

2.6.1 - Attainment of Programme outcomes and course outcomes are evaluated by the institution.

UNDERGRADUATE PROGRAMMES

I. B.Sc. MATHEMATICS:

1. PROGRAMME OUTCOMES (POs)

PO1: Disciplinary Knowledge: Capable of demonstrating comprehensive knowledge and understanding of one or more disciplines that form a part of an undergraduate programme of study.

PO2: Critical Thinking: Capability to apply analytic thought to a body of knowledge; analyse and evaluate evidence, arguments, claims, beliefs on the basis of empirical evidence; identify relevant assumptions or implications; formulate coherent arguments; critically evaluate practices, policies and theories by following scientific approach to knowledge development. **PO3:** Problem Solving: Capacity to extrapolate from what one has learned and apply their competencies to solve different kinds of non-familiar problems, rather than replicate curriculum content knowledge; and apply one's learning to real life situations.

PO4: Analytical Reasoning: Ability to evaluate the reliability and relevance of evidence; identify logical flaws and holes in the arguments of others; analyze and synthesize data from a variety of sources; draw valid conclusions and support them with evidence and examples and addressing opposing viewpoints.

PO5: Scientific Reasoning: Ability to analyse, interpret and draw conclusions from quantitative / qualitative data; and critically evaluate ideas, evidence, and experiences from an open minded and reasoned perspective.

PO6: Self-directed & Lifelong Learning: Ability to work independently, identify and manage a project. Ability to acquire knowledge and skills including "learning how to learn", through self placed and self-directed learning aimed at personal development, meeting economic, social and cultural objectives.

2. PROGRAMME SPECIFIC OUTCOMES (PSOs)

PSO1: Acquire good knowledge and understanding, to solve specific theoretical & applied problems in different area of mathematics & statistics.

PSO2: Understand, formulate, develop mathematical arguments, logically and use quantitative models to address issues arising in social sciences, business and other context /fields.

PSO3: To prepare the students who will demonstrate respectful engagement with other's ideas, behaviors, and beliefs and apply diverse frames of references to decisions and actions. To create effective entrepreneurs by enhancing their critical thinking, problem solving, decision making and leadership skill, this will facilitate startups and high potential organizations.

3. COURSE OUTCOMES (COs)

Bachelor degree in Mathematics is the culmination of in-depth knowledge of algebra, calculus, geometry, differential equations and several other branches of Mathematics. This also leads to study of related areas like Computer science, Financial Mathematics, Statistics and many more. Thus, this programme helps learners in building a solid foundation for higher studies in Mathematics. The skills and knowledge gained have intrinsic aesthetics leading to proficiency in analytical reasoning. This can be utilized in Mathematical modeling and solving real life problems. Students completing this programme will be able to present Mathematics clearly and precisely, make abstract ideas precise by formulating them in the language of Mathematics, describe Mathematical ideas from multiple perspectives and explain fundamental concepts of Mathematics to non-Mathematicians. Completion of this programme will also enable the learners to join teaching profession, enhance their employability for government jobs, jobs in banking, insurance and investment sectors, data analyst jobs and jobs in various other public and private enterprises.

2. B.Sc., PHYSICS

1. PROGRAMME OUTCOMES (POs)

PO1: Disciplinary knowledge: Capable of demonstrating comprehensive knowledge and understanding of one or more disciplines that form a part of an undergraduate programme of study Page 3 of 29 create POs based on their curriculum or adopt from UGC or the University for their Programme)

PO2: Communication Skills: Ability to express thoughts and ideas effectively in writing and orally communicate with others using appropriate media; confidently share one's views and express herself/himself; demonstrate the ability to listen carefully; read and write analytically and present complex information in a clear and concise manner to different groups.

P03: Critical thinking: Capability to apply the analytic thought to a body of knowledge; analyse and evaluate the proofs, arguments, claims, beliefs on the basis of empirical evidences; identify relevant assumptions or implications; formulate coherent arguments; critically evaluate practices, policies and theories by following scientific approach.

P04: Problem solving: Capacity to extrapolate from what one has learned and apply their competencies to solve different kinds of non-familiar problems, rather than replicate curriculum content knowledge; and apply one's learning to real life situations.

P05: Analytical reasoning: Ability to evaluate the reliability and relevance of evidence; identify logical flaws and holes in the arguments of others; analyze and synthesize data from a variety of sources; draw valid conclusions and support them with evidence and examples, and addressing opposing viewpoints.

P06: Research-related skills: A sense of inquiry and capability for asking relevant/appropriate questions, problem arising, synthesising and articulating; Ability to recognise cause-and-effect relationships, define problems, formulate hypotheses, test hypotheses, analyse, interpret and draw conclusions from data, establish hypotheses, predict cause-and-effect relationships; ability to plan, execute and report the results of an experiment or investigation.

P07: Cooperation/Team work: Ability to work effectively and respectfully with diverse teams; facilitate cooperative or coordinated effort on the part of a group, and act together as a group or a team in the interests of a common cause and work efficiently as a member of a team.

P08: Scientific reasoning: Ability to analyse, interpret and draw conclusions from quantitative/qualitative data; and critically evaluate ideas, evidence and experiences from an open-minded and reasoned perspective.

P09: Reflective thinking: Critical sensibility to lived experiences, with self-awareness.

P010: Information/digital literacy: Capability to use ICT in a variety of learning situations, demonstrate ability to access, evaluate, and use a variety of relevant information sources; and use appropriate software for analysis of data.

PO 11: Self-directed learning: Ability to work independently, identify appropriate resources required for a project, and manage a project through to completion.

PO 12: Multicultural competence: Possess knowledge of the values and beliefs of multiple cultures and a global perspective; and capability to effectively engage in a multicultural society and interact respectfully with diverse groups.

PO 13: Moral and ethical awareness/reasoning: Ability to embrace moral/ethical values in conducting one's life, formulate a position/argument about an ethical issue from multiple perspectives, and use ethical practices in all work. Capable of demonstrating the ability to identify ethical issues related to one's work, avoid unethical behaviour such as fabrication, falsification or misrepresentation of data or committing plagiarism, not adhering to intellectual property rights; appreciating environmental and sustainability issues; and adopting objective, unbiased and truthful actions in all aspects of work.

PO 14: Leadership readiness/qualities: Capability for mapping out the tasks of a team or an organization, and setting direction, formulating an inspiring vision, building a team who can help achieve the vision, motivating and inspiring team members to engage with that vision, and using management skills to guide people to the right destination, in a smooth and efficient way.

PO 15: Lifelong learning: Ability to acquire knowledge and skills, including „learning how to learn“, that are necessary for participating in learning activities throughout life, through self-paced and self-directed learning aimed at personal development, meeting economic, social and cultural objectives, and adapting to changing trades and demands of work place through knowledge/skill development/reskilling.

2. PROGRAMME SPECIFIC OUTCOMES (PSOs)

PSO1: Placement: To prepare the students who will demonstrate respectful engagement with others' ideas, behaviors, and beliefs and apply diverse frames of reference to decisions and actions.

PSO 2: Entrepreneur: To create effective entrepreneurs by enhancing their critical thinking, Faculty can create POs based on their curriculum or adopt from UGC or University for their Programme) problem solving, decision making and leadership skill that will facilitate start-ups and high potential organizations

PSO3: Research and Development: Design and implement HR systems and practices grounded in research that complies with employment laws, leading the organization towards growth and development.

PSO4: Contribution to Business World: To produce employable, ethical and innovative professionals to sustain in the dynamic business world

PSO5: Contribution to the Society: To contribute to the development of the society by collaborating with stakeholders for mutual benefit.

3. COURSE OUTCOMES (COs)

The new curriculum offer courses in the core areas of mechanics, acoustics, optics and spectroscopy, electricity and magnetism, atomic and nuclear physics, solid state, electronics and other fields. The courses will train students with sound theoretical and experimental knowledge that suits the need of academics and industry. In addition to the theoretical course work, the students also learn physics laboratory methods for different branches of physics, specialized measurement techniques, analysis of observational data, including error estimation and etc. The students will have deeper understanding of laws of nature through the subjects like classical mechanics, quantum mechanics, statistical physics etc. The problem solving ability of students will be enhanced. The students can apply principles in physics to real life problems. The courses like integrated electronics and microprocessors will enhance the logical skills as well as employability skills. The numerical methods and mathematical physics provide analytical thinking and provide a better platform for higher level physics for research. The restructured courses with well-defined objectives and learning outcomes provide guidance to prospective students in choosing the elective courses to broaden their skills not only in the field of physics but also in interdisciplinary areas. The elective modules of the framework offer students choice to gain knowledge and expertise in specialized domains of physics like astrophysics, medical physics, etc.

III. B.Sc. Chemistry:

1. PROGRAMME OUTCOMES (POs)

PO1 :Disciplinary knowledge: Capable of demonstrating comprehensive knowledge and understanding of one or more disciplines that form a part of an undergraduate Programme of study

PO2: Communication Skills: Ability to express thoughts and ideas effectively in writing and orally; Communicate with others using appropriate media; confidently share one's views and express herself/himself; demonstrate the ability to listen carefully, read and write analytically, and present complex information in a clear and concise manner to different groups

PO3 : Critical thinking: Capability to apply analytic thought to a body of knowledge; analyse and evaluate evidence, arguments, claims, beliefs on the basis of empirical evidence; identify relevant assumptions or implications; formulate coherent arguments; critically evaluate practices, policies and theories by following scientific approach to

knowledge development **P04: Problem solving:** Capacity to extrapolate from what one has learned and apply their competencies to solve different kinds of non-familiar problems, rather than replicate curriculum content knowledge; and apply one's learning to real life situations.

P05: Analytical reasoning: Ability to evaluate the reliability and relevance of evidence; identify logical flaws and holes in the arguments of others; analyze and synthesize data from a variety of sources; draw valid conclusions and support them with evidence and examples, and addressing opposing viewpoints.

P06: Research-related skills: A sense of inquiry and capability for asking relevant/appropriate questions, problem arising, synthesising and articulating; Ability to recognise cause-and-effect relationships, define problems, formulate hypotheses, test hypotheses, analyse, interpret and draw conclusions from data, establish hypotheses, predict cause-and-effect relationships; ability to plan, execute and report the results of an experiment or investigation

P07: Cooperation/Team work: Ability to work effectively and respectfully with diverse teams; facilitate cooperative or coordinated effort on the part of a group, and act together as a group or a team in the interests of a common cause and work efficiently as a member of a team

P08: Scientific reasoning: Ability to analyse, interpret and draw conclusions from quantitative/qualitative data; and critically evaluate ideas, evidence and experiences from an open-minded and reasoned perspective.

P09: Reflective thinking: Critical sensibility to lived experiences, with self awareness and reflexivity of both self and society

P010: Information/digital literacy: Capability to use ICT in a variety of learning situations, demonstrate ability to access, evaluate, and use a variety of relevant information sources; and use appropriate software for analysis of data.

P011: Self-directed learning: Ability to work independently, identifies appropriate resources required for a project, and manage a project through to completion.

P012: Multicultural competence: Possess knowledge of the values and beliefs of multiple cultures and a global perspective; and capability to effectively engage in a multicultural society and interact respectfully with diverse groups.

P013: Moral and ethical awareness/reasoning: Ability to embrace moral/ethical values in conducting one's life, formulate a position/argument about an ethical issue from multiple perspectives, and use ethical practices in all work. Capable of

demonstrating the ability to identify ethical issues related to one's work, avoid unethical behaviour such as fabrication, falsification or misrepresentation of data or committing plagiarism, not adhering to intellectual property rights; appreciating environmental and sustainability issues; and adopting objective, unbiased and truthful actions in all aspects of work.

PO14: Leadership readiness/qualities: Capability for mapping out the tasks of a team or an organization, and setting direction, formulating an inspiring vision, building a team who can help achieve the vision, motivating and inspiring team members to engage with that vision, and using management skills to guide people to the right destination, in a smooth and efficient way.

PO15: Ability to acquire knowledge and skills, including, learning how to learn", that are necessary for participating in learning activities throughout life, through self-paced and self-directed learning aimed at personal development, meeting economic, social and cultural objectives, and adapting to changing trades and demands of work place through knowledge/skill development/reskilling.

2. PROGRAMME SPECIFIC OUTCOMES (PSOs)

On successful completion of Bachelor of Chemistry the student should be able to:

PSO1: Disciplinary Knowledge: Understand the fundamental principles, concepts, and theories related to Chemistry. Also, exhibit proficiency in performing experiments in the laboratory.

PSO2: Critical Thinking: Analyse complex problems, evaluate information, synthesize information, apply theoretical concepts to practical situations, identify assumptions and biases, make informed decisions and communicate effectively

PSO3: Problem Solving: Employ theoretical concepts and critical reasoning ability with physical, mathematical and technical skills to solve problems, acquire data, analyze their physical significance and explore new design possibilities.

PSO4: Analytical & Scientific Reasoning: Apply scientific methods, collect and analyse data, test hypotheses, evaluate evidence, apply statistical techniques and use computational models.

PSO5: Research related skills: Formulate research questions, conduct literature reviews, design and execute research studies, communicate research findings and collaborate in research projects.

PSO6: Self-directed & Lifelong Learning: Set learning goals, manage their own learning, reflect on their learning, adapt to new contexts, seek out new knowledge, collaborate with others and to continuously improve their skills and knowledge, through ongoing learning and professional development, and contribute to the growth and development of their field. how to learn", that are necessary for participating in learning activities throughout life, through self-paced and self-directed learning aimed at personal development, meeting economic, social and cultural objectives, and adapting to changing trades and demands of work place through knowledge/skill development/reskilling.

3. COURSE OUTCOMES (COs)

Chemistry is the study of composition and transformation of matter. A science that is central to energy production, health care, new material development for electronics and other applied fields and environmental protection. Bachelor's degree in Chemistry is the culmination of in-depth knowledge of Inorganic, Organic and Physical chemistry and specialized courses such as Pharmaceutical Chemistry, Spectroscopy, Nanoscience, Forensic Science, Cosmetics & Personal Grooming, Food chemistry, Dairy Chemistry and so on. Thus, this programme helps learners in building a solid foundation for higher studies in Chemistry. The hands on experience the students gain in Practicals enable them to apply theory to solve problems in everyday life, think critically and innovatively. An aptitude for research is instilled through project work and industrial internship. Students completing this programme will be able to present the concepts of Chemistry clearly and precisely. They can find solutions to pressing problems that mankind are facing today. They can interpret data and present their findings to both scientific community and laymen and have ability to work as a team and evolve to become an entrepreneur Completion of this programme will also enable the learners to join teaching profession, conducting research in Industry and Government run research labs. A B.Sc chemistry student has the option to diversify to other branches such as Biochemistry, Biotechnology, Forensic Science etc. They have employability opportunities in public and private sector jobs in energy, Pharmaceutical, Food, Cosmetic industries etc.

IV. B.Sc. BOTANY

1. PROGRAMME OUTCOMES (POs)

P01 Apply the knowledge of science and technology fundamentals for findings solution for complex problems.

P02 To provide up to date theoretical knowledge on various forms of plants, their interactions with biotic and abiotic entities in the ecosystem and relevant practical skills.

P03 To comprehend and interpret various facets of Botany including the importance and judicious utilization of plant sources.

P04 Exploration of diverse plant life-forms and to nature the conservation of biodiversity.

P05 To understand the principles and applications of various traditional and modern techniques used in Botany.

P06 To disseminate knowledge on the design and execution of experiments in Botany with emphasis on the operation of relevant sophisticated instruments.

P07 To impart knowledge on the economic importance of plant/microbial resources and their products and to promote entrepreneurship skill.

P08 To promote proficiency in designing the research problems, review of literature, laboratory experiments, data analyses and preparation of reports with professional ethics.

P09 To motivate the students to take up innovative and cutting-edge research in frontier areas of Botany and related biology subjects.

P010 To enable the students to take up various qualifying examinations concerning Botany and to face the challenges in career opportunities.

2. PROGRAMME SPECIFIC OUTCOMES (PSOs)

PSO1 Implement the concept of science and technology to foster the traditional and modern techniques for solving the complex problems in Plant Biology.

PSO2 Ensure the use of contemporary tools and techniques in understanding the scope and significance of Botany

PSO3 Develop the scientific problem solving skills during experimentation, research projects, analysis and interpretation of data

PSO4 Design scientific experiments independently and to generate useful information to address various issues in Botany.

PSO5 Enhanced capacity to think critically; ability to design and execute experiments independently and/or team under multidisciplinary settings

PS06 Design and standardize protocols for public health and safety, and cultural, societal, and environmental considerations

PS07 Apply appropriate techniques, resources, and modern ICT tools for understanding plant resources.

PS08 Demonstrate the contextual knowledge in sustainable exploitation of medicinal, economically important and endangered plants as per the National Biodiversity Act.

PS09 Follow the concept of professional ethics and bioethics norms for practicing the value of plant kingdom.

PS010 Communicate proficiently with various stakeholders and society, to comprehend and to write and present reports effectively.

3. COURSE OUTCOMES (COs)

Students completing this programme will be able to present their core under-graduate discipline clearly and precisely, make abstract ideas precise by formulating them in the language of the specific discipline, describe related ideas from multiple perspectives and explain fundamental concepts. Completion of this programme will also enable the learners to join teaching profession, enhance their employability for government jobs, jobs in various other public and private enterprises.

V. B.Sc., ZOOLOGY

1. PROGRAMME OUTCOMES (POs)

PO1: Disciplinary knowledge: Capable of demonstrating comprehensive knowledge and understanding of one or more disciplines that form a part of an undergraduate Programme of study

PO2: Communication Skills: Ability to express thoughts and ideas effectively in writing and orally; Communicate with others using appropriate media; confidently share one's views and express herself/himself; demonstrate the ability to listen carefully, read and write analytically, and present complex information in a clear and concise manner to different groups.

PO3: Critical thinking: Capability to apply analytic thought to a body of knowledge; analyse and evaluate evidence, arguments, claims, beliefs on the basis of empirical evidence; identify relevant assumptions or implications; formulate coherent arguments; critically evaluate practices, policies and theories by following scientific approach to knowledge development.

PO4: Problem solving: Capacity to extrapolate from what one has learned and apply their competencies to solve different kinds of nonfamiliar problems, rather than replicate curriculum content knowledge; and apply one's learning to real life situations.

PO5: Analytical reasoning: Ability to evaluate the reliability and relevance of evidence; identify logical flaws and holes in the arguments of others; analyze and synthesize data from a variety of sources; draw valid conclusions and support them with evidence and examples, and addressing opposing viewpoints.

PO6: Research-related skills: A sense of inquiry and capability for asking relevant/appropriate questions, problem arising, synthesising and articulating; Ability to recognise cause-and-effect relationships, define problems, formulate hypotheses, test hypotheses, analyse, interpret and draw conclusions from data, establish hypotheses, predict cause-and-effect relationships; ability to plan, execute and report the results of an experiment or investigation

PO7: Cooperation/Team work: Ability to work effectively and respectfully with diverse teams; facilitate cooperative or coordinated effort on the part of a group, and act together as a group or a team in the interests of a common cause and work efficiently as a member of a team

PO8: Scientific reasoning: Ability to analyse, interpret and draw conclusions from quantitative/qualitative data; and critically evaluate ideas, evidence and experiences from an open-minded and reasoned perspective.

PO9: Reflective thinking: Critical sensibility to lived experiences, with self awareness and reflexivity of both self and society.

PO10 Information/digital literacy: Capability to use ICT in a variety of learning situations, demonstrate ability to access, evaluate, and use a variety of relevant information sources; and use appropriate software for analysis of data.

PO 11 Self-directed learning: Ability to work independently, identify appropriate resources required for a project, and manage a project through to completion.

PO 12 Multicultural competence: Possess knowledge of the values and beliefs of multiple cultures and a global perspective; and capability to effectively engage in a multicultural society and interact respectfully with diverse groups.

PO 13: Moral and ethical awareness/reasoning: Ability to embrace moral/ethical values in conducting one's life, formulate a position/argument about an ethical issue from multiple perspectives, and use ethical practices in all work. Capable of demonstrating the ability to identify ethical issues related to one's work, avoid unethical

behaviour such as fabrication, falsification or misrepresentation of data or committing plagiarism, not adhering to intellectual property rights; appreciating environmental and sustainability issues; and adopting objective, unbiased and truthful actions in all aspects of work.

PO 14: Leadership readiness/qualities: Capability for mapping out the tasks of a team or an organization, and setting direction, formulating an inspiring vision, building a team who can help achieve the vision, motivating and inspiring team members to engage with that vision, and using management skills to guide people to the right destination, in a smooth and efficient way.

PO 15: Lifelong learning: Ability to acquire knowledge and skills, including „learning how to learn“, that are necessary for participating in learning activities throughout life, through self-paced and self-directed learning aimed at personal development, meeting economic, social and cultural objectives, and adapting to changing trades and demands of work place through knowledge/skill development/reskilling.

2. PROGRAMME SPECIFIC OUTCOMES (PSOs)

PSO1 – Placement: To prepare the students who will demonstrate respectful engagement with others’ ideas, behaviors, beliefs and apply diverse frames of reference to decisions and actions.

PSO 2 - Entrepreneur: To create effective entrepreneurs by enhancing their critical thinking, problem solving, decision making and leadership skill that will facilitate startups and high potential organizations

PSO3 – Research and Development: Design and implement HR systems and practices grounded in research that comply with employment laws, leading the organization towards growth and development.

PSO4 – Contribution to Business World: To produce employable, ethical and innovative professionals to sustain in the dynamic business world.

PSO 5 – Contribution to the Society: To contribute to the development of the society by collaborating with stakeholders for mutual benefit.

COURSE OUTCOMES (COs)

After completing the B.Sc., Zoology degree Programme the students can

1. Identify and list out common animals

2. Explain various physiological changes in our bodies
3. Analyze the impact of environment on our bodies
4. Understand various genetic
5. Develop respect for nature
6. Explain the role and impact of different environmental conservation programmes
7. Identify animals beneficial to humans
8. Identify various potential risk factors to health of humans
9. Explain the importance of genetic engineering
10. Use tools of information technology for all activities related to zoology

B.Com.,

1. PROGRAMME OUTCOMES (POs)

PO1: Disciplinary knowledge: Capable of demonstrating Outcomes: comprehensive knowledge and understanding of one or more disciplines that form a part of an undergraduate Programme of study

PO2: Communication Skills: Ability to express thoughts and ideas effectively in writing and orally; Communicate with others using appropriate media; confidently share one's views and express herself/himself; demonstrate the ability to listen carefully, read and write analytically, and present complex information in a clear and concise manner to different groups.

PO3: Critical thinking: Capability to apply analytic thought to a body of knowledge; analyse and evaluate evidence, arguments, claims, beliefs on the basis of empirical evidence; identify relevant assumptions or implications; formulate coherent arguments; critically evaluate practices, policies and theories by following scientific approach to knowledge development. **PO4:** Problem solving: Capacity to extrapolate from what one has learned and apply their competencies to solve different kinds of nonfamiliar problems, rather than replicate curriculum content knowledge; and apply one's learning to real life situations

PO5: Analytical reasoning: Ability to evaluate the reliability and relevance of evidence; identify logical flaws and holes in the arguments of others; analyze and synthesize data from a variety of sources; draw valid conclusions and support them with evidence and examples, and addressing opposing viewpoints.

PO6: Research-related skills: A sense of inquiry and capability for asking relevant/appropriate questions, problem arising, synthesising and articulating; Ability

to recognise cause-and-effect relationships, define problems, formulate hypotheses, test hypotheses, analyse, interpret and draw conclusions from data, establish hypotheses, predict cause-and-effect relationships; ability to plan, execute and report the results of an experiment or investigation

PO7: Cooperation/Team work: Ability to work effectively and 3 respectfully with diverse teams; facilitate cooperative or coordinated effort on the part of a group, and act together as a group or a team in the interests of a common cause and work efficiently as a member of a team

PO8: Scientific reasoning: Ability to analyse, interpret and draw conclusions from quantitative/qualitative data; and critically evaluate ideas, evidence and experiences from an open-minded and reasoned perspective.

PO9: Reflective thinking: Critical sensibility to lived experiences, with self awareness and reflexivity of both self and society.

PO10: Information/digital literacy: Capability to use ICT in a variety of learning situations, demonstrate ability to access, evaluate, and use a variety of relevant information sources; and use appropriate software for analysis of data.

PO 11: Self-directed learning: Ability to work independently, identify appropriate resources required for a project, and manage a project through to completion.

PO 12: Multicultural competence: Possess knowledge of the values and beliefs of multiple cultures and a global perspective; and capability to effectively engage in a multicultural society and interact respectfully with diverse groups.

PO 13: Moral and ethical awareness/reasoning: Ability to embrace moral/ethical values in conducting one's life, formulate a position/argument about an ethical issue from multiple perspectives, and use ethical practices in all work. Capable of demonstrating the ability to identify ethical issues related to one's work, avoid unethical behaviour such as fabrication, falsification or misrepresentation of data or committing plagiarism, not adhering to intellectual property rights; appreciating environmental and sustainability issues; and adopting objective, unbiased and truthful actions in all aspects of work.

PO 14: Leadership readiness/qualities: Capability for mapping out the tasks of a team or an organization, and setting direction, formulating an inspiring vision, building a team who can help achieve the vision, motivating and inspiring team members to engage with that vision, and using management skills to guide people to the right destination, in a smooth and efficient way.

PO 15: Lifelong learning: Ability to acquire knowledge and skills, including „learning how to learn“, that are necessary for participating in learning activities throughout life, through self-paced and self-directed learning aimed at personal development, meeting economic, social and cultural objectives, and adapting to changing trades and demands of work place through knowledge/skill development/reskilling.

2. PROGRAMME SPECIFIC OUTCOMES (PSOs)

PSO1 – Placement: To prepare the students who will demonstrate respectful engagement with others’ ideas, behaviors, beliefs and apply diverse frames of reference to decisions and actions.

PSO 2 - Entrepreneur: To create effective entrepreneurs by enhancing their critical thinking, problem solving, decision making and leadership skill that will facilitate startups and high potential organizations

PSO3 – Research and Development: Design and implement HR systems and practices grounded in research that comply with employment laws, leading the organization towards growth and development.

PSO4 – Contribution to Business World: To produce employable, ethical and innovative professionals to sustain in the dynamic business world.

PSO 5 – Contribution to the Society: To contribute to the development

3. COURSE OUTCOMES (COs)

The B.Com. Degree Programme provides ample exposure to courses from the fields of Commerce, Accountancy and Management. The course equips the students for entry level jobs in industry, promotes the growth of their professional career, entrepreneurship and a key contributor to the economic development of the country.

VII. B.A., ECONOMICS

1. PROGRAMME OUTCOMES (POs)

PO1: Knowledge of Economics: Ability to understand Economic Theories and functioning of Economic Models. To develop an adequate competency in the Economic Theory and Methods.

PO2: Analytical Reasoning and Critical Thinking: Critically Analyze and assess the way in which economists examine the real world to understand the current events and evaluate specific proposals.

P03: Logical Reasoning and Quantitative Ability: Ability to understand how to collect and analyse data and use empirical evidence to evaluate the validity of hypothesis, using Quantitative Methodology and conduct data analysis to interpret results.

P04: Communication and Research Skills: Developing a sense of capability for relevant/appropriate inquiry and asking questions, synthesising and articulating and reporting results and to efficiently communicate thoughts and ideas in a clear and concise manner.

P05: Gender, Environment and Sustainability: Comprehend the Environmental issues and Sustainable Development and strive to achieving economic and social equity for women and be Gender Sensitive.

P06: Employability and Leadership Skills: Become empowered individuals to be employed in various positions in industry, academia and research and have the potential to become Entrepreneurs and take leadership roles in their chosen occupations and communities.

P07: Social Interaction: Acquire the ability to engage in relevant conversations and have the ability to understand the views of society that would help initiate policy making.

P08: Digital Literacy and Lifelong Learning: Capability to use ICT tools in a variety of learning situation and use appropriate software for analysis of data - Ability to acquire Knowledge situations and skills for life through self 4 directed learning and adapt to different learning environments.

2. PROGRAMME SPECIFIC OUTCOMES (PSOs)

PSO1: To enable students to apply basic microeconomic, macroeconomic and monetary concepts and theories in real life and decision making.

PSO 2: To sensitize students to various economic issues related to Development, Growth, International Economics, Sustainable Development and Environment.

PSO 3: To familiarize students to the concepts and theories related to Finance, Investments and Modern Marketing.

PSO 4: Evaluate various social and economic problems in the society and develop answer to the problems as global citizens.

PSO 5: Enhance skills of analytical and critical thinking to analyze effectiveness of economic policies.

3. COURSE OUTCOMES (COs)

The Learning Outcomes-based Curriculum Framework (LOCF) approach has been adopted in B.A., Economics Programme to provide a focussed, outcome-based syllabus at the undergraduate level with an agenda to structure the teaching-learning experiences in a more student-centric manner. The aim of B.A Economics programme is to create a strong foundation in the field of economics at the undergraduate level and prepare the students to be upright and productive citizens and inculcate the skills for employability at the point of graduation.

POSTGRADUATE EDUCATION

I. M.Sc., PHYSICS

1. PROGRAMME OUTCOMES (POs)

PO1: Problem Solving Skill Apply knowledge of Management theories and Human Resource practices to solve business problems through research in Global context.

PO2: Decision Making Skill Foster analytical and critical thinking abilities for data-based decision making.

PO3: Ethical Value Ability to incorporate quality, ethical and legal value-based perspectives to all organizational activities.

PO4: Communication Skill Ability to develop communication, managerial and interpersonal skills.

PO5: Individual and Team Leadership Skill Capability to lead themselves and the team to achieve organizational goals.

PO6: Employability Skill Inculcate contemporary business practices to enhance employability skills in the competitive environment.

PO7: Entrepreneurial Skill Equip with skills and competencies to become an entrepreneur.

PO8: Contribution to Society Succeed in career endeavors and contribute significantly to society.

PO9: Multicultural competence Possess knowledge of the values and beliefs of multiple cultures and a global perspective.

PO10: Moral and ethical awareness/reasoning Ability to embrace moral/ethical values in conducting one's life.

2. PROGRAMME SPECIFIC OUTCOMES (PSOs)

PSO1 - Placement To prepare the students who will demonstrate respectful engagement with others' ideas, behaviors, beliefs and apply diverse frames of reference to decisions and actions.

PSO2 - Entrepreneur To create effective entrepreneurs by enhancing their critical thinking, problem solving, decision making and leadership skill that will facilitate startups and high potential organizations.

PSO3- Research and Development Design and implement HR systems and practices grounded in research that comply with employment laws, leading the organization towards growth and development.

PSO4- Contribution to Business World To produce employable, ethical and innovative professionals to sustain in the dynamic business world.

PSO5- Contribution to the Society To contribute to the development of the society by collaborating with stakeholders for mutual benefit.

PSO6- Students will utilize e-resources, digital tools and techniques for widening their knowledge base.

PSO7- Students gain exposure to programming language and skills.

PSO8- Student will appreciate the interplay of mathematics, physics and technology.

PSO9 Students will develop adequate knowledge and skills for employment and entrepreneurship.

PSO10- An awareness of civic and ecological duties as good citizens and importance of human values will be inculcated in students.

3. COURSE OUTCOMES (COs)

It serves as a basis to build a purely academic profile for further studies and research in Physics such as M.Phil., and Ph.D. On successful completion of this course, one can apply for the UGC-NET or JRF exam. The success in these exams makes teaching or research as good options. The degree holders can opt for further higher studies and career in various specializations of Physics such as in Medical Physics, Nano Physics and Particle Physics.

II. M. Sc Chemistry

1. PROGRAMME OUTCOMES (POs)

PO1: Problem Solving Skill Apply knowledge of Management theories and Human Resource practices to solve business problems through research in Global context.

PO2: Decision Making Skill Foster analytical and critical thinking abilities for data-based decision-making.

PO3: Ethical Value Ability to incorporate quality, ethical and legal value-based perspectives to all organizational activities.

PO4: Communication Skill Ability to develop communication, managerial and interpersonal skills. **PO5:** Individual and Team Leadership Skill Capability to lead themselves and the team to achieve organizational goals.

PO6: Employability Skill Inculcate contemporary business practices to enhance employability skills in the competitive environment.

PO7: Entrepreneurial Skill Equip with skills and competencies to become an entrepreneur.

PO8: Contribution to Society Succeed in career endeavors and contribute significantly to society.

PO9: Multicultural competence Possess knowledge of the values and beliefs of multiple cultures and a global perspective.

PO10: Moral and ethical awareness/reasoning Ability to embrace moral/ethical values in conducting one's life.

2. PROGRAMME SPECIFIC OUTCOMES (PSOs)

PSO1 – Placement Prepare the students who will demonstrate respectful engagement with others' ideas, behaviors, beliefs and apply diverse frames of reference to decisions and actions.

PSO2 – Entrepreneur Create effective entrepreneurs by enhancing their critical thinking, problem solving, decision making and leadership skill that will facilitate startups and high potential organizations.

PSO3 – Research and Development Design and implement HR systems and practices grounded in research that comply with employment laws, leading the organization towards growth and development.

PSO4 – Contribution to Business World Produce employable, ethical and innovative professionals to sustain in the dynamic business world.

PS05 – Contribution to the Society Contribute to the development of the society by collaborating with stakeholders for mutual benefit.

3. COURSE OUTCOMES (COs)

The syllabus of M.Sc. Chemistry has been designed in such a way that the students gain the required knowledge of confidence and skill which would enable to enhance his aptitude, attitude and competing skills. Moreover peer-team teaching /learning methodology would eradicate his/her shyness and fear psychosis. Further, the programme is expected to inculcate the skill based knowledge which would help in their placement in good academic and research career.

III. M.A. ECONOMICS

PROGRAMME OUTCOMES (POs)

PO1: Problem Solving Skill Apply knowledge of Management theories and Human Resource practices to solve business problems through research in Global context.

PO2: Decision Making Skill Foster analytical and critical thinking abilities for data-based decision-making.

PO3: Ethical Value Ability to incorporate quality, ethical and legal value-based perspectives to all organizational activities.

PO4: Communication Skill Ability to develop communication, managerial and interpersonal skills.

PO5: Individual and Team Leadership Skill Capability to lead themselves and the team to achieve organizational goals.

PO6: Employability Skill Inculcate contemporary business practices to enhance employability skills in the competitive environment.

PO7: Entrepreneurial Skill Equip with skills and competencies to become an entrepreneur.

PO8: Contribution to Society Succeed in career endeavors and contribute significantly to society.

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3. COURSE OUTCOMES (COs)

It serves as a basis for further higher studies and research in this field such as M.Phil and Ph.D. Degree in Economics. On successful completion of this course one can apply for the UGC-NET or JRF exam. The success in these exams makes teaching or research as good options. The degree holders can opt for further higher studies and career in various specialisations of Economics such as in Micro and Macro Economics, Economics of Agriculture, Economic Statistics, Development Planning, International Economics, Home Economics, Monetary Economics, Fiscal Economics, Economics of Growth and Development, Environmental Economics, Regional Economics, Behavioural Economics and many more. Post-Graduates in Economics can take up research work in various fields of India's national security problems including the international relations, geostrategic, geopolitical, socio-economic, tactical aspects of war, etc. The greatest scope after the course is that it not only makes them eligible but also gives them a better chance to qualify the IES (Indian Economics Services) exam. Law schools are a very common destination now-a-days for recent post graduates in Economics.