PROGRAM OUTCOME (PO), PROGRAM SPECIFIC OUTCOME (PSO), AND COURSE OUTCOME (CO) FOR ALL PROGRAMS OFFERED BY SHYAMPUR SIDDHESWARI MAHAVIDYALAYA

1. Sociology (Pass Course)

Program Specific Outcomes (PSO):

- 1. Develop a strong foundation of Sociology as a distinctive discipline in Social Science arena, its nature, scope and relationship with other social sciences, basic concepts, principles and different perspectives in studying macro social structures.
- 2. Ssocial groups, social stratification, basic social institutions, social processes, social problems etc., and their applications to understand and analyze the inherent complexity of social life as a whole.

COURSE OUTCOME

To connect everyday life practices or micro level interactions to the various aspects of macro-level knowledge formation & to develop 'sociological insight' for understanding behavior, social roles, interactions among and everyday life practices of human beings.

2. Sanskrit H & G

Programme Specific Outcome:

Students will become accomplished active readers who appreciate ambiguity and complexity, and who can articulate their own interpretations with an awareness and curiosity for other perspectives.

Course Outcome

Practice of textual analysis of Sanskrit and Vedic Sanskrit texts endows him/her to develop a critical perspective to assess existing research through careful reading, analysis and discussion.

3. Political Science (H & G)

Program Specific Outcomes (PSO):

Enables the students to grasp the knowledge of political ideals and social & political philosophy, fosters knowledge about constitutionalism and comparative constitutional system.

Course Outcome

An understanding of how political institutions emerge, how they operate, how they interact with their external environment, and how they shape individual and collective behavioral knowledge of basic factual information about politics within an area of specialization including political behavior, comparative politics, international relations, political theory and methodology.

Apply methods appropriate for accumulating and interpreting data applicable to the discipline of political science.

4. History H & G

Programme Outcomes (PO)

1. Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.

2. Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.

Programme Specific Outcomes (PSO)

1 Analyze relationship between the past and the present .

2 To develop practical skills helpful in the study and activities related to the historical events.

3 T understand background of our religion, administration.

4 To understand present existing social, political, religious and economic conditions of the people.

5 To develop interest in the study of history and activities related to history.

Course Outcome

1 Study of primary and secondary sources of ancient Indian history and analyze the sources critically and logically for constructing Indian history ,examine the notions of Indian history, identification of ancient Indian site and their importance , study of Indian civilization from Paleolithic period to most advanced Harappa culture up to Aryan civilization.

2 Study of society and economy from 300 BC to 300 AD India: tribal village society, urban growth, social stratification, agriculture, trade and trade routes, craft production. study of mauryan, kushan, satavahan and early medieval India, empires of guptas, pallavas, chalukyas dynasties and its admn, society, polity, economy ,religions study of Hinduism, budhhism, Jainism, puranictradition, trantricism development Of language and literature (Sanskrit, pali, prakrit, tamil literature and scientific treaties, development of art and architecture.

5. EDUCATION (H & G)

Programme Outcomes (PO)

1. Effective Citizenship: Demonstrate empathetic social concern and equitycentered national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.

2. Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.

3. Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.

Programme Specific Outcomes (PSO)

1. State the meaning of Philosophical, Psychological and Sociological aspect of foundation in Education.

2. Discuss the nature of Philosophical, Psychological and Sociological aspect of foundation in Education.

3. Explain the scope of Philosophical, Psychological and Sociological aspect of foundation in Education.

4. Discuss the Historical aspect of foundation in Education.

Course Outcome (CO)

1. Discuss the meaning, nature, scope, and aims of education.

2. Discuss the meaning and scope of educational philosophy.

3. Explain the factors of education and their relationships.

4. Describe the knowledge, reality, and value of different Indian schools of philosophy namely Sankhya, Yoga, and Buddhism

6. Music P

Programme Outcomes (PO)

[°]. Psychological parts of the course help the students to relate music with human psychology, which is required for being a good performer.

 $\vec{\mathbf{P}}$ Western Music acquires an important part of our course. Students get knowledge of scales, pitches, chords, intervals, staff notations from this section. This knowledge is necessary for growing good musical sense.

 $\mathbf{\check{\bullet}}$ Our course caters a brief introductory knowledge in Aesthetics. This knowledge helps the students to understand music as an art form with a sense of Justification towards the subject.

 $\check{\mathbf{P}}$ We believe a good artist must be a good human being. Only a good human being can make a good society full of positive and constructive culture.

Programme Specific Outcomes (PSO)

1. The student is able to give a practical demonstration of ragas for a period of at least half an hour

2. He/she is able to demonstrate various aspects of ragas and their differentiation.

3. He/she studies about the theoretical aspects of the prescribed ragas

4. He/she learns to write the practical compositions according to the Notation system

Course Outcome (CO)

¹Music provides a better social environment among the students, who are the future of our nation.

 $\vec{\mathbf{P}}$ Music is a subject which is called 'Gurumukhi Vidya'. So, it makes a relation more than a teacher-student relationship.

 $\tilde{\bullet}$ Classical Music is the base of all kinds of Indian Music. It is a huge part of our syllabus. So, a student can get thorough knowledge of Swaras and its applications from this course.

 $\check{\mathbf{P}}$ We emphasize on individual composition making, which may help them to expose themselves as music composers in future.

7. English (H & G)

Programme Outcomes (PO)

1. Increasing in-depth Knowledge of the Core Areas of the Subject.

2. Train students for careers and advanced studies in a wide range of English, Public Relations, or Communications fields.

Programme Specific Outcomes (PSO)

- 1. Equip students with knowledge of English as a world language.
- 2. Equip student with analytical skills in linguistics, communications and literary criticism.
- 3. To recognize and appreciate the importance of major literary genres, subgenres, and periods.

Course Outcome (CO)

1. Writing skills and process: Students will be able to write effectively for a variety of professional and social settings. They will practice writing as a process of motivated inquiry, engaging other writers' ideas as they explore and develop their own.

2. Critical Approaches: Students will express their own ideas as informed opinions that are in dialogue with a larger community of interpreters, and understand how their own approach compares to the variety of critical and theoretical approaches.

3. **Oral communication skills:** Students will be able to prepare, organize, and deliver an engaging oral presentation in English.

8. Mathematics (P & H)

Programme Outcomes (PO)

1. Students will compute and interpret average rate of change over an interval and instantaneous rate of change for a function at a point. Also they will compute limits of functions as the independent variable approaches some finite value or infinity.

2. Students will simplify Circuit Diagrams using the rules for Capacitors and Resistors. Students will use Boolean Algebra to design and simplify Logic Circuits. They will apply Complex Numbers to computing the Impedance of a Circuit.

3. Students will demonstrate the ability to compute Derivatives and Integrals of real valued and Vector Valued functions of several variables. Students will demonstrate the ability to apply the techniques of multivariable Calculus to problems in Mathematics, Physical Sciences and Engineering.

4. Students will demonstrate the ability to formulate models of natural phenomena using Differential Equations analytically and numerically.

Programme Specific Outcomes (PSO)

1. Have the **versatility** to work effectively in a broad range of analytic, scientific, government, financial, health, technical and other positions.

2. Have a broad background in Mathematics an appreciation of how its various subdisciplines are related, the ability to use techniques from different areas, and an indepth knowledge about topics chosen from those offered through the department.

3. By mathematically, numerically literate. In particular, graduates will recognize the importance and value of mathematical thinking, training, and approach to problemsolving, on a diverse variety of disciplines;

Course Outcome (CO)

1. Students will simplify and evaluate Algebraic expressions. They will form and solve linear equations. They will also solve nonlinear equations using analytic methods.

2. Students will use mathematical concepts in Real World situations.

3. Students will apply Ratio and Proportion to problems in Health Sciences. Also students will convert between Metric, Household and Apothecary units. They will compute Dosages.

4. Students will convert between Metric and English system units.

5. Students will demonstrate the ability to summarize and interpret Date.

9. Bengali

Programme Outcomes (PO)

- 1. Develop ideas on History of Bengali literature and linguistics.
- 2. Analyse Bengali Rhythms, Alonkar and develop ideas on classic Bengali poetry.
- 3. Increase conception of Bengali fiction and short story.
- 4. Understanding about the classification of easy, poetry and criticism.

Programme Specific Outcomes (PSO)

1. Develop a strong concept of linguistics, history of old, medieval and modern Bengali literature. The students should possess the fundamental knowledge of Bengali Rhythms, Alonkar, 'BaishanabPadabali', 'Ramayan' and 'Annadamangal'.

2. Students are enabled to transfer and apply the acquired concepts and principles to study different branches of Bengali literature that is fiction, short story, easy and poetry.

3. Understand the principles and application of classification of Drama, Novels, and Poetry. Develop a conception of aesthetic sense and understand the interdisciplinary approach.

Course Outcome (CO)

- 1. Students will be capable of oral and written communication about the classification of drama and history of Bengali theatre.
- 2. Students will demonstrate ideas about Epic, Lyric, Epistle, Classicism, Surrealism, Romanticism, and Imagism.
- 3. Students will demonstrate knowledge of selected fiction.
- 4. Students will demonstrate the interdisciplinary approach.

10. Economics

Programme Outcomes (PO)

1. Economics graduates are familiar with the knowledge of international trade and its theories. They are able to understand the concept of public finance, revenue

collection in terms of taxation and its principles and incidences, forms of business enterprises.

2. They should have the basic knowledge on development, growth, models of development, contribution of education, health, nutrition in economic development, rural development and entrepreneurship development and sustainable development. Students are able to develop ideas of basic features of Indian Economy and various economic problems in respect of structural change, income inequality, poverty, unemployment, population, infrastructure ,balance of payment and financial sector reform.

Programme Specific Outcomes (PSO)

- 1. As the undergraduate course contains the fields of elementary microeconomics, macroeconomics, basic statistics and mathematical economics, students are well equipped with the knowledge based on Economic principles including Consumer's behaviour, Producer's behaviour, Market structure. Students are alsofamiliar with the tools of Statistics and Mathematical Economics.
- 2. Economics graduates are familiar with the knowledge of product market, factor market, general equilibrium and welfare economics. They should have the sound knowledge about the market with asymmetric information

Course Outcome (CO)

- 1. To get preliminary idea of economic theory.
- 2. To study the behaviour of Indian economy.
- 3. To determine economic variables including inflation, unemployment, poverty, Gross Domestic Product, Balance of payment using statistical methods.
- 4. To understand the behaviour of consumer and producer.
- 5. To understand the theories of exchange among rational economic agents in variant market structure.

11. Geography (H & P)

Programme Outcomes (PO)

- 1. Conceptualize the Social, Cultural, Political, Settlement Geography and the ethical considerations associated with their environmental impact.
- 2. Make a knowledge base of the development of Geography by going through Geographical Thought.
- 3. Undertake an analytical approach to design and complete field work in the above areas following land use and questionnaire survey.
- 4. Be competent to acquire, analyze and interpret the statistical data to arrive at unbiased conclusions about problems and devise alternatives to existing procedures.

Programme Specific Outcomes (PSO)

1. Develop a strong foundation of Geotectonic, Geomorphology, Biogeography, Soil Geography and instrumentation techniques and their applications to examine and appreciate the inherent complexity of landscape systems at the micro level.

- 2. Conceptualize the basic atmospheric and climatic phenomena of the earth and their effect on man.
- 3. Develop advanced level concepts of Remote Sensing and Geographical Information System and their applications in present-day situation.
- 4. Understand the principles and applications of Hydrology and Oceanography to address water resource and environment related problems.
- 5. Conceptualize the Social, Cultural, Political, Settlement Geography and the ethical considerations associated with their environmental impact.

Course Outcome (CO)

- 1. Students acquire efficiency in the use of computers for GIS mainly for the software QGIS in experimental investigations.
- 2. This course also creates an interest in higher studies and research in various branches of Geography.
- 3. A student studying Geography will also develop logical and analytical thinking abilities.
- 4. Students will be aware about the nature and its impact so that they can apply it on their surroundings.

12. Physical Education (P)

Programme Outcomes (PO)

1. Body's adaptation for physical and mental workload and also at the increasing of the capability of physiological systems as well as raising of the resistance of immune defenses;

2. Learning the methodology of formation and taking health exercises independently, the methods of self-control while exercising, hygiene rules and sound schedule for work and rest;

3. Learning how to resist unfavorable factors and working conditions, decreasing fatigue during professional activities and raising the quality of results.

Programme Specific Outcomes (PSO)

1. Understanding the meaning of physical education for an individual development and improving general health for professional activity;

2. Fostering motivational attitude to the physical education, healthy lifestyle and regular exercising;

3. Learning special knowledge, practical skills, which provide health protection, form compensatory process, correct present health abnormalities, provide mental Prosperity, development and improvement of psychophysical skills, form professional qualities of an individual;

Course Outcome (CO)

1. To get Preliminary idea of Physical Education Theory.

2. To study the behaviors of India and World Physical Education.

3. Students learn net surfing in order to get acquainted with different new writing materials.

4. Learn how to access books in e-library.

5. Learn different function of body parts, anatomy, physiology and exercise physiology of players.

6. Learn the different therapy process and use.

7. How to maintain and develop physical fitness.

13. Philosophy (H & G)

Programme Outcomes (PO)

- 1. Ability to summarize and explain difficult ideas and concepts. This goes hand in hand with the previous competency. It is achieved through analysis and critical thinking and student practice in class discussions, presentations, and argumentation. This happens in all upper division classes in the major.
- 2. Ability in writing that reflects careful attention to language, logic, and subtleties of reasoning. The Philosophy major is writing intensive. Students are taught skills as to how to write succinctly, clearly, thoroughly, probingly. Writing assignments are prevalent in our History and Values sub-disciplines. Our 400 level Philosophical Psychology, Philosophy of Language, Philosophy of Mind, and Special Topics in Metaphysics courses are also writing intensive.
- **3.** Ability to write philosophical essays that have coherent theses and reasonable supporting arguments.
- **4.** Ability to understand reality from different perspectives and thus to understand that different people will define issues in different ways. This competency is addressed in all our courses and is especially relevant in our Values and Evaluation courses, which includes our Ethics classes as well as Philosophy of Law classes.

Programme Specific Outcomes (PSO)

- **1.** Ability in critical thinking skills. This skill is carried through all Philosophy courses at lower and upper division levels.
- 2. Understanding of concepts of right, wrong, good and bad; understanding of moral principles and their application in everyday life. These skills are largely, but not exclusively, applied in our Values and Evaluation classes, particularly Ethics and Applied Ethics classes and our Philosophy of Law classes.
- **3.** Ability to read and interpret philosophical texts. This skill is acquired in all of our lower and upper division Philosophy classes. Reading texts and interpreting them is fundamental to all of our Philosophy classes. Each class uses a combination of what could be called 'ur-texts', or original texts by the prime movers of philosophy, combined with textbooks and other literature as assigned. One of the principal concerns of our faculty is to make sure that students in the Philosophy major have a meaningful intellectual encounter with original texts in the field in each of the three sub-disciplines cited elsewhere in the report.
- 4. Ability to recognize, express, and analyze arguments in philosophical texts. This is a crucial skill. Students must be able to extract arguments from philosophical texts. In upper division classes across each of our three sub disciplines of History/History of Ideas, Metaphysics/Epistemology, and Values/Evaluation, faculty teach strategies and methods for extracting arguments from texts.

Course Outcome (CO)

A. Indian Philosophy

- 1. Indian Philosophy will teach our students the learn of morality & importance of moral values. So far an Indian Philosophy in concerned if given the same value to religion & ethics. Students will learn, that the welfare of society is nothing but their own welfare.
- Buddhist Philosophy teacher, that though sorrow is the part ≤ & parcel of life. We can overcome it by exercising good conduct, which will lead to an honest & non-violet life.

B. PSYCHOLOGY

- 1. Students will learn the different methods of psychology & with their they will be able to know their own mental & processes, on the basis of which they can also know the same of the others.
- 2. The experience of error is also a part of our life the students will learn from **s**ychology, how all these take place.
- 4. Students will learn how to measure intelligence $\leq \&$ I.Q.
- **C.** Ancient Philosophy:
 - 1. Students will be able to explain the key concepts, theories, and arguments of the most significant philosophers from the pre-Socratic to the post Socratic periods.
 - 2. Students will be able to discuss and assess the impact each of the philosophers have had on modern understanding and institutions.
- **D.** Modern Philosophy:
 - 1. Students will be able to explain the key concepts and arguments of the philosophers they study in this course. Students will be able to explain how each significant modern philosopher responded to the philosophical tradition.
 - 2. Students will have the capacity of analyzing the word-meaning, Definitions &vagueness & sentence meaning. They will be able to participate in philosophical debates such as concepts, truth, various sources of knowledge.
- **E.** Philosophy of Religion :

"Philosophy of Religion means philosophical thinking about religion." Students should be able to analyses, explicate and evaluate important theories and arguments of primary texts in the philosophy of religion.

- F. Ethics
 - 1. Students will be able to explain the philosophical issues involved in the living and reasoning about the moral life. Students will be able to explain the key philosophical concepts relevant to the various responses to those issues.
 - 2. "Logic in the study of the methods and principles used to distinguish correct reasoning from incorrect reasoning." Students will be able to translate complex natural language arguments into symbolic logic.
- **G.** Social Philosophy :
 - 1. Philosophy gives us a comprehensive knowledge of the worlds by studying different types knowledge.

- 2. In like manner, the social philosophy gives us a total view of society after studying the different departments of society.
- 3. Students should be able to interpret the significance of the social facts & critically evaluates them. Students should be able to make a comparative study of the different social ideals & critically evaluate these ideals.

14. Physics (H & G)

Programme Outcomes (PO)

- 1. Students are expected to acquire acore knowledge in physics, including the major premises of classical mechanics, quantum mechanics, electromagnetic theory, electronics, optics, special theory of relativity and modern physics.
- **2.** Students are also expected to develop a written and oral communication skills in communicating physics-related topics
- **3.** Students should learn how to design and conduct an experiment (or series of experiments) demonstrating their understanding of the scientific method and processes. Not only that they are expected to have an understanding of the analytical methods required to interpret and analyze results and draw conclusions as supported by their data.
- **4.** Students will develop the proficiency in the acquisition of data using a variety of laboratory instruments and in the analysis and interpretation of such data.
- **5.** Students will learn the applications of numerical techniques for modeling physical systems for which analytical methods are inappropriate or of limited utility
- **6.** Students will realize and develop an understanding of the impact of physics and science on society.

Programme Specific Outcomes (PSO)

- 1. Apply conceptual understanding of the physics to general real-world situations.
- **2.** Describe the methodology of science and the relationship between observation and theory.
- **3.** Learn to minimize contributing variables and recognize the limitations of equipment.
- **4.** Discover of physics concepts in other disciplines such as mathematics, computer science, engineering, and chemistry.
- **5.** Develop the following experimental tools: Numerically model simple physical systems using Euler's method, curve fitting, and error analysis.
- 6. Analyze physical problems and develop correct solutions using natural laws.

Course Outcome (CO)

Modern Physics:

- A. Develop the concepts of modern physics: basic knowledge of special theory of relativity and general theory of relativity, elementary quantum mechanics, nuclear physics, and particle physics
- B. . CO2: Understand the relationship between observation and theory and their use in building the basic concepts of modern physics. Wave optics

A. Understand the basic concepts of wave optics and an ability to compute basic quantities in optics. CO2:

B. Learn to use methods for solving differential equations. CO3: Experience the diverse applications of the wave equation. Solid State Physics

A. Understand basic concepts and mathematical methods of solid state physics.

B. Practice problem solving by using selected problems in solid state physics. Nuclear and Particle Physics

- A. Acquire knowledge in the content areas of nuclear and particle physics, focusing on concepts that are commonly used in this area
- B. Develop and communicate analytical skills in subatomic physics.
 - Classical Mechanics
 - A. Understand the terminology used in Classical Mechanics.
 - B. Employ conceptual understanding to make predictions, and then approach the problem mathematically.

Electricity and Magnetism

- A. Know the vocabulary and concepts of physics as it applies to: Principles of Electric Fields, Gauss's Law, Electric Potential, Capacitance and Dielectrics, Current and Resistance, Direct Current Circuits, Magnetic Fields, Sources of Magnetic Fields, Faraday's Law, Inductance, Alternating Current Circuits, and Electromagnetic Waves. CO2:
- B. Understand the relationship between electrical charge, electrical field, electrical potential, and magnetism.

Principles of Optics

- A. To develop an understanding of the principles of optics.
- B. To build connections between mathematical development and conceptual understanding.

Thermal and Statistical Physics

A. Understand how statistics of the microscopic world can be used to explain the thermal features of the macroscopic world.

B. Be able to use thermal and statistical principles in a wide range of applications. Quantum Mechanics

- A. Learn the mathematical tools needed to solve quantum mechanics problems. This will include complex functions and Hilbert spaces, and the theory of operator algebra. Solutions of ordinary and partial differential equations that arise in quantum mechanics will also be studied.
- B. Develop problem solving methods that will include mathematical as well as numerical computations and solutions.

Atomic Physics

- A. Apply the mathematical tools developed to various quantum mechanics problems.
- B. Develop problem solving methods that will include mathematical as well as numerical computations and solutions.
- **15.** Zoology (H & G)

- 1. Fundamental knowledge & understanding of biology and zoology.
- 2. The relevant knowledge of core concepts, principles, themes, terminology, and classification systems in the Zoological disciplines covered;
- 3. Theory and practice of acquisition, analysis and interpretation of zoological data across a range of biological applications.
- 4. Detailed knowledge and advanced understanding within zoology options selected from the range available:
- 5. The principles of nutrient and energy flow through individuals, populations and communities;

- 6. Describe and exemplify patterns of distribution of organisms in relation to biotic and biotic factors.
- 7. Demonstrate knowledge of population processes, dynamics and interactions, and associated theoretical models;

Programme Specific Outcomes (PSO)

- **1.** The opportunity to develop a knowledge and understanding of living organisms at several levels of zoological and biological organization from the molecular, through to cells and whole organisms and ecosystems; all from an evolutionary perspective;
- **2.** An understanding of zoological systems and processes in theory and practice; exposure to a range of zoological concepts and core information on evolution; training in relevant laboratory and field work skills;
- **3.** An opportunity to develop a range of transferable skills (information and communication technology, team working, written and oral communication, time management, planning, data collection and presentation) and the capacity to give a clear and accurate account of the subject;
- **4.** an opportunity for you to develop the ability to think critically and to show that you can pursue independent study

Programme Outcomes (PO)

- 1. Students will be able to identify the major groups of organisms with an emphasis on animals and be able to classify them within a phylogenetic framework. Students will be able to compare and contrast the characteristics of animals that differentiate them from other forms of life.
- 2. Students will be able to use the evidence of comparative biology to explain how the theory of evolution offers the only scientific explanation for the unity and diversity of life on earth. They will be able to use specific examples to explicate how descent with modification has shaped animal morphology, physiology, life history, and behavior.
- 3. Students will be able to explain how organisms function at the level of the gene, genome, cell, tissue, organ and organ-system. Drawing upon this knowledge, they will be able to give specific examples of the physiological adaptations, development, reproduction and behavior of different forms of life.
- 4. Students will be able to explicate the ecological interconnectedness of life on earth by tracing energy and nutrient flows through the environment. They will be able to relate the physical features of the environment to the structure of populations, communities, and ecosystems.

16. Botany (H & G)

Programme Outcomes (PO)

1. Their ability to produce oxygen is the key for existence of life on earth. This subject gives idea about diversity of algae, their classification, cellular details ,etc. 2. It also includes life cell of Vaucheria ,Volvox , Zignema , Oedogonium , & Chara. Practical course is aimed to develop skills of students in the field of study of bacteria, & algae .They will learn how to culture bacteria in aseptic method. They will also learn staining of bacteria for visualizing under microscope.

Programme Specific Outcomes (PSO)

- 1. Core knowledge of the Morphology, Phycology, Mycology, Anatomy, Microbiology, Genetics, Plant Breeding, Systematic , Physiology etc of arine and terrestrial plants
- 2. Develop research skills of observations, data collection and analysis
- **3.** Plan and conduct independent research \blacksquare

Course Outcome (CO)

- 3. Microbes are abundant in our world and occupy various habitats. Study of microbes is a branch of Biology known as Microbiology.
- 4. This Subject comprises of viruses, bacteria, algae ,etc and their economic importance. Viruses are extremely harmful particles often designated as organisms due to their genetic material & ability to transmit genetic features to offspring
- 5. Bacteria are prokaryotic organisms having importance on earth & human life, apart from disease causing agents. They perform various significant roles in earth biological and chemical cycle .This subject encompasses the general features of bacteria, their classification, ultra-structure of cells, mode of reproduction etc. Algae are mainly aquatic organisms, also found in diverse habitats .

17. Chemistry

Programme Outcomes (PO)

- 1. A Comprehensive understanding of the subject giving substantial heftiness to both the core content and techniques used equally to the three main branches of chemistry Physical, Inorganic, Organic.
- **2.** Chemistry Honours students are able to recognize and apply the principles of atomic and molecular structure to predict chemical properties and chemical reactivity.
- **3.** Students are able to employ critical thinking and scientific inquiry in the performance, design, interpretation and documentation of laboratory experiments, at a level suitable to succeed at an entry-level position in chemical industry.
- 4. Analyze quantitative and qualitative data and interpretation ability will be developed. Understand theoretical concepts of instruments that are commonly used in most chemistry fields as well as interpret and use data generated in instrumental chemical analyses.
- 5. Students can access and be enriched with the modern and sophisticated instruments.

Programme Specific Outcomes (PSO)

Chemistry is the science of everyday life – allowing us to explain properties of substances, their structures and the changes they undergo. Consequently, the chemical industry is central to the modern world economy and chemistry graduates have a wide range of employment options open to them in the field of research for human development and oil, gas, energy and also pharmaceutical industries, as well as in consumer products.

- 1. Describe Valence Bond Theory, MO Theory and Electronic Displacement of Organic Molecules and their Physical Properties.
- 2. Describe Details study of classification of reactions, intermediates and their mechanistic Pathway. To acquaint the young learners with the basic concepts of stereochemistry so that they can use their knowledge to enter into the realm of investigations of more intricate problems dealing with crystals, bimolecular, drugs and polymers.
- 3. To design, carry out, record and analyze the results of chemical experiments like Separation, Identification of Chemical compounds. Provide a background necessary in dealing with different types of Physicochemical phenomena through conventional theoretical approaches, statistical or quantum mechanical formulations.
- 4. Introduces students to the structure, symmetry and bonding of atoms, simple molecules and covalent and ionic solids. Aspects of the reactivity of compounds (acid/base chemistry, oxidation and reduction).
- 5. Provide information regarding understanding of periodic trends, VSEPR, Lewis dot structures, atomic orbitals, and some familiarity with both valence bond theory and molecular orbital theory.

18. Anthropology

Programme Outcomes (PO)

- **1.** An understanding and appreciation of human biological linguistic and cultural diversity especially those features that separate human from other species.
- **2.** A positive appreciation of the diversity in contemporary and past societies and cultures.
- **3.** Knowledge of the methodologies used to collect and assess critically anthropological data.
- **4.** An understanding and appreciating for the role of anthropology in the workplace and the real world.

Programme Specific Outcomes (PSO)

- **1.** Define theory and describe its role in building Anthropological knowledge. Compare and contrast basic theoretical orientations.
- **2.** Describe how anthropology differs from and is similar to other social science, and give examples of these differences.
- **3.** Articulate knowledge of the breadth of anthropology of anthropology including its main subfields, and its ties to other science and the humanities.

Course Outcome (CO)

- 1. Outline the major trends in private and human evolution, differentiate between race and culture is issue of diversity and multi-culturalism .Demonstrate and understand of core tenets of the from-field approach (socio-culture, archaeological ,linguistic and biological) within anthropology as a discipline
- 2. Anthropology gives students a strong educational background preparatory for further training in the health profession biological and evolutionary science and forensic investigation seek to better understand factors that influence people health and well being

19. Commerce

Programme Outcomes (PO)

- This program aim to provide students with specific knowledge and skills relevant to their discipline and careers. After completing three years for Bachelors in Commerce (B.Com) program, students would gain a thorough grounding in the fundamentals of Commerce and Finance which offers a number of specializations and practical exposures for the students to face the modern-day challenges in different professional bodies.
- 2. This program could provide well trained professionals for the Industries, Banking Sectors, Insurance Companies, Financing companies, Transport Agencies, Warehousing etc., to meet the well trained manpower requirements. The broader perspective of this programme offers a number of value based and job oriented courses which ensure that the students are trained into up-to-date.
- 3. In advanced accounting courses beyond the introductory level, provide students with the analytical, evaluative and problem-solving skills commensurate with degree level higher education. At the end of the B.com degree course, by virtue of the training, they can become an manager, accountant, management accountant, cost accountant, bank manager, auditor, company secretary, teacher, professor, stock agents, government jobs etc.,

Programme Specific Outcomes (PSO)

- 1. Develop a critical awareness and understanding of the main functional areas of administration and the management process within a variety of institutional and organizational contexts.
- 2. Utilize their knowledge, understanding and skills to work successfully in a professional or business house.
- 3. To demonstrate and understanding of the principles of accounting, finance, economic and business law.

- 4. To develop numerical abilities of students.
- 5. To inculcate writing skills and business correspondence.
- 6. To acquire practical skills related with banking and other business.
- 7. To develop knowledge about economic environment of country as well as world.

Course Outcome (CO)

- 1. To enable students to learn principles and concepts of Accountancy as well as to acquire the knowledge for its practical applications.
- 2. To enables the students to learn the basic concepts of Partnership Accounting, and allied aspects of accounting.
- Conceptual framework of Cost & Management Accounting which helps the students to acquires the knowledge in the Management Accounting Techniques in business decision making.
- 4. The students understand clearly to reduce and control the cost during the course of production because cost is a vital aspect in the modern business.

20. Accountancy

Programme Outcomes (PO)

- 1. Financial result and financial position of a concern.
- 2. Future indication of a firm.

Programme Specific Outcomes (PSO)

- 1. How much profit earned by a business concern.
- 2. How profit can be maximized in near future.
- 3. Modification of business operation.

- 1. Various knowledge of accounting, costing, taxation and other business related activities.
- 2. Financial knowledge about various discipline of accounting

21. Computer science (H & G)

Programme Outcomes (PO)

- 1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- 2. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- 3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- 4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- 5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- 6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- 7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- 8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

Programme Specific Outcomes (PSO)

- 1. Apply probability, statistics, mathematics through differential and integral calculus, sciences including applications appropriate to the Computer Science & Engineering topics.
- 2. Use algorithms, data structures/management, software design, concepts of programming languages and computer organization & architecture.

- 1. Competent professionals with knowledge of Computer Science & Engineering to pursue variety of careers/higher education.
- 2. Proficient in successfully designing innovative solutions to real life problems that are technically sound, economically viable and socially acceptable.
- 3. Efficient team leaders, effective communicators and capable of working in multi-disciplinary environment following ethical values.
- 4. Capable of adapting to new technologies and constantly upgrade their skills with an attitude towards lifelong learning.

22. Food & Nutrition

Programme Outcomes (PO)

Programme Specific Outcomes (PSO)