

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

KOTHAPETA, VIJAYAWADA - 520001



PROGRAMME OUTCOMES & SPECIFIC OUTCOMES

ACADEMIC YEAR - 2022-2023

OFFERED PROGRAMMES

PROGRAMME OUTCOMES

B.Sc.	<ul style="list-style-type: none">✓ PO 1: Develop a deep understanding of the core concepts, theories, and principles within the chosen field of study, whether it's physics, biology, chemistry, mathematics, computer science, or any other discipline.✓ PO 2: Acquire the ability to conduct research, gather and analyze data, and apply scientific methods to investigate questions and solve problems.✓ PO 3: Develop critical thinking skills to evaluate information, identify issues, and solve complex problems within the discipline.✓ PO 4: Gain proficiency in quantitative and analytical methods relevant to the field, including mathematical analysis, statistical analysis, or computational techniques.✓ PO 5: Enhance written and oral communication skills to effectively convey scientific ideas, research findings, and technical information to both technical and non-technical audiences.✓ PO 6: Acquire hands-on experience in conducting experiments and using laboratory equipment, techniques, and safety procedures relevant to the field.✓ PO 7: Develop an understanding of how the chosen field of study interacts with and influences other scientific disciplines or related fields.✓ PO 8: Recognize the need for continuous learning and adaptability in a rapidly evolving field, and pursue on-going professional development and education.✓ PO 9: Apply theoretical knowledge and principles to real-world problems, practical applications, and research projects within the discipline.✓ PO 10: Understand the broader implications and societal relevance of the discipline's knowledge and research, including its impact on global challenges.✓ PO 11: Be prepared for further academic studies at the graduate level or for careers in fields related to the discipline.✓ PO 12: Actively engage in nurturing a culture of research, upholding scientific integrity and objectivity in their scholarly pursuits.
B.Com.	<ul style="list-style-type: none">✓ PO 1: Foundational Business Knowledge Demonstrate a solid understanding of core business disciplines such as accounting, finance, marketing, management, and economics.✓ PO 2: Critical Thinking and Problem-Solving Develop critical thinking skills to analyze business problems, make informed decisions, and propose effective solutions.✓ PO 3: Quantitative and Analytical Skills Acquire proficiency in quantitative analysis, data interpretation, and financial analysis.✓ PO 4: Communication Skills Enhance written and oral communication skills for effective business communication, including reports, presentations, and negotiations.✓ PO 5: Financial Literacy

	<p>Understand financial concepts, financial markets, and financial management principles.</p> <ul style="list-style-type: none"> ✓ PO 6: Ethical and Social Responsibility Recognize the ethical dimensions of business decisions and demonstrate social responsibility in business practices. ✓ PO 7: Entrepreneurial Mind-set Cultivate an entrepreneurial spirit, exploring opportunities for innovation and business creation. ✓ PO 8: Professional Development and Leadership Skills Prepare for career advancement through resume building, interview skills, and job search strategies. ✓ PO 9: Self-directed and Life-long Learning <ul style="list-style-type: none"> • Identify career enhancement opportunities and engage in future academic endeavours. • Display skills sets in pursuit of continuous learning and adapt to the changing professional and social needs.
B.Voc.	<ul style="list-style-type: none"> ✓ PO 1: Technical Proficiency Graduates will demonstrate a high level of technical competency in their chosen field, including hands-on skills, tools, and equipment operation. ✓ PO 2: Industry-Relevant Skills Acquire industry-specific skills and knowledge that are directly applicable to the workplace, ensuring immediate job readiness. ✓ PO 3: Problem-Solving Abilities Develop problem-solving skills to address real-world challenges and troubleshoot issues in the field. ✓ PO 4: Entrepreneurial Mindset Cultivate an entrepreneurial spirit and the ability to identify opportunities for innovation and business development within the field. ✓ PO 5: Project Management Acquire basic project management skills to plan, execute, and monitor projects within the field. ✓ PO 6: Technological Proficiency Stay up-to-date with technological advancements and use relevant tools and software in the field. ✓ PO 7: Research and Innovation Foster a culture of research and innovation, continuously seeking improvements and new solutions. ✓ PO 8: Career Development Prepare for career advancement through resume building, interview skills, and job search strategies specific to the industry.
M.Sc.	<ul style="list-style-type: none"> ✓ PO 1: Advanced Knowledge Graduates will have an advanced understanding of the core concepts, theories, and principles relevant to their field of study. ✓ PO 2: Research Skills Graduates will be proficient in conducting independent research, including the ability to design experiments, gather data, and analyze

results.

- ✓ PO 3: Critical Thinking
Graduates will demonstrate critical thinking skills by evaluating and synthesizing existing literature and research in their field.
- ✓ PO 4: Problem-Solving
Graduates will have the ability to identify complex problems, propose solutions, and make informed decisions based on evidence and analysis.
- ✓ PO 5: Interdisciplinary Perspective
Graduates will be able to integrate knowledge and methods from different disciplines, fostering interdisciplinary approaches to problem-solving.
- ✓ PO 6: Technology Proficiency
Graduates will be proficient in using relevant technologies and tools required for their field of study, including software and laboratory equipment.
- ✓ PO 7: Innovation and Creativity
Graduates will demonstrate innovation and creativity in their research and problem-solving processes, contributing to advancements in their field.
- ✓ PO 8: Professional Development
Graduates will be committed to lifelong learning and professional development, staying updated with current trends, technologies, and research in their discipline.
- ✓ PO 9: Application of Knowledge
Graduates will apply their advanced knowledge and research skills to address real-world challenge.

PROGRAMME SPECIFIC OUTCOMES

B.Sc. (MPC)	<ul style="list-style-type: none">❧ PSO 1: Demonstrate a strong foundation in mathematical concepts, including calculus, algebra, and discrete mathematics, to solve complex problems in physics and chemistry.❧ PSO 2: Develop a deep comprehension of fundamental principles in physics, including classical mechanics, electromagnetism, quantum mechanics, and thermodynamics.❧ PSO 3: Attain a comprehensive understanding of core principles in chemistry, encompassing organic, inorganic, and physical chemistry, and apply this knowledge to chemical problem-solving.❧ PSO 4: Recognize and appreciate the interconnectedness of mathematics, physics, and chemistry, and apply this interdisciplinary knowledge to solve real-world problems at the intersection of these disciplines.❧ PSO 5: Acquire hands-on experience in laboratory settings, including the ability to conduct experiments, analyze data, and draw meaningful conclusions in both physics and chemistry.❧ PSO 6: Apply mathematical modeling techniques to simulate and analyze physical and chemical phenomena, allowing for predictive and quantitative understanding of complex systems.❧ PSO 7: Cultivate research skills, including the ability to formulate research questions, design experiments, collect and analyze data, and communicate findings effectively.
B.Sc. (CBZ)	<ul style="list-style-type: none">❧ PSO 1: Develop a strong foundation in chemistry, including inorganic, organic, and physical chemistry, enabling the understanding of chemical principles and laboratory techniques.❧ PSO 2: Acquire comprehensive knowledge of botany, encompassing plant biology, taxonomy, ecology, and plant physiology, and apply this knowledge to plant-related research and applications.❧ PSO 3: Gain a deep understanding of zoology, covering animal biology, taxonomy, physiology, and ecology, and apply this knowledge to the study of animals and their ecosystems.❧ PSO 4: Recognize and appreciate the connections between chemistry, botany, and zoology, and apply interdisciplinary knowledge to address complex problems in environmental science, conservation, and biotechnology.❧ PSO 5: Develop practical laboratory skills and expertise in conducting experiments, and analysis in chemistry, botany, and zoology, and use these skills to investigate various biological and chemical phenomena.❧ PSO 6: Apply scientific methods and research techniques to conduct investigations in botany and zoology, including fieldwork, biodiversity assessments, and ecological studies.❧ PSO 7: Utilize advanced laboratory instrumentation and techniques for chemical analysis, including spectroscopy, chromatography, and microscopy.
B.Sc. (MPCS)	<ul style="list-style-type: none">❧ PSO 1: Attain a strong foundation in mathematical concepts, including calculus, linear algebra, discrete mathematics, and mathematical logic, for solving complex problems in physics and computer science.❧ PSO 2: Develop a deep understanding of fundamental principles in physics,

	<p>covering classical mechanics, electromagnetism, quantum mechanics, and thermodynamics, and apply this knowledge to solve physical problems and phenomena.</p> <ul style="list-style-type: none"> ❏ PSO 3: Acquire proficiency in programming languages, algorithms, data structures, and software development methodologies, enabling the design and implementation of computational solutions to a variety of problems. ❏ PSO 4: Recognize and appreciate the connections between mathematics, physics, and computer science, and apply interdisciplinary knowledge to address complex problems in scientific computing, simulations, and data analysis. ❏ PSO 5: Develop the ability to design, code, and test software applications, including scientific simulations, data analysis tools, and computational models. ❏ PSO 6: Cultivate research skills, including the ability to formulate research questions, design experiments or simulations, collect and analyze data, and communicate research findings effectively. ❏ PSO 7: Acquire strong problem-solving skills that can be applied to a wide range of challenges in mathematics, physics, and computer science, both in theoretical and practical contexts. ❏ PSO 8: Develop expertise in data analysis, statistical methods, and data visualization techniques, particularly for applications in physics and computer science.
<p>B.Sc. (MECS)</p>	<ul style="list-style-type: none"> ❏ PSO 1: Attain a strong foundation in mathematical concepts, including calculus, discrete mathematics, linear algebra, and numerical methods, to solve complex problems in electronics and computer science. ❏ PSO 2: Develop a deep understanding of core principles in electronics, including circuit analysis, digital electronics, signal processing, and microelectronics. ❏ PSO 3: Acquire proficiency in programming languages, algorithms, data structures, software engineering principles, and database systems, enabling the design and development of software applications. ❏ PSO 4: Recognize and appreciate the connections between mathematics, electronics, and computer science. Apply interdisciplinary knowledge to design and analyze electronic circuits, systems, and computer software. ❏ PSO 5: Gain hands-on experience in electronics laboratories, including the ability to design, build, and troubleshoot electronic circuits and systems. ❏ PSO 6: Cultivate research skills, design experiments or simulations, collect and analyze data, and apply computational methods to solve complex problems. ❏ PSO 7: Gain expertise in embedded systems, IoT (Internet of Things), and their applications, combining electronics and computer science knowledge for practical solutions. ❏ PSO 8: - Develop skills in data analysis, digital signal processing, and data visualization, particularly for applications in electronics and computer science.
<p>B.Sc. (MCS)</p>	<ul style="list-style-type: none"> ❏ PSO 1: Develop a strong foundation in mathematical concepts, including calculus, linear algebra, discrete mathematics, and probability theory, to solve complex problems in statistics and computer science.

	<ul style="list-style-type: none"> ❏ PSO 2: Acquire comprehensive knowledge of statistical principles, data analysis techniques, experimental design, and hypothesis testing, and apply this knowledge to analyze and interpret data. ❏ PSO 3: Attain proficiency in programming languages, algorithms, data structures, software engineering, and database systems, enabling the design and development of software applications and data-driven solutions. ❏ PSO 4: Recognize and appreciate the connections between mathematics, statistics, and computer science. Apply interdisciplinary knowledge to tackle complex problems in data analysis, modeling, and software development. ❏ PSO 5: Develop expertise in data analysis, statistical modeling, and data visualization techniques, particularly for applications in computer science and statistical analysis. ❏ PSO 6: Gain the ability to design, code, and test software applications, particularly those related to data analysis, machine learning, and artificial intelligence. ❏ PSO 7: Gain proficiency in machine learning and artificial intelligence techniques, including their application to data analysis, pattern recognition, and decision-making processes. ❏ PSO 8: Develop skills in database design, management, and querying, and apply them to store and retrieve data efficiently for various applications.
B.Sc. (MCCS)	<ul style="list-style-type: none"> ❏ PSO 1: Demonstrate a strong foundation in mathematical concepts, including calculus, linear algebra, discrete mathematics, and probability theory and apply mathematical principles to solve complex problems in computer science and chemistry. ❏ PSO 2: Possess a deep understanding of the fundamental principles of chemistry, including organic, inorganic, physical, and analytical chemistry. ❏ PSO 3: Conduct laboratory experiments, analyze data, and interpret results accurately and safely and apply chemical knowledge to real-world problems and practical applications. ❏ PSO 4: Exhibit proficiency in programming languages, algorithms, and data structures. ❏ PSO 5: Understand the core principles of computer science, including software engineering, databases, and computer architecture. ❏ PSO 6: Integrate mathematical, chemical, and computer science concepts to address interdisciplinary challenges and research problems. ❏ PSO 7: Apply analytical and critical thinking skills to identify, formulate, and solve problems in mathematics, chemistry, and computer science. ❏ PSO 8: Prepare for careers in academia, industry, government, or further education in mathematics, chemistry, computer science, or related fields.
B.Sc. (Data Science)	<ul style="list-style-type: none"> ❏ PSO 1: Graduates should be able to collect data from various sources, clean and pre-process it to make it suitable for analysis. ❏ PSO 2: Students should be proficient in using statistical and machine learning techniques to analyze data. ❏ PSO 3: Graduates should have strong programming skills, particularly in languages like Python or R. ❏ PSO 4: Graduates should be capable of creating effective data visualizations

	<p>using tools like Matplotlib, Seaborn, or Tableau.</p> <ul style="list-style-type: none"> ❏ PSO 5: Students should understand the basics of database management systems and be able to work with relational databases and SQL queries for data retrieval and manipulation. ❏ PSO 6: Graduates should be familiar with big data technologies like Hadoop and Spark and be able to process and analyze large datasets efficiently. ❏ PSO 7: Students should have a deep understanding of various machine learning algorithms and be able to apply them to real-world problems.
<p>B.Sc. (IoT)</p>	<ul style="list-style-type: none"> ❏ PSO 1: Graduates should have a deep understanding of the fundamental components and architecture of IoT systems, including sensors, actuators, communication protocols, and edge devices. ❏ PSO 2: Graduates should be proficient in selecting, configuring, and integrating various sensors to collect data from the physical world, such as temperature sensors, motion detectors, and environmental sensors. ❏ PSO 3: Graduates should be capable of acquiring, processing, and managing data generated by IoT devices, including data cleaning, filtering, and aggregation. ❏ PSO 4: Graduates should have expertise in wireless communication technologies commonly used in IoT, such as Wi-Fi, Bluetooth, Zigbee, LoRa, and cellular networks. ❏ PSO 5: Graduates should be familiar with IoT communication protocols and standards like MQTT, CoAP, HTTP, and understand their applications in different IoT scenarios. ❏ PSO 6: Graduates should be familiar with IoT platforms and cloud services for data storage, processing, and application development, such as AWS IoT, Microsoft Azure IoT, or Google Cloud IoT. ❏ PSO 7: Graduates should be proficient in developing IoT applications and services using programming languages like Python, C/C++, and JavaScript. ❏ PSO 8: Graduates should have the skills and mindset to identify opportunities for IoT innovation and entrepreneurship, including product development and business planning.
<p>B.Com. (Gen)</p>	<ul style="list-style-type: none"> ❏ PSO 1: Demonstrate a foundational understanding of core business concepts, including accounting, economics, finance, marketing, management, and business law. ❏ PSO 2: Develop proficiency in financial accounting principles, including the preparation and interpretation of financial statements and apply accounting techniques to record, analyze, and report financial transactions. ❏ PSO 3: Understand basic economic theories and concepts, including supply and demand, market structures, and macroeconomic factors affecting businesses and industries. ❏ PSO 4: Analyze financial data to make informed decisions related to budgeting, investment, and financial planning and understand financial markets, instruments, and investment strategies. ❏ PSO 5: Gain knowledge of marketing principles, consumer behavior, and market research and develop the ability to create marketing strategies and plans.

	<ul style="list-style-type: none"> ❏ PSO 6: Learn the fundamentals of management, including leadership, organizational behavior, and human resource management. ❏ PSO 7: Acquire basic IT skills necessary for business, including the use of spread sheets, databases, and business software. ❏ PSO 8: Cultivate an entrepreneurial spirit by exploring opportunities for innovation and creativity in business.
B.Com. (T.P)	<ul style="list-style-type: none"> ❏ PSO 1: Demonstrate a comprehensive understanding of tax laws, regulations, and principles, including income tax, sales tax, value-added tax (VAT), and corporate tax. ❏ PSO 2: Develop the ability to prepare and file various tax returns accurately and in compliance with tax laws and regulations. ❏ PSO 3: Analyze financial and business situations to develop tax-efficient strategies for individuals and organizations. ❏ PSO 4: Apply tax principles to business transactions, including mergers and acquisitions, capital gains, and international taxation. ❏ PSO 5: Calculate and advise individuals on their personal tax liabilities, deductions, and credits. ❏ PSO 6: Conduct tax research to stay updated on changes in tax laws and regulations. ❏ PSO 7: Identify potential tax-related risks and liabilities for individuals and businesses. ❏ PSO 8: Understand the principles of international taxation, including transfer pricing, double taxation treaties, and cross-border tax planning.
B.Com. (Logistics)	<ul style="list-style-type: none"> ❏ PSO 1: Demonstrate a comprehensive understanding of supply chain management, including procurement, production, distribution, and logistics. ❏ PSO 2: Learn effective techniques for managing inventory, including inventory optimization, demand forecasting, and safety stock management. ❏ PSO 3: Understand the principles of transportation management, including route planning, carrier selection, and cost optimization. ❏ PSO 4: Familiarize oneself with logistics and supply chain management software and technology, such as enterprise resource planning (ERP) systems and warehouse management systems (WMS). ❏ PSO 5: Develop the ability to create logistics strategies and plans that align with overall business objectives and evaluate and implement strategies for improving supply chain efficiency and reducing costs. ❏ PSO 6: Identify potential risks in logistics and supply chain operations and develop strategies for mitigating those risks. ❏ PSO 7: Analyze logistics costs and develop cost-effective logistics solutions and understand financial aspects of logistics, including budgeting and cost control. ❏ PSO 8: Utilize data analytics tools and techniques to analyze logistics data and make data-driven decisions.
B.Com. (Comp)	<ul style="list-style-type: none"> ❏ PSO 1: Demonstrate a comprehensive understanding of core business concepts, including accounting, economics, finance, marketing, and management. ❏ PSO 2: Develop proficiency in using various computer applications and

	<p>software commonly used in business environments, including Microsoft Office Suite (Word, Excel, PowerPoint, etc.).</p> <ul style="list-style-type: none"> ❏ PSO 3: Learn programming languages and principles, such as Java, Python, C++, or others as specified by the program and develop the ability to design and create software applications for business purposes. ❏ PSO 4: Understand database concepts and gain proficiency in using database management systems (DBMS) for data storage, retrieval, and analysis. ❏ PSO 5: Learn web development technologies, including HTML, CSS, JavaScript, and web frameworks and develop the ability to create and maintain business websites and web applications. ❏ PSO 6: Apply analytical skills to assess business needs and propose IT solutions that enhance efficiency and effectiveness and conduct business process analysis and redesign using IT tools and methodologies. ❏ PSO 7: Utilize data analytics tools and techniques to analyze business data and provide insights for decision-making and create reports and dashboards for monitoring and improving business performance. ❏ PSO 8: Understand e-commerce principles and strategies for online business transactions and learn digital marketing techniques and tools for promoting products and services online. ❏ PSO 9: Cultivate an entrepreneurial spirit and explore opportunities for using technology to create and innovate within a business context.
<p style="text-align: center;">BBA</p>	<ul style="list-style-type: none"> ❏ PSO 1: Demonstrate a strong foundation in core business disciplines, including accounting, finance, marketing, management, economics, and business law. ❏ PSO 2: Develop critical thinking skills to analyze complex business problems and propose effective solutions and apply problem-solving techniques to real-world business scenarios. ❏ PSO 3: Utilize quantitative tools and analytical methods to analyze business data and make data-driven decisions. ❏ PSO 4: Develop leadership skills and an understanding of management principles and learn how to manage teams, projects, and resources effectively. ❏ PSO 5: Cultivate an entrepreneurial spirit and explore opportunities for innovation and creativity in business and understand the processes of business start-up and entrepreneurship. ❏ PSO 6: Recognize the global nature of business and understand the impact of international markets and cultures and explore international business strategies and global business operations. ❏ PSO 7: Learn marketing strategies and tactics for product promotion and market penetration. ❏ PSO 8: Understand financial management principles, including budgeting, financial analysis, and financial planning and evaluate investment opportunities and manage financial resources effectively. ❏ PSO 9: Develop skills in strategic thinking and planning and implement strategic plans for businesses and organizations.
<p style="text-align: center;">BCA</p>	<ul style="list-style-type: none"> ❏ PSO 1: Demonstrate proficiency in programming languages such as Java, C++, Python, or others as specified by the program and develop the ability to design, code, test, and debug software applications.

	<ul style="list-style-type: none"> ❏ PSO 2: Create software applications for various platforms, including desktop, web, and mobile and understand software development methodologies and best practices. ❏ PSO 3: Design and implement database systems using database management systems (DBMS) such as MySQL, Oracle, or SQL Server. ❏ PSO 4: Develop dynamic and interactive websites using web technologies like HTML, CSS, JavaScript, and web frameworks and understand front-end and back-end development. ❏ PSO 5: Gain knowledge of operating system principles and concepts and perform system administration tasks on different operating systems. ❏ PSO 6: Understand cybersecurity threats and best practices for securing computer systems and networks and Learn about ethical hacking and security testing. ❏ PSO 7: Develop mobile applications for iOS and Android platforms and Understand mobile app design, user experience (UX), and best practices. ❏ PSO 8: Understand the ethical and legal aspects of software development, including intellectual property rights and data privacy regulations.
B.Voc. (WT&SD)	<ul style="list-style-type: none"> ❏ PSO 1: Demonstrate proficiency in web development technologies, including HTML, CSS, JavaScript, and popular web frameworks and Develop the ability to create responsive and interactive web applications and websites. ❏ PSO 2: Learn server-side programming languages and frameworks and Build server-side applications, RESTful APIs, and integrate them with frontend technologies. ❏ PSO 3: Design, create, and manage databases using database management systems (DBMS) such as MySQL, PostgreSQL, or MongoDB, and Perform database operations, optimization, and administration. ❏ PSO 4: Acquire full-stack development skills, encompassing both frontend and backend development and create end-to-end web applications and deploy them effectively. ❏ PSO 5: Understand web security principles and best practices and Implement security measures to protect web applications from common vulnerabilities. ❏ PSO 6: Develop skills in web design, focusing on creating visually appealing and user-friendly interfaces and Conduct usability testing and improve user experiences. ❏ PSO 7: Learn to use version control systems such as Git for code collaboration and management. ❏ PSO 8: Develop problem-solving skills to identify, troubleshoot, and debug software issues and analyze and resolve technical problems efficiently.
MBA	<ul style="list-style-type: none"> ❏ PSO 1: Develop effective leadership skills to inspire and guide teams in achieving organizational goals and learn management techniques for planning, organizing, and controlling resources and operations. ❏ PSO 2: Enhance strategic thinking abilities to analyze complex business situations and make informed decisions and evaluate alternative strategies and their impact on the organization. ❏ PSO 3: Gain a solid understanding of core business functions, including finance, marketing, operations, human resources, and information technology.

	<ul style="list-style-type: none"> ❏ PSO 4: Recognize the global nature of business and understand the implications of international markets, trade, and cultural diversity. ❏ PSO 5: Cultivate an entrepreneurial spirit and explore opportunities for innovation and entrepreneurship within organizations or start-ups. ❏ PSO 6: Enhance communication skills and public speaking skills to effectively convey ideas, negotiate, and influence others in diverse business contexts. ❏ PSO 7: Develop marketing strategies, including product development, pricing, promotion, and distribution, manage and enhance brand equity and customer relationships. ❏ PSO 8: Learn human resource management principles, including recruitment, training, compensation, and performance evaluation. ❏ PSO 9: Understand corporate governance principles and their importance in ethical decision-making within organizations.
MCA	<ul style="list-style-type: none"> ❏ PSO 1: Demonstrate proficiency in programming languages such as Java, C++, Python, or others as specified by the program and Develop the ability to design, code, test, and debug complex software applications. ❏ PSO 2: Create software applications for various platforms, including desktop, web, mobile, and cloud-based systems and Understand software development methodologies and best practices. ❏ PSO 3: Design and implement advanced database systems using database management systems (DBMS) such as Oracle, MySQL, SQL Server, or NoSQL databases - Perform database optimization, tuning, and administration. ❏ PSO 4: Develop web applications and mobile apps for iOS and Android platforms using relevant technologies and frameworks. ❏ PSO 5: Gain in-depth knowledge of operating system concepts, kernel architecture, and system software development. ❏ PSO 6: Master advanced data structures and algorithms to solve complex computational problems efficiently - Analyze algorithmic complexity and optimization. ❏ PSO 7: Understand computer network protocols, architectures, and security principles and design and secure networked systems and applications. ❏ PSO 8: learn and Apply AI and ML in various applications, including data analysis and predictive modeling. ❏ PSO 9: Explore cloud computing platforms and distributed system architectures - Deploy and manage applications in cloud environments. ❏ PSO 10: Conduct research in computer science and contribute to the development of new technologies and solutions and Publish research findings in relevant journals and conferences.
M.Sc. (OCH)	<ul style="list-style-type: none"> ❏ PSO 1: Demonstrate a comprehensive understanding of the principles and theories of organic chemistry, including reaction mechanisms, stereochemistry, and chemical synthesis. ❏ PSO 2: Develop advanced laboratory techniques for organic synthesis, purification, and characterization of organic compounds. ❏ PSO 3: Gain proficiency in using advanced analytical instruments such as nuclear magnetic resonance (NMR) spectroscopy, mass spectrometry (MS), and infrared (IR) spectroscopy for compound analysis.

	<ul style="list-style-type: none"> ❏ PSO 4: Design and execute complex organic syntheses, including multi-step reactions and the synthesis of natural products. ❏ PSO 5: Interpret spectroscopic data to determine the structure, configuration, and purity of organic compounds - Identify functional groups and analyze chemical spectra. ❏ PSO 6: Understand reaction mechanisms and reaction kinetics for various organic transformations and apply mechanistic understanding to predict and explain chemical reactivity. ❏ PSO 7: Explore specialized areas of organic chemistry, such as organometallic chemistry, heterocyclic chemistry, natural product chemistry, and polymer chemistry. ❏ PSO 8: Develop research skills for planning, executing, and documenting experimental work.
<p>M.Sc. (ACH)</p>	<ul style="list-style-type: none"> ❏ PSO 1: Demonstrate a comprehensive understanding of the principles and theories of analytical chemistry, including various analytical techniques and methods. ❏ PSO 2: Develop advanced laboratory techniques for sample preparation, chemical analysis, and data interpretation. ❏ PSO 3: Gain expertise in using a wide range of analytical instruments, such as chromatography (HPLC, GC), mass spectrometry (MS), spectroscopy (NMR, IR, UV-Vis), and electrochemical methods. ❏ PSO 4: Design and optimize analytical methods for the qualitative and quantitative analysis of chemical compounds and materials - Validate methods for accuracy, precision, and reliability. ❏ PSO 5: Interpret spectroscopic data from various instruments to identify chemical species and characterize compounds - Analyze spectra for structural information and quantification. ❏ PSO 6: Apply chromatographic techniques to separate, isolate, and quantify components of complex mixtures - Optimize chromatographic conditions and troubleshoot separations. ❏ PSO 7: Implement quality control procedures to ensure the reliability and accuracy of analytical results - Comply with relevant quality standards and regulations. ❏ PSO 8: Conduct independent research or participate in research projects under the guidance of faculty members and Present research findings in a thesis or dissertation.