PROGRAMME OUTCOMES (POs)

B.COM (EM), B.COM (BANKING & INSURANCE)

At the end of the programme students will

PO 1: Subject knowledge - acquire knowledge with thorough and systematic subject skills in various disciplines such as Commerce, Business, Accounting, Finance, Auditing, Income Tax, GST, Marketing and Computer Skills in Tally.

PO 2: Individual and team work - acquaint themselves with high ethical and human values to acquire good leadership qualities.

PO 3: Design and development of solutions – develop Entrepreneur Skills not only to start own business and manage it.

PO 4: Conduct investigations of complex problems - integrate the knowledge, skill and attitude to create the environment of learning and creativity among students with good understanding for their careers.

PO 5: Modern Tool Usage - gain systematic subject skills in various disciplines of Computer Science.

PO 6: The Student and Society - involve themselves in various social causes as a responsible citizen to apply their knowledge to assess societal business needs, legal issues and their responsibilities relevant to their professional development.

PO 7: Environment and Sustainability – protect environment and prove themselves by undertaking various eco-friendly activities on the campus and conduct various awareness programmes at public places to protect environment.

PO 8: Ethics - acquaint themselves with high ethical values by learning accounting principles which can be applied in their professional fields.

PO 9: Communication - will involve in various curricular and co – curricular activities to exhibit their academic knowledge to gain practical exposure.

PO10: Problem Analysis - acquire practical knowledge in skills by acting as team leaders to conduct various activities and work in other financial services.

PO11: Project Management and Finance - acquire practical skill to do projects and work in Insurance & Financial supporting service organizations.

PO12: Life-long learning - b**e** able to do their higher education and research in the field of commerce.

B. COM (COMPUTERS)

At the end of the programme students will

PO 1: Subject Knowledge - acquire knowledge in Commerce and Computer Science which suits corporate requirements.

PO 2: Problem Analysis - analyse various modules related to business and invent various applications for usage.

PO 3: Design/Development of solutions - be able to design and implement domain knowledge for business computing.

PO 4: Conduct Investigations of Complex Problems - be able to find solutions for real life business problems.

PO 5: Modern Tool Usage - be familiar with the usage of Tools, develop an application program for system based applications for Enterprises.

PO 6: The Student and Society - be able to integrate the behaviour in self-learning and acquire knowledge in modern corporate and IT sector.

PO 7: Environment and Sustainability - have the ability to understand the impact of the proficient solutions in societal and environmental contexts, and demonstrate knowledge for workable development.

PO 8: Ethics -have the ability to apply ethical principles and obligate to professional ethics, responsibilities and norms.

PO 9: Individual and Team Work: have the ability to function effectively as an individual and work effectively on teams to accomplish a common goal.

PO 10: Communication: communicate effectively on complex activities, comprehend and write effective reports and design documentation, make effective presentations with clear instructions.

PO 11: Project Management and Finance: Demonstrate knowledge and understand the principles and work as a member and leader in a team, to manage projects in multidisciplinary environments.

PO 12: Life-long Learning: enable to discuss how business & Technology are interdependent in broadest context of change in business situations.

BACHELOR OF BUSINESS ADMINISTRATION
(BBA)

At the end of the programme students will

PO 1: Subject knowledge - apply the knowledge of Management, skill and attitude systematically to apply the principles and practices of Management, Economics, Accountancy, Finance, Business Law, HR and Operations Management to work effectively in the modern business and non-business organisations.

PO 2: Modern Tool Usage - get appropriate quantitative and qualitative techniques in solving business problems.

PO 3: Communication – be able to develop effective communicative skills.

PO 4: Project Management and Finance - be able to identify and analyse ethical conflicts and social responsibility issues by involving different stakeholders.

PO 5: Student and Society - able to determine the effect of various factors such as political, economic, social and technological factors on business environment

PO 6: Ethics - get ability to develop ethical and value based leadership capabilities.

PO 7: Problem Analysis – develop viable alternatives and make effective decisions related to business.

PO 8: Design and Develop Solutions - identify and analyse relevant global factors that influence decision making.

PO 9: Individual and Team Work – be able to lead themselves and others in the achievement of organizational goals and contributing effectively to a team environment.

PO10: Conduct Investigations of Complex Problems - develop critical thinking and ability to identify and formulate research problems.

PO11: Environment and Sustainability - get ability to be effective and confident communicators.

PO12: Life-long learning - able to exhibit life skills, coping skills and human values.

BACHELOR OF BUSINESS ADMINISTRATION BBA (BPM)

PROGRAMME OUTCOMES (POs):

Students at the time of graduation will be able to acquire

PO1. Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.(TELUGU/HINDI/ENGLISH/ Any other course related to communication)

PO2: Effective Citizenship: Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.(NSS/ENS/DM/NCC/Community survey)

PO3: Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.(HVPE/Any other course related to Ethics)

PO4. Environment and Sustainability: Understand the issues of environmental contexts and sustainable development(ENS/ Any other course related to environmental issues)

PO5. 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.(All domain papers)

PO6: Specialized Skills/Transferable Skills: Acquisition of communication and soft, analytical and technological skills that aid in enhancing entrepreneurial and leadership abilities. Demonstrate subject-related and transferable skills that are relevant to some of the job trades and employment opportunities.(DOMAINCOURSES/LSC/SDC/ELECTIVES/DOMAIN-SEC)

PO7. Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.(ALL DOMAIN PAPERS AND PW)

B.Sc. COMPUTER SCIENCE WITH COGNITIVE SYSTEMS (CSCS)

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

Program Educational Objective (PEO) is what the programme is preparing graduates for their career and professional life. PEOs of B.Com (Honors) Accounting and Finance (A&F) Programme are:

PEO 1: Enabling them to pursue higher education in Masters in Commerce, Business Administrations and professional programs like CA, CS, CMA as well as LLB.

PEO 2: Providing an ample of opportunities in the fields of Accounts & Finance like Accountants, Finance Manager and Financial Analyst etc.

PEO 3: Absorbing leadership qualities to empower business originations through innovative strategies and policies with due regard to the ethics, environment and sustainability

B. COM (HONORS)

PROGRAMME OUTCOMES

Students will be able to –

PO1. **Effective Communication**: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology. **(TELUGU/HINDI/ENGLISH/ Any other course related to communication**)

PO2. **Effective Citizenship**: Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering. **(NSS/ENS/DM/NCC/COMMUNITY SURVEY)**

PO3. **Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them. **(HVPE and Any other course related to Ethics**)

PO4. **Environment and Sustainability**: Understand the issues of environmental contexts and sustainable development **(ENS-HIGH)**

PO5. **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.**(ALL DOMAIN PAPERS**)

PO6: **Specialized Skills / Transferable Skills:** Acquisition of communication and soft, analytical

and technological skills that aid in enhancing entrepreneurial and leadership abilities. Demonstrate subject-related and transferable skills that are relevant to some of the job trades and employment opportunities**. (DOMAIN-LSC, SDC, ELECTIVES, DOMAIN-SEC)**

PO7. **Self-directed and Life-long Learning:** Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes**.(ALL DOMAIN PAPERS AND PW)**

B.A. HISTORY, ECONOMICS & POLITICAL SCIENCE (HEP)

(ENGLISH MEDIUM)

At the end of the programme students will

PO 1: Subject knowledge - acquire in depth knowledge with facts and figures concerned in the subjects such as History, Economics and political Science.

PO 2: Problem analysis - gain the analytical ability to analyse the literature and social issues to appreciate the strength and to suggest the improvements for better results.

PO 3: Design and development of solutions - understand the past and develop sense of the present by adding an important dimension to the understanding of many aspects of human society.

PO 4: Conduct investigations of complex problems - understand how issues in the social science gets influenced by politics and how politics can provide solutions to the social issues.

PO 5: Modern Tool Usage - get awareness about modern political concepts and theories and compare political phenomena in a variety of cultures and countries and answer broad theoretical questions about Economic issues.

PO 6: The Student and Society - realize the importance of History, Economics and Politics in terms of aesthetic, mental, moral, intellectual development of an individual and the society.

PO 7: Environment and Sustainability – know that the study of social sciences is not only helpful to make them better individual for betterment of society but also helpful to make the life of an individual happier and more meaningful.

PO 8: Ethics - participate in various social and cultural activities voluntarily. Will write articles, novels, stories to spread the messages of equality, nationality, social harmony and other human values.

PO 9: Individual and Team Work - provide insight into the interaction between political ideas, economic institutions, and historical developments where the student can perform individually and also as a team.

PO10: Communication - develop communication skills such as reading, listening, speaking, etc., which will be helpful in expressing historical, political and economic ideas and views clearly and effectively.

PO 11: Project Management and Finance - develop the management of projects related to history and current events from an economic perspective.

PO 12: Life-long learning - understand that History, Economics and Political Science are pursuit of knowledge and a lifelong process where one can achieve the success only with untiring efforts and positive attitude.

B.Sc. MATHEMATICS, PHYSICS & CHEMISTRY (MPC)

At the end of the programme students will

PO 1: Subject Knowledge - apply the knowledge of physics to solve complex problems.

PO 2: Problem Analysis - identify, formulate and analyze the problems.

PO 3: Design/Development of Solutions - design solutions for complex problems and design system that meet the specified needs with appropriate consideration for the public health and safety and the cultural, societal and environmental considerations.

PO 4: Conduct Investigation of Complex Problems - use research-based knowledge and research methods, analyze and interpret the data to provide valid conclusions.

PO 5: Modern Tool Usage - create, select, and apply appropriate techniques, resources, and modern IT tools with limitations.

PO 6: The Student and the Society - apply knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional practice.

PO 7: Environment and Sustainability – understand the impact of the professional solutions in societal and environmental contexts, and demonstrate the knowledge and need for sustainable development.

PO 8: Ethics - apply ethical principles and commit to professional ethics and responsibilities and norms.

PO 9: Individual and Team Work – function effectively as an individual, and as a member or leader in diverse teams, and multidisciplinary settings.

PO10: Communication – communicate effectively with the community and with the society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11: Project Innovation – demonstrate knowledge for management principles and apply them in work, as a member and leader in a team and to manage projects in multidisciplinary environments.

PO12: Life-long Learning - recognize the need for and have the ability to engage in independent and lifelong learning in the broadest context of technological changes.

B.Sc. MATHEMATICS, PHYSICS & COMPUTER SCIENCE (MPCS)

At the end of the programme graduates will

PO 1: Subject Knowledge - apply the knowledge of Physics to solve complex problems.

PO 2: Problem Analysis - identify, formulate and analyse the problems.

PO 3: Design/Development of Solutions - design solutions for complex problems and design system that meet the specified needs with appropriate consideration for the public health and safety and the cultural, societal and environmental considerations.

PO 4: Conduct Investigation of Complex Problems - Use research-based knowledge and research methods, analyze and interpret the data to provide valid conclusions.

PO 5: Modern Tool Usage - create, select, and apply appropriate techniques, resources, and modern IT tools with an understanding of the limitations.

PO 6: The Student and The Society - apply knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional practice.

PO 7: Environment and Sustainability - understand the impact of the professional solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO 8: Ethics - apply ethical principles and commit to professional ethics and responsibilities.

PO 9: Individual and Team Work - Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: Communication - Communicate effectively with the community and with the society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11: Project Innovation - Demonstrate knowledge for Management principles and apply these to one's work, as a member and leader in a team, to manage projects in multidisciplinary environments.

PO12: Life-long Learning - Recognize the need for and have the ability to engage in independent and lifelong learning in the broadest context of technological changes.

B.Sc. MATHEMATICS, STATISTICS & COMPUTER SCIENCE (MSCS)

At the end of the programme students will

PO 1: Subject knowledge - develop their mathematical, statistical and programming skills with a balance between solid theory and practical application in problems arising from different fields.

PO 2: Problem Analysis - acquire the real-time problem-solving abilities, strategies and computing skills in Mathematics, Statistics and Computer Science.

PO 3: Design/Development of Solutions - be able to critically evaluate he strengths and weaknesses of study designs and can select a study design that is appropriate for addressing a specific problem.

PO 4: Conduct Investigation of Complex Problems - conduct investigation of well- defined problems, locate and search relevant codes and catalogues, conduct standard tests and measurements to solve the real time problems.

PO 5: Modern Tool Usage - have the familiarity with the modern tools and aids and also a clear sense of applying them in the appropriate situations to obtain the solutions.

PO 6: The Student and Society - become interdisciplinary leaders who have advance knowledge and understanding, drive innovation, and contribute to the resolution of complex national and global problems to meet societal needs.

PO 7: Environment and Sustainability - analyse the complex and dynamic interactions between humans and environment and will be able to apply the principles of sustainability to complex environmental problems.

PO 8: Ethics - identify ethical concerns in intellectual contexts including academic integrity and analyse an ethical issue in the subject matter under investigation or in a relevant field.

PO 9: Individual and Team Work - have the ability to compromise and ignore their own ego and they have the ability to mediate problems between the team members and inspire the other team members to perform better to achieve the team goals.

PO10: Communication - be able to explain fundamental concepts to non- experts and will also clearly Communicate the logical arguments and interpreting the results both orally and in written format.

PO11: Project management and finance - be capable of preparing work schedules, technical reports, project evaluation in a clear and effective manner.

PO12: Life-long Learning - independently read mathematical, statistical, computer literature of various types including survey articles, scholarly books and online sources and be life-long learners who are able to expand their subject expertise when needed or for interest sake.

B.Sc. MATHEMATICS, ELECTRONICS & COMPUTER SCIENCE (MECS)

At the end of the program the students will

PO 1: Subject Knowledge -be able to apply knowledge of Mathematics, Electronics and Computer Science and specialization of Mathematical skills, Software skills and Electronics technical skills.

PO 2: Problem Analysis - identify, formulate and analyse complex problems reaching substantiated conclusions using principles of Mathematics, Electronics and Computer Science.

PO 3: Design/Development of Solutions – be able to design a system, component or process to meet desired needs with constraints such as economic, social etc.,

PO 4: Conduct Investigation of Complex Problems - use technical & mathematical based knowledge and methods including design of experiment, program analysis and interpret the data to provide valid conclusions.

PO 5: Modern Tool Usage - create, select and apply appropriate techniques, resources, and modern Mathematical, Electronic and IT Tools.

PO 6: The Student and The Society - apply knowledge to assess societal health, safety, legal issues and the consequent responsibilities.

PO 7: Environment and Sustainability- understand the impact of the professional solutions in societal and environmental contexts, and demonstrate the knowledge of the need for sustainable development

PO 8: Ethics- apply ethical principles and commit to professional ethics and responsibilities.

PO 9: Individual and Team Work - function effectively as an individual, and as a member or leader of multidisciplinary teams.

PO10: Communication - be able to communicate effectively.

PO11: Project Innovation - develop innovative skills of developing projects on different core subjects such as Mathematics, Electronics and Computer Science.

PO12: Life-long Learning - recognize the need for and be able to engage in lifelong learning in the context of upgrading technology.

B.Sc. MATHEMATICS, CHEMISTRY, COMPUTER SCIENCE (MCCS)

At the end of the program the students will

PO 1:Subject Knowledge - acquire the knowledge of terms, facts, concepts, process, technique and principles of subjects in Computer Science, Chemistry and Mathematics.

PO 2: Problem Analysis - build a strong foundation in Chemistry that help in scientific reasoning and analytical problem solving.

PO 3: Design / Development of Solutions - will be able to communicate scientific information and research results in written and oral formats which support them to apply in real life situations.

PO 4: Conduct Investigations of Complex Problems - will have hands on experience in the laboratory and get exposure to wide experimental Techniques using modern Instrumentation.

PO 5: Modern Tool Usage - interpret chemical research by using latest scientific equipment and analyse critically the primary chemical literature.

PO 6: The Student and Society - develop and implement solution to the near system that addresses issues and improves existing systems in society and industries.

PO 7: Environment and Sustainability - able to understand the impact of the proficient solutions in societal and environmental contexts and demonstrate knowledge for workable development.

PO 8: Ethics - have the ability to apply ethical principles and obligate to professional ethics and responsibilities and norms.

PO 9: Individual and Team Work - have the ability to function effectively as an individual and work effectively on teams to accomplish a common goal.

PO10: Communication - have excellence in social, professional and academic situations by competing in Learning and Writing skills.

PO11: Project Management and Finance - Demonstrate knowledge and understand the principles and work as a member and leader in a team, to manage projects in multidisciplinary environments.

PO12: Life-long Learning - Promote life-long learning of scientific issues in subject areas according to the technological change.

B.Sc. MATHEMATICS, STATISTICS & COMPUTERS (MSCA)

At the end of the programme graduates will

PO 1: Subject knowledge: develop their Mathematical, Statistical and Application skills in problems arising from different fields.

PO 2: Problem Analysis: acquire the real time problem solving abilities, strategies and Application skills in a range of Mathematics, Statistics and Computer Science.

PO 3: Design/Development of solutions: be able to critically evaluate the strengths and weaknesses of study designs and can select a study design that is appropriate for addressing specific problems & Applications.

PO 4: Conduct Investigation of complex problems: conduct investigation of well-defined problems, locate and search relevant codes and catalogues, conduct standard tests and measurements to solve the real time problems & Applications.

PO 5: Modern tool usage: have the familiarity with the modern tools and aids and also have a clear sense of applying them in the appropriate situations to obtain the solutions by using various applications.

PO 6: The student and society: become interdisciplinary leaders with advance knowledge and understanding, drive innovation, and contribute to the resolution of complex national and global problems to meet societal needs.

PO 7: Environment and sustainability: analyse the complex and dynamic interactions between humans and environment and will be able to apply the principles of sustainability to complex environmental problems.

PO 8: Ethics: identify ethical concerns in intellectual contexts including academic integrity and analyse ethical issues in the subject matter under investigation or in a relevant field.

PO 9: Individual and team work: have the ability to compromise and ignore ego and have the ability to mediate problems between the team members and inspire the other team members to perform better to achieve the team goals.

PO 10: Communication: be able to explain fundamental concepts to non-experts and will also clearly communicate the logical arguments and interpret the results both orally and in written format.

PO 11: Project Management and Finance: be capable of preparing work schedules, technical reports, project evaluation in a clear and effective manner.

PO 12: Life-long Learning: independently read Mathematical, Statistical, Computer literature of various types including survey articles, scholarly books and online sources and be life-long learners who are able to expand their subject expertise when needed or for interest's sake.

B.Sc. (HONORS) – COMPUTER SCIENCE

At the end of the programme the graduates will

PO 1: Subject Knowledge - apply their knowledge of Science across a range of fields with in-depth knowledge with a balance between solid theory and practical application in problems which arose from different fields.

PO 2: Problem Analysis – be able to identify a problem, analyse the problem and define different strategies appropriate to its solution.

PO 3: Design/Development of solutions – be able to design, implement and evaluate the strengths and weaknesses, process to meet desired needs to solve a specific problem.

PO 4: Conduct Investigations of Complex Problems – be able to conduct investigation of well-defined problems, locate & search relevant methods including design of experiments and analysis of data to provide valid conclusions to solve the real time problems.

PO 5: Modern Tool Usage – be able to have the familiarity with the modern tools and aids to create, select and apply suitable modelling techniques which include prediction in appropriate situations.

PO 6: The Student and Society - be able to become interdisciplinary leaders who have advanced knowledge and understanding, drive innovation, analyse the impact on individuals, organizations, and society including ethical, legal, security, and global policy issues.

PO 7: Environment and Sustainability – be able to understand the impact of the proficient solutions in societal and environmental contexts, analyse the complex and dynamic interactions between humans and environment, apply the principles of sustainability to complex environmental problems.

PO 8: Ethics – be able to apply ethical principles and concerns in intellectual contexts including academic integrity and obligate to professional ethics, responsibilities and norms under investigation or in a relevant field.

PO 9: Individual and Team Work – be able to function effectively as an individual and work effectively on teams to accomplish a common goal and mediate problems between the team members to achieve the team goals.

PO10: Communication – be able to explain fundamental concepts to non-experts and communicate effectively on complex activities, logical arguments, comprehend and write effective reports and design documentation, make effective presentations with clear instructions.

PO11: Project Management and Finance – be able to demonstrate knowledge and understanding the principles and work as a member and leader in a team, to manage projects in multidisciplinary environments.

PO12: **Life-long learning** – be able to recognize and prepare various types of Survey articles, scholarly books and online resources to engage in independent and life-long learning in the broadest context of technological change.

B.Sc. BOTANY, ZOOLOGY & CHEMISTRY (BZC)

At the end of the programme the graduates will

PO 1: Subject Knowledge – be able to apply the comprehensive knowledge by understanding the basic concepts, systematics, principles, theories, hypothesis, laws and formulae of the biological systems.

PO 2: Problem Analysis – be able to identify and analyse the problems encountered in the living processes with critical, analytical and creative thinking.

PO 3: Design/Development of solutions – be able to develop solutions for the problems in the biological processes through the acquired skills.

PO4: Conduct Investigations of Complex Problems – apply scientific knowledge and develop the capacity to investigate and estimate the depth of the problem to find solution in the area of biochemical processes and systems**.**

PO5: Modern Tool Usage – **be** able to handle the advanced scientific equipment like SPECTROPHOTOMETER (uv/visible), PCR, Fold scope microscope image projection system (MIPS) etc and capable of using computers and appropriate software for analysis of data and evaluate subject related information.

PO 6: The Student and Society - be able to utilize the scientific perception in Academia and industry for the technological upliftment of the society

PO 7: Environment and Sustainability – be able to understand and promote the basic sustainability concepts i.e., carrying capacity, waste management through recycling climate changes at local and global level and environmental justice and ecosystem values for better living**.**

PO 8: Ethics – be able to understand and demonstrate ethical and social obligations and responsibilities for promoting communal harmony.

PO 9: Individual and Team Work –be able to deal with dynamic situations with scientific temper, competency and self-discipline and able to interact in group with open mindedness‟ by acquiring leadership qualities.

PO10: Communication – be able to communicate effectively in social, professional and academic situations through competency in LSRW skills.

PO11: Project Management and Finance – be able to manage project resources properly and achieve project objectives through affective planning and transparency of finances**.**

PO12: Life-long learning – be able to adapt to the changing trends and to cope up with the demands of real life situations keeping in view of meeting economic social and cultural objectives.

B.Sc. FOOD SCIENCE AND TECHNOLOGY, MICROBIOLOGY, BIOCHEMISTRY (FMB)

At the end of the programme students will

PO 1: Subject knowledge - be able to acquire, retain and apply specialized knowledge relevant to Microbiology, Biochemistry and food Science and Technology.

PO 2: Problem Analysis- Apply biological concepts and basic research findings through description, interpretation, and analysis for a problem.

PO 3: Design and Development of Solutions - develop skills and competencies in hypothesis generation and testing, including the development of theoretical and practical skills in the design and execution of experiments.

PO 4: Conduct Investigations of Complex Problems - acquire the ability to think critically regarding a topic, and provide solution to the problem by investigating it.

PO 5: Modern Tool Usage - acquire and demonstrate competency in laboratory safety and in routine and specialized laboratory skills applicable to research or clinical methods.

PO 6: The Student and Society - demonstrate engagement in outreach or mentoring activities specific to Microbiology, Biochemistry and Food Science and Technology.

PO 7: Environment and Sustainability – be able to explain the taxonomic, ecological, and genetic relationships among microorganisms, including topics such as Nutrient Cycling, Microbial Diversity, and the Biotechnological Application of Microorganisms to solve environmental problems.

PO 8: Ethics - acquires the capacity to describe the basic concepts of legal, ethical, economic, and regulatory dimensions of health care and public health policy.

PO 9: Individual and Team Work - integrate the core elements of public health with a selected area of specialization to recognize how the field of public health applies to individuals, communities, and society.

PO10: Communication - communicate scientific concepts, experimental results and analytical arguments clearly and concisely, both verbally and in writing.

PO11: Project Management and Finance - be able to construct a summative project or paper that draws on current research, scholarship and/or techniques in Microbiology, Biochemistry and Food Science and Technology.

PO12: **Life-long learning** - utilize basic concepts in Biology and focus on the factors that cause illness and promote health in human populations throughout life.

B.Sc. FOOD SCIENCE AND TECHNOLOGY, MICROBIOLOGY, CHEMISTRY (FMC)

At the end of the program students will

PO 1: Subject knowledge - Acquire in depth knowledge about experimental strategies and scientific approaches used to address questions about biological processes at the molecular level.

PO 2: Problem Analysis - Analyse scientific information by identifying components, relationships and patterns, both in experimental data and ideas.

PO 3: Design and Development of Solutions - be able to read, understand, design and critically interpret the biological literature in their area of interest.

PO 4: Conduct Investigations of Complex Problems - be able to explain and apply scientific information to solve problems in familiar and unfamiliar situations.

PO 5: Modern Tool Usage - function successfully within laboratory and field settings, including use of basic and advanced tools and equipment such as microscopes, measurement devices, and computer technologies and utilize appropriate safety protocols.

PO 6: The Student and Society - be able to conduct background research on life science topics in order to make informed decisions, including understanding basic concepts and processes necessary to investigate topics, applying skills for information, drawing on personal observations, and formulating decisions on topics that can be put into practice in home and community settings.

PO 7: Environment and Sustainability - be able to explain the importance of biodiversity at the genetic, organismal, community, and global scales.

PO8: Ethics - recognize and be able to apply basic ethical principles to basic and applied biological/biomedical practice and will understand the role of biological/biomedical science, scientists, and practitioners in society.

PO 9: Individual and Team Work - discuss and evaluate scientific information from different sources such as internet, newspaper articles, television, scientific texts and publications and assess its credibility as an individual and also in groups.

PO10: Communication - be able to utilize a variety of learning skills, including critical thinking and decision-making skills, and communication skills for analysing, learning, and sharing information with others.

PO11: Project Management and Finance - be able to design, conduct, analyse, and communicate biological research in a better manner.

PO12: Life-long learning – be able to discuss how Science and Technology are interdependent and assist each other in the development of knowledge and technological applications throughout life.

B.Sc (AZC)

PROGRAMME OUTCOMES

PO 1: Ability to demonstrate the comprehensive knowledge by understanding the basic concepts, systematics, principles, theories, hypotheses, laws and formulae of the biological systems.

PO 2: Ability to identify and analyze the problems encountered in the living processes with critical, analytical and creative thinking.

PO 3: Ability to develop solutions for the problems encountered in the culture practices through the acquired skills.

PO 4: Apply scientific knowledge and develop the capacity to investigate and estimate the depth of the problem to find solution in the area of biochemical processes and systems of cultivable aquatic organisms.

PO 5: Ability to handle the advanced scientific equipment like Spectrophotometer, UV/visible Foldscope, Microscope Image Projection System (MIPS), PCR etc., and capable of using computers and appropriate software for analysis of data and evaluate subject related information.

PO 6: Ability to utilize the scientific perception in Academia and Industry for the technological upliftment of the society.

PO 7: Ability to understand and promote the basic sustainability concepts i.e., carrying capacity, waste management through recycling, climate changes at local and global level, productive and consumptive uses, aesthetic values, environmental justice for sustainability of resources for better living.

PO 8: Ability to understand and demonstrate ethical and social obligations and responsibilities for promoting communal harmony.

PO 9: Ability to deal with dynamic situations with scientific temper, competency and

self-discipline and able to interact in group with open mindedness by acquiring leadership qualities.

PO 10: Ability to communicate effectively in social, professional and academic situations through competency in LSRW skills.

PO 11: Ability to manage project resources properly and achieve project objectives through effective planning and transparency of finances.

PO 12: Ability to adapt to the changing trends and to cope up with the demands of real life situations keeping in view of meeting economic, social and cultural objectives.

B.Sc. MATHEMATICS, STATISTICS, DATA SCIENCE (MSDS)

PO1. 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.

PO2. Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.

PO3. Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.

PO4. Effective Citizenship: Demonstrate empathetic social concern and equity-centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.

PO5. Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.

PO6. Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.

PO7. Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.