

B. Pharm-

### **Program Outcome**

PO1. Pharmacy Knowledge: Possess knowledge and comprehension of the core and basic knowledge associated with the profession of pharmacy, including biomedical sciences; pharmaceutical sciences; behavioral, 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 fulfillment of practice, professional and societal responsibilities. Assume participatory roles as responsible citizens or leadership roles when appropriate to facilitate improvement in health and well-being.

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: Honor personal values and apply ethical principles in professional and social contexts. Demonstrate behavior 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.

PO11. 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 specific outcome**

#### **Pharmaceutics**

Students will be able to:

PSO1. Identify and explain the physicochemical and formulation properties of a drug that influence its absorption and stability.

PSO2. Identify and explain the properties of a drug that influence dosage form design and its route of administration.

PSO3. Identify and explain the dosage form features that influence therapeutic outcomes.

PSO4. Compound safe and effective extemporaneous pharmaceutical products.

PSO5. Prepare safe and effective sterile dosage forms and enteral nutrition products.

PSO6. Maintain professional competence by identifying and analyzing emerging issues in pharmaceutical dosage forms and compounding.

#### **Pharmaceutical Chemistry**

Students will be able to:

PSO1. Demonstrate extensive and coherent knowledge of the principles and concepts associated with chemistry.

PSO2. Demonstrate extensive and coherent knowledge of the principles and concepts associated with the design and synthesis of medicinal agents, their mode of action and their biological interactions.

PSO3. Demonstrate technical and cognitive skills associated with chemistry, including medicinal chemistry, by locating, analysing and synthesising information to generate solutions to complex questions and problems.

PSO4. Exercise critical analysis of observations and data from primary and secondary sources.

PSO5. Integrate and apply knowledge and skills associated with medicinal chemistry to plan and execute a substantial research project.

PSO6. Communicate knowledge and ideas clearly and coherently to others through a variety of media.

### **Pharmacology**

Students will be able to:

PSO1. Recognize the fundamental principles of pharmacodynamics (i.e. drug receptor interactions) and pharmacokinetics (i.e. absorption, distribution, metabolism, and elimination of drugs).

PSO2. Identify how drugs alter cellular function through the study of pharmacodynamics.

PSO3. Determine how the body handles drugs through pharmacokinetic processes such as absorption, distribution, metabolism, elimination, dose-response relationships, half-life, steady-state concentrations and volume of distribution.

PSO4. Describe the pharmacology of the autonomic nervous system at an introductory level as preparation for understanding CNS drug actions.

PSO5. Describe the distribution and identify the function of clinically relevant receptors in the autonomic nervous system and identify why they represent useful targets for therapeutic manipulation.

PSO6. List and discuss selected drugs used to stimulate or inhibit the sympathetic or parasympathetic nervous systems, including their clinical uses and potential adverse effects.

PSO7. Name major classes and provide specific examples, mechanisms of action, adverse effects and contraindications for drugs affecting the autonomic nervous system, cardiovascular system and central nervous system.

PSO8. Name the major classes and provide specific examples, mechanisms of action, adverse effects and contraindications of pre-anesthetics and anesthetics.

### **Pharmacognosy**

Students will be able to:

PSO1. Provide an overview of the field of natural product chemistry.

PSO2. Identify different types of natural products, their occurrence, structure, biosynthesis and properties.

PSO3. Discuss the use of natural products as starting materials for medicines.

PSO4. Carry out independent investigations of plant materials and natural products.

### **Course Outcome**

CO1. To produce pharmacy graduates with strong fundamental concepts and high technical competence in pharmaceutical sciences and technology, who shall be able to use these tools in pharmaceutical industry and/or institutes where ever necessary for success.

CO2. To provide students with a strong and well defined concepts in the various fields of pharmaceutical sciences viz., pharmaceutics, pharmaceutical chemistry, pharmacology and pharmacognosy according to the requirement of pharmaceutical industries, community and Hospital Pharmacy and also to develop a sense of teamwork and awareness amongst students towards the importance of interdisciplinary approach for developing competence in solving complex problems in the area of Pharmaceutical Sciences.

CO3. To promote the development of trained human resource in Pharmaceutical Sciences for dissemination of quality education with highly professional and ethical attitude, strong communication skills, effective skills to work in a team with a multidisciplinary approach.

Co4. To generate potential knowledge pools with interpersonal and collaborative skills to identify, assess and formulate problems and execute the solution in closely related pharmaceutical industries. To train the students to contribute towards health care system and counseling for prophylaxis and prevention of diseases.

CO5. To encourage the students to participate in life-long learning process for a highly productive career and to relate the concepts of Pharmaceutical Sciences towards serving the cause of the society.

M. Pharm-

## **PHARMACEUTICS (CO)**

### **Program outcome**

PO1. Demonstrate deep methodological skill and an understanding of contemporary research in their respective area of emphasis, and be able to implement innovative research practices under guidance of their faculty advisor and in concert with their research team.

PO2. Demonstrate understanding of applying contemporary research in their respective area of emphasis to industry contexts and be able to engage in innovative practices informed by such research pertinent to pharmaceutical sciences and their area of emphasis in diverse contexts.

PO3. Launch an independent research agenda in their respective area of emphasis under the guidance of their faculty advisor.

PO4. Complete a research-based thesis in their respective area of emphasis under the guidance of their faculty advisor, which may form part or all of a publishable original research paper.

### **Program Specific outcome**

#### **ADVANCED PHARMACEUTICS- I**

PSO1. To understand the relationship between physicochemical properties and therapeutic effect

PSO2. To appreciate the contribution of physicochemical properties in the performance of dosage forms.

PSO3. To study and understand the importance of stability of pharmaceuticals and factors that affect stability of pharmaceuticals.

PSO4. To enrich the students with the knowledge of various polymers.

PSO5. To understand the applications of solid dispersion in development of dosage forms

#### **DESIGN AND DEVELOPMENT OF DOSAGE FORMS**

PSO1. To understand Design and Development of Dosage Forms by understanding basic concepts like optimization, preformulation, validation, packaging of pharmaceuticals, GMP, technology transfer, technology transfer of dosage forms

## **ADVANCED PHARMACEUTICS- II**

PSO1. To understand the fundamental concepts in the development of controlled release drug delivery systems.

PSO2. To appreciate the contribution of physicochemical properties in the design of novel drug delivery systems.

PSO3. To understand the different kinds of novel drug delivery systems.

PSO4. To explore the use of polymers in the development of novel drug delivery systems.

PSO5. To understand the formulation and in vitro evaluation methods of novel drug delivery systems.

## **BIOPHARMACEUTICS AND PHARMACOKINETICS**

PSO1. To understand the relationship between pharmacokinetic parameters and physiological variables.

PSO2. To appreciate the contribution of biopharmaceutical aspects of drugs in the performance of dosage forms.

PSO3. To study and understand pharmacokinetics in the drug discovery and development.

PSO4. To study bioavailability and bioequivalence in order to correlate in vivo and in vitro release of drugs.

PSO5. To understand the applications of pharmacokinetics in development of dosage forms

### **Course outcome:**

CO1. To impart the knowledge and skills about the manufacture of excipients

CO2. To appraise the students of the problems and methods of design dosage formulations and development.

CO3. To provide in depth knowledge and skills required in the development, evaluation of conventional and novel drug delivery systems.

CO4. To inculcate the research attitude and induct them to research methodologies.

CO5. To appraise them of regulatory affairs.

## **PHARMACOLOGY (CO)**

### **Program outcomes (Pharmacology)**

PO1. Demonstrate an awareness of the interdisciplinary nature of research in contemporary pharmaceutical sciences and pharmacology and the ability to work across disciplines.

PO2. Demonstrate an understanding of core scientific concepts utilized in basic and applied research in pharmaceutical sciences and pharmacology.

PO3. Demonstrate methodological skills and an understanding of contemporary research in their respective area of emphasis, and be able to apply innovative research concepts and practices to their research under guidance of their faculty advisor.

PO4. Demonstrate the ability to synthesize, integrate, and evaluate data from diverse sources into their research.

PO5. Demonstrate an understanding of the statistical methods required to conduct research.

PO6. Complete a research-based thesis in their respective area of emphasis under the guidance of their faculty advisor, which may form part or all of a publishable original research paper.

### **Program specific outcome**

#### **ADVANCED PHARMACOLOGY – I**

PSO1. The students should be introduced to the overall process of preclinical and clinical screening of drugs.

PSO2. The students should get knowledge about how the Pharmacological screening (both preclinical and clinical) has evolved and what are recent developments in this field.

PSO3. The students should know preclinical screening of certain classes of drugs.

PSO4. The students should know the modern techniques used in preclinical screening of drugs with advantages and applications of such techniques.

PSO5. The students should get thorough understanding about the ethical handling of experimental animals and develop ability to individually plan screening of pharmacological activity of drugs in the whole animals for different categories of drugs.

#### **NEW DRUG DEVELOPMENT PROCESS**

PSO1. The students should be introduced to the overall process of drug development including regulatory aspects of new drug development.

PSO2. The students know the ethical issues involved in conduct of clinical trials.

PSO3. The student should be well versed with clinical trial design, protocol development and good clinical practices involved in conducting clinical trials.

PSO4. The students should be well acquainted with the process of pharmacovigilance.

### **ADVANCED PHARMACOLOGY – II**

PSO1. The students should become well versed with recent developments in the understanding of receptors.

PSO2. The students should get knowledge about the recent advancements in the field more specifically of the drugs used in ANS, CNS, and CVS & Respiratory system.

PSO3. Student should know the modern techniques used in pharmacological evaluations.

PSO4. The students should develop thorough understanding about the pharmacokinetic studies in preclinical & clinical stages.

PSO5. The students should understand various genetic disorders & advancements in gene therapy & genome mapping.

### **SAFETY PHARMACOLOGY AND TOXICOLOGY**

PSO1. The students should get the knowledge regarding recent methods of toxicity testing and safety testing of chemicals.

PSO2. The students should get knowledge about the planning, execution and documentation related to Toxicology and safety pharmacology testing.

PSO3. The students should know the modern techniques used in determination of biological parameters.

PSO4. The students develop thorough understanding about the OECD & ICH guidelines for safety & toxicological studies.

PSO5. The students should know various alternatives to minimizing the usage of animals in safety pharmacology & toxicity testing.

**Course outcome:**

CO1. To familiarize the students with the methods, planning and documentation related to the preclinical, clinical, toxicological and safety pharmacological evaluations of drugs.

CO2. To provide them with the opportunities to undertake preclinical, toxicological and safety pharmacological evaluations of known drugs through theory and practical classes so that they develop competence to undertake similar activities individually or as a group member during their professional career.

CO3. To train the students to collect, correlate and systematically present information on the scientific developments in the field of preclinical pharmacology, clinical pharmacology, safety Pharmacology and toxicology.

Co4. To create awareness amongst the students regarding the ethical conduct in the pharmacological research along with alternatives being developed and validated to replace conventional animal based models in drug discovery.

Co5. To train the students to analyze, evaluate and criticize the scientific publications in the peer reviewed journals so that they acquire skills related to scientific writing and presentation.

## Engineering

### Mechanical Engineering

#### Program Outcome

- a. Identify the various types of gears.
- b. Calculate the effectiveness and rating of heat exchangers
- c. Design machine elements on the basis of strength concept
- d. Design machine elements subjected to fluctuating loading
- e. Demonstrate an understanding of heat transfer in buildings with a given architectural design and its application to heating and cooling load estimation especially including thermal lag effects by conducting a detailed annual load analysis for a representative building and present the results of this analysis in a formal report possibly including recommendations for energy conservation.
- f. Design different systems such as Pressure vessel, Brakes, Clutches, Machine tool Gear box and I. C. Engine Components etc.
- g. Demonstrate the modeling aspects of axisymmetric solids subjected to axisymmetric loading.
- h. Improve the professional competency and research aptitude in relevant area.
- i. Develop the work practice in students to apply theoretical and practical tools/techniques to solve real life problems related to industry and current research.
- j. Demonstrate need of different energy sources and their importance
- k. Analyze the utilization of solar, wind energy etc.
- l. Comprehend various equipments/systems utilized in power plants
- m. Illustrate power plant economics

#### Course Outcome

- a. Ability to apply knowledge of Applied Mathematics, sciences, to Mechanical Engineering Problems.
- b. Ability to conduct experiments, as well as to analyze and interpret data & results
- c. Ability to design a system/process to meet desired needs within Engineering and environmental constraints.
- d. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- e. Ability to communicate effectively & function in multidisciplinary teams.
- f. Graduate has to understand the impact of Engineering solutions in a global, economic, environmental, social, & Safety context.
- g. Ability to use and update the techniques, skills, and modern engineering tools necessary for industry applications.
- h. Understanding of professional and ethical responsibility.

- i. A commitment to quality, timeliness, and continuous improvement

### **Program specific outcome**

- a. Graduates shall make their way to the society with proper scientific and technical knowledge in mechanical engineering.
- b. Graduates shall work in design and analysis of mechanical systems with strong fundamentals and methods of synthesis.
- c. Graduates shall adapt to the rapidly changing environment in the areas of mechanical engineering and scale new heights in their profession through lifelong learning.
- d. Graduates shall excel in career by their ability to work and communicate effectively as a team member and/or leader to complete the task with minimal resources, meeting deadlines.

## **Civil Engineering**

### **Program Outcome**

- a. List the essential elements necessary to analyze steel structures
- b. Summarize the different water supply appurtenances.
- c. Explain the principles of green building.
- d. Carryout quality control for WBM, BBM, and concrete pavements.
- e. Design and plan airport, runways terminals buildings, hangers and aprons.
- f. Prepare the submission and working drawings of various public buildings.
- g. Interpret the different types of geological structures with emphasis on civil engineering aspects.
- h. Improve the professional competency and research aptitude in relevant area.
- i. Develop the work practice in students to apply theoretical and practical tools/techniques to solve real life problems related to industry and current research.
- j. To develop the methods of consumptive use of surface water and groundwater
- k. Design the units & hence the structure as a whole
- l. Draft the details for execution

### **Course Outcome**

- a. An ability to apply knowledge of mathematics, science and engineering to solve civil engineering problems
- b. Design various structures or particular system that meets desired specifications and requirements.
- c. An ability to develop and design system components and processes related with civil engineering to meet desired standards
- d. Be able to apply geologic concepts and approaches on rock engineering projects.
- e. An ability to conduct experiments and to analyze and interpret experimental results and data.
- f. An ability to recognize the need for lifelong learning to keep pace with technological advancement
- g. Elect and use appropriate engineering techniques and software tools to analyze civil engineering problems with understanding of limitations.
- h. Able to understand the impact of engineering solutions on society and demonstrate the knowledge of, and need for sustainable development.

### **Program specific outcome**

- a. Students will gain the ability to **identify, analyze, formulate, and solve different** challenging of civil engineering problems.
- b. Students will develop professional skills that **prepare them for immediate employment** or postgraduate study in Civil Engineering disciplines.
- c. Students will develop abilities in the application of the necessary **mathematical tools, scientific basics, and fundamental knowledge** of civil Engineering.
- d. To produce graduates who are prepared for **life-long learning** and successful careers as civil engineers.
- e. Students will develop an understanding of the **multidisciplinary approach and an ability to relate engineering issues to broader social and human context**, in which their engineering contributions will be utilized.
- f. Students will learn to **communicate** their ideas to be effective in collaboration with other members of civil engineering teams.

## Electrical Engineering

### Program Outcome

- a. Solve Linear Differential Equations with constant coefficients for solving problems in Mechanical engineering fields
- b. Apply Laplace Transform for solving problems in different engineering fields.
- c. Apply fourier series to solve problems related to Mechanical Engineering.
- d. Solve Partial Differential Equations related to Mechanical Engineering application
- e. Develop logic based reasoning
- f. Tackle and convert a given problem statement into a flowchart and an algorithm
- g. Modeling of different physical systems
- h. Apply and Analyzing behavior of systems using Root locus, bode plot, Routh-Hurwitz criteria

### Course Outcome

- a. To apply knowledge of mathematics, science and engineering fundamentals to solve complex engineering problems.
- b. Ability to identify, formulate and solve Electrical Engineering problems in the broad areas like electrical machines, analogue and digital electronics, power systems and control systems.
- c. To identify, formulate, design and analyze complex electrical engineering problems.
- d. To apply knowledge of advanced mathematics includes linear algebra, complex algebra and differential equation to electrical engineering.
- e. Ability to design and conduct experiments and analyze and interpret data.
- f. To investigate an opportunity to use Renewable energy technologies.
- g. To demonstrate the principles of high voltage engineering.
- h. Ability to function on multidisciplinary teams.
- i. Recognition of the need for and an ability to engage in lifelong learning.
- j. Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

### Program specific outcome

- a. *To experience success in electrical and electronics engineering areas or other diverse fields that **requires***
- b. *To stimulate students to contribute to their fields or professions and to excel them **in professional ethics and leadership qualities.***

- c. *To inculcate in students, professional attitude, effective communication skills and capability to succeed in multi-disciplinary and diverse fields.*
- d. *To promote students to continue to pursue professional development, including **continuing or advanced education relevant to their career growth and to create enthusiasm for life-long learning.***

## **Electronics and Telecommunication Engineering**

### **Program Outcome**

- a. Apply knowledge of mathematics, science, and engineering to design, analyze and control the different systems
- b. Explain time & frequency domain analysis for different control systems
- c. classify different systems & learn its properties.
- d. Understand Fourier series & Transforms and represent different signals using these techniques
- e. Understand the baseband transmission with optical receiver operation and working.
- f. Describe the channel coding techniques with error handling methods
- g. Use simulators and down load the programs in Hardware kit
- h. Describe and differentiate types of networks such as LAN, WAN, MAN and network topologies like star, bus, ring etc. Explain and distinguish between OSI and TCP/IP reference model.
- i. Explain the different microwave Hazards.
- j. Demonstrate the application of Microwave Engineering to various fields.
- k. Comprehend the knowledge gained in the course work
- l. Create, select, learn and apply appropriate techniques, resources, and modern engineering tools.

### **Course Outcome**

- a. Apply knowledge of mathematics, science and technical fundamentals for solutions of domain problems
- b. Identify, formulate, review the literature, analyze the complex engineering problems.
- c. Design and implement the systems components and processes serving the needs of safety, environment and society
- d. Perform experiment, analyze and interpret results
- e. Use modern tools and technical skills necessary for electronic system development
- f. Understand the impact of electronics in modern era
- g. Explore the needs of society for sustainable development and human values.
- h. Able to evaluate impact of technology on society and environmental sustainability.
- i. Apply engineering, management and financial principle to manage projects.

- j. Engage self motivated lifelong learning to adopt technological changes.

### **Program specific outcome**

- a. Student will be able to attain a solid foundation in Electronics and Communication Engineering fundamentals with an attitude to pursue continuing education
- b. Student will be able to function professionally in an increasingly international and rapidly changing world due to the advances in technologies and concepts and contribute to the needs of the society
- c. Student will be able to acquire and exercise excellent leadership qualities, at various levels appropriate to their experience which addresses issues in a responsive, ethical and innovative manner
- d. Student will be able to excel in their careers by being a part of success and growth of an organization with which they are associated.

## **Computer Science Engineering**

### **Program Outcome**

- PO1. Understand different algorithms concerned with scanning, filling, Windowing and clipping on graphical objects.
- PO2. Students aware of generation of curves and surfaces.
- PO3. Implementation of activities in the object-oriented design process.
- PO4. Understand & implementation of models that can be used to describe an object-oriented design.
- PO5. Professional communication skills of the students.
- PO6. Acquire the communicative competencies crucial for appropriate workplace behaviour.
- PO7. Implementation and protocols of Network -Attached Storage - concepts, components.
- PO8. Architecture of Storage Virtualization
- PO9. Apply the function of distributed systems and their extension to grid and cloud computing and virtualization techniques
- PO10. Implementation of current technology used to build architectures to enhance distributed
- PO11. To write using mathematical models the problem solutions using Mobile Applications.
- PO12. To write develop mobile applications using open source tools.
- PO13. Competency in the creation and management of a project plan
- PO14. Implementation of impact of Scope, Time and Cost management.

## **Course Outcome**

CO1. Students will establish themselves as effective professionals by solving real problems through the use of computer science knowledge and with attention to team work, effective communication, critical thinking and problem solving skills.

CO2. An ability to identify, study research literature, formulate the computing requirements appropriate to its solution .

CO3. An ability to communicate effectively, both in writing and orally

CO4. Apply knowledge of mathematics, science and algorithm in solving complex Computer engineering problems.

CO5. Identify, formulate, and solve Software Engineering, Networking and Data Mining problems

CO6. An ability to design solutions for engineering problems and design systems or processes that meet specified needs with appropriate considerations.

CO7. Knowledge of contemporary issues and emerging developments in computing profession

CO8. An ability to conduct investigations of complex problems including design of experiments, analysis and interpretation of data to provide valid conclusions.

a. Design research problems and conduct research in computing environment.

CO9. An ability to recognize the importance of professional development by pursuing postgraduate studies or face competitive examinations that offer challenging and rewarding careers in computing

## **Program specific outcome**

PSO1. Students will establish themselves as effective professionals by solving real problems through the use of computer science knowledge and with attention to team work, effective communication, critical thinking and problem solving skills.

PSO2 Students will develop professional skills that prepare them for immediate employment and for life-long learning in advanced areas of computer science and related fields.

PSO3. Students will demonstrate their ability to adapt to a rapidly changing environment by having learned and applied new skills and new technologies.

PSO4. Students will be provided with an educational foundation that prepares them for excellence, leadership roles along diverse career paths with encouragement to professional ethics and active participation needed for a successful career.

## MBA

### Programme Outcome

PO1. The main outcome is to prepare the executives and managers for top level and middle level management in public cooperative and private sector organizations. The emphasis will therefore, be on developing a proper role perception of managerial level personnel in the Indian context by exposing them to a wide range of relevant areas, sufficiently in depth so that they may gain the confidence to interact with people at all levels and develop managerial skills for translating policies into action effectively.

### Course Outcome

CO1. 1. To expose students towards different perspectives and concepts in the field of strategic Management. To understand different strategies followed by corporates in the world. To understand different strategic tool.

CO2. Student has to undergo a practical training of minimum fifty days. MBA being professional course it is essential for each student to practically apply or understand theoretical concepts what he/she learn during the course. During the training programme student is expected to collect vital information through internal and external source so as to reach concrete conclusions on the given subject. Student has to prepare the project report under the guidance of internal teacher .Director/Principal of the institution/college will decide the last date of submission of final copy.

CO3. Different skills are expected in course outcomes as to improve Interpersonal Communication, Communication with Sample Customer, Relating Individual and Group Behaviour with Buying Behaviour, investigation Analytical Skills, Selling Skills and Analysis and Interpretation, Data Searching, Synthesis ,Analysis and Comprehension.

## MARKETING MANAGEMENT

PSO1: Provide an in-depth understanding of the unique challenges inherent in managing and delivering quality services. Develop and understand the importance of the “state of the art” service management thinking. Promote a customer service-oriented mindset and understand the role of services marketing and discuss its theory and core concepts.

PSO2: Deeper insight into the consumer psychographics. Course offers theoretical foundations in Consumer behavior and decision making, and offers many practical insights, that helps to understand the mind of the consumer, and the different buying influences. The knowledge of various modules and framework also helps students to understand consumer behavior.

PO3: Provide an overview of branding aspects in the current context on product and brand management. To understand the various aspects related to Brand Management.

PSO4: Understand the unique challenges inherent in managing and delivering quality Services. Develop and understand the importance of the “state of the art” service management thinking.

PSO5: Promote a customer service-oriented mindset and understand the role of services marketing. Develop understanding of the Sales & Distribution processes in organizations and the practical aspects of the key decision making variables in sales force and distribution channel management. It is an application oriented coursework and hence emphasis is on assimilating the learning through application of the theoretical inputs on real life cases and situation

## **STRATEGIC MARKETING**

PSO1. The course teaches principal concepts and tools of strategic marketing. An understanding of and ability to critically discuss contemporary strategy frameworks and concepts An identification of key strategic issues and challenges facing real life organizations.

PSO2. The ability to apply analytical approaches and strategy frameworks to complex issues and contexts The ability to work in a team and research, plan, structure and present a strategic analysis of a given organization in a comprehensive yet concise way.

## **CONTEMPORARY ISSUES IN MARKETING**

PSO1. The primary objective of the course is to provide each student with the background and experience necessary to develop and implement marketing communication strategies. The emphasis is on the planning of campaigns in which advertising is a major component. The emergence of alternative media and vehicles necessitates that attention also be devoted to such options (e.g., online advertising, social media) To provide an understanding of the 5 Ms of Advertising. To help the students understand rural Indian markets. To help them understand and develop marketing strategies that are unique to rural India.

## **Human Resource Management**

PSO1. To describe the detailed process of HRD. To explain the recruitment and selection process in the organization. To explain the different types of interviews.

PSO2. To explain the Concept of HRD To explain the different methods of Training & Development, To explain about – career planning

CO3. How organizational wages and salaries are fixed? How job evaluation is used in pay fixation & incentives? Legislation and policies related to payment off wages and salary.

PSO4. To provide an idea of theories, techniques and approaches to manage employee relations To understand the various labour laws and their implications. To familiarize in the major Industrial Relations Systems operating in different context.

**PSO5.** At the end of the course, student would be able to – 1. Understand how to develop HR system that will help to achieve strategic goals of a company. 2. Know the strategic management process and role of HR in the strategic management process. 3. Challenges faced by the company while operating at global level.

## **IT & System Management**

### **Strategic Information Technology Management (System-I)**

**PSO1.** Students will be able to understand different IT strategies used in the organization. They become able to know the emerging technologies and its impacts on the organization. They can understand the concepts related to the E-governance and how to implement in the industries. Research on internet use like online marketing, digital marketing, social media etc.

### **Information System Security and Audit (System-II)**

**PSO2.** Students will be able to understand Information system security threats and its control measures. They can understand Data security, telecommunication security and its control measures. Preparing the system audit report and identify the management controls. Design the security policies with the help of ISO standards and practices.

### **Software Project Management (System-III)**

**PSO3.** Students will be able to understand the business systems and to develop the system with the help of graphical representation. They become able to know the work of system analyst. They can understand the how to prepare schedule of the project and which techniques are used. Calculating cost estimation of the software and understand the estimation techniques.

## **Information technology for management**

PSO4. . OStudents will be able to understand the basic concepts of Information technology and also the computer networks. They become able to know the e- business, e-commerce, e-banking and their applications. They can understand the database and how it is useful for the organization. Design the database and use normalization forms for reduce the redundancy. They can understand how to acquire the knowledge with the help of data mining and data warehouse.

### **Finance Management**

PSO1. Students will be able to: Acquire knowledge about nature and general aspects of business operations. Understand the nature of business transaction and its recording in books of accounts. Explain the concepts and steps in accounting process including Journal, ledger, Trial Balance and balance sheet.

PSO2. Understand the importance of Computer in accounting system. Understand the various branches of accounting and their relationship with one another. Analyze the cost of product and services in its manufacturing and rendering. Understand both the theoretical and practical role of financial management in business corporations. Apply financial management concepts and tools to the decisions faced by a manager in Financing decisions, investment decisions and dividend decisions.

PSO3. Understand the need of working capital and its effective management. Understand the characteristics of different financial assets such as money market instruments, debentures, bonds, and stocks, and how to buy and sell these assets in financial markets. Appraise the risk profile of firms; specifically, estimate the costs of capital, including debt and equity capital, using financial data.

PSO4. Analyze the finances of corporations both in terms of their performance and capital requirements Have a greater appreciation and understanding of the importance of risk within the context of financial decision making. Access financial information from a wide variety of sources and use of this information.

### **Agri- Business Management**

PSO1. Students should know the nature of agri business management. To make the students aware about the basic principles of agri- business manag. To encourage the students about the

agro-processing industries in India. To make the students aware about the agri-input supply Industries in India. The agricultural situation in India has undergone a rapid change in Economic reform period. Investment in agricultural sector, both in public and private sectors, has risen.

### **Agricultural marketing**

**PSO1** To understand the meaning, nature and structure of agricultural marketing. To study the marketing functions & system. To study the pricing of agricultural products.

### **AGRIPRENEURSHIP AND PROJECT MANAGEMENT**

**PSO1**. . To understand importance of entrepreneurship development amongst agriculturists. To understand the importance of agricultural project management. To understand the importance of agro tourism.

### **ENTREPRENEURSHIP DEVELOPMENT AND PROJECT MANAGEMENT**

**PSO1**. . To inspire students to start an enterprise. To understand the concept and importance of entrepreneurship. To understand the support system provided by the government. To study different entrepreneurial opportunities. To understand factors to be considered while planning and managing project

### **Global Quality System**

**PSO1**. To make aware students about quality concepts. To foster thinking of students towards quality parameters and its implementation. To facilitate hands on experience towards various quality concepts.

### **International Business**

**PSO1**. To explain the concept of International Business. To develop the understanding of difference between domestic & international business. To bring the awareness of International Business Environment& business strategies

### **International Trade in Agriculture**

**PSO1**. . To gain an understanding of important theoretical and applied issues in international trade. To examine performance of India's agricultural trade. To study International marketing system with quality and regulatory Standards for agricultural produce.

### **Agri-Business Finance Management**

**PSO1**. To understand the concepts of agricultural finance and financial management. To microfinance in India. To create awareness about agricultural indebtedness in India and financial support to agribusiness

MCA

### **PROGRAMME OUTCOMES (POs):**

MCA programme has been designed to prepare graduates for attaining the following program outcomes:-

An ability to identify, critically analyze, formulate and develop computer applications by selecting modern computing tools and techniques and use them with proficiency. Student must have ability to conduct experiments, interpret data and provide well informed conclusions. To carried out said functions effectively, there is a need to be a good team leader and team member on multi-disciplinary projects. Applying the inherent and interpersonal skills with absolute focus, establish themselves as a successful entrepreneur

### **COURSE OUTCOMES (COs):**

**CO-1-**To prepare graduates who will be successful professionals in industry, government, academia, research, entrepreneurial pursuit and consulting firms

**CO-2-**To prepare graduates who will contribute to society as broadly educated, expressive, ethical and responsible citizens with proven expertise

**CO-3-**To prepare graduates who will achieve peer-recognition; as an individual or in a team; through demonstration of good analytical, design and implementation skills

**CO-4-**To prepare graduates who will thrive to pursue life-long learning to fulfill their goals

### **PROGRAM SPECIFIC OUTCOMES (PSOs)-**

**PSO-1-**Develop competence in basic technical subjects in computer applications like Programming Languages, Data Structures, Databases, Operating Systems, Software Engineering.

**PSO-1-**Identify, analyze, formulate and develop computer applications.

**PSO-1-**Provide simplest automated solutions to various legacy systems.

**PSO-1-**Analyze all kinds of software applications, test it under various types.

**PSO-1-**Being self-motivated to learn and use modern computing tools and techniques.