

KURIAKOSE ELIAS COLLEGE, MANNANAM

(Affiliated to Mahatma Gandhi University, Kottayam)



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UNDER GRADUATE PROGRAMMES

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

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

PS01	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
PS02	Develop critical thinking ability by way of solving problems/numerical using basic chemistry knowledge and concepts.
PS03	Use Information Communication Technology tools to gather information from resources and use them.
PS04	Demonstrate the experimental techniques and methods in Chemistry, which are necessary for a successful career in chemical industry, teaching, and research.
PS05	Recognize the importance of the chemical sciences and its application in an academic, industrial, economic, environmental and social contexts.
PS06	Develop ethical awareness/reasoning which the course curriculum adequately provided.
PS07	Employ as team player by contributing in laboratory, field based situation and industry
PS08	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

PS01	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)
PS02	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
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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.

BA 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

BA 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

BA 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.

B.Voc (Marketing Management and IT & Retail Management and IT)

PSO1	Develop the ability to apply theoretical knowledge and design a system or process to meet desired needs within realistic constraints.
PSO2	Acquire adequate Skills through the program for a particular business.
PSO3	Gain work experience and employability by continued industry exposure, thereby get equipped to become part of a global work force.
PSO4	Develop effective communication skill and thereby connecting people, ideas, media and technology and ability to work as a team.
PSO5	Recognize different value systems and practice social, environmental ethics.
PSO6	Participate in marketing and retailing activities during industrial training.

POSTGRADUATE PROGRAMMES

M.Sc/M.A/M.Com/MSW

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.
PSO3	Acquire knowledge in the theory and applications of various separation and analytical techniques
PSO4	Develop research oriented skills.
PSO5	Illustrate professionalism, including the ability to work in team and apply basic ethical principles.
PSO6	Recognize and appreciate the importance of the chemistry and its application in academic, industrial, economic, environmental and social contexts.
PSO7	Develop skills for working safely and competently in the laboratory
PSO8	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
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	results clearly and succinctly.
PS02	Pursue higher studies in the areas of Statistics, Mathematics, Computer Science, Economics, Management and allied fields.
PS03	Apply mathematical and statistical methods to assess risk in insurance, finance and other industries.
PS04	Handle real life problems using various statistical software such as R and SPSS.
PS05	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

PS01	Create a continuous learning environment for engaging themselves to update with new knowledge in Economics.
PS02	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.
PS03	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.

MSW

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.

