



# Andhra Loyola College (Autonomous)

VIJAYAWADA-520 008.

Accredited in III Cycle at A\* Grade with a CGPA of 3.66 / 4.00

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## PROGRAMME SPECIFIC OUTCOMES 2018-2019

### B.A. - ALC101&ALC107: Economics, History, Political Science

**PSO 1: Domain Expertise:** Acquire comprehensive knowledge and skills. Make use of the knowledge in an innovative manner. Effectively apply the knowledge and skills to address various issues.

**PSO 2: Computing Skills and Ethics:** Develop rationale and scientific thinking process. Use technology intelligently for communication, entertainment and for the benefit of mankind. Ensure ethical practices throughout ones endeavours for the well being of human race

**PSO 3: Efficient Communication & Life Skills:** Express thoughts in an effective manner. Listen, understand and project views in a convincing manner. Decide appropriate media to share information. Develop skills to present significant information clearly and concisely to interested groups.

**PSO 4: Societal contribution:** Render service for the general good of the society. Involve voluntarily in social development activities at Regional, National, global levels. Have own pride in volunteering to address societal issues viz: calamities, disasters, Poverty, epidemics. Be a patriotic citizen to uphold the values of the nation

**PSO 5: Modern equipment Usage:** Use ICT effectively. Access, retrieve and use authenticated information. Access, retrieve and use authenticated information. Have knowledge of software applications to analyse data.

**PSO 6: Effective Project Management:** Identify the goals, objectives and components of a project and decide the appropriate time of completion. Plan, organize and direct the endeavours of teams to achieve the set targets in time. Be

competent in identifying opportunities and develop strategies for contingencies.

**PSO 7: Employability:** Attain sufficient knowledge and skill in the field of Economics, they will be able to have the employability in these areas like Data Analysts, Civil Servants, Public Policy Makers, Banking, Financial Services & Insurance

**B.A. ALC102: History, Economics, Special Telugu**

PSO 1: Graduates will demonstrate a comprehensive understanding of historical events, trends, and developments, analyzing their social, political, and cultural significance within local, national, and global contexts.

PSO 2: Students will develop proficiency in economic theories, principles, and methodologies, applying them to analyze economic phenomena, policy issues, and development challenges.

PSO 3: Graduates will acquire advanced proficiency in Telugu language and literature, including grammar, composition, and literary analysis, with a focus on specialized areas such as classical literature or regional dialects.

PSO 4: Students will demonstrate effective communication skills in both written and oral forms, articulating complex historical, economic, and literary concepts in a clear and coherent manner.

PSO 5: Graduates will exhibit critical thinking and analytical skills, evaluating historical evidence, economic data, and literary texts to draw informed conclusions and develop insightful interpretations.

PSO 6: Students will collaborate effectively in academic and research settings, engaging in scholarly discourse and interdisciplinary inquiry to deepen understanding in history, economics, and Telugu studies.

PSO 7: Graduates will demonstrate an appreciation for cultural diversity and heritage, recognizing the contributions of different communities to historical, economic, and literary developments.

PSO 8: Students will acquire research skills and methodologies, conducting

independent research projects in history, economics, or Telugu studies, and contributing to knowledge advancement in their respective fields.

PSO 9: Graduates will engage in lifelong learning and professional development, staying updated with new developments, methodologies, and perspectives in history, economics, and Telugu language and literature.

PSO 10: Students will acquire critical thinking, communication, and research skills that prepare them for diverse career paths, including academia, research, education, journalism, public administration, and cultural preservation.

### **B.A. - ALC103: History, Political Science, Special English**

**PSO 1: Domain Expertise:** Acquire comprehensive knowledge and skills. Make use of the knowledge in an innovative manner. Effectively apply the knowledge and skills to address various issues.

**PSO 2: Computing Skills and Ethics:** Develop rationale and scientific thinking process. Use technology intelligently for communication, entertainment and for the benefit of mankind. Ensure ethical practices throughout ones endeavours for the well being of human race

**PSO 3: Efficient Communication & Life Skills:** Express thoughts in an effective manner. Listen, understand and project views in a convincing manner. Decide appropriate media to share information. Develop skills to present significant information clearly and concisely to interested groups.

**PSO 4: Societal contribution:** Render service for the general good of the society. Involve voluntarily in social development activities at Regional, National, global levels. Have own pride in volunteering to address societal issues viz: calamities, disasters, Poverty, epidemics. Be a patriotic citizen to uphold the values of the nation

**PSO 5: Modern equipment Usage:** Use ICT effectively. Access, retrieve and use authenticated information. Access, retrieve and use authenticated information. Have knowledge of software applications to analyse data.

**PSO 6: Effective Project Management:** Identify the goals, objectives and components of a project and decide the appropriate time of completion. Plan, organize and direct the endeavours of teams to achieve the set targets in time. Be competent in identifying opportunities and develop strategies for contingencies.

**B.A., - ALC104: Economics, Mathematics, Statistics**

**PSO 1: Disciplinary Knowledge:** Generate theoretical and practical knowledge from this chosen programme. It inculcates strong analytical skills that are highly valued in today's increasingly data-driven and interconnected business world.

**PSO 2: Critical Thinking and Problem solving:** Enhance the skill of critical thinking and combat the problems situated in the society, design own problem-solving techniques and implementation pattern.

**PSO 3: Self-directed and Life-long learning:** Acquire the ability to engage in independent and life-long learning in the context of changing socio-economic and technological scenario. **PSO 4: Tools and Techniques:** Provide with the essential mathematical and statistical methods and tools to be applied in the analytical aspects of Economics. it enhances them to compute and assess the real situation of the economy.

**PSO 5: Employability:** Attain sufficient knowledge and skill in the field of Economics, Statistics, and Mathematics and will be able to have the employability in these areas like Data Analysts, Civil Servants, Public Policy Makers, Banking, Financial Services & Insurance.

**PSO 6: Competitive:** Grow highly competitive in the job market and mould themselves into excellent candidates for Post graduation by acquiring knowledge in Mathematics, Statistics, and Economics.

**PSO 7: Effective Citizenship and Ethics:** Imbibe moral ethics and ability to respond promptly to moral and ethical issues and also commit themselves to professional ethics and responsibility.

**PSO 8: Entrepreneurship:** Build up Industry focused skills to lead a successful

career.

**B.Com. -ALC301: B. Com,- General**

**PSO 1:** emerge with competency in the subject of Commerce with Computer Applications and apply knowledge to cater to the needs of Society / Employer / Institution / Own Business Enterprise.

**PSO 2:** imbibe analytical/critical/logical/innovative thinking skills in the field of Accounting Software, Marketing Principles, Enterprise Resource Planning and Web Page Creation.

**PSO 3:** acquire distinct traits and ethics with high professionalism to gain a broader insight into the domain concerned for nation building

**PSO 4:** demonstrate knowledge of major theories and models in key areas of organizational behavior.

**PSO: 5** analyze commerce/business issues in the international contexts.

**B. Sc. – ALC302 & ALC303&ALC219**

**(Physics, chemistry, and Mathematics)**

On successful completion of UG programme, students will be able to:

**PSO 1:KNOWLEDGE**

- Acquire comprehensive knowledge with facts and figures related to various subjects in pure sciences such as Physics, Chemistry and Mathematics.
- This fundamental knowledge would reflect the latest understanding of the field.
- Apply subject knowledge and skill to diverse problems within and across disciplines.

**PSO 2: EFFECTIVE COMMUNICATION**

- Express the subject through technical writing as well as through oral presentation.
- Transmit the thoughts in a proper way.
- Cultivate confidence to present significant information in a comprehensive, obvious, and accurate way

**PSO 3: CRITICAL REASONING AND PROBLEM SOLVING**

- Solve problems/numerical using basic knowledge and concepts
- Develop scientific outlook to science subjects and towards the aspects related to life.
- Develop an inquisitive characteristic through predicting, planning exploring and interpreting experimental investigation.

#### **PSO 4: SELF-DIRECTED LEARNING AND ETHICS**

- Acknowledge and appreciate the significance of science and its application in academic, industrial, economic, environmental and social contexts
- Follow the ethical principles and responsibilities to serve the society

#### **PSO 5: INDIVIDUAL & GROUP PRESENTATION**

- Act as team player in laboratory, field-based situation and industry
- Cooperate, coordinate, and perform effectively in diverse teams/groups.
- Develop the skills of collaboration
- Work as a member of a scientific project team and communicate across teams

#### **PSO 6: TECHNOLOGICAL AND DIGITAL LITERACY**

- Use e-learning resources such as MOOC and other digital tools for lifelong learning.
- Access essential material and special ICT tools for educational needs
- Collect and store data, access library search tools, simulation software and related work
- Choose appropriate online programmes for further learning; participate in seminars and conferences

#### **PSO 7: ENVIRONMENT AND SUSTAINABILITY**

- Realize how interdisciplinary approach attributes for better solutions and new ideas for the sustainable developments
- Participate and address environmental issues, as well as take action to keep our natural world healthy

#### **PSO 8: SKILLED PROJECT MANAGER**

- Set project goals

- Acquire knowledge about project management Pertain to scientific approach in writing, planning etc

**B.Sc. - ALC201: Mathematics, Physics, Statistics**

After successful completion of three-year degree programme in Mathematics, Physics, Statistics students will be able to

**PSO 1:** Acquire the comprehensive knowledge of major concepts in Mathematics, Physics, Statistics and apply them in their higher studies.

**PSO 2:** Apply subject knowledge and skill to diverse problems within and across the disciplines.

**PSO 3:** Think analytically to solve real life problems, and arrive at a logical conclusion.

**PSO 4:** Develop critical thinking and use their scientific knowledge to carry out successful utilization of the information for the good of others.

**PSO 5:** Predict and analyze the situations by framing the hypothesis and verify the truth in that framed hypothesis through their investigations.

**PSO 6:** Make themselves available for social and developmental activities through their cooperation and overcome technical challenges

**B.Sc. -ALC204&205: Botany, Zoology, Chemistry**

**PSO 1: Core competency:** Students will acquire core competency in the subjects and will be able to identify major groups of plants, animals and basic aspects of chemistry.

**PSO 2: Analytical ability:** The students will be able to apply various scientific methods to address different questions by formulating the hypothesis, data collection and critically analyze the data to decipher the degree to which their scientific work supports their hypothesis.

**PSO 3: Critical thinking and**

**problem-solving ability:** Students will be able to understand the fundamental

concepts and their applications of biological and chemical principles and will become critical thinkers and acquire problem solving capabilities.

**PSO 4: Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern instruments and equipments for Biochemical estimation, Molecular Biology, Biotechnology, Tissue culture experiments, cellular and physiological activities of plants and animals with an understanding of the application and limitations.

**PSO 5: Ethical and Psychological strengthening:** Students will also strengthen their ethical and moral values and shall be able to deal with psychological weaknesses. Students will be able to apply ethical principles and commit to environmental ethics and responsibilities and norms of biodiversity conservation.

**PSO 6: Team Player:** Students will learn team workmanship through project works and field trips in order to efficiently serve institutions, industry and society.

**PSO 7: Independent Learner:** Apart from the subject specific skills, generic skills, especially in Botany, Zoology, Chemistry the program outcome would lead to gain knowledge and skills for further higher studies, competitive examinations and employment.

### ***B.Com. -ALC302: B. Com.,- Computers***

**PSO 1:** emerge with competency in the subject of Commerce with Computer Applications and apply knowledge to cater to the needs of Society / Employer / Institution / Own Business Enterprise.

**PSO 2:** imbibe analytical/critical/logical/innovative thinking skills in the field of Accounting Software, Marketing Principles, Enterprise Resource Planning and Web Page Creation.

**PSO 3:** acquire distinct traits and ethics with high professionalism to gain a broader insight into the domain concerned for nation building

**PSO 4:** demonstrate knowledge of major theories and models in key areas of organizational behavior

**PSO 5:** analyze commerce/business issues in the international contexts.

**B.Sc. -ALC212: BioTechnology, Microbiology, Chemistry**

**On successful completion of the program, students will be able to:**

**PSO 1 Domain Knowledge:**

- Acquire knowledge on the fundamentals of biotechnology, microbiology and chemical sciences for a sound and solid foundation.
- To understand the emerging and advanced concepts in life sciences.

**PSO 2 Learning and Research:**

- To get broad based training in technical skills in various areas of biology and chemistry
- Acquire knowledge in their domain of interest and thus enabling their applications in industry and research.
- Learn research-based knowledge including design of experiments, analysis and interpretation of data.
- Present scientific approach to solve a problem and gain experience in writing a scientific proposal.

**PSO 3 Usage of Technology**

- To upgrade themselves with the current scientific advancements through various websites and databases.
- Create social media platforms for effective upgradation on current happenings in the scientific field.
- Have knowledge of various scientific databases, retrieve and analyse the data available in them.

**PSO 4 Professional Skills and Ethics**

- Identify and address the ethical issues pertaining to science and in its research.

- Apply ethical principles and commit to follow professional ethics, norms and guidelines in the practice of science.

### **PSO 5 Effective Presentation as Individuals and in Teams**

- To understand the importance of team work
- Function effectively as an individual and a member of team with the experience from the participation in the group projects, the laboratory experiments and social extension activities.

### **PSO 6 Competent Communication & Life Skills**

- Prepare written and oral scientific communications that use tables and graphs to report results, that describe detailed experimental procedures, and that clearly explain conclusions.
- To effectively communicate with biotech and other interdisciplinary professionals.
- Be able to comprehend and write effective project reports and make effective presentations

### **PSO 7 Environmental Sustainability**

- Understand the impact of the discoveries or inventions developed through scientific methodologies, in contexts of society and the environment.
- Acquire knowledge on use of technology in consideration with environment sustainability

### **PSO 8 Contribution to Society**

- Understand their role as part of , both scientific and social societies
- Evaluate the role and positive impacts of research in developing solutions that benefit the society.

### **PSO 9 Life-long learning:**

- To understand the dynamism of science, its changing needs technologically, and thus inculcate a Positive attitude that it is a life-long learning process

**B.Sc.-ALC206,ALC216,ALC218,ALC222:**

**Mathematics-Physics-Computer Science**

- **PSO 1: Knowledge:** Understand the fundamental principles, and the scientific theories of major concepts in Mathematics, Physics, Computer science. Know their relevance in day-to-day life.
- **PSO 2: Critical reasoning and problem solving:** Analyze the given scientific data critically and think methodically to solve a problem, and draw a logical conclusion.
- **PSO 3: Skill development: Programming skills:** Develop the skills of programming, Serve as the Programmers or the Software Engineers with the sound knowledge of practical and theoretical concepts for developing software.
- **Instrumentation:** Acquire the skills in handling scientific instruments, planning and performing the laboratory experiments. Make aware and handle sophisticated instruments and equipment.
- **Communication skills:** Express the subject through technical writing as well as through oral presentations.
- **Project:** get a comprehensive idea of designing a project, and materialize it.
- **PSO 4: Higher learning & research:** Inspire for Higher learning, and Motivation towards Research.
- **PSO 5: Employability:** Students can opt for the career in the IT sector, Software development Teaching, Scientific organizations, Defence organizations.
- **PSO 6: Technological and digital literacy:** Use e-learning resources such as MOOC and other digital tools for learning all through their life. Access essential material and special ICT tools for educational needs Collect and store data, access library search tools, simulation software and related work.

*B.Sc. -ALC208, 211,217*

*Mathematics, Statistics, Computer Science*

- **PSO 1: Knowledge:** Understand the basic concepts, fundamental principles, and the scientific theories related to various scientific phenomena and their relevancies in the day-to-day life.
- **PSO 2: Problem analysis:** Analysed the given scientific data critically and systematically and the ability to draw the objective conclusions.
- **PSO 3: Programming Skills:** Serve as the Programmers or the Software Engineers with the sound knowledge of practical and theoretical concepts for developing software.
- **PSO 4: Communication skills:** Develop various communication skills such as reading, listening, speaking, etc., which we will help in expressing ideas and views clearly and effectively.
- **PSO 6: Environment and sustainability:** Developed flair by participating in various social and cultural activities voluntarily, in order to spread knowledge, creating awareness about the social evils, blind faith, etc.
- **PSO 7: Ethics:** Imbibe ethical, moral and social values in personal and social life leading to highly cultured and civilized personality

*B.Sc. -ALC207:Mathematics, Electronics, Computer Science*

**PSO 1:Critical thinking skills:** Students able to take informed actions by differentiating between fact and opinion, recognize and evaluate, develop inferential skills and distinguish logical assumption from different perceptive allow making decisions and judgments by using scientific-based reasoning.

**PSO 2: Analytical skills:** Students able to analyze and interpret concepts from a variety of methods apply these methods to analogous situations. They assess the elements of a problem and become competent at problem solving.

**PSO 3: Usage of modern tools and technologies:** Students develop scientific orientation and are at ease in the adoption of modern techniques.

**PSO 4: Effective communication:** Students develop skills like listening, speaking, reading and writing in their respective domains and become communicators.

**PSO 5: Ethics:** Students develop ethical values and contribute to nation building as responsible citizens.

**PSO 6: Self-directed and life –long learning:** Acquire the ability to engage in independent and lifelong learning in the broadest context socio-technological changes.

**PSO 7: Social interaction and sustainability:** Students develop empathy towards the societal needs and are able to contribute sustainable development and gain knowledge and skill to understand and solve environmental issues and problems

**PSO 8:Effective Project Management:** Students will Identify the goals, objectives and components of a project and decide the appropriate time of completion. Also Plan, organize and direct the endeavours of teams to achieve the set targets in time.

**PSO 9:Domain Expertise:** Students acquire comprehensive knowledge and skills then they make use of this knowledge in an innovative manner. Also effectively apply the knowledge and skills to address various issues.

**PSO 10:Project Innovation:** develop innovative skills of developing projects on different core subjects such as Mathematics, Electronics and Computer Science.

### **B. Sc.- ALC209: Visual Communication and electronic media**

**PSO 1:** To develop the ability to use critical, analytical, and deep in thought thinking and analysis in visual communication.

**PSO 2:** Media studies and its reflection on social and moral responsibilities in students' professional life.

**PSO 3:** To gain knowledge and self-confidence in the distribution of

project/research outputs in the fields of Media Arts, Design, and Visual Effects.

**PSO 4:** Apply knowledge of art history, theories and principles to traditional and digital drawing and design skills for visual communication applications relevant to modern applied art markets.

**PSO 5:** To provide adequate basic understanding about Media Education among the students and to develop language abilities of students to inculcate writing skills and Business correspondence

**PSO 6:** Design media content with professional ethics and social responsibility to meet the demands of the media environment at various levels including regional, national and global.

**PSO 7:** A better insight on film production and appreciation, Enable the students to handle still and video cameras.

### **BBA -ALC401: Bachelor of Business Administration**

#### **PSO 1: Academic Excellence & Professional Excellence:**

- Students can cope up with the latest developments in contemporary, national and global level through effective transaction of the curricular and co-curricular aspects.
- Students will be motivated for positions of leadership in business organizations at the local, national and international levels.
- To prepare graduates who will be proficient in business communication and use of contemporary technologies with academic excellence and pedagogical innovations.
- To provide the platform for the overall development of the students.
- Differentiate and discuss the functional components of business – economics, marketing, accounting, finance, law, and management

#### **PSO 2: Business Knowledge:**

- Students can demonstrate technical competence in domestic and global

business through the study of major disciplines within the fields of business.

- To provide adequate basic understanding about the basic principles of Management Education among the students.
- To prepare students to exploit opportunities being newly created in the Management Profession.
- To impart the knowledge of functional areas of management like HR, finance and marketing.
- Demonstrate proficiency in the fundamental business principles and practices that enable successful firms to operate in domestic and global environments.

**PSO 3: Critical Thinking Skills:**

- Students are able to define, analyze, and devise solutions for structured and unstructured business problems and issues using cohesive and logical reasoning patterns for evaluating information, materials, and data.
- Students can identify the business-related problems and can able to apply different business-related tools and techniques to solve the problem and to interpret results.
- To make them employable through demonstration of ability to solve problems.
- To prepare graduates who will be industrial ready, futuristic approach, encouraging student-centric culture.
- Demonstrate the ability to recognize the need for information, be able to identify, locate, evaluate, share and apply the information effectively to facilitate problem- solving and decision-making

**PSO 4: Communication Skills:**

- Students are able to conceptualize a complex issue into a coherent written statement and oral presentation.
- To train the students in communication skills effectively.

- Students can communicate clearly in person and through electronic media and make meaning of the world by connecting people, ideas, media and technology.
- To build self-confidence and improve communication skills.
- To Demonstrate written and oral skills appropriate for business communication

#### **PSO 5: Entrepreneurship and Innovation:**

- Students can demonstrate the fundamentals of creating and managing innovation, new business development, and high-growth potential entities.
- To develop appropriate skills in the students so as to make them competent and provide themselves self-employment.
- To inculcate Entrepreneurial skills.
- Facilitating students to “Think out of box”
- Employ empirical approaches to planning and decision-making using quantitative reporting mechanisms.

#### **PSO 6: Individual and team work:**

- Students can function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- To work well in teams, including virtual settings.
- Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- Construct and apply aspects of team development and construct for the purpose of solving business problems and attaining organizational goals

#### **PSO 7: Technology Skill**

**Students are competent in the uses of technology in modern organizational operations.**

- To help students to make appropriate decisions by analyzing data.
- Apply appropriate quantitative and qualitative techniques in solving business problems.

- Analyse the theoretical knowledge with the practical aspects of Organizational setting and techniques or management.
- Use analytical and reflective thinking techniques to identify and analyze business problems, develop viable solutions, and make effective decisions.
- Specify the role of technology as a strategy for competitive advantage in business.

**PSO 8: Ethics:**

- Apply ethical principles and commit to professional ethics and responsibilities and norms of the Management practice.
- Students can recognize different Social and Ethical issues relating to business and research aspects.
- Understand the dynamic and complex working environment of Business.
- Analyze business and organizational situations using ethical approaches to decision making
- Identify ethical issues that impact business decisions from economic, political, legal, and social perspectives.
- Employ a sense of ethics and values which can be applied in a personal and professional environment

**PSO 9: Environment and sustainability:**

- Students can understand the impact of the professional solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- Understand of the corporate world
- Determine the various PEST (Political, Economic, and Social Technological) factors influence on changes of business environment.

**PSO 10: Project management and finance:**

- Demonstrate knowledge and understanding of the management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

- To enhance the critical evaluation capability of the students.
- Determine conceptual and analytical abilities required for effective decision making.
- Analyze business problems through quantitative reasoning and methods by obtaining, evaluating and interpreting the data
- **PSO 11: Life-long learning:**
- Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.
- To inculcate professionalism in education through focused initiatives.
- Opportunities to explore hidden strengths

***B.Sc. -ALC212:Food Technology, Microbiology, Chemistry***

On successful completion of the program, students will be able to:

**PSO 1: Domain Knowledge:**

- After successful completion of the program, students will have knowledge on the fundamentals of food chemistry and biochemical changes during processing, preservation and packaging of various classes of food.
- Also students will be able to understand food safety and apply sensory evaluation of food, analyze various food safety laws, regulations and acts.

**PSO 2: Learning and Research:**

- To get broad based training in technical skills in various areas of food technology, microbiology and chemistry Acquire knowledge in their domain of interest and thus enabling their applications in industry and research.
- Learn research-based knowledge including design of experiments, analysis and interpretation of data.
- Present scientific approach to solve a problem and gain experience in writing scientificproposals.

### **PSO 3: Usage of Technology:**

- To upgrade themselves with the current scientific advancements through various websites and databases.
- Create social media platforms for effective upgradation on current happenings in the scientific field.
- Have knowledge of various scientific databases, retrieve and analyze the data available in them.

### **PSO 4: Professional Skills and Ethics**

- Identify and address the ethical issues pertaining to science and in its research.
- Apply ethical principles and commit to follow professional ethics, norms and guidelines in the practice of science.

### **PSO 5: Effective Presentation as Individuals and in Teams:**

- To understand the importance of teamwork. Function effectively as an individual and a member of team with the experience from the participation in the group projects, the laboratory experiments and social extension activities.

### **PSO 6: Competent Communication & Life Skills:**

- Prepare written and oral scientific communications that use tables and graphs to report results, that describe detailed experimental procedures, and that clearly explain conclusions.
- To effectively communicate with food technology and other interdisciplinary professionals.
- Be able to comprehend and write effective project reports and make effective presentations

### **PSO 7: Environmental Sustainability:**

- Understand the impact of the discoveries/innovations or inventions developed through scientific methodologies, in contexts of society and environment.
- Acquire knowledge on use of technology in consideration with environment sustainability

### **PSO 8: Contribution to Society:**

- Understand their role as part of, both scientific and social societies
- Evaluate the role and positive impacts of research in developing solutions that benefit the society.

### **PSO 9: Life-long learning:**

- To understand the dynamism of science, its changing needs technologically, and thus inculcate a positive attitude that it is a life-long learning process

### ***B.Sc. -ALC213:B. Sc.,- Electronics Technology***

- **PSO 1: Critical thinking skills:** Students able to take informed actions by differentiating between fact and opinion, recognize and evaluate, develop inferential skills and distinguish logical assumption from different perspective allow making decisions and judgments by using scientific-based reasoning.
- **PSO 2: Analytical skills:** Students able to analyze and interpret concepts from a variety of methods apply these methods to analogous situations. They assess the elements of a problem and become competent at problem solving.
- **PSO 3: Usage of modern tools and technologies:** Students develop scientific orientation and are at ease in the adoption of modern techniques.
- **PSO 4: Effective communication:** Students develop skills like listening, speaking, reading and writing in their respective domains and become communicators.
- **PSO 5: Ethics:** Students develop ethical values and contribute to nation building as responsible citizens.
- **PSO 6: Self-directed and life –long learning:** Acquire the ability to engage in independent and lifelong learning in the broadest context of socio-technological changes.
- **PSO 7: Social interaction and sustainability:** Students develop empathy towards the societal needs and are able to contribute sustainable development and gain knowledge and skill to understand and solve environmental issues and problems

- **PSO 8: Effective Project Management:** Students will Identify the goals, objectives and components of a project and decide the appropriate time of completion. Also Plan, organize and direct the endeavors of teams to achieve the set targets in time.
- **PSO 9: Domain Expertise:** Students acquire comprehensive knowledge and skills then they make use of this knowledge in an innovative manner. Also effectively apply the knowledge and skills to address various issues.
- **PSO 10: Project Innovation:** Develop innovative skills of developing projects on different core subjects such as Electronics and Computer Science. This will enhance understanding through practicals and hands-on practice.

### *B.Com-ALC303:Professional*

**PSO 1:** Students will demonstrate a deep understanding of various aspects of commerce, including accounting principles, financial management, taxation, business law, and economics.

**PSO 2:** Students will develop practical skills in handling financial data, conducting financial analysis, preparing financial statements, and utilizing accounting software effectively.

**PSO 3:** Graduates will exhibit ethical behavior and professional integrity in all aspects of their work, adhering to established accounting and business standards and regulations.

**PSO 4:** Students will be proficient in oral and written communication, enabling them to effectively convey financial information and analysis to stakeholders within and outside the organization.

**PSO 5:** Graduates will be able to analyze complex business situations, identify problems, and propose appropriate solutions using analytical and critical thinking skills.

**PSO 6:** Students will demonstrate the ability to work effectively in teams, contributing their expertise to achieve common goals in diverse business

environments.

**PSO 7:** Graduates will cultivate an entrepreneurial mindset, allowing them to identify opportunities, assess risks, and make informed business decisions to create value in various organizational contexts.

**PSO 8:** Students will develop an understanding of global business practices, international trade, and economic trends, enabling them to operate successfully in a globalized economy.

**PSO 9:** Graduates will recognize the importance of lifelong learning and adaptability in a dynamic business environment, continuously updating their skills and knowledge to stay relevant in their field.

**PSO 10:** Students will acquire basic leadership and management skills necessary for supervisory and managerial roles in business organizations, including decision-making, problem-solving, and resource allocation.

### **B.Vocational- ALC502: Renewable Energy Management**

PSO 1: Graduates will demonstrate a comprehensive understanding of renewable energy sources, technologies, and their applications in various sectors.

PSO 2: Students will develop practical skills in designing, installing, and maintaining renewable energy systems, including solar photovoltaic, wind, hydroelectric, and biomass systems.

PSO 3: Graduates will adhere to ethical standards and sustainable practices in the planning, implementation, and management of renewable energy projects, considering environmental and social impacts.

PSO 4: Students will effectively communicate technical information related to renewable energy systems, both orally and in writing, to stakeholders including clients, colleagues, and policymakers.

PSO 5: Graduates will demonstrate critical thinking and problem-solving abilities, analyzing renewable energy data and proposing innovative solutions to address challenges in the renewable energy sector.

PSO 6: Students will collaborate effectively in multidisciplinary teams, integrating knowledge from various fields to develop comprehensive renewable energy solutions.

PSO 7: Graduates will exhibit an entrepreneurial mindset, identifying opportunities for renewable energy projects, assessing risks, and developing viable business plans.

PSO 8: Students will gain insights into global renewable energy trends, policies, and regulations, enabling them to contribute effectively to the global transition to renewable energy sources.

PSO 9: Graduates will engage in lifelong learning and professional development, staying updated with advancements in renewable energy technologies and practices.

PSO 10: Students will acquire leadership and management skills necessary to oversee renewable energy projects, including project planning, budgeting, and resource management.

### **B.Vocational- ALC501: Paramedical and Hospital Administration**

PSO 1: Graduates will demonstrate comprehensive knowledge of paramedical sciences, including anatomy, physiology, pathology, and pharmacology, with a focus on their application in clinical settings.

PSO 2: Students will develop practical skills in patient care, medical procedures, diagnostic techniques, and emergency response, ensuring efficient and compassionate healthcare delivery.

PSO 3: Graduates will possess proficiency in hospital administration principles and practices, including healthcare management, finance, human resources, and regulatory compliance.

PSO 4: Students will demonstrate effective communication skills, both verbal and written, in interacting with patients, healthcare professionals, and administrative staff in healthcare settings.

PSO 5: Graduates will exhibit critical thinking and problem-solving abilities, analyzing healthcare data, identifying issues, and implementing solutions to enhance patient care and operational efficiency.

PSO 6: Students will collaborate effectively in multidisciplinary healthcare teams, contributing their expertise to provide holistic patient care and optimize healthcare outcomes.

PSO 7: Graduates will demonstrate an understanding of ethical and legal considerations in healthcare delivery, maintaining patient confidentiality and upholding professional standards of conduct.

PSO 8: Students will acquire knowledge of healthcare policies, regulations, and accreditation standards, ensuring compliance and quality improvement in healthcare organizations.

PSO 9: Graduates will engage in continuous learning and professional development, staying updated with advancements in paramedical sciences, healthcare administration, and healthcare technology.

PSO 10: Students will acquire leadership and management skills necessary to lead healthcare teams, manage healthcare facilities, and address challenges in healthcare administration effectively

### ***B.Sc.- ALC220:Maths, Computer Science, Pharmaceutical Chemistry***

PSO 1: Graduates will demonstrate a comprehensive understanding of mathematical concepts, theories, and techniques applicable to various fields, including computer science and pharmaceutical chemistry.

**PSO 2:** Students will develop proficiency in programming languages, algorithms, data structures, and software development methodologies, enabling them to design and implement efficient software solutions for real-world problems.

**PSO 3:** Graduates will acquire a strong foundation in chemistry, with a focus on pharmaceutical applications, including drug synthesis, analysis, formulation, and quality control.

**PSO 4:** Students will demonstrate proficiency in mathematical modeling and computational techniques for solving complex problems in computer science, chemistry, and interdisciplinary areas.

**PSO 5:** Graduates will possess analytical and problem-solving skills, utilizing mathematical and computational methods to analyze data, identify patterns, and make informed decisions in scientific and technological domains.

**PSO 6:** Students will effectively communicate technical concepts and research findings, both orally and in writing, to diverse audiences including peers, professionals, and the general public.

**PSO 7:** Graduates will collaborate effectively in multidisciplinary teams, integrating knowledge from mathematics, computer science, and pharmaceutical chemistry to address interdisciplinary challenges.

**PSO 8:** Students will demonstrate an understanding of ethical principles and professional responsibilities in scientific research, adhering to standards of integrity and safety in laboratory and computational work.

**PSO 9:** Graduates will engage in lifelong learning and professional development, staying abreast of advancements in mathematics, computer science, and pharmaceutical chemistry through continuing education and self-directed study.

**PSO 10:** Students will acquire leadership and project management skills necessary to lead scientific research projects, manage resources, and collaborate with stakeholders in academic, industrial, and governmental settings.

### **BBA -ALC403: Aviation Management**

**PSO 1:** Provide adequate basic understanding about Management Education among the students and to develop language abilities of students to inculcate writing skills and Business correspondence.

**PSO 2:** Evaluate different business problems using analytical and creative, and integrative abilities and to solve business problems in an ethical manner.

**PSO 3:** Understand finance and other core business content and new venture development.

**PSO 4:** Develop and implement functional and general management skills to make strategic decision in real era.

**PSO 5:** Build and Demonstrate Leadership, Teamwork, Social skills and Communicate effectively in different contexts.

**PSO 6:** Facilitate the students to go for professional courses and to develop ethical reasoning, professional behaviour and entrepreneurial skills.

**PSO 7:** To prepare professional quality business documents and deliver a professional quality business presentation and to develop a global perspective towards various legal issues.

**PSO 8:** Can work across multiple functions like operations, trading, project management, consulting, systems / technologies.

**PSO 9:** Can work in Public or Private Sectors, Consulting Firms, Funding agencies, Power trading and financing companies.

**PSO 10:** Move to managerial Positions in Power & related industries or move up in career.

### ***MCA – ALCMCA: Master of Computer Applications***

#### **Program Specific Outcomes (PSOs)**

PSO 1: Develop an ability to apply knowledge in the computing discipline

PSO 2: Develop ability to design and conduct experiments, as well as interpret data

PSO 3: Develop ability to demonstrate team work with the ability of leadership, analytical reasoning for solving time critical problems and strong human values for responsible

PSO 4: Develop ability to use current technologies, skills and models for computing practice

PSO 5: Develop ability to communicate ideas effectively

PSO 6: Develop ability to use research, experiment, contemporary issues to solve industrial problems.

PSO 7: Develop techniques to enhance ability for lifelong learning.

PSO 8: Develop class environment congenial and competitive for generation of ideas, innovation and sharing.

PSO 9: To make graduates understand cross cultural, societal, professional, legal and ethical issues prevailing in industry.

### **MBA – ALCMBA : Master of Business Administration**

#### **Program Specific Outcomes (PSOs)**

PSO 1: To enhance the students competencies with needful domain knowledge, skills and

attitude requisite to contribute effective leadership in an international business environment

PSO 2: To grow efficient management professionals by Powerful ethical values, ability to

take crucial role in various industries of the Indian Economy

PSO 3: To infuse proactive thought process to assure productive performance in the dynamic

Business environment

PSO 4: Ability to improve entrepreneurial skills

PSO 5: To flourish the skill set to evaluate the business data, application of applicable analysis, and resolving the problems in other functional areas such as marketing management, human resource management and financial management.

### **M.Sc. – ALCMAT: M.Sc – Mathematics**

#### **Program Specific Outcomes (PSO's)**

Post graduate of the Mathematics Program will demonstrate

PSO 1: Ability to apply the knowledge of mathematical concepts in inter-disciplinary fields.

PSO 2: Understand the nature of abstract mathematics and explore the concepts in further details.

PSO 3: Focus on Mathematical science and its application.

PSO 4: Ability to aim at preparing you for the career of a scientist or an expert in many different spheres such as industry, banking or insurance services.

PSO 5: Equip students with analytic and problem-solving skills.

PSO 6: Ability to develop aptitude skills and apply mathematical methods and ideas in any area of inquiry.

### *M.Sc. – ALCBOT: Botany*

Post graduate of the Botany Program will demonstrate

PSO 1: Identify classify the plants by using the key characters.

PSO 2: Prepare and view specimens for examination using light microscopy

PSO 3: Use pure culture and selective techniques to isolate fungi, plant pathogens, algae and identify them growing on media.

PSO 4: Qualitative and quantitative estimate the number of floral components by using Enumeration and suitable sampling and techniques.

PSO 5: Use appropriate plant molecular techniques and use of instrumentation related to it.

PSO 6: Practice safe laboratory procedures, using appropriate protective, biosafety and Emergency procedures.

PSO 7: Documentation and report writing on experimental protocols, results and conclusions, study tours and field visits etc.

PSO 8: Students would perform functions that demand higher competence in national/international organizations with sports and helping spirits. Prepare the students for many competitive exams like APSET, CSIR NET, ICAR, and TIFR.

### *M.Sc. – ALCPHY: – Physics*

#### **Programme Specific Outcomes (PSOs)**

Post graduate of the Physics Program will demonstrate

PSO 1: Have well-defined knowledge on theoretical concepts and experimental methods of advanced physics (Classical mechanics, Mathematical physics, Integrated electronics, Microprocessor etc.)

PSO 2: Apply and interpret physics principles in various physical observations and will have the necessary numerical and transferable skills to allow them to move into a range of more general career choices such as accounting or computing

PSO 3: Acquire skills in performing advanced physics experiments in the areas such as nuclear physics, electronics and lasers and projects using modern technology.

PSO 4: A research oriented learning that develops analytical and integrative problem-solving approaches and to prepare for deeper research experience in an area of materials science.

PSO 5: Graduates from this programme will be eligible to continue research at the higher degree (Ph.D) level in the area of materials science. They will be well qualified to obtain occupation in research and development, in scientific or engineering industries.

PSO 6: Have fundamental and advanced level knowledge in the field of materials science particularly glass science and thermo acoustic study of different liquid mixtures with their applications in industry for advanced applications.

### *M.Sc. – ALCHE: Chemistry*

#### **Program Specific Outcomes (PSOs)**

Post graduate of the chemistry Program will demonstrate

PSO 1: Focus on the significance of statistical rules and apply them in quantitative analysis

PSO 2: Ability to apply knowledge of various kinds of titrations, separation, purification techniques, oxidizing and reducing agents, oxidation, reduction reactions, retrosynthetic approach in organic synthesis and quantitative analysis.

PSO 3: Analyze the applications, structure, bonding, spectral, magnetic and stability parameters of molecules, 4f, 5f elements transition metal complexes, metal clusters, organometallic compounds and biomolecules.

PSO 4: Apply the concepts of chirality, isomerism, stereochemistry, conformational analysis, named reactions, synthetic organic reactions, protecting

and deprotecting agent's aromaticity, reactive intermediate mechanism and stereochemistry of addition, elimination and substitution reactions in designing reaction mechanisms and analysing the stereochemical, conformational and properties of the synthesized organic compound

PSO 5: Ability to apply the concepts related to surface chemistry, electrochemistry, thermodynamics and Polymers

PSO 6: Interpret the IR and Raman spectral data with the concepts of symmetry and group theory.

PSO 7: Elucidate the sources, ill-effects of Air, water, and soil Pollution on environment and its controlling measures.

PSO 8: Capability to conduct different types of reactions in nonaqueous solvents

PSO 9: Inculcate awareness on natural resources, ecosystems and how to conserve them.

PSO 10: Articulate the interdisciplinary context of environmental issues.

PSO 11: Identify and justify key stakeholders in humanities and social sciences that need to be a part of sustainable solutions

PSO 12: Ability to apply different types of Rearrangements, Pericyclic and Photochemical reactions on different substrates and target molecules.

PSO 13: Focus on the theoretical and applicative aspects of various spectroscopic techniques like microwave, IR, Raman, ESR, proton C13 NMR, Mass, 2DNMR, ORD and CD in interpreting the spectral data for functional group identification and structural elucidation of organic compounds.

PSO 14: Equip the students with the physical and chemical properties, preparation, characterization and applications of Nanomaterials.

PSO 15: Ability to synthesize of organic compounds by applying retero synthetic technique.

PSO 16: Evaluate the reactivity, synthesis and applications of organoboranes organosilanes and heterocyclic compounds

PSO 17: Emphasize the importance of organometallic reagents natural products on

organic reactions and in developing synthetic routes

PSO 18: Ability to understand the nomenclature, physiological action, isolation, occurrence and general methods of structural elucidation and stereochemistry of natural products and antibiotics



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