Name of the course: B.Sc. Chemistry
Duration: 03 years

Sr.No	Program	Program objectives	Program outcome	Remark
1	**B.Sc. Chemistry**	❖ To provide wide set of chemical knowledge regarding the fundamentals in the basic areas of chemistry. ❖ To teach chemical experiments, good laboratory practices and skills to analyze the data from experiments. ❖ To teach the students to use standard laboratory equipment, present instrumentation, and usual techniques to carry out experiments. ❖ To teach students to be aware of the safety of oneself and others in the laboratory and be committed to safe practices in daily life. ❖ To teach students to analyze data from experiments. ❖ To provide students with some insight into future career prospect	❖ Graduates will be able to master a wide set of chemical knowledge regarding the fundamentals in the basic areas of the discipline of chemistry such as organic, inorganic, analytical, physical, environmental and polymer chemistry. ❖ Graduates will be able to understand the objective of their chemical experiments, properly carry out the experiments, and appropriately record and analyze the results. ❖ Graduates will be able to use standard laboratory equipment, present instrumentation, and usual techniques to carry out experiments. ❖ Graduates will know and follow	

		in the fields related to Chemistry.	the appropriate procedures and regulations for safe handling and use of chemicals. ❖ Graduates will be able to communicate the concepts and results of their laboratory experiments through effective writing and oral communication skills. ❖ Graduates will be able to successfully follow their career objectives in advanced education in professional and/or graduate schools, in a scientific career in government or industry, in a teaching career in the school systems, or in a related career following graduation.	

Head:

Name of the course: M.Sc Organic Chemistry
Duration: 02 years

Sr.no	Program	Program objectives	Program outcome	Remark
2	**M.Sc. Organic Chemistry**	❖ To provide a deep knowledge on possible in the Organic Chemistry concerned by making use of reference books, research journals & periodicals, internet, etc. ❖ To understand the synthesis by various mechanism and characterization of organic compounds and natural compounds. ❖ To teach the skills in laboratory experimentation techniques and analyze the data from the experiments. ❖ To encourage the students in project works, doing independent designing & execution of the research work. ❖ To encourage students to participate in seminars, workshops and theoretical thinking skills as well as practical skills. ❖ To developed the faculty for creative thinking to designing new	❖ Acquired a deep knowledge on possible in the Chemistry subject concerned by making use of reference books, research journals & periodicals, internet, etc. ❖ Students are able to understand the synthesis by various mechanism and characterization of organic compounds and natural compounds. ❖ Students are able to perform laboratory experiment and analyze the data from the experiment Understanding application of IR, NMR, and GCMS for characterization of organic compounds. ❖ The students are able to participate in project works, doing independent designing & execution of the research work. ❖ The students are able to	

		experimental verification procedures. ❖ To look on where and how subject knowledge can be used in future for a benefit of mankind. ❖ To develop a strong faith that ethical, moral and social values are necessary for pursuing a scientific career. ❖ To understand the necessity of green chemistry principles to control environmental pollution problems.	participate and present their short research work in seminars and workshops and acquired theoretical thinking skills and practical skills. ❖ Developed the faculty of creative thinking to provide solutions or designing new experimental verification procedures. ❖ The students are able to use subject knowledge in future for a betterment of mankind. . ❖ The students are able to developed a strong faith that ethical, moral and social values are necessary for pursuing a scientific career. ❖ The students are able to use essential of green chemistry principles to control environmental pollution problems.	

Head:

Name of the course: B.Sc. (Computer Science)
Duration: 3 years

Sr.no	Program	Program objectives	Program outcome	Remark
3	**B.Sc. (Computer Science)**	❖ To foster students' intellectual skills by acquiring fundamental knowledge and concepts of computer science and other related sciences. ❖ To nurture students' creativity skills. ❖ To prepare students to the job market competition by strengthening their communication skills and promoting team work. ❖ Strengthen the scientific research to raise the department standard to the international level. ❖ To prepare students for professional interaction and leadership. ❖ To expand the program role to have an impact on local community. ❖ To promote student's commitment to self-study and life-long learning.	❖ An ability to apply knowledge of computing and mathematics appropriate to the discipline. ❖ An ability to identify, formulates, and develops solutions to computational challenges. ❖ An ability to design, implements, and evaluate a computational system to meet desired needs within realistic constraints. ❖ An ability to function effectively on teams to accomplish shared computing design, evaluation, or implementation goals. ❖ An understanding of professional, ethical, legal, security, and social issues and responsibilities for the computing profession. ❖ An ability to communicate and engage effectively with diverse stakeholders. ❖ An ability to analyze impacts of computing on individuals, organizations, and society. ❖ Recognition of the need for and ability to engage in continuing professional development. ❖ An ability to use appropriate	

			techniques, skills, and tools necessary for computing practice. ❖ An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoffs involved in design choices. ❖ An ability to apply design and development principles in the construction of software systems of varying complexity.	
2.	**M.Sc. (Computer Science)**	❖ Give graduates of disciplines other than computing preparation for a career in the computer industry. ❖ Extend students' previous experience of programming and update it to include the major programming paradigms including object-oriented programming methods and design. ❖ Give students access to, and experience of, the current ideas and trends in the basics of Object Oriented Program Design, Computer Architecture, Operating Systems and Logic.	❖ Major paradigms of programming - declarative, imperative and object oriented. ❖ Basic Computer Science, including Object Oriented Design, Databases, Communication and Networks, Architecture, Operating Systems and Logic. ❖ Practical programming skills. ❖ The detail and essential topics relevant to the students' chosen option and project areas. ❖ Communication skills, including project design, teamwork, written	

		❖ Give students access to specialized subjects and trends in Computer Science, such as Software Engineering, Communications, Distributed Computing, Artificial Intelligence and Databases. ❖ Enable students to experience large software project development. ❖ Give students an opportunity to link their subject interest and expertise with newly acquired expertise in computing. ❖ Attract highly motivated students. ❖ Give students opportunity to prepare for PhD /NET/SET studies	and oral reports and presentations and literature search, both web-based and hard copy. ❖ A broad awareness of the subject of computer science.	

Head

Name of the course: B.Sc. (Zoology)
Duration: 3 years

Sr.no	Program	Program objectives	Program outcome	Remark
4.	**B.Sc. Zoology**	❖ To understand relation between host and parasite. ❖ To understand the economical importance of Leech. ❖ Understand the process of pearl formation	❖ Students are aware about various parasites and diseases which spreads in human with the help of study of host-parasite relationship ❖ Students will know the Leech therapy technique and their importance. ❖ They will able to learn pearl formation process in molluscan animals	
		❖ Understand the various cell types and cell divisions. ❖ Understand the structure and function of the cells. ❖ Aware the students for Cancer. ❖ Understand the Tools and Techniques in Molecular Biology. ❖ Understand the term ELISA technique and DNA finger printing technique..	❖ Students will know types of cells and process of cell division in mitosis and meiosis. ❖ Students will be able to understand the internal structure and function of cells. ❖ Students will know the types, causes and symptoms of cancer ❖ They will be able to use standard laboratory equipment, and usual techniques to carry out experiments. ❖ Students will be able to use ELISA and DNA finger printing technique to carry out experiments.	

		❖ Understand the terms Histology and Physiology ❖ Understand the cell, tissue, organ, system and organisms. ❖ Study the derivatives of skin- horns, nails, hairs. ❖ To Study and understand the terms- acidosis, alkalosis, asphexia, hypoxia, anoxia and cyanosis	❖ Students will learn the microscopic structure of tissues and normal functions of living organisms and their parts. ❖ Students will learn the structure of tissues, body organs, and their functions of living organisms. ❖ Students will be able to understand the internal structure and function of skin, horns, nails and hairs of organisms. ❖ Students will be learn the causes of acidosis, alkalosis, asphexia, hypoxia, anoxia and cyanosis in animals	
		❖ Understand the term pH ,Buffer. ❖ Understand the structure and function of carbohydrate, amino acids, proteins, and ❖ Understand the Principle role of Vitamins in metabolism and Deficiency diseases.	❖ Students will learn the concepts of pH, Buffer and their role in physiology. ❖ physiological functions and importance in animals . ❖ Students will be learn the role of vitamins ❖ Students will be able to chemical structure , ❖ in metabolism, their diffency and their diseases in animals	
		❖ Understand the Origin and development of animals. ❖ To aware the students for Paleontology ❖ . Understand the Zoogeographical realm.	❖ Students will learn the history and origin of life and their developments. ❖ Students will learn the Fossils of animals and its significance. ❖ Students will learn the zoogeographical distribution of animals and its significance.	

		❖ To understand concepts of public Health and Hygiene ❖ To understand Diabetes, CVD and Mental illness disease.	❖ Students will be increase awareness for the health and hygiene. ❖ Students will know the types, causes and symptoms of Diabetes and CVD and their precaution measures.	
		❖ To understand Embryology	❖ Students will able understand the concepts of embryology, process and significance of gametogenesis, oogenesis and structure of gametes understand the processes of fertilization	
		❖ To understand the CT scan and EEG. ❖ To understand concepts of Hormones	❖ Students will be able to understand and use of CT scan and EEG technique in medical science. ❖ Students will be able to understand the male and female sex hormones and their role in animals	
		❖ To understand research methodology	❖ Students will understand the scope of research, clear and concise form of scientific research data and create knowledge about research paper writing and publication.	
		❖ To understand Microtechnique	❖ Students will understand the process of materials (tissue), collection and fixation, students will performe the process, section cutting and staining for identification of tissue	
		❖ To understand vermiculture, poultry and fishery	❖ Students will able understand the concepts of Vermiculture, Poultry and Fishery.and learn the various Indian carps and their distribution Students also aware about fishes, earthworm and poultry and its economical importance. ❖ They know the Economical importance of poultry (Egg and Meat),Vermicompost, Vermiwash and Fishes.	

Name of the course: B. Sc. (Microbiology)
Duration: 3 years

Sr.no	Program	Program objectives	Program outcome	Remark
5	B. Sc. (Microbiology)	❖ To acquaint students with basic concepts of microbiology, history of microbiology and microbial diversity. ❖ To aware the students with the concepts in basic biochemistry, microbial cultivation, microbial control and microbial growth. ❖ To instill the practical skills about methods of isolation, staining, characterization, control of microbes and familiarize with fundamental aspect of cellular chemistry. ❖ To complement the students with the basic knowledge of subjects like biochemistry, genetics, immunology, industrial microbiology and medical microbiology. ❖ To complement the students with the detail subject knowledge of diagnostic microbiology and immunology ❖ To aware the students with the advanced concepts in microbial genetics, molecular biology, pharmaceutical microbiology and applied microbiology.	❖ Understand the basic microbial structure and study the comparative characteristics of prokaryotes and eukaryotes and also understand the structural similarities and differences among various physiological groups of bacteria/archaea. ❖ Learn ancient view about life continuity and concept of experiment and aware about historical developments and their applications as technology. ❖ Demonstrate theory in microscopy and their handling techniques and staining procedures. ❖ Know various Culture media and their applications and also understand various physical and chemical means of sterilization. ❖ Demonstrate theory and practical skills in microscopy, their handling techniques and staining procedures. ❖ Know the general concepts in biochemistry, immunology, genetics and industrial microbiology. ❖ Know general bacteriology and microbial techniques for isolation of pure cultures of bacteria, fungi and algae. ❖ Learn aseptic techniques and be able to perform routine culture handling tasks safely and effectively. ❖ Comprehend the various methods for identification of unknown microorganisms. ❖ Understand the modes of nutrition in microbial metabolism and able to classify the bacteria based on nutrition. ❖ Know General bacteriology and microbial techniques for isolation of pure cultures of bacteria, fungi and algae. ❖ Practice aseptic techniques and able to perform routine	

			culture handling tasks safely and effectively. ❖ Understand preparation of standard solutions required in various assays. ❖ Understand the detail knowledge of central dogma, viral genetics and genetic recombination and repair, gene regulation, molecular techniques and rDNA technology. ❖ Recognize the scope of microbiology in all spheres of life and industrial sector. ❖ Develop ability to use quantitative reasoning to solve problems in microbiology. ❖ Aware about the scope of subject in large scale production of various industrially important products like wine, vitamins, antibiotics, enzymes etc. ❖ Demonstrate increased skill level in Cognitive processes, including formulating a clear, answerable question developing a testable hypothesis, predicting expected results, following an experimental protocol. ❖ Analytical skills including collecting and organizing data in a systematic fashion, presenting data in an appropriate form (graphs, tables, figures/descriptive paragraphs), assessing the validity of the data (including integrity and significance), drawing appropriate conclusions based on the results. ❖ Communication skills including discussing and presenting lab results or findings in the laboratory interpersonal and citizenry skills including working effectively in teams or groups so that the task, results, and analysis are shared. Effectively managing time and tasks allowing concurrent and/or overlapping tasks to be done simultaneously, by individuals and within a group, integrating knowledge about microbiology in everyday life.	

S/d
Head:

Name of the course: BSc (Electronics) Up to S.Y.BSc.
Duration: 2 years

Sr.no	Program	Program objectives	Program outcome	Remark
7	**B.Sc. Electronics**	❖ To make the students to understand the basic circuit concepts, electrical networks and analyze networks. ❖ To enhance comprehension capabilities of students through understanding of semiconducting devices and their applications in the circuits. ❖ To get familiar with concepts of digital electronics ❖ To learn number systems and their representation ❖ To study arithmetic circuits, combinational circuits and sequential circuits ❖ To study basic principles of amplifiers, oscillators and to understand the working of various analog circuits. ❖ To develop analog circuit design skills and to apply the knowledge of analog circuits in different applications. ❖ To study the design and working of various data converters ❖ To configure the digital circuits in system interfacing and	❖ Students apply the basic circuit concepts, network theorems and analyze electrical networks. ❖ Understand the theory, working principle and I-V characteristics of semiconducting devices and their applications in the circuits. ❖ Familiar with concepts of digital electronics, learn number systems and can able to do their inter-conversion. ❖ Understand basic logic gates, Boolean algebra arithmetic circuits, combinational circuits and sequential circuits ❖ Understand the basic principles of amplifiers, oscillators and the working of various analog circuits. ❖ Apply analog circuit design skills and the knowledge of analog circuits in different applications. ❖ Understand the design and working of various data converters ❖ Able to configure the digital circuits in system interfacing and applications. ❖ Understand the block diagram of electronic instruments and the working principles of frequently used instruments. ❖ Understand important technical specifications of instruments. ❖ Understand the concept, working principles and key applications of linear integrated circuits. ❖ Analyze circuits based on linear integrated circuits. ❖ Able to design circuit and systems for particular applications using linear integrated circuits.	

		applications. ❖ To study the block diagram of electronic instruments and to understand the working principles of frequently used instruments. ❖ To learn the operating procedure of instruments. ❖ To understand the concept, working principles and key applications of linear integrated circuits. ❖ To perform analysis of circuits based on linear integrated circuits to do design circuit and systems for particular applications using linear integrated circuits.		

S/d
Head:

Name of Course: B.A. (English)
Duration: 3 Years

Sr. No.	Program	Program Objectives	Program Output	Remark
8	F.Y.B.A. Comp. English	❖ To develop basic skills of languages ❖ To introduce values through literatures ❖ 3. To develop students competency in grammar	❖ The students listen and read with understanding. ❖ The students speak and write English. ❖ The students get knowledge of grammar to use English correctly. ❖ 4. The students are introduced the basic human values through literature.	
	F.Y.B.A. Opt. English	❖ To introduce the students with the idea of English literature ❖ To acquaint the students with the broader genres of literature in general ❖ To acquaint the students with the particular genres of literature- short story and poem ❖ To develop understanding of literature and reading skill of the students through literature.	❖ The course will introduce the basic forms of literature to the students. ❖ The course will develop the liking of reading in the students. ❖ The course will inspire students to develop their creative ability. ❖ 4. Consequently, the course will develop reading skill and creative and expressive ability of the students.	

	S.Y.B.A. Comp. English	❖ To develop the basic communication skills. ❖ Human values are inculcated through the works of literature. ❖ To develop the writing skills.	❖ The students understand, read, write the English through the oral and written communication. ❖ The students acknowledge the values.	
	S.Y.B.A. English GII	❖ To introduce the genre of novel and drama. ❖ To make the students to read and understand the works of drama and fiction. ❖ They are able to understand, criticize and appreciate the drama and fiction.	❖ The students understand the aspects , elements and nature of drama and fiction. ❖ They understand the origin and development of drama and fiction. ❖ They critically study and appreciate the drama and fiction.	
	S.Y.B.A. English I	❖ To acquaint students with the major dramatists and essayists of the 16th and 17th Century English Literature. 2. To make the student aware of the literary history, salient features and cultural background of the period. 3. To help the students to grasp the content and critical appreciation of the prescribed texts. 4. To inculcate amongst students a liking for the Elizabethan and post-Shakespearean literature.	❖ The students are able to understand the origin and development of English literature of 16 century. ❖ The students analyze and appreciate the 16 and 17 century literature. ❖ 3. The students critically examine the works agonist the historical background	

			and the find out the elements and aspects of the poetry, drama and novel of 16 and 17 century.	
	S.Y.B.A. English II	❖ To impart basic ideas about the 18th and 19th Century English Literature with special reference to Poetry and Novel. ❖ To make the students aware of the literary history, salient features and cultural background of the Romantic and Victorian age. ❖ To help the students to grasp the content and critical appreciation of the prescribed Texts. ❖ 4. To inculcate amongst students a liking for the Romantic and Victorian literature. Semester - III	❖ The students are able to understand the origin and development of English literature of 18/19 century. ❖ The students analyze and appreciate the 18 and 19 century literature. ❖ The students critically examine the works agonist the historical background and the find out the elements and aspects of the poetry, drama and novel of 18 and 19century.	
	T.Y.B.A. Comp. English	❖ To develop the comprehension skills of the students. ❖ To teach the presentation skills to students. ❖ To develop language competency through literature.	❖ The students read with understanding and respond to the problems based on texts. ❖ The students perfects in Group discussion, public Speaking and Interviews. ❖ The students understand	

			the use of language through literature and reproduce it.	
	T.Y.B.A. English GII	❖ To acquaint the students with origin of drama and dramatic art. ❖ To introduce the students to the aspects and genres of drama. ❖ To enable the students to trace the development of English drama. ❖ To inculcate amongst the students the competence to study drama systematically. ❖ To acquaint the students with representative English dramatists.	❖ The students understand the genre of drama with its origin and development. ❖ The students read the drama and understand all the aspects and elements of drama. ❖ 3. The students study the drama practically and can critically appreciate it.	
9	T.Y.B.A. English SIII	❖ To acquaint the students with the growth of Indian drama and novel in English during the 20th century. ❖ To enable the students to evaluate, analyze, appreciate and criticize drama and novel prescribed. ❖ To acquaint the students with the social, political and cultural background and literary movements of the century. ❖ 4. To acquaint the students with the developments in American poetry and novel.	❖ The students know and study the Indian/American novel and drama in English. ❖ He gets acquainted with the origin and development of Indian/American Creative Prose and Dramatic writings. ❖ He students Indian novels and dramas and critically analyze and appreciate.	
	T.Y.B.A. English SIV	❖ To introduce the students to the properties and functions of language.	❖ The students understand the origin and	

		❖ To inculcate phonological competence among students. ❖ To acquaint the students with English grammatical forms and functions. ❖ To acquaint the students with morphological concepts and processes. ❖ To introduce the students to the basic concepts in syntactic and semantic levels of language.	development of language. ❖ They learn sounds in English and they are trained to pronounce the sounds and words correctly. ❖ The students are aware of word formation and develop their ability to use the words properly by studying semantic and syntactic features.	

S/d
Head:

Name of the course: BA (Geography)
Duration: 3 years

Sr.no	Program	Program objectives	Program outcome	Remark
9	BA (Geography)	❖ To know the basic geographical concept ❖ To understand how Physical factors are important in the life of human being ❖ Student may adapt the skill of surveying and map preparation ❖ How the remote sensing tequenics are work to know basic concept ❖ How the environment are become fragile and how to protect its components ❖ How interpret the different element and phenomenon through map. ❖ To know the importance of geo-statistical method in the geographical Study	❖ Student know the every point on the earth surface has geographical location, sculpture of the earth is varies ❖ Human development affect the natural phenomenon as per natural law student are trying to understand the natures law ❖ Student from geography companion to conserve environment for sustainable development. ❖ Map is more democratic tool to understand the terrain student knows it. ❖ Statistic is most important for the further study and research that's why ❖ Student take interest to collect the data and analyses it.	

Name of the course: BSc. (Mathematics)
Duration: 3 years

Sr.no	Program	Program objectives	Program outcome	Remark
9	B.Sc. Mathematics	❖ Upon graduation you should ❖ Have the skill needed to pursue career in education, business and industry. ❖ Be prepared for continued study of Mathematics at the graduate level. ❖ Experience mathematics outside of regular course work. ❖ Ability to calculate and reason to design complex and critical financial ❖ Models for Bank and Insurance Companies. ❖ Ability to understand both concrete and abstract problems. ❖ Ability to make critical observations. ❖ Ability to accurately organize, analyze and interpret data. ❖ Develop the mathematical logic which is very useful for solving mathematical reasoning problems	❖ Upon completion of the B.Sc. Mathematics Programme you should ❖ Communicate mathematics effectively. ❖ Demonstrate a computational ability in solving a wide array of mathematical problems. ❖ Differentiate between valid and invalid mathematical reasoning. ❖ Develop mathematical ideas from basic axioms. ❖ Utilize mathematics to solve theoretical and applied mathematics problems. ❖ Identify applications of mathematics in other disciplines and in society. ❖ Developing the interest towards mathematics. ❖ Creating the relationship of mathematics with other subjects. ❖ Developing the understanding and fluency in mathematics thorough inquiry and connecting mathematical concepts. ❖ Developing the knowledge of applications of derivative and integration, etc.	

2	M.Sc. (Mathematics)	❖ Upon post-graduation you should ❖ Apply their knowledge in modern industry or teaching or secure acceptance in high quality programmes in mathematics and other fields such as the field of quantitative, Mathematical finance, Mathematical computing, statistics and actuarial science. ❖ Communicate effectively both orally and in writing. ❖ Work effectively in team. ❖ Exhibit ethical and professional behavior. ❖ Develop research skills in further innovative ideas.	❖ Upon completion of the M.Sc. Mathematics Programme you should ❖ Formulate and analyze mathematical problems precisely define the key terms and draw clear and reasonable conclusion. ❖ Use mathematical technique to solve well defined problems and present their mathematical work both in oral and written format to various audiences such as students, mathematicians and non-mathematicians. ❖ Read, understand and construct correct mathematical proofs and use the library and electronics databases to locate information on mathematical problems. ❖ Explain the importance of mathematics and its technique to solve real life problems and provide the limitations of such techniques and the validity of the result. ❖ Propose new mathematical questions and suggest possible software packages and computer programming to find solutions of these questions. ❖ Continue to acquire mathematical and statistical knowledge and skills appropriate to professional activities and demonstrate the highest standards of ethical issues in mathematics.	

Name of the course: BA (Psychology)
Duration: 3 years

Sr.no	Program	Program objectives	Program outcome	Remark
10	Psychology	❖ to provide an introduction to psychological concepts, theories, research findings and applications ❖ to create an understanding of the range and limitations of psychological theory and practice ❖ to encourage candidates to explore and understand the relationship between psychological findings and everyday life ❖ to develop skills of analysis, interpretation, application and evaluation ❖ to promote an appreciation and understanding of individual, social and cultural diversity ❖ to develop an understanding of ethical issues in psychology, including the moral and ethical implications of psychological research ❖ to explore and understand the relationship between psychological findings and social, cultural and	❖ By the time they graduate, students will: ❖ Demonstrate knowledge of the major theoretical approaches and findings in psychology ❖ Know the research methods used in psychology, apply their knowledge in research design, and data analysis ❖ Critically assess information related to the study of behavior and mental processes, and use the critical assessment in forming conclusions and arguments ❖ Develop tolerance for ambiguity and opinions that differ from their own ❖ Students will also develop a set of skills that extend beyond the field of psychology. They will: ❖ Use technology for studying concepts and conducting research ❖ Communicate their ideas effectively in writing and orally ❖ Prepare a plan for how to use their undergraduate knowledge in the future as they prepare for post graduate or an occupation.	❖

		contemporary issues ❖ to study psychological principles, perspectives and applications ❖ To improve communication skills.		

S/d
Head:

Name of the course: M.Sc. Physics
Duration: 2 years

Sr. No	Programme	Programme Objective	Programme Outcomes	Remark
11	**M.Sc. Physics**	❖ Student understand the concept of Vector & tensor analysis. ❖ Understand the basics theory of Fourier series.	❖ Able to apply methods of function of complex variables for calculation of integrals. ❖ Student should be able to expand function in Fourier series.	
		❖ To develop familiarity with the physical concepts and facility with the mathematical methods of classical mechanics. ❖ To develop skills in formulating and solving physics problems.	❖ Have a deep understanding Newton's law. ❖ Be able to solve the Newton equation for simple configuration using various methods.	
		❖ Student learn the concept of wave function. ❖ Student will learn Schrodinger equation and their application. ❖ To study the basics principles of quantum mechanics.	❖ Understand the idea of wave function. ❖ Solve Schrodinger equation for simple potential. ❖ Pinpoint the historical aspects of development of quantum mechanics.	
		❖ To describe the difference between crystalline and amorphous material. ❖ Describe the arrangement of atoms and ions in crystalline structures.	❖ Demonstrate an understanding of the crystal lattice and how the main types are described. ❖ Be able to perform structure determination of simple structures.	
		❖ Technical skills & practical skills required for Physics experimentation. ❖ The students gain practical knowledge to co – relate with the theoretical studies.	❖ Design new instrument with practical knowledge. ❖ Student learn how to apply the concept of physics in daily life.	
		❖ Objective of this course is its to learn atomic, molecular and spin	❖ Objective of this course is its to learn atomic, molecular and spin resonance	

		resonance spectroscopy. ❖ Molecular spectra of diatomic molecules vibrational and rotational energy levels.	spectroscopy. ❖ Molecular spectra of diatomic molecules vibrational and rotational energy levels.	
		❖ Is introduce to students to fundamental principles that apply broadly to all materials design through synthesis. ❖ Is to achieve an understanding of the main methodologies such as polymerization, biosynthesis, self-assembly, sol-gel reactions.	❖ Ability to prepare formal laboratory reports describing the results of experiments. ❖ Ability to interpret the data from the experiments.	
		❖ Give the beginning student an opportunity for teamwork in research. ❖ To describe & demonstrate diffraction, including interpretation of basics X – ray data.	❖ Student will be able to do simple diffusion problems. ❖ Give a type of bond, be able to describe its physical origin as well as strength.	
		❖ To impart basic knowledge related to material selection & the techniques for material analysis. ❖ To gain the knowledge on existing& future upcoming material used in device fabrication.	❖ Student will understand the knowledge of Various material synthesis method. ❖ Student learn how to apply the concept of materials analysis in daily life.	

Name of the course: B.Sc. Physics
Duration: 3 years

Sr. no	Program	Program objectives	Program outcome	Remark
12	B.Sc. Physics	❖ To impart knowledge basic concepts in basic mechanics . ❖ The course also involves the related experiments base on the theory.	❖ Apply the concept of use of knowledge of mechanics to real life problems. ❖ Understanding of the course will create scientific temperament.	
		❖ To determine axial forces, shear forces & bending moments. ❖ The course also involves the related experiments based on the theory.	❖ Apply the concept of use of knowledge stress and Forces to real life problems. ❖ Understanding of the course will create temperament.	
		❖ Student should be able to understand the forces, stress, strain, their types. ❖ The students gain practical knowledge to co – relate with the theoretical studies.	❖ Develop skill to impart practical knowledge in real time solution. ❖ Design new instrument with practical knowledge.	
		❖ The knowledge of basic achievements of physics in 20^{th} century. ❖ The course provides the theoretical basis for the understanding of physical measurement methods.	❖ Ability of modeling and solving physical problems. ❖ Ability of searching solution of physical problems in scientific and technical literature.	
		❖ Student should be familiar with every instrument in laboratory. ❖ Student should be learn various electronic instruments.	❖ Student should be comfortable while using an instrument. ❖ Student should be understand to develop the various electronic circuit.	
		❖ To apprise the students regarding the concept of electrodynamics and Maxwell equation and use them various situations.	❖ Describe the nature of electromagnetic wave and its propagation through different media and interfaces. ❖ Explain charge particles dynamics and radiation from localized time varying	

		❖ To acquire working knowledge of broad spectrum of electromagnetic phenomenon.	electromagnetic sources.	
		❖ To study the basic principle of quantum mechanics. ❖ Student learn the concept of Wave function. ❖ Student will learn Schrodinger equation and their application	❖ Understand the idea of wave function. ❖ Understand and explain the differences between classical and quantum mechanics.	
		❖ The aim is to tell them about the stability of nucleus and various other properties. ❖ Student will learn about various types of radiation and their interaction with matter. ❖ Various ways will be taught to extract energy from nuclei in real life.	❖ They are able to understand the size of nucleus and all its properties. ❖ Students are able to determine the charge, mass of any nucleus by using various spectrograph. ❖ Students now know various methods of accelerating various types of particles to perform scattering experiment.	
		❖ To review the Physics & Chemistry in the context of materials science. ❖ Give an introduction to metals, Ceramics, Polymers and Electronics materials in the context of a molecular level understanding of bonding.	❖ Give a type of material be able to qualitatively describe the bonding scheme & its general physics properties as well as possible application. ❖ Give a type of bond be able to describe its physical origin as well as strength.	
		❖ Understand the basis architecture of 16 bit & 32 bit microprocessor. ❖ To understand the concept of multi core microprocessor. ❖ To understand RISC & CISC microprocessor	❖ Write programmes to run on 8085 microprocessor based system. ❖ Design system using memory chips & peripheral chips for 16 bit microprocessor. ❖ To understand multi core processor & its advantages.	

Head :
Signature:

Name of the course: B.Sc. Physics
Duration: 3 years

Sr.no	Program	Program objectives	Program outcome	Remark
13	B.A. Marathi	❖ कथा या साहित्य प्रकारचे स्वरूप जाणून घेणे ❖ कथेचे विविध घटक, कथानक, वातावरण, प्रसंग इत्यादीचा परिचय करून देणे.	❖ कथा या साहित्य प्रकाराचे स्वरूप विध्यार्थाना समजले. ❖ कथेच्या विविध घटकांची माहिती विध्यार्थाना समजली	
		❖ कादंबरी या साहित्य प्रकाराचे स्वरूप जाणून घेणे ❖ कादंबरीचे विविध घटक, कथानक, वातावरण, प्रसंग इत्यादीचा परिचय करून देणे.	❖ कादंबरी या साहित्य प्रकाराचे स्वरूप विध्यार्थाना समजले. ❖ कादंबरी या साहित्य प्रकाराच्या विविध घटकांची माहिती विध्यार्थाना समजली	
		❖ शिवकालीन स्वराज्य नितीसूत्र परिचय करून देणे. ❖ आज्ञापत्रातील महत्वाचे विचार समजून देणे.	❖ शिवकालीन स्वराज्य नितीसूत्र विध्यार्थाना समजले. ❖ आज्ञापत्रातील महत्वाचे विचार विध्यार्थाना समजले.	
		❖ साहित्याचे स्वरूप प्रयोजन यांचा विध्यार्थाना परिचय करून देणे ❖ साहित्य शास्त्रातील विविध संकल्पनांचा परिचय विध्यार्थाना करून देणे	❖ साहित्याचे स्वरूप प्रयोजन याविषयी माहिती अवगत झाली ❖ साहित्य शास्त्रातील विविध संकल्पनांची माहिती विध्यार्थाना समजली	
		❖ नाटक या साहित्य प्रकारचा स्वरूप जाणून घेणे ❖ नाटकांचे कथानक प्रसंग, संवाद, भाषाशैली इत्यादी माहिती समजून घेणे.	❖ नाटक या साहित्य प्रकारचे स्वरूप विध्यार्थाना समजले. ❖ नाटकांचे विविध घटकांची माहिती विध्यार्थाना समजली.	
		❖ १९२०-१९६० या कालखंडातील सांस्कृतिक परिचय विध्यार्थाना करून देणे ❖ १९२०-१९६० या कालखंडातील विविध साहित्य	❖ १९२०-१९६० या कालखंडातील सांस्कृतिक घटनांचा परिचय विध्यार्थाना झाला. ❖ १९२०-१९६० या कालखंडातील विविध	

		कृतींचा परिचय विध्यार्थाना करून देणे	साहित्य कृतींचा सखोल अभ्यास विध्यार्थाना झाला.	
		❖ भाषा स्वरूप व तिचे मानवी जीवनातील कार्य समजावून देणे. ❖ मराठी पारंपारिक व्याकरणातील महत्त्वाचे घटक समजावून देणे.	❖ भाषा स्वरूप व तिचे मानवी जीवनातील कार्य विध्यार्थाना समजले. ❖ मराठी पारंपारिक व्याकरणातील महत्त्वाचे घटक विध्यार्थाना समजले.	
		❖ कथेचे विविध घटक, कथानक, वातावरण, प्रसंग इत्यादीचा परिचय करून देणे. ❖ कथा वाड्मयाचे वेगळेपण समजून घेणे.	❖ कथेच्या विविध घटकांची माहिती विध्यार्थाना समजली. ❖ कथेचे वेगळेपण विध्यार्थाना समजले.	
		❖ माणदेशी मानसं या कथा संग्रहातील वैशिष्टे लक्षात घेणे. ❖ संवाद कौशल्यासाठी आवश्यक बाबीचा परिचय करून घेणे.	❖ विध्यार्थाना कथा संग्रहाचे वैशिष्टे समजली .विध्यार्थानी संवाद कौशल्य समजुन घेतली.	

Head
Signature