner, manage time effectively and emerge as a winner in tasks that they undertake.
3. **Life-long learning**  
Students would recognize the need for, and have the preparation and ability to engage and in independent and life-long learning in the broadest context of technological change.
4. **Individual and Team work**  
Students would function effectively as an individual and as a member or leader in diverse teams and in multidisciplinary settings.
5. **Problem analysis**  
Students would be able to identify, formulate, review and analyse the complex problems of the society reaching substantiated conclusion.
6. **Ethics**  
Students would be able to reflect various basic human values that we need to adopt to make our lives as well as those of others around meaningful and happier.
7. **Environment and Sustainability**  
Students will be aware of the concerns of the environment and be more responsible towards sustainable development of the environment.

## **BUSINESS LAW**

- The students get a general idea about the Laws applied in Business.
- Some of the students have joined the legal field.

# Commerce

## **F.Y.B.Com- Sem.-I**

### **Commerce Paper I: Introduction to Business**

#### **Course Outcomes**

- To impart the basic knowledge of setting business unit
- To make learner aware of basic requirement and return and legal provisions for starting business
- To give elementary knowledge to learner about Entrepreneurship
- To expose them Problems and prospects of Women Entrepreneurs:
- To familiarize the learners with current trends in business.

## **F.Y.B.Com- Sem.-II**

### **Commerce Paper II: Introduction to Services**

#### **Course Outcomes**

- To acquaint the students with the fundamentals of services
- To develop analytical ability to plan for various services strategies
- To familiarize the learners with current trends in services.
- To make students aware of present status of E-Commerce in India.

## **S.Y.B.Com- Sem.-III**

### **Commerce –III (Management: Functions and Challenges)**

#### **Course Outcomes**

- To make the learners aware about conceptual knowledge and evolution of Management.
- To familiarize the learners with the functions in Management.

### **Advertising– I Skill Enhancement Courses (SEC)**

#### **Course Outcomes**

- To expose them to various tools of IMC
- To make the learner aware of role of advertising in contemporary scenario
- To understand and examine the growing importance of advertising
- To acquaint students with future and career in advertising
- To familiarize the learners with current trends in advertising.

## **S.Y.B.Com- Sem.-IV**

### **Commerce – IV (Management: Production & Finance)**

#### **Course Outcomes**

- To acquaint the learners with the basic concepts of Production Management, Inventory Management & Quality Management.
- To provide basic knowledge about Indian Financial Systems.
- To update the learners with the recent trends in Finance.

### **Skill Enhancement Courses (SEC) Semester – IV ADVERTISING - II**

#### **Course Outcomes**

- To highlight the role of advertising for the success of brands and its importance within the marketing function of a company.
- To understand the construction of an effective advertisement
- It aims to orient learners towards the practical aspects and techniques of advertising.
- It is expected that this course will prepare learners to lay down a foundation for advanced post-graduate courses in advertising

**T.Y.B.Com- Sem.-V****Commerce – V (Marketing)****Course Outcomes**

- To understand basic concept of marketing and marketing mix
- To understand marketing philosophy and generating ideas for Marketing Information System and Marketing Research
- To make students aware about Marketing Challenges faced by Marketing Managers in 21st Century
- To update the learners with Skills required for effective marketing
- To understand Competitive Strategies for Market Leader, Market Challenger, Market Follower

**Skill Enhancement Courses (SEC) - Export Marketing-I****Course Outcomes**

- To acquaint the learners with the basic concepts of Export marketing
- To update the learners with Global Framework for Export Marketing
- To provide basic knowledge about Financial Incentives available to Indian Exporters
- To familiarize the learners with current trends in Export Marketing

**T.Y.B.Com- Sem.-VI****Commerce – VI (Human Resource Management)****Course Outcomes**

- To familiarize the student with the fundamental aspects of various issues associated with Human Resource Management as a whole.
- To introduce the basic concepts, functions and processes & create an awareness of the role, functions and functioning of Human Resource Management.
- To Understand the Concept and Process of HRP
- To understand the applications of HRIS
- To familiarize students with different theories of leadership and motivation
- To make students aware about Human Resource Challenges faced by HR managers
- To update the learners with the recent trends in HRM.

**Skill Enhancement Courses (SEC) – Export Marketing-II****Course Outcomes**

- To acquaint the learners with Product Planning and Pricing Decisions for Export Marketing
- To make students aware recent trends Export Distribution and Promotion
- To familiarize students with different sources of Export Finance
- To provide basic knowledge about Export Procedure and Documentation

## **Accountancy**

- 1) The subject prepares the student to do Accounting of various forms of organisations / corporate / partnership firms / sole proprietorships.
- 2) The subject also trains them in doing accounting which is useful in managerial decision making.
- 3) It also embarks knowledge on how to estimate the financial need of the organisations and its working capital requirements.
- 4) It is also useful in understanding cost and cost related concepts to the ascertaining cost of products and cost of services. Also, how to control cost and maximise profits.
- 5) It also offers insight into various kinds of Audits such as Statutory Audit, Internal Audit and Internal Controls which is needed by the corporate sectors.
- 6) It enables student through the training of above a potential secured jobs in various corporate and Banking Sectors or in their own business.

## **Environmental Studies**

1. To create an awareness about environmental perspective and human in environmental studies.
2. To highlight functional link between environment, economy and society and address the issues emerging from interference.
3. To expose the students to the emerging environmental issues both natural and human.
4. To sensitize the students towards measures that could be taken to reduce and mitigate the environmental problems.
5. To acquaint students with relevant tools and techniques to assess and analyze the environmental aspects.



## **BACHELORS OF MANAGEMENT STUDIES (BMS)**

### **FYBMS Semester I**

#### **1. Introduction to Financial Accounting**

To understand the basic concepts & fundamentals used in Financial Accounting

#### **2. Business Law**

To acquaint students about important provisions in Business Law.

#### **3. Business Statistics**

To understand Managerial applications of Statistics

#### **4. Business Communication – I**

To introduce key concepts of business communication & equip students with reading, writing, listening & presentation skills.

#### **5. Foundation Course I**

To introduce students with an overview of the Indian society & to make them understand the Constitution of India.

#### **6. Foundation of Human Skills**

To develop & demonstrate core skills & knowledge, attitude & values in students.

#### **7. Business Economics - I**

To enable the students both the theory & practice of Business Economics.

### **FYBMS Semester II**

#### **1. Principles of Marketing**

To introduce the students with the basic elements of Marketing Management terms & its implementation in the industry

#### **2. Industrial Law**

To learn the laws relating to Industrial Relations, Social Security & Working Condition

#### **3. Business Mathematics**

To understand basic terms in the areas of Business Mathematics & measurements used in common business practices.

#### **4. Business Communication II**

To provide hands on experience in drafting report, business letters & developing effective inter-personal communication skills

#### **5. Foundation Course II**

To provide an introduction to basic Human Rights, Principles, Instruments & Institutions & also an overview of Current Issues.

#### **6. Business Environment:**

To introduce the students to multi-faceted environment of business so as to enable them appreciate finer nuances of the environment

#### **7. Principles of management**

To develop critical thinking skills & identifying ethical, global & diversity issues in various functions of management

## **SYBMS Semester III**

### **Group A: Finance Electives:**

#### **1. Introduction to Cost Accounting**

To understand the basic concepts & processes used in Cost Accounting

#### **2. Corporate Finance**

To provide the conceptual background for corporate financial analysis from the point of corporate value creation.

### **Group B: Marketing Electives:**

#### **1. Consumer Behaviour**

To develop conceptual insights into key aspects such as social, psychological and other factors that influence consumer behaviour

#### **2. Advertising**

To demonstrate an understanding of overall role of communication in business world.

### **Group C: Human Resources Electives:**

#### **1. Recruitment & Selection**

To provide a conceptual and operational understanding of recruitment & selection & to evaluate the role that Human staffing functions, including job analysis

#### **2. Organizational Behaviour & HRM**

To analyse individual & group behaviour, & understand the implications of Organization behaviour on the process of human resources management.

### **Core Subjects:**

#### **3. Information Technology in Business Management – I**

To understand the role, impact & emerging trends of information technology in business management.

#### **4. Foundations Course –III (Environmental Management)**

To outline the implications of global trends for the environment, society, economy & organizations.

#### **5. Business Planning & Entrepreneurial Management**

To acquaint students with both theory & practice towards new business ventures.

#### **6. Accounting for Managerial Decisions**

To provide students with an introduction to management accounting in the context of business decisions, emphasizing the skills & knowledge that will be used in the work environment.

#### **7. Strategic Management**

To provide students with basic understanding the process of Strategy Formulation, Implementation & Evaluation.

## **SYBMS Semester IV**

### **Group A: Finance Electives:**

#### **1. Corporate Restructuring**

To introduce the concepts & various forms of corporate restructuring & its overall implications

## **2. Strategic Cost Management**

To develop understanding of various costing systems in different strategic decisions situation.

### **Group B: Marketing Electives:**

#### **1. Integrated Marketing Communications**

To help students understand the basic principles & practices of marketing communications, involving tools used by marketers.

#### **2. Rural Marketing**

To explore the students to rural market environment and emerging challenges in the globalization of the economies.

### **Group C: Human Resources Electives:**

#### **1. Human Resources Planning & Information System**

To apply current & emerging Information technologies to support Human Resources Function.

#### **2. Training & Development in HRM**

To orient students with different forms of training and development & its implications

### **Core Subjects:**

#### **3. Information Technology in Business Management – II**

To understand role, impact & emerging trends of information technology in business management & its application at Industrial & organizational level.

#### **4. Foundation Course IV (Ethics& Governance Decisions)**

To have an in-depth knowledge of the issues concerning Morals, Values, Ideologies and Ethics in personal, professional and business lives

#### **5. Business Economics II**

To introduce economic concepts and principles which are useful in understanding the general economic environment within which businesses and other organisations operate.

#### **6. Business Research Methods**

To understand the significance of research & various methods opted in analysing business problems

#### **7. Production & Total Quality Management**

To understand & implement the basic principles of PQM in manufacturing & service based organizations.

### **TYBMS Semester V**

#### **Group A: Finance Elective:**

##### **1. Investment Analysis & Portfolio Management**

To acquaint the students with various concepts of Finance & introduce various models & techniques of Security Analysis & Portfolio Management.

##### **2. Wealth Management**

To provide an overview of various aspects related to Wealth Management

##### **3. Financial Accounting**

To acquaint the students with preparation of final accounts of companies

#### **4. Direct Taxes**

To acquaint the students with basic principles underlying the provisions of direct tax laws and to develop a broad understanding of the tax laws and accepted tax practices

#### **Group B: Marketing Electives:**

##### **1. Services Marketing**

To understand distinctive features of services & key elements in Service Marketing

##### **2. E-Commerce & Digital Marketing**

To understand significance of E-Commerce & its application in business & various sectors

##### **3. Sales & Distribution Management**

To develop an understanding of the sales & distribution processes in an organization

##### **4. Customer Relationship Management**

To provide an insight into CRM marketing initiatives, Customer service & designing CRM Strategy

#### **Core Subjects:**

##### **5. Logistics & Supply Chain Management**

To provide students with basic understanding of concepts of Logistics & Supply Chain Management

##### **6. Corporate Communications & Public Relations**

To provide the students with basic understanding of concepts of Corporate Communications & Public Relations

#### **TYBMS Semester VI**

#### **Group A: Finance Elective:**

##### **1. International Finance**

It deals with the analysis of selected macro-economic issues in open economies

##### **2. Innovative Financial Services**

To demonstrate advanced knowledge of the theories & origin of Financial Services Regulation.

##### **3. Strategic Financial Management**

To gain in-depth knowledge of Financial Management & its functions

##### **4. Indirect Taxes**

To acquaint the students with basic principles underlying the provisions of Indirect tax laws

#### **Group B: Marketing Electives:**

##### **1. Brand Management**

Develop a consumer-centric approach to building, measuring and evaluating strategies that build brand equity for new and existing brands.

##### **2. Retail Management**

To develop the analytical ability of the students to attain an insight into Retail Management contexts

##### **3. International Marketing**

To develop a deep understanding of International Management

#### **4. Media Planning & Management**

To understand procedures, requirements & techniques of Media Planning & Buying

#### **Core Subjects:**

#### **5. Operations Research**

To understand the operating techniques & its application in business decision making

#### **6. Project Work**

To guide students on practical application of various concepts learned.

# **BACHELOR OF COMMERCE: ACCOUNTING & FINANCE (BAF)**

## **FYBAF – Semester I**

### **1. Financial Accounting (Elements of Financial Accounting) – I**

To provide students with the necessary elements used in Financial Accounting.

### **2. Cost Accounting (Introduction and Element of Cost) – I**

To understand the concepts and techniques in cost accounting.

### **3. Financial Management (Introduction to Financial Management) – I**

To gain in-depth knowledge & understand the functions of Financial Management.

### **4. Business Communication – I**

To introduce the key concepts of business communication & equip students with reading, writing, listening & presentation skills.

### **5. Foundation Course – I**

To introduce students with an overview of the Indian society & to make them understand the Constitution of India.

### **6. Commerce (Business Environment) – I**

To introduce the students to multi-faceted environment of business so as to enable them appreciate finer nuances of the environment

### **7. Business Economics – I**

To enable the students both the theory & practice of Business Economics.

## **FYBAF – Semester II**

### **1. Financial Accounting (Special Accounting Areas) – II**

To orient students on methods of recording goods transferred to Branch, Consignment purpose.

### **2. Auditing (Introduction and Planning) – II**

To study the principles, practices & procedures of Auditing.

### **3. Taxation - I (Indirect Taxes I)**

To acquaint the students with basic principles underlying the provisions of Indirect tax laws.

### **4. Business Communication – II**

To provide hands on experience in drafting report, business letters & developing effective inter-personal communication skills.

### **5. Foundation Course – II**

To provide an introduction to basic Human Rights, Principles, Instruments & Institutions & also an overview of Current Issues.

### **6. Business Law (Business Regulatory Framework) – I**

To acquaint students about important provisions in Business Law.

### **7. Business Mathematics**

To understand basic terms in the areas of Business Mathematics & measurements used in common business practices.

### **SYBAF – Semester III**

#### **1. Financial Accounting (Special Accounting Areas) – III**

To acquaint students about advanced understanding of accounting of partnership firms & accounting for reconstruction.

#### **2. Cost Accounting (Methods of Costing) – II**

To make students understand, the range of cost accounting concepts & their terminologies.

#### **3. Taxation – II (Direct Taxes Paper – I)**

To acquaint the students with basic principles underlying the provisions of direct tax laws and to develop a broad understanding of the tax laws and accepted tax practices.

#### **4. Information Technology in Accountancy – I**

To understand the role, impact & emerging trends of information technology in Accountancy.

#### **5. Foundation Course in Commerce (Financial Market Operations) – III**

To prepare students to work within financial institutions & financial consulting.

#### **6. Business Law (Business Regulatory Framework) – II**

To provide a brief idea about of Business Regulatory Framework of Indian Business Law

#### **7. Business Economics – II**

To introduce the basic concepts of Macro Economics along with an understanding of the Indian economy

### **SYBAF – Semester IV**

#### **1. Financial Accounting (Special Accounting Areas) – IV**

To explain students about Preparation of Financial Accounts of companies & Procedure for repayment of borrowings & capital.

#### **2. Management Accounting (Introduction to Management Accounting)**

To make students understand, the range of Management accounting concepts & their terminologies.

#### **3. Taxation – III (Direct Taxes Paper – II)**

To understand the computation of tax Liability of Individual & Partnership Firm.

#### **4. Information Technology in Accountancy – II**

To understand role, impact & emerging trends of information technology & its application in the field of Accountancy.

#### **5. Foundation Course in Management (Introduction to Management) – IV**

To orient students on different functions of management.

#### **6. Business Law (Company Law) – III**

To provide students with knowledge of Company Law.

#### **7. Research Methodology in Accounting and Finance**

To understand the significance of research & its methods adopted in the field of Accounting and Finance.

### **TYBAF – Semester V**

#### **1. Cost Accounting – III**

To make student understand the role of cost accountant in possessing superior professional skills.

## **2. Financial Management – II**

To acquaint students with advanced understanding of budgeting, decision making and valuation of securities.

## **3. Taxation – IV (Indirect Taxes – II)**

To provide basic understanding & working of GST.

## **4. International Finance**

To familiarize the student with the essential aspects of various issues associated with International Finance.

## **5. Financial Accounting – V**

To make the student understand accounting aspects of Underwriting, Shares/Debentures & Mergers/Purchase.

## **6. Financial Accounting – VI**

To make the students understand the concepts and methods relating to final accounts of banking, insurance and financial sectors.

### **TYBAF – Semester VI**

#### **1. Cost Accounting – IV**

To analyse performance of business with respect to budgeted cost and to provide understanding of decision making in costing.

#### **2. Financial Management – III**

To provide advanced understanding of reconstruction from the view of financial management and specific decision making with respect to lease.

#### **3. Taxation – V (Indirect Taxes – III)**

To provide understanding of Customs & Foreign Trade Policy.

#### **4. Economics paper – III (Indian Economy)**

To provide with detail understanding of different sectors in Indian economy.

#### **5. Financial Accounting – VII**

To create an understanding of financial accounting of concern operating under different laws.

#### **6. Project Work**

To guide students on practical application of various concepts learned.



# **BACHELOR OF COMMERCE: BANKING & INSURANCE (BBI)**

## **FYBBI – Semester I**

### **1. Environment and Movement of Financial Services**

To acquaint students about the Financial System & emphasize on the Regulatory and Developmental Framework of Banking & Insurance.

### **2. Principles of Management**

To develop critical thinking skills & identifying ethical, global & diversity issues in various functions of management.

### **3. Financial Accounting – I**

To understand the basic concepts & fundamentals used in Financial Accounting.

### **4. Business Communication – I**

To introduce key concepts of business communication & equip students with reading, writing, listening & presentation skills.

### **5. Foundation Course – I**

To introduce students with an overview of the Indian society & to make them understand the Constitution of India.

### **6. Business Economics – I**

To enable the students both the theory & practice of Business Economics.

### **7. Quantitative Methods – I**

To understand concepts & applications of Quantitative Methods in the field of Banking & Insurance

## **FYBBI – Semester II**

### **1. Principal and Practices of Banking & Insurance**

To provide an overview of Banking & Insurance Industry in India.

### **2. Business Law**

To acquaint students about important provisions in Business Law.

### **3. Financial Accounting – II**

To make the student understand various accounting aspects related to shares & Debentures.

### **4. Business Communication – II**

To provide hands on experience in drafting report, business letters & developing effective inter-personal communication skills

### **5. Foundation Course – II**

To provide an introduction to basic Human Rights, Principles, Instruments & Institutions & also an overview of Current Issues.

### **6. Organizational Behaviour**

To analyse individual & group behaviour, & understand the implications of Organization behaviour.

## **7. Quantitative Methods – II**

To highlight the Statistical Applications In the field of Banking & Insurance.

### **SYBBI – Semester III**

#### **1. Financial Management – I**

To introduce the basic concepts of Financial Management & to provide an understanding on Budgeting & Financial Decisions.

#### **2. Management Accounting**

To provide students with an introduction to management accounting in the context of business decisions, emphasizing the skills & knowledge that will be used in the work environment.

#### **3. Organizational Behaviour**

To understand individual, group and organizational through the personality learning and perception of the people at workplace.

#### **4. Information Technology in Banking & Insurance – I**

To understand the role, impact & emerging trends of information technology in Banking & Insurance.

#### **5. Foundation Course – III (An Overview of Banking Sector)**

To provide an overview of Banking Sector in India.

#### **6. Financial Market**

To provide students an insight about Indian Financial System & working of Financial Markets in India.

#### **7. Direct Taxation**

To provide students hands on experience in Computing of Total Income & Taxable Income.

### **SYBBI – Semester IV**

#### **1. Financial Management – II**

To provide students a basic understanding of capital requirements and financial planning.

#### **2. Cost Accounting**

To provide basic understanding of costs and decision making in costing.

#### **3. Customer Relationship Management**

To provide an insight into CRM marketing initiatives, Customer service & designing CRM Strategy.

#### **4. Information Technology in Banking & Insurance – II**

To familiarize students with the e-banking models, and its applications.

#### **5. Foundation Course – IV (An Overview of Insurance Sector)**

To provide an overview and role of various insurance sectors.

#### **6. Corporate and Securities Laws**

To provide students with an overview of company law, and its regulatory framework.

#### **7. Business Economics – II**

To make students understand about macroeconomic and policies.

### **TYBBI – Semester V**

#### **1. Auditing – I**

To provide students with overview of auditing and various techniques.

## **2. Strategic Management**

To provide students with basic understanding the process of Strategy Formulation, Implementation & Evaluation.

## **3. Financial Services Management**

To prepare students to deal with the issue of management of various financing activities in the banks and financial institutions.

## **4. Business Ethics and Corporate Governance**

To have an in-depth knowledge of the issues concerning Morals, Values, Ideologies and Ethics in personal, professional and business.

## **5. International Banking and Finance**

To familiarize students with fundamentals of International finance, and its banking operations.

## **6. Research Methodology**

To understand the significance of research & various methods opted in analysing business problems.

## **TYBBI – Semester VI**

### **1. Security Analysis and Portfolio Management**

To acquaint the students with various concepts of Finance & introduce various models & techniques of Security Analysis & Portfolio Management.

### **2. Auditing – II**

To provide understanding under companies act and under various statute.

### **3. Human Resource Management**

To facilitate learning in modern concepts, techniques & practices of HRM in Banking & Insurance Sector

### **4. Marketing in Banking & Insurance**

To acquaint students with the basic elements of Service Marketing applicable in the field of Banking & Insurance

### **5. Central Banking**

To provide students with learning & practices of functions of central banks & monetary policy & its evolution.

### **6. Project Work in Banking & Insurance**

To guide students on practical application of various concepts learned.

# **BACHELOR OF MASS MEDIA (BMM)**

## **FYBMM – Semester I**

### **1. Effective Communication Skill**

To make the students aware of functional and operational use of language in media & to equip or enhance students with structural and analytical reading, writing and thinking skills.

### **2. Fundamentals of Mass Communication**

To introduce students to the history, evolution and the development of Mass Communication in the world with special reference to India & to understand the concept of New Media and Media Convergence and its implications.

### **3. Introduction to Computers**

To equip the students with a general understanding of computer basics for everyday use in Media Industry.

### **4. Introduction to Economics**

To introduce the basic concepts of Micro & Macro Economics along with an understanding of the Indian economy with an objective to sensitise on economic issues relevant to India.

### **5. Introduction to Sociology**

To highlight the need and relevance of Sociology in Mass Media from a sociological perspective.

### **6. Landmark Events in History of World, India and Maharashtra**

To acquaint the student with past events, which have made historical milestones & understand the role of media in these events.

## **FYBMM – Semester II**

### **1. Effective Communication Skill – II**

To make student understand the impact of changing methods of communication in the field of media.

### **2. Introduction to Media Psychology**

To provide an interdisciplinary study of concepts in the field of media, communication and psychology.

### **3. Introduction to Literature**

To give exposure to media students to various forms of Literature & to make them understand the reflection of literature in contemporary period.

### **4. Principles of Management**

To understand the designed fundamentals of management & its practices in media industry.

### **5. Principles of Marketing**

To introduce the students with the basic elements of Marketing Management terms & its implementation in Media industry.

### **6. Political Concepts and the Indian Political System**

To provide the students with a strong base in the 'Indian Political System' and to expose them to its dynamics and complexities.

## **SYBMM – Semester III**

### **1. Introduction to Media Studies**

To make students understand, mass media as system of interrelated forces & to grasp complex relationship between communication & media.

### **2. Introduction to Creative Writing**

To acquaint students with basic concepts on literary writing, and to encourage students for content writing.

### **3. Understanding Cinema**

To create awareness among students, towards Cinema as a medium of Mass Communication and help them to become critical viewers of movies in present time, from Personal, Social and Business Point of View.

### **4. Introduction to Public Relations**

To prepare the students for an effective and ethical communication skills, and in maintain public relations.

### **5. Introduction to Cultural Studies**

To create an awareness on cultural theories and its relevance in media and to make students understand the cultural concepts and its impact on the media.

### **6. Advanced Computers**

To equip the students with a understanding of industry knowledge required to make a career.

## **SYBMM – Semester IV**

### **1. Introduction to Advertising**

To introduce students to the basic concepts in advertising as well as understand the process of creating an ad campaign.

### **2. Introduction to Journalism**

To provide students with an insight in the disciplines of communication & journalism that is current, relevant, and practical.

### **3. Print Production and Photography:**

To create awareness about print media & help students understand the principles and practices of photography.

### **4. Radio and television:**

To develop an understanding in broadcast & streaming media & learning the art of producing creative content for radio & television.

### **5. Mass Media research:**

To understand the scope and techniques of media research, their utility and limitations.

### **6. Organisation Behaviour**

To impart knowledge of the basic concepts and facets of organizational behaviour.

## **TYBMM – Semester V Advertising**

### **1. Copywriting**

To familiarize the students with the concept of copywriting as selling through writing, and to make student understand the process of creating original, strategic, compelling copy of various media.

## **2. Media Planning and Buying**

To make students understand procedures, requirements, and techniques of media planning and buying.

## **3. Consumer Behaviour**

To make students understand the role of marketing in influencing consumer behaviour, and to analyse the role of marketer and consumer in advertising.

## **4. Brand Building**

To study the concept and process of brand building, and its importance to the advertisers, and its overall impact on consumers.

## **5. Advertising in Contemporary Society**

To understand the environment in Contemporary Society and to make students understand Liberalization and its impact on the economy.

## **6. Advertising Design (Project Paper)**

To make students understand the process of planning and production of advertisement, and to provide practical training in the field of advertising.

### **TYBMM – Semester V Journalism**

#### **1. Reporting**

To enable students understand the techniques & tools of Reporting.

#### **2. Editing**

To make students understand the role of an editor & the techniques applied.

#### **3. Journalism and Public Opinion**

To project a fair idea of the role of the media in creating and influencing Public Opinion.

#### **4. Features and Opinion**

Understanding the differences between reporting and feature writing & developing the skills required.

#### **5. Indian Regional Journalism**

To Study the history and role of Indian press other than in English & understand the regional press and television in the current scenario.

#### **6. Newspaper and Magazine Making (Project Paper)**

To study the design, elements of the newspaper and magazine & understanding the process of planning and production of newspaper and magazine.

### **TYBMM – Semester VI Advertising**

#### **1. Financial Management for Marketing and Advertising**

To provide an over view of the basic concepts of financial management & its relevance in the field of marketing & advertising.

#### **2. Agency management**

To familiarize students with the different aspects of operating an ad agency & acquaint students with concepts, techniques for developing an effective advertising campaign.

#### **3. Advertising and Marketing Research:**

To understand the scope and techniques of Advertising and Marketing research, and their utility.

#### **4. Legal Environment and Advertising Ethics**

To acquaint students to the Legal Environment in contemporary India highlighting the relevance of the same with reference to Advertising media.

#### **5. Principles and Practice of Direct Marketing:**

To provide students with the optimum learning experience in order to demonstrate the skill & knowledge required to plan Direct Marketing Plans

#### **6. Contemporary Issue**

To understand and analyse the present environmental, political, economic and social issues, challenges and its implications on development.

#### **7. Digital Media**

To understand and analyse the present environmental, political, economic and social issues, challenges and its implications on development.

### **TYBMM – Semester V Journalism**

#### **1. Press Laws and Ethics**

To introduce students to a range of Press Laws & Ethics.

#### **2. Broadcast Journalism**

To understand the development of broadcast journalism.

#### **3. Business and Magazine Journalism:**

To understand various aspects of business & magazine journalism.

#### **4. Internet and Issue in Global Media**

Study the role of media in the 21st Century and its challenges.

#### **5. News Media Management**

To make students understand specific tools & practices in news & media management.

#### **6. Contemporary Issue**

To understand and analyse the present environmental, political, economic and social issues, challenges and its implications on development.

#### **7. Digital Media**

To understand and analyse the present environmental, political, economic and social issues, challenges and its implications on development.

# COMPUTER SCIENCE

## **FYBSc Semester I**

### **Name of Course (Subject): Computer Organization and Design**

- 1) To learn about how computer systems work and underlying principles
- 2) To understand the basics of digital electronics needed for computers
- 3) To understand the basics of instruction set architecture for reduced and complex instruction sets
- 4) To understand the basics of processor structure and operation
- 5) To understand how data is transferred between the processor and I/O devices

### **Name of Course (Subject): Programming with Python- I**

- 1) Students should be able to understand the concepts of programming before actually starting to write programs.
- 2) Students should be able to develop logic for Problem Solving.
- 3) Students should be made familiar about the basic constructs of programming such as data, operations, conditions, loops, functions etc.
- 4) Students should be able to apply the problem solving skills using syntactically simple language i.e. Python (version: 3.X or higher)

### **Name of Course (Subject): Free and Open Source Software**

- 1) Upon completion of this course, students should have a good working knowledge of Open Source ecosystem, its use, impact and importance.
- 2) This course shall help student to learn Open Source methodologies, case studies with real life examples.

### **Name of Course (Subject): Database Systems**

- 1) Students should be able to evaluate business information problem and find the requirements of a problem in terms of data.
- 2) Students should be able to design the database schema with the use of appropriate data types for storage of data in database.
- 3) Students should be able to create, manipulate, query and back up the databases.

### **Name of Course (Subject): Discrete Mathematics**

- 1) To provide overview of theory of discrete objects, starting with relations and partially ordered sets.
- 2) Study about recurrence relations, generating function and operations on them.
- 3) Give an understanding of graphs and trees, which are widely used in software.
- 4) Provide basic knowledge about models of automata theory and the corresponding formal languages.

### **Name of Course (Subject): Descriptive Statistics and Introduction to Probability**

- 1) Enable learners to know descriptive statistical concepts
- 2) Enable study of probability concept required for Computer learners

### **Name of Course (Subject): Soft Skills Development**

- 1) To know about various aspects of soft skills and learn ways to develop personality
- 2) Understand the importance and type of communication in personal and professional environment.
- 3) To provide insight into much needed technical and non-technical qualities in career planning.
- 4) Learn about Leadership, team building, decision making and stress management



## **FYBSc Semester II**

### **Name of Course (Subject): Programming with C**

- 1) Students should be able to write, compile and debug programs in C language.
- 2) Students should be able to use different data types in a computer program.
- 3) Students should be able to design programs involving decision structures, loops and functions.
- 4) Students should be able to explain the difference between call by value and call by reference
- 5) Students should be able to understand the dynamics of memory by the use of pointers.
- 6) Students should be able to use different data structures and create/update basic data files.

### **Name of Course (Subject): Programming with Python– II**

- 1) Students should be able to understand how to read/write to files using python.
- 2) Students should be able to catch their own errors that happen during execution of programs.
- 3) Students should get an introduction to the concept of pattern matching.
- 4) Students should be made familiar with the concepts of GUI controls and designing GUI applications.
- 5) Students should be able to connect to the database to move the data to/from the application.
- 6) Students should know how to connect to computers read from URL and send email.

### **Name of Course (Subject): Linux**

- 1) Upon completion of this course, students should have a good working knowledge of Linux, from both a graphical and command line perspective, allowing them to easily use any Linux distribution.
- 2) This course shall help student to learn advanced subjects in computer science practically.
- 3) Student shall be able to progress as a Developer or Linux System Administrator using the acquired skill set.

### **Name of Course (Subject): Data Structures**

- 1) Learn about Data structures, its types and significance in computing
- 2) Explore about Abstract Data types and its implementation
- 3) Ability to program various applications using different data structure in Python

### **Name of Course (Subject): Calculus**

- 1) Understanding of Mathematical concepts like limit, continuity, derivative, integration of functions.
- 2) Ability to appreciate real world applications which uses these concepts.
- 3) Skill to formulate a problem through Mathematical modeling and simulation.

### **Name of Course (Subject): Statistical Methods and Testing of Hypothesis**

- 1) Enable learners to know descriptive statistical concepts
- 2) Enable study of probability concept required for Computer learners

### **Name of Course (Subject): Green Technologies**

- 1) Learn about green IT can be achieved in and by hardware, software, network communication and data center operations.
- 2) Understand the strategies, frameworks, processes and management of green IT

## **SYBSc Semester III**

### **Name of Course (Subject): Theory of Computation**

- 1) Understand Grammar and Languages
- 2) Learn about Automata theory and its application in Language Design
- 3) Learn about Turing Machines and Pushdown Automata
- 4) Understand Linear Bound Automata and its applications.

### **Name of Course (Subject): Core Java**

- 1) Object oriented programming concepts using Java.
- 2) Knowledge of input, its processing and getting suitable output.
- 3) Understand, design, implement and evaluate classes and applets.

4) Knowledge and implementation of AWT package.

**Name of Course (Subject): Operation System**

- 1) To provide a understanding of operating system, its structures and functioning
- 2) Develop and master understanding of algorithms used by operating systems for various purposes

**Name of Course (Subject): Database Management System**

- 1) Master concepts of stored procedure and triggers and its use.
- 2) Learn about using PL/SQL for data management
- 3) Understand concepts and implementations of transaction management and crash recovery

**Name of Course (Subject): Combinatorics and Graph Theory**

- 1) Appreciate beauty of combinatorics and how combinatorial problems naturally arise in many settings.
- 2) Understand the combinatorial features in real world situations and Computer Science applications.
- 3) Apply combinatorial and graph theoretical concepts to understand Computer Science concepts and apply them to solve problems.

**Name of Course (Subject): Physical Computing and IOT programming**

- 1) Enable learners to understand System On Chip Architectures.
- 2) Introduction and preparing Raspberry Pi with hardware and installation.
- 3) Learn physical interfaces and electronics of Raspberry Pi and program them using practical's
- 4) Learn how to make consumer grade IoT safe and secure with proper use of protocols.

**Name of Course (Subject): Web Programming**

- 1) To design valid, well-formed, scalable, and meaningful pages using emerging technologies.
- 2) Understand the various platforms, devices, display resolutions, viewports, and browsers that render websites
- 3) To develop and implement client-side and server-side scripting language programs.
- 4) To develop and implement Database Driven Websites.
- 5) Design and apply XML to create a markup language for data and document centric applications.

**SYBSc Semester IV**

**Name of Course (Subject): Fundamentals of Algorithms**

- 1) Understand the concepts of algorithms for designing good program
- 2) Implement algorithms using Python

**Name of Course (Subject): Advance Java**

- 1) Understand the concepts related to Java Technology
- 2) Explore and understand the use of Java Server Programming

**Name of Course (Subject): Computer Networks**

- 1) Learner will be able to understand the concepts of networking, which are important for them to be known as a 'networking professionals'.
- 2) Useful to proceed with industrial requirements and International vendor certifications.

**Name of Course (Subject): Software Engineering**

- 1) To practically be able to apply the principles of software design and development
- 2) To learn some tools used in the development of a software.

**Name of Course (Subject): Linear Algebra with Python**

- 1) Appreciate the relevance of linear algebra in the field of computer science.
- 2) Understand the concepts through program implementation
- 3) Instill a computational thinking while learning linear algebra.

**Name of Course (Subject): .NET Technologies**

- 1) Understand the .NET framework
- 2) Develop a proficiency in the C# programming language
- 3) Proficiently develop ASP.NET web applications using C#
- 4) Use ADO.NET for data persistence in a web application

**Name of Course (Subject): Android Development Fundamentals**

- 1) Understand the requirements of Mobile programming environment.
- 2) Learn about basic methods, tools and techniques for developing Apps
- 3) Explore and practice App development on Android Platform
- 4) Develop working prototypes of working systems for various uses in daily lives.

**TYBSc Semester V**

**Name of Course (Subject): Artificial Intelligence**

After completion of this course, learner should get a clear understanding of AI and different search algorithms used for solving problems. The learner should also get acquainted with different learning algorithms and models used in machine learning.

**Name of Course (Subject): Linux Server Administration**

Learner will be able to develop Linux based systems and maintain. Learner will be able to install appropriate service on Linux server as per requirement. Learner will have proficiency in Linux server administration.

**Name of Course (Subject): Information and Network Security**

Understand the principles and practices of cryptographic techniques. Understand a variety of generic security threats and vulnerabilities, and identify & analyze particular security problems for a given application.

**Name of Course (Subject): Architecting of IoT**

Learners are able to design & develop IoT Devices. They should also be aware of the evolving world of M2M Communications and IoT analytics.

**Name of Course (Subject): Game Programming**

Learner should study Graphics and gaming concepts with present working style of developers where everything remains on internet and they need to review it, understand it, be a part of community and learn.

**TYBSc Semester VI**

After completion of this course, learner should be able to list various applications of wireless sensor networks, describe the concepts, protocols, design, implementation and use of wireless sensor networks. Also implement and evaluate new ideas for solving wireless sensor network design issues.

**Name of Course (Subject): Cyber Forensics**

The student will be able to plan and prepare for all stages of an investigation - detection, initial response and management interaction, investigate various media to collect evidence, report them in a way that would be acceptable in the court of law.

**Name of Course (Subject): Digital Image Processing**

Learner should review the fundamental concepts of a digital image processing system. Analyze the images in the frequency domain using various transforms. Evaluate the techniques for image enhancement and image segmentation. Apply various compression techniques. They will be familiar with basic image processing techniques for solving real problems.

**Name of Course (Subject): Data Science**

After completion of this course, the students should be able to understand & comprehend the problem; and should be able to define suitable statistical method to be adopted.

**Name of Course (Subject): Ethical Hacking**

Learner will know to identify security vulnerabilities and weaknesses in the target applications. They will also know to test and exploit systems using various tools and understand the impact of hacking in real time machines.

# INFORMATION TECHNOLOGY

## **FYBSc Semester I**

- 1) Students should be able to write, compile and debug programs in C language.
- 2) Students should be able to use different data types in a computer program.
- 3) Students should be able to design programs involving decision structures, loops and functions.
- 4) Students should be able to explain the difference between call by value and call by reference
- 5) Students should be able to understand the dynamics of memory by the use of pointers.
- 6) Students should be able to use different data structures and create/update basic data files.

### **Name of Course (Subject): Digital Electronics**

#### **Expected learning outcomes:**

- 1) To provide a understanding of operating system, its structures and functioning
- 2) Develop and master understanding of algorithms used by operating systems for various purposes

### **Name of Course (Subject): Discrete Mathematics**

- 1) To provide overview of theory of discrete objects, starting with relations and partially ordered sets.
- 2) Study about recurrence relations, generating function and operations on them.
- 3) Give an understanding of graphs and trees, which are widely used in software.
- 4) Provide basic knowledge about models of automata theory and the corresponding formal languages.

### **Name of Course (Subject): Communication Skills**

- 1) To know about various aspects of soft skills and learn ways to develop personality
- 2) Understand the importance and type of communication in personal and professional environment.
- 3) To provide insight into much needed technical and non-technical qualities in career planning.
- 4) Learn about Leadership, team building, decision making and stress management.

## **FYBSc Semester II**

### **Name of Course (Subject): Object Oriented Programming**

- 1) To learn about how computer systems work and underlying principles
- 2) To understand the basics of digital electronics needed for computers
- 3) To understand the basics of instruction set architecture for reduced and complex instruction sets
- 4) To understand the basics of processor structure and operation
- 5) To understand how data is transferred between the processor and I/O devices.

### **Name of Course (Subject): Web Programming**

- 1) To design valid, well-formed, scalable, and meaningful pages using emerging technologies.
- 2) Understand the various platforms, devices, display resolutions, viewports, and browsers that render websites
- 3) To develop and implement client-side and server-side scripting language programs.
- 4) To develop and implement Database Driven Websites.
- 5) Design and apply XML to create a markup language for data and document centric applications.

### **Name of Course (Subject): Numerical and Statistical Methods**

- 1) Enable learners to know descriptive statistical concepts
- 2) Enable study of probability concept required for Computer learners.

### **Name of Course (Subject): Green Computing**

- 1) Learn about green IT can be achieved in and by hardware, software, network communication and data center operations.
- 2) Understand the strategies, frameworks, processes and management of green IT.

### **SYBSc Semester III**

#### **Name of Course (Subject): Python Programming**

- 1) Students should be able to understand the concepts of programming before actually starting to write programs.
- 2) Students should be able to develop logic for Problem Solving.
- 3) Students should be made familiar about the basic constructs of programming such as data, operations, conditions, loops, functions etc.
- 4) Students should be able to apply the problem solving skills using syntactically simple language i.e. Python (version: 3.X or higher)

#### **Name of Course (Subject): Computer Networks**

- 1) Learner will be able to understand the concepts of networking, which are important for them to be known as a 'networking professionals'.
- 2) Useful to proceed with industrial requirements and International vendor certifications.

#### **Name of Course (Subject): Data Structures**

- 1) Learn about Data structures, its types and significance in computing
- 2) Explore about Abstract Data types and its implementation
- 3) Ability to program various applications using different data structure in Python/C++/C.

#### **Name of Course (Subject): Applied Mathematics - I**

- 1) Understanding of Mathematical concepts like limit, continuity, derivative, integration of functions.
- 2) Ability to appreciate real world applications which uses these concepts.
- 3) Skill to formulate a problem through Mathematical modeling and simulation.

#### **Name of Course (Subject): Database Management Systems**

- 1) Master concepts of stored procedure and triggers and its use.
- 2) Learn about using PL/SQL for data management
- 3) Understand concepts and implementations of transaction management and crash recovery.

### **SYBSc Semester IV**

#### **Name of Course (Subject): Core Java**

- 1) Object oriented programming concepts using Java.
- 2) Knowledge of input, its processing and getting suitable output.
- 3) Understand, design, implement and evaluate classes and applets.
- 4) Knowledge and implementation of AWT package.

#### **Name of Course (Subject): Introduction to Embedded Systems**

- 1) To teach the scientific principles underlying the software design and development.

#### **Name of Course (Subject): Computer Oriented Statistical Techniques**

- 1) Enable learners to know descriptive statistical concepts
- 2) Enable study of probability concept required for Computer learners.

#### **Name of Course (Subject): Software Engineering**

- 1) To practically be able to apply the principles of software design and development
- 2) To learn some tools used in the development of a software.

#### **Name of Course (Subject): Computer Graphics and Animation**

- 1) To make learners proficient in computer graphics and animation.

## **TYBSc Semester V**

### **Name of Course (Subject): Software Project Management**

1) To enable the learners to discover the interconnection and integration of the physical world.

### **Name of Course (Subject): Internet of Things**

1) Learners are able to design & develop IoT Devices.

2) They should also be aware of the evolving world of M2M Communications and IoT analytics.

### **Name of Course (Subject): Advance Web Programming**

1) Understand the .NET framework

2) Develop a proficiency in the C# programming language

3) Proficiently develop ASP.NET web applications using C#

4) Use ADO.NET for data persistence in a web application.

### **Name of Course (Subject): Linux System Administration**

Learner will be able to develop Linux based systems and maintain. Learner will be able to install appropriate service on Linux server as per requirement. Learner will have proficiency in Linux server administration.

### **Name of Course (Subject): Enterprise Java**

1) To make learner proficient in Java

## **TYBSc Semester VI**

### **Name of Course (Subject): Software Quality Assurance**

To provide students with knowledge of basic concepts of computer security including network security and cryptography.

### **Name of Course (Subject): Security In Computing**

Understand the principles and practices of cryptographic techniques. Understand a variety of generic security threats and vulnerabilities, and identify & analyze particular security problems for a given application.

### **Name of Course (Subject): Business Intelligence**

1) To introduce and enhance the knowledge of the learners about Business Intelligence.

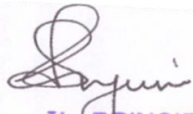
### **Name of Course (Subject): Geographical Information Systems**

1) To make learners efficient in geographical information system

### **Name of Course (Subject): Cyber Laws**

1) To enhance the learner's knowledge about Cyber Laws



  
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