



KURIAKOSE ELIAS COLLEGE, MANNANAM

(Affiliated to Mahatma Gandhi University, Kottayam)

PROGRAMME SPECIFIC OUTCOMES



MANNANAM, P.O, KOTTAYAM, KERALA-686561

www.kecollege.ac.in; E-mail;kecollegemnm@gmail.com

Phone: 0481 2597374; Fax: 0481 2597074



UNDER GRADUATE PROGRAMMES

B.Sc./B.A./B.Com.

The student's graduating with the Under Graduate Degree should be able to:

B.Sc.Mathematics

- PS01 Demonstrate sound knowledge of a wide range of mathematical tools and techniques that can be applied in real- world problems.
- PS02 Illustrate the logical reasoning skills of formulating and validating mathematical arguments, framing examples, finding counter examples.
- PS03 Acquire mathematical modelling skills, problem solving skills, critical thinking skills and creative talent necessary for better employability.
- PS04 Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world.
- PS05 Develops a positive attitude towards mathematics as an interesting and valuable subject of study.
- PS06 Recognize the need for, and have the ability to engage in independent and life-long learning of the subject.

B.Sc.Physics and B.Sc. Physics with Applied Electronics

- PSO1 Acquire a fundamental and systematic understanding of the academic field of Physics, its different learning areas and applications in basic Physics.
- PSO2 Demonstrate the skill in identifying and applying appropriate physical principles and methodologies to tackle a wide range of problems associated with Physics.
- PSO3 Recognise the importance of mathematical modelling and computing, and the role of approximation and mathematical approaches to describing the physical world.
- PSO4 Plan and execute physics-related experiments, analyse and interpret data collected using appropriate methods inclusive of software's and accurate reporting of results pertinent with underlying principles.
- PSO5 Develop investigative skills, including skills of independent investigation of physics-related issues and problems
- PSO6 Create effective communication skills involving careful listening, analytical reading of texts and research papers and presentation of complex information in a concise manner to different groups



PSO7 Formulate ICT skills for knowledge gathering from various resources

B.Sc. Chemistry

PSO1 Acquire systematic understanding of the discipline of Chemistry including theories and techniques, concepts and general principles in the different subfields like inorganic, organic and physical chemistry

PSO2 Develop critical thinking ability by way of solving problems/numerical using basic chemistry knowledge and concepts.

PSO3 Use Information Communication Technology tools to gather information from resources and use them.

PSO4 Demonstrate the experimental techniques and methods in Chemistry, which are necessary for a successful career in chemical industry, teaching, and research.

PSO5 Recognize the importance of the chemical sciences and its application in an academic, industrial, economic, environmental and social contexts.

PSO6 Develop ethical awareness/reasoning which the course curriculum adequately provided.

PSO7 Employ as team player by contributing in laboratory, field based situation and industry

PSO8 Illustrate the subject through technical writing as well as through oral presentation.

B.Sc. Botany

PSO1 Capacity to apply the achieved basic objectives of education in practical life

PSO2 Factual and functional knowledge about the diversity amongst life forms

PSO3 Scientific knowledge in life science and fundamental metabolism of plants

PSO4 Skill in practical work, experiments, use of advanced biological tool and techniques

PSO5 Discusses the importance of plants, their diversity and its conservation

PSO6 Expertise in statistical analyses of biological data for better interpretations

PSO7 Curiosity and enthusiasm in Botany and related biological sciences

PSO8 Capability in seeking higher studies in this discipline

PSO9 Ability to appreciate and practice ethical principles in research and studies in the field of biological science

B.Sc. Zoology

PSO1 Evaluate the fundamental concepts, principles and processes of Zoology and its different subfields (animal diversity, ecology, developmental biology of vertebrates, physiology, biochemistry, genetics, Cell biology, molecular biology, evolution, Bioinformatics Immunology, Zoogeography and Occupational biology

PSO2 Generate skills in biological techniques.



- PS03 Demonstrate the need for maintaining good health through appropriate lifestyle.
- PS04 Develop basic knowledge and skills for self-employment in the applied branches of Zoology such as, apiculture, aquarium fish keeping, Aquaculture Vermicomposting, Quail farming etc.
- PS05 Design and conduct experiments and interpret data
- PS06 Accept the ethics and laws in for animal welfare

B.Sc. Psychology

- PS01 Acquire knowledge regarding the basic foundations of psychology
- PS02 Demonstrate basic professional skills pertaining to psychological testing, assessment and counselling.
- PS 03 Develop integral personality and inter personal skill of the individual
- PS 04 Illustrate capacities to deal with conflicting theories and approaches, learning to withstand ambiguities and understanding the limitations of the discipline.
- PS 05 Develop research oriented skills.
- PS 06 Use various e-resources and social media and negotiating with technological challenges.
- PS 07 Demonstrate ethical, social and ecological responsibility including acknowledging the dignity and presence of others, awareness of social order, learning of values and social concern reflected through activation of social participates (e.g. village surveys, visiting old age homes and spending time with elderly, orphanage community service etc).
- PS 08 Illustrate professionalism in various sectors including the ability to work in a team and apply basic ethical principles.
- PS 09 Apply inter personal and communication skills such as observation skill, speaking and learning skills.
- PS 10 Understand the individual behaviour in social settings

B.Sc. Computer Application

- PS01 Acquire basic instructional goals such as discipline of necessary knowledge and skills for the existing and emerging challenges that a career in computing and software technology
- PS02 Develop high quality of independent thought, flexibility, and maturity based on a sound technical knowledge of the field.
- PS03 Use information communication technology tools to gather information from resources and use them



- PS04 Develop ability to handle real life problem through the practical classes
- PS05 Demonstrate relevant generic skills and global competencies such as (i) problem solving skills that are required to solve different types of mathematics and statistics related problems with well-defined solutions
- PS06 Acquire communication skills involving the ability to listen carefully, to read texts and research papers analytically and to present complex information in a concise manner to different groups or audiences
- PS07 Recognize analytical skills involving paying attention to detail and ability to construct logical arguments using correct technical language related to Computer.

B.A. English

- PSO1 Acquire a comprehensive understanding of the various literary genres, periods and their specific characteristics
- PSO2 Be competent in the four skills- listening, speaking, reading and writing
- PSO3 Encourage and inspire the students into creative writing.
- PSO4 Identify the seminal writers in English Language and Literature
- PSO5 Develop critical and analytical thinking skill
- PSO6 Develop research related skills
- PSO7 Develop social commitment and an inclusive world view

B.A. Economics

- PS01 Demonstrate knowledge of quantitative and theoretical aspects of Economics
- PS02 Critically evaluate practices, policies and theories of economics by following scientific approach to knowledge development
- PS03 Acquire effective oral communication and writing skills for clearly expressing economic point of view.
- PS04 Explain various financial institutions and markets, and discuss the structure and functions of banking
- PS05 Develop comprehensive understanding of interdisciplinary issues and aspects of society
- PS06 Demonstrate knowledge of basic functioning of Indian economy
- PS07 Identify, compile, and analyse quantitative economic data by expressing relationships between concepts through graphs, statistical and econometric analysis

B.A. History

- PS01 Explain the Information about the importance and scope of History



- PS02 Illustrate new methods, methodologies and theories in History and acquire the primary research skills.
- PS03 Enhance critical thinking related with History writing
- PS04 Present an idea about new concepts, Historians and Historical works
- PS05 Enrich knowledge with discussing about the polity, society, and economy of the ancient, medieval and modern India
- PS06 Discuss the importance of the history of Kerala from early period to the modern period
- PS07 Acquire fundamental knowledge of Mass communication and mass media.
- PSO8 Empower themselves by editing, proof reading, DTP typesetting and binding and be competent to undertake professional jobs as per demands of publishing industry
- PS09 Become socially responsible

B.Com. (Computer Application & Finance and Tax)

- PSO1 Describe each and every aspect of business and its role in society
- PSO2 Demonstrate efficiency in accounting business transactions and preparing financial statements.
- PSO3 Describe knowledge of the management and administration of companies and in undertaking financial market operations
- PSO4 Acquire Skill in practical applicability of banking and insurance transactions
- PSO5 Discuss the knowledge of the legal framework influencing business decisions.
- PSO6 Develop proficiency in the administration and management of an organisation employing relevant software
- PSO7 Illustrate skill in making rational decisions and ability to solve business problems using statistical techniques
- PSO8 Develop knowledge on the need for protecting environment and human rights.



POSTGRADUATE PROGRAMMES

M.Sc./M.A./M.Com./M.S.W.

The student's graduating with the Post Graduate Degree should be able to:

M.Sc. Mathematics

- PSO1 Demonstrate a strong base in theoretical and applied mathematics.
- PSO2 Understand the fundamental axioms in mathematics and capability of developing ideas based on them
- PSO3 Illustrate their analytical thinking, logical deductions and rigor in reasoning.
- PSO4 Discuss proofs for simple mathematical results.
- PSO5 Understand the applications of mathematics in a global, economic, environmental, and societal context
- PSO6 Appraise their learning and performance and develop abstract mathematical thinking.
- PSO7 Value their performance in competitive examinations.

M.Sc. Physics

- PSO1 Acquire a comprehensive knowledge on emerging trends in the various fields of theoretical and experimental physics.
- PSO2 Demonstrate the skill in identifying and applying appropriate physical principles and methodologies to tackle a wide range of problems associated with Physics.
- PSO3 Employ critical thinking and the scientific knowledge to design and carry out Physics experiments.
- PSO4 Build the skill for precise handling of sophisticated equipment
- PSO5 Develop the spirit of diligence and research aptitude to learn and aim high in the realm of research and development
- PSO6 Accomplish the expertise to successfully implement advanced tasks and projects in person or in collaboration
- PSO7 Formulate ICT skills for knowledge gathering from various resources

M.Sc. Chemistry

- PSO1 Develop knowledge about the emerging areas of Chemistry and their applications in various spheres of Chemical sciences.
- PSO2 Explain nomenclature, stereochemistry, structures, reactivity, and mechanism of the chemical reactions.



- PS03 Acquire knowledge in the theory and applications of various separation and analytical techniques
- PS04 Develop research oriented skills.
- PS05 Illustrate professionalism, including the ability to work in team and apply basic ethical principles.
- PS06 Recognize and appreciate the importance of the chemistry and its application in academic, industrial, economic, environmental and social contexts.
- PS07 Develop skills for working safely and competently in the laboratory
- PS08 Impart a good working knowledge in understanding and carrying out data analysis, use of library search tools, and use of chemical simulation software and related computational work..

M.Sc. Botany

- PSO1 Explain a detailed view of the visualizing concepts and technique for genetic engineering and biotechnology.
- PSO2 Apply the knowledge of mycology and plant pathology to satisfy the need of farmers
- PSO3 Procure the knowledge of importance of plant to human being and all organisms.
- PSO4 Demonstrate their competency in examinations like MPSC, UPSC/ NET/ SET/GATE
- PSO5 Identify most of the plants from our premises.
- PSO6 Explain the knowledge about biodiversity exploration, estimation and conservation.
- PSO7 Recognize the skills in handling scientific instruments, planning and executing biological research.
- PSO8 Develop entrepreneurship skill, there by promotes career and job opportunities in both Govt. and private sectors.

M.Sc. Psychology

- PSO1 Inculcate theoretical knowledge of psychological principles and experiments.
- PSO2 Impart advanced knowledge and skills and provide awareness regarding the latest development in the field of psychology
- PSO3 Acquire expertise in specialised fields like clinical psychology, educational psychology and industrial psychology
- PSO4 Provide a sound knowledge about the psychometric tools and assessment
- PSO5 Administer and analyse the various psycho therapies and treatment methods
- PSO6 Facilitate learner to pursue career in professional areas of psychology



PSO7 Develop a scientific attitude, knowledge about cognitive processes that govern human behaviour and able to communicate the understanding in simple and scientific language

PSO8 Enhance professional skills

M.Sc. Statistics (Applied)

PSO1 Choose an appropriate statistical method to solve a given problem of data analysis, implement the analysis on a computer and communicate results clearly and succinctly.

PSO2 Pursue higher studies in the areas of Statistics, Mathematics, Computer Science, Economics, Management and allied fields.

PSO3 Apply mathematical and statistical methods to assess risk in insurance, finance and other industries.

PSO4 Handle real life problems using various statistical software such as R and SPSS.

PSO5 Apply the methodological and theoretical concepts of Statistics in various fields like Banking, Insurance, Share Markets, Pharmaceutical industry and research.

M.A. English

PSO1 Develop competence with reference to Literature/Narratives in English.

PSO2 Acquire an awareness regarding both the historicity and contemporaneity of language/communication.

PSO3 Reflect on the social and ethical dimensions of research.

PSO4 Impart knowledge and understanding in the interdisciplinarity of language and its global cultural aftermaths.

PSO5 Examine the fields of literary theory and acquire knowledge in the mechanics of thesis writing.

PSO6 Develop skills in orienting careers in secondary and higher education, content development, creative visualizations, publishing and translation.

M.A. Economics

PSO1 Create a continuous learning environment for engaging themselves to update with new knowledge in Economics.

PSO2 Demonstrate knowledge of theoretical and empirical bases underpinning the construction, implementation and interpretation of Economic theories and assessment techniques, and be able to assess the Economic and social consequences regarding the same.

PSO3 Write a precis of a published journal article; read and interpret a theoretical analysis, including simple mathematical derivations, reported in an economics journal article



PS04 Use existing knowledge to explore economic problems and to build and test economic models, using sophisticated economics tools.

PS05 Create concepts to formulate cases, issues, identify and formulate a question or series of questions about some economic issues that will facilitate investigation of the issue

M.Com. (Finance & Banking and Insurance)

PSO1 Demonstrate managerial skills and theoretical knowledge for managing business units with special focus on functional areas of business and management.

PSO2 Develop advanced accounting knowledge and skills and provide awareness regarding latest developments in the field of accounting.

PSO3 Acquire advanced theoretical knowledge on research methods and techniques and also developing capabilities in the application of research in solving business related problems.

PSO4 Acquire expertise in specialized fields likes finance, taxation, marketing, and management and information technology.

PSO5 Develop quantitative aptitude and analytical skills.

PSO6 Pursue career in professional areas of commerce and management such as taxation, financial services, consultancy etc.

M.S.W.

PSO1 Acquire quality education for the masters level practitioners and researchers in social work who will provide services to all the people in need.

PSO2 Locate knowledge and understanding of human needs and social problems.

PSO3 Demonstrate social work knowledge and expertise in service to the global community.

PSO4 Illustrate opportunities for professional social work education among the underrepresented groups and minorities.

PSO5 Demonstrate dynamic interaction among social workers, social service organizations and other professionals in the field.

PSO6 Show knowledge in social work practice, social policy and will undertake research initiatives relevant to important policy and practice issues.

PSO7 Convert themselves to develop as world-class professionals in the field of social work.

PSO8 Develop socially conscious and responsible citizens who have an intelligent grasp of social issues and social delivery systems.