VIGNAN'S
Foundation for Science, Technology & Research
(Deemed to be University)
-Estd. u/s 3 of UGC Act 1956

Programme Outcomes (POs), Programme Specific Outcomes(PSOs) and Programme Educational Objectives (PEOs) of the Programmes offered by the University

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Program Outcomes (POs)

Program Specific Outcomes (PSOs)

Program Educational Objectives (PEOs)

Program Outcomes (Common to All B.Tech Programmes)

PO1. **Engineering knowledge**: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2. **Problem analysis**: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3. **Design/development of solutions**: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4. **Conduct investigations of complex problems**: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5. **Modern tool usage**: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO6. **The engineer and society**: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7. **Environment and sustainability**: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8. **Ethics**: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9. **Individual and team work**: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

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

PO11. **Project management and finance**: Demonstrate knowledge and understanding of the engineering and 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.

PO12. **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.

B.TECH. – BIOTECHNOLOGY

Program Educational Objectives (PEOs):

PEO1: Demonstrate consistently high technical competency in handling the plant, animal and microbial biotechnology for employability.

PEO2: Develop understanding between biological sciences and engineering processes.

PEO3: Effectively function as an individual/team member in a multi-disciplinary environment with ethical values and lifelong learning.

Program Specific Outcomes (PSOs):

PSO1: Apply the principles of biology and process engineering for manufacturing of bio products.

PSO2: Adopt cell culture techniques to augment diagnostic skills.

PSO3: Develop solutions for sustainable environment and health using computational tools and molecular techniques**.**

B.TECH. - CHEMICAL ENGINEERING

Program Educational Objectives (PEOs)

PEO1: Attain excellence in engineering and design through education in the principles and practices of Chemical Engineering.

PEO2: Enable the students to become future leaders in engineering practices for the overall betterment of society and instil in them a work culture based on foundations of ethics, scientific temperament and team work.

PEO3: Equip the students with knowledge, understanding and applications of Chemical Engineering tools for enabling them to pursue innovative research.

Program Specific Outcomes (PSOs)

PSO1: Apply the principles and practices of Chemical Engineering discipline along with the basic sciences and humanities to solve the complex engineering problems concerning the issues of environment, safety, economics, culture and society etc.

PSO2: Acquire and apply the new knowledge with professional responsibility and ethics towards the advancement of academic and research pursuits in chemical and allied disciplines in the societal contexts.

PSO3: Design, develop and modify the chemical processes and to analyze these by applying the physicochemical and biological techniques.

B.TECH. - CIVIL ENGINEERING

Program Educational Objectives (PEOs)

PEO1: Professionally design and execute Civil Engineering projects.

PEO2: Successfully address technological and managerial challenges.

PEO3: Graduates of the programme will reveal lifelong learning and team work in their profession.

Program Specific Outcomes (PSOs)

PSO1: Ability to apply principles of Civil Engineering for the entire life cycle of the project ranging from initial design to the closure of the project.

PSO2: Demonstrate proficiency in one the following specialized areas of Civil Engineering Construction Materials a Management, Structural and Geotechnical Engineering, Environmental and Water Resources Engineering, Transportation Engineering and Remote Sensing & Geographic Information Systems.

B.TECH. – COMPUTER SCIENCE AND ENGINEERING

Program Educational Objectives (PEOs)

PEO1: Pursue successful professional career in IT and IT-enabled industries.

PEO2: Pursue lifelong learning in generating innovative engineering solutions using research and complex problem-solving skills.

PEO3: Demonstrate professionalism, ethics, inter-personal skills and continuous learning to develop leadership qualities.

Program Specific Outcomes (PSOs)

PSO1: Application Development Skills: Design and development of web applications using various technologies such as HTML, JSP, PHP, ASP and ASP.NET to cater the needs of the society.

PSO2: Enrich Research Skills: Offer solutions which impact geo-socio-economic and Environmental scenario by using Machine Learning, Artificial Intelligence and IoT**.**

B.TECH - ELECTRONICS AND COMMUNICATION ENGINEERING

Program Educational Objectives (PEOs)

PEO1: Apply the concepts of electronics, communication and computation to pursue career in core and allied industries to solve industrial and societal problems.

PEO2: Pursue higher education to progress professionally in contemporary Technologies and multidisciplinary fields with an inclination towards continuous learning.

PEO3: Exhibit professional skills, ethical values, interpersonal skills, leadership abilities, team spirit and lifelong learning.

Program Specific Outcome (PSOs)

PSO1: Analyse and design electronic systems for signal processing, communications and other applications.

PSO2: Develop Solutions for various problems using Embedded Systems and Internet of Things.

PSO3: Apply domain specific knowledge to design, analyse, synthesize and validate the VLSI systems.

B. TECH - ELECTRICAL AND ELECTRONICS ENGINEERING

Program Educational Objectives (PEOs)

PEO1: Pursue career in electrical and allied fields in private/ public sector (or) as an entrepreneur.

PEO2: Design, invent and develop novel technology and find creative, innovative solutions to engineering problems through interdisciplinary approach.

PEO3: Apply professional knowledge to solve technical and social problems in economical way by following ethics.

Program Specific Outcome (PSOs)

PSO1: Design and analyse circuit components, systems that effectively generate, transmit, distribute and utilize electrical power.

PSO2: Apply the appropriate analog, digital techniques and modern engineering software tools in electrical engineering to engage in lifelong learning.

B.TECH INFORMATION TECHNOLOGY

Programme Educational Objectives (PEOs)

PEO1: Pursue a successful career in IT and related sections.

PEO2: Expose to emerging tools and techniques of Information Technology.

PEO3: Demonstrate professional attitude, and ethics, communication, and teamwork skills, and ability to relate IT issues with social awareness.

Programme Specific Outcomes (PSOs)

PSO1: Proficiency in analytical and logical skills for the design, development, testing and maintenance of software.

PSO2: Apply cutting-edge technologies for devising cost-effective solutions.

B. TECH – MECHANICAL ENGINEERING

Program Educational Objectives (PEOs)

PEO1: Employable and Entrepreneur in Mechanical and allied fields in the areas of Automotive, Manufacturing and Service sector.

PEO2: Pursue higher education in emerging fields like robotics and automation in Manufacturing, Energy & Safety Engineering, and Industrial Engineering etc.

PEO3: To exhibit communication skills, team spirit, leadership qualities, lifelong managerial skills, lifelong learning ability, professional ethics and human values in profession/career.

Program Specific Outcome (PSOs)

PSO1: Expertise in handling machines of Manufacturing and emerging areas of Automation.

PSO2: Design components for automotive applications.

PSO3: Fabrication and Characterization of Composites and nanomaterial's.

B.TECH - AUTOMOBILE ENGINEERING

Program Educational Objectives (PEOs)

PEO1: Graduates can excel in their professional career and higher studies with a strong foundation in automobile engineering.

PEO2: Graduates can design and develop any automotive system with their acquired knowledge on automotive design, manufacturing and familiarity with CAD/CAE.

PEO3: Graduates will have the capacity and willingness to become entrepreneur in the field of automobile engineering with a strong sense of responsibility to serve their profession and society in ethical manner.

PEO4: Graduates will exhibit strong communication and interpersonal skills, broad knowledge and an understanding of multicultural and global perspectives to work effectively in multidisciplinary teams, both as team members and as leaders.

Program Specific Outcomes (PSOs)

PSO1: Automotive System Analysis and Testing: Identify, formulate and solve Automobile Engineering problems and to work in research laboratory and multidisciplinary tasks in Automobile Engineering.

PSO2: Automotive Design and Development: Analyze, design, conduct experiments, and interpret data of an automobile system to meet the requirements of an automobile industry and to solve problems related to Automobile Engineering by using modern engineering tools and software.

B.TECH - TEXTILE TECHNOLOGY

Program Educational Objectives (PEOs)

PEO1: Production Process and Solution to Problems: Graduates are competent in textile production processes and be able to identify problems and suggest suitable solutions

PEO2: Modern tools & Technology and Ethics: Graduates use latest tools and technology for the production of textile materials and serve society in an ethical manner

PEO3: Skills, Entrepreneurship and Life Long Learning: Graduates will exhibit skills in their career and develop entrepreneurial culture through life-long learning

Program Specific Outcomes (PSOs)

PSO1: Application of Basic Concepts: Apply fundamental concepts in the areas of spinning, weaving, testing, garment making and processing.

PSO2: Solution for Industrial Problems: Solve industrial problems in textile industries considering environmental issues to improve the quality and productivity.

PSO3: Moral Values: Demonstrate social and ethical responsibilities relevant to textile industries.

B. TECH – AGRICULTURE ENGINEERING

Program Educational Objectives (PEOs)

PEO1: Develop diverse capability to work with tractor and implement manufacturing industries, seed processing industries, irrigation and drainage companies and also to run self - entrepreneurship like dairy farming and custom hiring centres.

PEO2: Take up higher studies in reputed institutes and motive towards innovative research by applying their skills in agricultural water management, farm machinery and power, processing and energy management systems in agriculture.

PEO3: Understand the issues of ethics, safety, professionalism, cultural diversity, globalization, environmental impact and responsibility of serving the society and the environmental issues.

Program Specific Outcomes (PSOs)

PSO1: Utilize adequate knowledge in different disciplines of agricultural engineering to gain better employment in various industries of agricultural engineering.

PSO2: Use their expertise in planning judicious utilization of natural recourses and their management through advanced soil and water conservation techniques and various irrigation and drainage methods with the skill of data interpretation.

PSO3: Develop skills necessary to design the process and evaluate and come out with problem solutions of farm implements through adequate farm power for sustainable agriculture.

PSO4: Apply the comprehensive knowledge of engineering properties of agricultural produce for upgrading the unit operation and further develop effective value added technologies and become strong in quality control.

B.TECH - BIOINFORMATICS

Program Educational Objectives (PEOs):

PEO1: Display consistently with high technical competency the software tools for the Analysis of genomes and proteomes for employability.

PEO2: Develop to integrate molecular events with software programs.

PEO3: Effectively function as an individual/team member in a multidisciplinary environment with ethical values and life-long learning.

Program specific outcomes (PSOs):

PSO1: Apply the informatics tools to develop databases in the fields of biomedical sciences and biodiversity conservation.

PSO2: Adapt the genomics tools to design personalized drugs.

PSO3: Develop solutions in biomedical and conservation biology using bioinformatics tools.

B.TECH – FOOD TECHNOLOGY

Program Educational Objectives (PEOs)

PEO1: Graduates will demonstrate professional competency in Food Technology to solve problems in food science, food engineering and processing with environmental, safety and quality concerns.

PEO2: Graduates will emerge as experts in recent techniques and skills which are essential in the field of food technology.

PEO3: Graduates will perform as an individual and member of a team with professional and ethical behaviour.

Program Specific Outcomes (PSOs)

PSO1: Implement and integrate the basic knowledge of process engineering and technology in food formulation and new food products for developing commercial products.

PSO2: Develop techniques and tools for new food products/process at laboratory level and mass production.

PSO3: Design time saving and labour saving hygienic food processing equipment for producing quality and safe food products.

B.TECH – BIOMEDICAL ENGINEERING

Program Educational Objectives (PEOs)

PEO1: Analyse problems and find solutions in allied domains using multidisciplinary approach.

PEO2: To carry out critical and creative analyses in designing bio medical equipment's with latest engineering tools and techniques.

PEO3: Disseminate professional skills for ethical and societal responsibilities.

Program Specific Outcomes (PSOs)

PSO1: Design hardware and software systems for modern biomedical instruments and applications.

PSO2: Use and demonstrate the modern techniques and engineering tools to give solution to biomedical engineering challenges.

PS03: Function effectively with in multidisciplinary teams to understand the precepts of effective project management.

B.TECH - PETROLEUM ENGINEERING

Program Educational Objectives (PEOs)

PEO1: To provide quality education to produce qualified employable petroleum engineers, who effectively apply the knowledge of mathematics, science, engineering fundamentals, and petroleum engineering specialization to identify, formulates, analyse, investigate and design solution of complex problems in oil and gas industry using modern tools.

PEO2: To inculcate effective communication skill, ethics, leaderships qualities, engineering and management principles to act as technical leaders in the world of oil and gas industry working individually and in a team.

PEO3: To inculcate the ability to engage in research and life-long learning in the broadest context of technological change for positive transformation in oil and gas industry through innovation, and transformation of fundamental scientific discovery into applied industrial applications with social responsibility and are able to pursue higher studies and research in areas of engineering and other professionally related fields.

Program Specific Outcomes (PSOs)

PSO1: Our graduates will possess the knowledge and skills of geology, geophysics, reservoir engineering, modelling and simulation, drilling, completion, production, workover and risk to understand and address problems related to upstream oil and gas industry and develop innovative solutions that meet the needs of multiple stakeholders

PSO2: Our graduates will possess the knowledge and skills of refining, process engineering, gas engineering, petrochemicals, storage transport, corrosion, health, safety and environment to understand and address problems related to downstream oil and gas industry and develop innovative solutions that meet the needs of multiple stakeholders.

PSO3: Our graduates will recognize the value of continuing professional development throughout their career. This may take the form of advanced degrees, industry courses, and formal mentoring and coaching.

B.TECH - CSE - ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

Program Educational Objectives (PEOs)

PEO 1: Pursue a successful professional career in IT and IT-enabled industries.

PEO 2: Pursue lifelong learning in generating innovative engineering solutions using research and complex problem-solving skills.

PEO 3: Demonstrate professionalism, ethics, inter-personal skills and continuous learning to develop leadership qualities.

Program Specific Outcomes (PSOs)

PSO 1: Data Science for Life: Ability to represent the knowledge and predicate logic and then transform the real-life information into a different representation.

PSO 2: AI Application Development: Design and Develop Deep Learning Models on the Cloud System using Cloud Services like Amazon Web Services, Microsoft Azure, Hadoop System, etc., to work on AI & ML for providing solutions to Geo-Socio-Economic problems.

B.TECH – CSE – CYBER SECURITY

Program Educational Objectives (PEOs)

PEO1: Pursue a successful professional career in IT and IT-enabled industries.

PEO2: Pursue lifelong learning in generating innovative engineering solutions using research and complex problem-solving skills.

PEO3: Demonstrate professionalism, ethics, inter-personal skills and continuous learning to develop leadership qualities.

Program Specific Outcomes (PSOs)

PSO1: Ability to Design and Develop Secure Structured Network Mode.

PSO2: Ability to Develop a Solution to Secure Organization Information System.

PSO3: Ability to Identify Network vulnerabilities and detect attacks and resolve them.

B.TECH CSE – COMPUTER SCIENCE AND BUSINESS SYSTEMS

Program Educational Objectives (PEOs)

PEO1: Pursue a successful professional career in IT and IT-enabled industries.

PEO2: Pursue lifelong learning in generating innovative engineering solutions using research and complex problem-solving skills.

PEO3: Demonstrate professionalism, ethics, inter-personal skills and continuous learning to develop leadership qualities.

Program Specific Outcomes (PSOs)

PSO1: Ability to Design, Develop and Test software systems for the organizational need to provide solutions for real-world problems.

PSO2: Ability to Explore and Endorse the suitable IT infrastructure essential for the execution of a project.

B.TECH. ROBOTICS AND AUTOMATION

Program Educational Objectives (PEOs)

PEO 1: Employable and Entrepreneur in the fields of Automation and allied sectors.

PEO 2: Apply the Emerging technologies like IoT, AIML Techniques in the field of automation.

PEO 3: Exhibit communication skills, team spirit, leadership qualities with lifelong learning skills by following code of ethics.

Program Specific Outcomes (PSOs)

PSO 1: Expertise in modelling the robotic autonomous systems.

PSO 2: Develop algorithms for motion Planning and mapping of field and service robots.

PSO 3: Analyse the sensor data through machine vision techniques.

B.PHARMACY

Program Outcomes (POs)

PO1-Pharmacy Knowledge: Possess knowledge and comprehension of the core and basic knowledge associated with the profession of pharmacy, including biomedical sciences; pharmaceutical sciences; behavioural, social, and administrative pharmacy sciences; and manufacturing practices.

PO2-Planning Abilities: Demonstrate effective planning abilities including time management, resource management, delegation skills and organizational skills. Develop and implement plans and organize work to meet deadlines.

PO3-Problem analysis: Utilize the principles of scientific enquiry, thinking analytically, clearly and critically, while solving problems and making decisions during daily practice. Find, analyze, evaluate and apply information systematically and shall make defensible decisions.

PO4-Modern tool usage: Learn, select, and apply appropriate methods and procedures, resources, and modern pharmacy-related computing tools with an understanding of the limitations.

PO5-Leadership skills: Understand and consider the human reaction to change, motivation, issues, leadership and team-building when planning changes required for fulfilment of practice, professional and societal responsibilities. Assume participatory roles as responsible citizens or leadership roles when appropriate to facilitate improvement in health and wellbeing.

PO6-Professional Identity: Understand, analyze and communicate the value of their professional roles in society (e.g. health care professionals, promoters of health, educators, managers, employers, employees).

PO7-Pharmaceutical Ethics: Honour personal values and apply ethical principles in professional and social contexts. Demonstrate behaviour that recognizes cultural and personal variability in values, communication and lifestyles. Use ethical frameworks; apply ethical principles while making decisions and take responsibility for the outcomes associated with the decisions.

PO8-Communication: Communicate effectively with the pharmacy community and with society at large, such as, being able to comprehend and write effective reports, make effective Presentations and documentation, and give and receive clear instructions.

PO9-The Pharmacist and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety and legal issues and the consequent responsibilities relevant to the professional pharmacy practice.

PO10-Environment and sustainability: Understand the impact of the professional pharmacy solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

P**O11-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. Self-assess and use feedback effectively from others to identify learning needs and to satisfy these needs on an ongoing basis.

Program Educational Objectives (PEOs)

PEO 1: To provide sufficient knowledge of various aspects of Pharmacy making the students globally relevant.

PEO 2: To give exposure to each sector of pharmaceutical industry, providing them an opportunity to identify and solve their shortfalls.

PEO 3: To inculcate honesty, dedication, commitment and responsibility towards the duties rendered in their respective fields.

PEO 4: To promote employability, entrepreneurship and contribute for global economic development.

PEO 5: To evolve as an complete individual with constructive thoughts and leadership qualities.

Program Specific Outcomes (PSOs)

PSO1-Pharmaceutical product development: To apply the knowledge of manufacturing, formulation and quality control of various pharmaceutical and cosmetic products in the form of powders, tablets, capsules, parenteral, solutions, suspensions, emulsions, creams, lotions and aerosols etc.

PSO2-Invention and Entrepreneurship: Find the application of modern tools to integrate health care systems, design an effective product with commercial advantage and societal benefit, perform risk analysis and become entrepreneur.

B.Sc. (Mathematics, Statistics, Computer Science)

Program Outcomes

PO-1: Understanding and Thinking: understanding of mathematical concepts and fundamental principles and theories related to various scientific phenomena and their relevance in day-to-day life.

PO-2: Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.

PO-3: Design and Application: Select, design and apply appropriate experiment techniques along with IT tools to solve various problems.

PO-4: Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions and accept responsibility for them.

PO-5: Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.

PO-6: Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes

Program Educational Objectives (PEOs)

PEO1: Graduates can pursue higher studies in related fields including management.

PEO2: Graduates are provided with domain knowledge to get employed in IT industries, Scientific & Research organizations and allied industries.

PEO3: Graduates will develop positive attitude and life skills with a sense of environmental consciousness to become a responsible citizen with moral and ethical values

Program Specific Outcomes (PSOs)

PSO1: Graduates will acquire a comprehensive knowledge and sound understanding of fundamentals of Mathematics, computer and statistics and develop practical, analytical and mathematical skills.

PSO2: Graduates will be prepared to acquire a range of general skills, to solve problems, to evaluate information, to use computers productively, to communicate with society effectively and learn independently.

PSO3: Graduates will acquire a job efficiently in diverse fields such as Science, Education, Banking, Public Services, and Business etc.

Bachelor of Computer Applications

Program Outcomes (POs)

PO1: Able to design and develop reliable software applications for social needs and excel in ITenabled services.

PO2: Able to analyse and identify the customer requirements in multidisciplinary domains, create high level design and implement robust software applications using latest technological skills**.**

PO3: Proficient in successfully designing innovative solutions for solving real life business problems and addressing business development issues with a passion for quality, competency and holistic approach

PO4: Perform professionally with social, cultural and ethical responsibility as an individual aswell as in multifaceted teams with positive attitude

PO5: Capable of adapting to new technologies and constantly upgrade their skills with an attitude towards independent and lifelong learning.

Program Educational Objectives (PEOs)

PEO1: Evolve as globally competent computer professionals possessing leadership skills for developing innovative solutions in multidisciplinary domains.

PEO2: Excel as socially committed individual having high ethical values and empathy for the needs of society.

PEO3: To prepare students to succeed in employment/profession or to pursue postgraduate.

PEO4: Involve in lifelong learning to adapt the technological advancements in the emerging areas of computer applications.

Program Specific Outcomes (PSOs)

PSO1: Develop a competitive edge in basic technical skills of computer applications like Programming Languages, Algorithms and Data Structures, Databases and Software Engineering.

PSO2: Able to identify, analyze and formulate solutions for problems using computer applications.

PSO3: Attempt to work professionally with a positive attitude as an individual or in multidisciplinary teams and to communicate effectively among the stakeholders.

Program Outcomes (POs)

PO1: Apply managerial, functional theories and practices to develop strategies in solving contemporary business problems.

PO2: Apply knowledge of Business Communication, Mathematics, Economics and Accounting in the process of business administration.

PO3: Identify and Analyze Psychological, Environmental, Legal, Ethical Practices of Business Administration and developing Leadership ability.

PO4: Imbibe technology enabled analytical skills for empirical based decision making.

PO5: Incubating innovation and creativity through developing entrepreneurial skills.

PO6: To encourage and promote the zeal of students towards higher education and research.

Program Educational Objectives (PEOs)

To produce graduates with the following capabilit ies:

PEO1: Enhance the abilit y for continuous learning and research to sustain individual and organizational goals.

PEO2: Explore and develop leadership, team work, and social legal and ethical responsibility in business and society.

PEO3: Encourage and train the students to contribute in fields of Education and Business world by pursuing higher studies, or starting their independent ventures.

Program Specific Outcomes (PSOs)

PSO1: Developing functional and general management skills to achieve individual and organizational goals.

PSO2: Analyse skill and knowledge gap required in contemporary managerial domains in updating social and technical analysis.

Program Outcomes (POs)

PO 1: Apply the knowledge of engineering principles to realize solutions such as software systems, products and processes for real world multifaceted problems.

PO 2: Identify, analyse and formulate solutions to complex engineering problems using innovative and emerging technologies**.**

PO 3: Design and conduct experiments, procedures and technical skills necessary to explore solutions for societal problems through sustainable development.

PO 4: Recognize the necessityofself-governing and life-long learning by making use of professional and ethical principles.

PO 5: Work in independently/ in groups to carry out research / investigation and develop solutions to solve practical problems.

PO 6: Effectively present technical ideas/solutionsin an impressive and professional manner.

Program Educational Objectives (PEOs)

Post-Graduates of the UG-CSE program will be able to:

PEO 1: Pursue successful professional career in IT and IT-enabled industries to design innovative and optimized solutions.

PEO 2: Pursue continuous learning in generating innovative engineering solutions using research and complex problem-solving skills.

PEO 3: Pursue effective project management and communication skills cater the needs of industry and society at large.

Program Specific Outcomes (PSOs)

At the time of graduation, students will be able to:

PSO 1: Enrich problem solving skills to realize optimized solutions for various computing problems using cutting-edge tools and technologies.

PSO2: Design and develop economically feasible and environmentally sustainable solutions using various algorithms and applications of Machine Learning, Artificial Intelligence and IoT.

M.Tech–Biotechnology

Program Outcomes

PO1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2. Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

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

PO11. Project management and finance: Demonstrate knowledge and understanding of the engineering and 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.

PO12. 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.

Program Educational Objectives (PEOs):

Post-Graduates of M. Tech in Biotechnology programme will be able to

PEO 1: Perform consistently with high technical competency in design and process optimization as a prelude to become an entrepreneur in bio-pharma domain.

PEO 2: Imbibe Good Manufacturing Processes and Standard Operating Procedures in both process and product development.

PEO 3: Effectively function as an individual or a member of a team in a multidisciplinary environment with ethical values and lifelong learning.

Program Specific Outcomes (PSOs):

PSO 1: Translate process engineering principles for manufacturing bio-products.

PSO 2: Relate cell culture techniques to refine diagnostics.

PSO 3: Develop bio-based solutions for a sustainable environment and health.

M.Tech- Embedded Systems

Program Outcomes (POs)

PO 1: Acquire in-depth knowledge in the field of Embedded Systems with an ability to evaluate and analyse the existing knowledge for enhancement.

PO 2: Analyse critical complex engineering problems and provide solutions through research.

PO 3: Identity the areas for the development of Electronic hardware design for the benefit of the society.

PO4: Extract information pertinent to challenging problems through literature survey and by applying appropriate research methodologies, techniques and tools to the development of technological knowledge.

PO5: Select, learn and apply appropriate techniques, resources and modern engineering tools to complex engineering activities with an understanding of limitations.

PO6: Understand group dynamics, recognise opportunities and contribute positively to multidisciplinary work to achieve common goals for further learning.

PO7: Demonstrate engineering principles and apply the same to manage projects efficiently as a team after considering economical and financial factors.

PO8: Communicate with engineering community and society regarding complex engineering activities effectively through reports, design documentation and presentations.

PO9: Engage with commitment in life-long learning independently to improve knowledge and competence.

PO10: Acquire professional and intellectual integrity, professional code and conduct, ethics of research and scholarship by considering the research outcomes to the community for sustainable development of society.

PO11: Observe and examine critically the outcomes and make corrective measures, and learn from mistakes without depending on external feedback.

PO12: Able to plan, conduct an organized and systematic study on significant research topic within the field of Embedded Systems and its allied field.

Program Educational Objectives (PEOs)

Post-Graduates of M. Tech in Embedded Systems programme will be able to

PEO 1: Identify and apply appropriate Electronic Design Automation (EDA) to solve real world problems in Embedded Systems and Networking domain to create innovative products and systems.

PEO 2: Pursue career in research in Embedded Systems domain through self-learning and self-directed on cutting edge technologies.

Program Specific Outcome (PSOs)

The students will be able to

PSO 1: Acquire competency in areas of Embedded Systems prototype development focusing on IoT applications.

PSO 2: Integration of embedded software and hardware for design methodologies in Embedded Systems.

M.Tech - VLSI

Program Outcomes (POs)

PO 1: Acquire in-depth knowledge in the field of VLSI Design with an ability to evaluate and analyse the existing knowledge for enhancement.

PO2: Analyse critical complex engineering problems and provide solutions through research.

PO3: Identity the areas for the development of Electronic hardware design for the benefit of the society.

PO4: Extract information pertinent to challenging problems through literature survey and by applying appropriate research methodologies, techniques and tools to the development of technological knowledge

PO5: Select, learn and apply appropriate techniques, resources and modern engineering tools to complex engineering activities with an understanding of limitations.

PO 6: Understand group dynamics, recognise opportunities and contribute positively to multidisciplinary work to achieve common goals for further learning

PO 7: Demonstrate engineering principles and apply the same to manage projects efficiently as a team after considering economical and financial factors.

PO 8: Communicate with engineering community and society regarding complex engineering activities effectively through reports, design documentation and presentations.

PO 9: Engage with commitment in life-long learning independently to improve knowledge and competence.

PO 10: Acquire professional and intellectual integrity, professional code and conduct, ethics of research and scholarship by considering the research outcomes to the community for sustainable development of society.

PO 11: Observe and examine critically the outcomes and make corrective measures, and learn from mistakes without depending on external feedback.

PO 12: Able to plan, conduct an organized and systematic study on significant research topic within the field of VLSI and its allied field.

Program Educational Objectives (PEOs)

Post-Graduates of M. Tech in VLSI programme will be able to

PEO 1: To educate and train the graduates with knowledge and skills necessary to formulate, design and solve problems in Analog, Digital & Mixed Signal VLSI system design, VLSI Signal Processing, Semiconductor Technologies, and Hardware Software Co-Design.

PEO 2: To provide scope for Applied Research and innovation in the various fields of VLSI and enabling the students to work in the emerging areas of sectors associated to VLSI domain.

Program Specific Outcome (PSOs)

The students will be able to

PSO 1: To design and develop VLSI circuits to optimize power and area requirements, free from faults and dependencies by modeling, simulation and testing.

PSO 2: To develop VLSI systems by learning advanced algorithms, architectures and software - hardware co - design.

M.Tech - Power Electronics and drives

Program Outcomes (POs)

PO1: Ability to evaluate and analyse problems related to Power Electronic Systems and incorporate the principles in the state of art systems for further improvement.

PO2: Design and conduct experiments, as well as analyze the power electronic converters & drives and interpret the data.

PO3: Function on multidisciplinary technological issues assimilating power electronics advancements.

PO4: Identify, formulate and model the power electronic systems as a solution to the problems in allied disciplines.

PO5: Communicate effectively on complex engineering activities with the engineering community and with society at large.

PO6: Recognize the need for and engage in life-long learning to update with or develop technologies to meet the growing and changing needs of society.

PO7: Use the techniques, skills, and modern engineering simulation tools necessary for the design and development of power converter topologies.

PO8: Propose, plan and execute projects subjected to financial, personnel and time constraints in allied fields assimilating power electronics advancements.

Program Educational Objectives (PEOs)

Post-Graduates of M. Tech in Power Electronics and drives programme will be able to

PEO1: Ability to identify, analyze, design and solve complex and emerging problems of Power Electronics and Drives.

PEO2: Attain intellectual leadership skills to cater to the changing needs of power electronic industry, academia, society and environment.

PEO3: Engage in life-long learning through independent study, projects, research and to work in multidisciplinary teams.

Program Specific Outcome (PSOs)

The students will be able to

PSO1: Apply technical knowledge, skills and analytical ability to design, develop and test power electronic converters and drives using modern tools and technologies.

PSO2: Solve the real world problems in the emerging fields like smart grid, renewable energy interfaces, and electric vehicles and to develop innovative technologies relevant to social, ethical, economic and environmental issues.

M.Tech – Machine Design

Program Outcomes

PO1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2. Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

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

PO11. Project management and finance: Demonstrate knowledge and understanding of the engineering and 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.

PO12. 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.

Program Educational Objectives (PEOs)

Post-Graduates of M. Tech in machine design programme will be able to

PEO 1: Employable and Entrepreneur in Research and Development of Components in the fields of Automotive, Manufacturing and Service sector.

PEO 2: Pursue research in emerging fields of Robotics and Automation in Manufacturing and Energy & Safety Engineering.

PEO 3: Exhibit communication skills, team spirit, leadership qualities, lifelong managerial skills, lifelong learning ability, professional ethics and human values in profession/career.

Program Specific Outcome (PSOs)

The students will be able to

PSO 1: Expertise in handling various Modeling and Analysis Software.

PSO 2: Design components for Automation applications.

PSO 3: Perform Failure Mode and Effect Analysis of Manufacturing Systems.

M.Tech –Farm Machinery

Program Outcomes

PO1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2. Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

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

PO11. Project management and finance: Demonstrate knowledge and understanding of the engineering and 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.

PO12. 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.

Program Educational Objectives (PEOs)

Post-Graduates of Farm Machinery programme should be able to

PEO 1: Develop diverse capability to work with tractor and implement manufacturing industries, seed processing industries, irrigation and drainage companies and also to run self- entrepreneurship like dairy farming and custom hiring centers.

PEO 2: Take up higher studies in reputed institutes and motive towards innovative research by applying their skills in farm machinery and power engineering in the field of agriculture.

PEO 3: Understand the issues of ethics, safety, professionalism, cultural diversity, globalization, environmental impact and responsibility of serving the society and the environmental issues.

Program Specific Outcomes (PSOs)

The Post-Graduates will be able to:

PSO 1: Capable of synthesizing and analyzing of farm machinery and power and management systems in the field of agriculture.

PSO 2: Develop skills necessary to design the problem solutions of farm implements through adequate farm power for sustainable agriculture.

PSO 3: Design and develop of farm implement and stead with economically feasible, agro and energy technologies for sustainable agriculture.

M.Tech - Food Processing Technology

Program Outcomes (POs)

PO 1 : Apply the knowledge of engineering principles to realize solutions such as software systems, products and processes for real world multifaceted problems.

PO 2 : Identify, analyse and formulate solutions to complex engineering problems using innovative and emerging technologies.

PO 3 : Design and conduct experiments, procedures and technical skills necessary to explore solutions for societal problems through sustainable development.

PO 4 : Recognize the necessityofself-governing and life-long learning by making use of professional and ethical principles.

PO 5 : Work in independently / in groups to carry out research / investigation and develop solutions to solve practical problems.

PO 6 : Effectively present technical ideas/solutionsin an impressive and professional manner.

Program Educational Objectives (PEOs)

Post-Graduates of M. Tech in Food Processing Technology programme will be able to,

PEO1: To inculcate in-depth knowledge of Food Engineering and Technology with an ability to analyze, evaluate, design, discriminate, interpret, create and integrate existing and new knowledge.

PEO2: To analyze technological problems and judge independently to create information for conducting research and think to conceptualize and carry out the solutions of a potential problem and derive out optimal solutions in the area of Food Processing Technology.

Program Specific Outcomes (PSOs)

The students will be able to:

PSO 1: To inculcate technical writing and communicating abilit y for effective documentation and presentations and develop strong research aptitude through research work to enable the students to opt for higher levels of learning in the field of Food Processing Technology.

PSO 2: To acquaint and equip students with professional and intellectual int egrity, ethics of research and scholarship, impact of research outcomes on professional practices and responsibilities to contribute positively in the sustainable development of society.

PSO 3: To enable the students to get engaged in lifelong learning independently with the vigor and zeal and become capable to start-up their own businesses.

M.Tech -Structural Engineering

Program Outcomes (POs)

PO 1: Graduates of the Programme will be able to demonstrate in-depth knowledge of Structural Engineering discipline and build capability to apply that knowledge to real life Engineering problems.
PO 2: Programme graduates will gain knowledge and skill in integrating Structural engineering concepts with all other disciplines which can helps in multidisciplinary projects.
PO 3: Graduates will gain the ability to grab technical knowledge as well as leadership skills to Structural Engineering research and consultancy problems in Socio-centric and Industrial Projects.
PO 4: Graduates of the Structural Engineering Programme will gain the ability to carry out original and useful research in key areas of Structural Engineering.
PO 5: Programme graduates will be able to recognize and analyze the impact of Structural Engineering in development of project and to find a suitable economical and cost effective solution from number of alternatives.
PO 6: Graduates of the Programme will develop skills to communicate technical values of Structural Engineering research with the public, learners, practitioners and other community members of concern.
PO 7: Programme graduates will develop confidence in Structural analysis and management with high ethical value towards social, environmental and economic issues.
PO 8: Graduates will develop enthusiasm and confidence to pursue lifelong learning for professional advancement.
PO 9: Programme graduates will develop the spirit of working in team for common objectives.
PO 10: Graduates of the Programme will develop interest to pursue higher studies and research

Program Educational Objectives (PEOs)

Post-Graduates of M. Tech in Structural Engineering Technology programme will be able to,
PEO 1: To expose the students to Matrix integrated Structural Analysis, Structural Dynamics, and allied theory in elasticity and plasticity, Application of Finite Element Technique in Structural Engineering etc.
PEO 2: To impart knowledge to students in understanding the behaviour and design of RC structures, Steel structure and Composite Structures and to introduce latest procedures in earthquake and wind resistant design practices and philosophies.
PEO 3: To expose the students to latest revisions of design codes and their importance in present day practices in national and international scenario on Structural Engineering and to motivate them in interdisciplinary involvement in problems related to Structural Engineering.

PEO 4: To orient the students to high value research related to Structural Engineering so that they get idea to pursue research and lifelong learning.

Program Specific Outcomes (PSOs)

Engineering Graduates will be able to:
PSO 1: Ability to apply principles of Civil Engineering for the entire life cycle of the project ranging from initial design to the closure of the project.
PSO 2: Demonstrate proficiency in one the following specialized areas of Civil Engineering Construction Materials an Management, Structural and Geotechnical Engineering, Environmental and Water Resources Engineering, Transportation Engineering and Remote Sensing & Geographic Information Systems.

Master of Computer Applications

Program Outcomes (POs)

PO1: Computational Knowledge: Understand and apply mathematical foundation, computing and domain knowledge for the conceptualization of computing models from defined problems.

PO2: Problem Analysis: Ability to identify, critically analyze and formulate complex computing problems using fundamentals of computer science and application domains.

PO3: Design / Development of Solutions: Ability to transform complex business scenarios and contemporary issues into problems, investigate, understand and propose integrated solutions using emerging technologies

PO4: Conduct Investigations of Complex Computing Problems: Ability to devise and conduct experiments, interpret data and provide well informed conclusions.

PO5: Modern Tool Usage: Ability to select modern computing tools, skills and techniques necessary for innovative software solutions

PO6: Professional Ethics: Ability to apply and commit professional ethics and cyber regulations in a global economic environment.

PO7: Life-long Learning: Recognize the need for and develop the ability to engage in continuous learning as a Computing professional.

PO8: Project Management and Finance: Ability to understand, management and computing principles with computing knowledge to manage projects in multidisciplinary environments.

PO9: Communication Efficacy: Communicate effectively with the computing community as well as society by being able to comprehend effective documentations and presentations.

PO10: Societal & Environmental Concern: Ability to recognize economical, environmental, social, health, legal, ethical issues involved in the use of computer technology and other consequential responsibilities relevant to professional practice.

PO11: Individual & Teamwork: Ability to work as a member or leader in diverse teams in multidisciplinary environment.

PO12: Innovation and Entrepreneurship: Identify opportunities, entrepreneurship vision and use of innovative ideas to create value and wealth for the betterment of the individual and society.

Program Educational Objectives (PEOs)

PEO1: To prepare the graduates as successful professionals ready for Industry, Government sectors, Academia, Research, Entrepreneurial Pursuit and Consultancy firms.

PEO2: To prepare the graduates with Ethical Attitude, Effective Communication Skills and admit themselves as ethical and responsible citizens with social commitments.

PEO3: To prepare the graduates with excellent computing ability so that to Comprehend, Analyse, Design and Create computing solutions for the real-time problems.

Program Specific Outcomes (PSOs)

PSO1: Ability to pursue careers in IT industry/ consultancy/ research and development, teaching and allied areas related to computer science.

PSO2: Comprehend, explore and build up computer programs in the areas allied to Algorithms, System Software, Multimedia, Web Design and Big Data Analytics for efficient design of computer-based systems of varying complexity.

Master of Business Administration

Program Outcomes (POs)

PO1: Apply knowledge of management theories and practices to solve business problems.

PO2: Foster Analytical and critical thinking abilities for data-based decision making.

PO3: Ability to develop Value based Leadership ability.

PO4: Ability to understand, analyze and communicate global, economic, legal, and ethical aspects of business.

PO5: Ability to lead themselves and others in the achievement of organizational goals, contributing effectively to a team environment.

PO6: Ability to create, select and apply appropriate techniques, resources and modern multidiscipline management techniques including prediction and modeling to complex management/events with an understanding of the limitations.

PO7: Ability to be passionate about multidisciplinary approach for problem solving and critical analysis and decision making by giving due importance for designed and lateral thinking.

PO8: Ability to demonstrate knowledge and understanding of the technology and management principles and apply these to work and life-long learning, as a member and leader in a team, to manage projects and in multidisciplinary environments.

Program Educational Objectives (PEOs)

To produce graduates with the following capabilities:

PEO1: Working as a facilitator in organizing, staffing, directing in the business administration programme

PEO2: Engaged in the planning, coordinating and apply professional skills to make a positive impact on society

PEO3: Participating in further organizational functional areas and development of organization by employing the skills acquired in the business administration Programme.

Program Specific Outcomes (PSOs)

PSO1: To guide and channelize the transformation process of every management graduate by providing in-depth knowledge of business management and entrepreneurship embedded with ethics and a sense of social commitment and to make them to strive towards personal victory and value creation to society.

PSO2: To ignite a passion for multidisciplinary approach for problem solving, critical analysis and decision making by giving due importance for lateral thanking so that management graduates see things from a perspective which are not just simple but effective.

M.A. (English)

Programme Outcomes (POs)

PO1: Disciplinary knowledge: Capable of demonstrating comprehensive knowledge and in understanding Language and Literature Studies.

PO2: Disciplinary knowledge: Capable of demonstrating comprehensive knowledge and in understanding Language and Literature Studies.

PO3: Problem Solving: Capacity to extrapolate and apply their competencies to solve different kinds of non-familiar problems and apply one??s learning to real life situations using curriculum content knowledge.

PO4: Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.

PO5: Research-related skills: Recognize cause-and-effect relationships, define problems, formulate hypotheses, test hypotheses, analyze, interpret and draw conclusions from data, establish hypotheses, predict cause-and-effect relationships; ability to plan, execute and report the results of an investigation

PO6: Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.

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: 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.

PO9: Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

Programme Educational Objectives (PEOs)

PEO1: To help the students acquire advanced theoretical and practical knowledge in various fields of language, literature, journalism and cultural studies.

PEO2: To provide support to the students to become ethically and psychologically strong, socially conscious, expert professionals with independent thinking ability, leadership quality and excellent communication skills.

PEO3: To train the students to adopt into competitive work culture and flourish in Media or academic environment.

Programme Specific Outcomes (PSOs)

PSO1: To prepare students for career options that ask clarity of thinking and expressions like teaching, writing and editing.

PSO2: Lay a solid foundation literary traditions and pedagogical practices for teaching English in Indian ESL context.

PSO3: Acquire skill relevant profession like Journalism and content development.

M.Sc. (Chemistry)

Program Outcomes (POs)

Upon completion of the M.Sc. program, the students will be able

PO1 (Scientific knowledge): Apply the knowledge of chemical science to find solutions to various academic and research problems.

PO2 (Problem analysis): Identify a research problem, review research literature, and design innovative solutions for scientific problems.

PO3 (Skill enhancement): Recognize and practise the required skill-sets to enhance them for future employability.

PO4 (Modern tool usage): Adopt appropriate modern techniques, resources, and tools to execute the experiments and analyze and interpret the data.

PO5 (Society and ethics): Implement contextual knowledge and ethical principles to assess various societal issues related to common scientific and industrial practises.

PO6 (Environment and sustainability): Assess the impact of scientific approaches in environment with special emphasis on the need for sustainable development.

PO7 (Individual and teamwork): Function as an individual or as a member or leader in diverse teams, and in multidisciplinary settings.

PO8 (Communication): Communicate effectively, write reports and design documentation, make effective presentations, and give and receive clear instructions.

PO9 (Project management): Utilize knowledge and understanding of the chemical principles to manage projects of various magnitude in multidisciplinary environments.

PO10 (Life-long learning): Identify the important aspects of Chemistry and other allied subjects for independent and life-long learning in the broader context of scientific and technological development.

Program Educational Objectives (PEOs)

PEO1: To help students acquire advanced theoretical and practical knowledge in various fields of Chemical Sciences and allied subjects.

PEO2: To provide support to the students to become ethically and psychologically strong, socially conscious, expert professionals with independent thinking ability, leadership quality and excellent communication skills.

PEO3: To train the students to adopt into competitive work culture and flourish in industrial or academic environments.

Program Specific Outcomes (PSOs)

Upon completion of the M. Sc. program in Chemistry, the students will be able

PSO1: To apply various concepts from different areas of Chemistry learned from various courses to tackle the research problems.

PSO2: To design and perform experiments (either individually or in a group) and analyze/interpret the results from various analytical techniques to become employable in industry or academic environments.

PSO3: To think critically, execute newer ideas and communicate the ideas effectively either through oral presentation or through written report.

VIGNAN INSTITUTE OF LAW

BA.LLB (Hons.)

Programme Outcomes (POs)

PO1: Apply, interpret and analyse the legal provisions and judicial decisions in a socially relevant manner.

PO2: Identify the dynamic potential of law through life-long learning and be prepared according to the emerging legal trends.

PO3: Develop the language, drafting, communication abilities and demonstrate oral advocacy skills.

PO4: Apply ethical principles and commit to legal professional ethics, undertake responsibilities and norms according to the established legal practices.

PO5: Understand the technological implications in legal arena and apply emerging technologies in teaching and learning environments.

Programme Educational Objectives (PEOs)

PEO1: To create and sustain a community of learning in which students acquire knowledge and learn to apply it professionally with due consideration for social, ethical and legal issues.

PEO2: To provide knowledge-based services to satisfy the needs of society and the industry by providing practical experience to enable life-long learning in various legal fields.

PEO3: To make the students to interpret and analyse in the legal field with the help of technological developments wherever applicable.

Programme Specific Outcomes (PSOs)

PSO1: To mould students to become a professional with all necessary skills in research, drafting, communication, personality and in-depth knowledge in various legal dimensions

PSO2: Understanding the current developments in the field of law and acquire ability to apply knowledge of law in various sectors

PSO3: To develop professional and technological legal skills in our students necessary to become competitive legal professionals

BBA.LLB (Hons.)

Programme Outcomes (POs)

PO1: Apply, interpret and analyse the legal provisions and judicial decisions in a socially relevant manner.

PO2: Identify the dynamic potential of law through life-long learning and be prepared according to the emerging legal trends.

PO3: Develop the language, drafting, communication abilities and demonstrate oral advocacy skills.

PO4: Apply ethical principles and commit to legal professional ethics, undertake responsibilities and norms according to the established legal practices.

PO5: Understand the technological implications in legal arena and apply emerging technologies in teaching and learning environments.

Programme Educational Objectives (PEOs)

PEO1: To create and sustain a community of learning in which students acquire knowledge and learn to apply it professionally with due consideration for social, ethical and legal issues.

PEO2: To provide knowledge-based services to satisfy the needs of society and the industry by providing practical experience to enable life-long learning in various legal fields.

PEO3: To make the students to interpret and analyse in the legal field with the help of technological developments wherever applicable.

Programme Specific Outcomes (PSOs)

PSO1: To mould students to become a professional with all necessary skills in research, drafting, communication, personality and in-depth knowledge in various legal dimensions.

PSO2: Understanding the current developments in the field of law and acquire ability to apply knowledge of law in various sectors.

PSO3: To develop professional and technological legal skills in our students necessary to become competitive legal professionals.

B.Sc. (Hons.) Agriculture

Programme Outcomes (POs)

The graduates of B.Sc. (Hons.) Agriculture will be able to:

PO1: Agriculture knowledge: Apply the knowledge of regenerative agriculture with a conservation and
rehabilitation approach to food and farming systems.

PO2: Complex agricultural problems analysis: Understand rapid appraisal of agricultural innovation systems, a diagnostic tool that can guide the analysis of complex agricultural problems and innovation capacity of the agricultural system towards futuristic agriculture.

PO3: Modern tool usage: Agriculture is at the cusp of a technological revolution. Coupled with artificial intelligence (Precision Farming) and modern tools like IoT (Internet of Things), automation, GIS, re- mote sensing and digital farming, agricultural practices will be directed at uplifting small farm holders by extending, wherever necessary, support of intelligent systems like drone-based sensors, that can monitor plants for disease and water stress.

PO4: The Agriculturist and Society: Learn social science concepts and skills to understand, analyze and communicate complex ideas, information and data related to agricultural systems. Recognize, analyze, and evaluate the critical human and social factors impacting agriculture. Understand the social dimensions of agriculture and its connections with food and environmental systems.

PO5: Environment and sustainability: Understand the impact of the professional agricultural solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development. Demonstrate an understanding of comprehensive systemic analysis across both physical and behavioral dimensions involving society, the environment, and the economy.

PO6: Ethics: Apply ethical principles and commit to professional ethics; responsibilities and norms of the agricultural practice, “systemic thinking about the values and norms associated with the food system – farming, resource management, food processing, distribution, trade and consumption”.

PO7: Individual and teamwork: Function effectively as an individual, and as a member of leader in diverse
teams, and in multidisciplinary settings.

PO8: Communication: Communicate effectively on modern agricultural practices with the agricultural commune and with society at large, such as being able to comprehend and write effective reports, documentation, effective presentations, and give and receive clear instructions.

PO9: Project management and finance: Demonstrate knowledge and understanding of the agriculture and agri-business management principles and apply these to one's own work, as a member and leader in a team. Manage project in multidisciplinary environments.

PO10: Entrepreneurship and employability: Able to design, launch and run a new business, to create job and not to seek for job. Also capable with an effective mix of knowledge, skills, and personal attitudes to be employed initially and function successfully in the required roles.

PO11: Life-long learning: Recognize the need for and have the preparation and ability to engage in independent and life-long learning, a deliberate and voluntary act, in the broadest context of technological change.

Programme Educational Objectives (PEOs)

PEO1: Continually improve student-centered learning program to impart knowledge and practical skills to address complex problems and apply learned skills to make agriculture profitable.

PEO2: Graduates of the program will possess high levels of professionalism, technical competency, strong ethical responsibility and commitment towards solving challenging societal tasks.

PEO3: Graduates of the program will reveal lifelong learning and teamwork in their profession.

Program Specific Outcomes (PSOs)

PSO1: Design, comprehend, analyse and develop innovative systems that can effectively uplift the small farm holders.

PSO2: Develop multi-disciplinary tools in 'collaborative public-private-farmer partnership mode' to reach the unreached.

PSO3: Realize sustainable development goals with strong partnerships and cooperation.