

## **PROGRAM SPECIFIC OUTCOMES**

### **B.Sc., Mathematics, Physics, Chemistry (M.P.C) OUTCOMES**

**PSO 1:** Understand the theoretical concepts of physical and chemical properties of materials and the role of mathematics in dealing with them in a quantitative way.

**PSO 2:** Analyse the concepts of mathematics, physics and chemistry and understand the relation among them like physical chemistry, mathematical modelling of physics and chemistry problems.

Skills needed to handle instruments and adopt lab procedures to study physical chemical properties of materials.

**PSO 3:** Mathematical, numerical techniques required to model them.

**PSO 4:** Ability to interlink the skills and knowledge in mathematics, physics and chemistry and develop an aptitude to address the problems in biophysics, stock market analysis.

### **B.Sc., Mathematics, ,Statistics, Computer Science (M.S.Cs) OUTCOMES**

**PSO 1:** Understand the concepts of vector spaces, group theory, probability, distributions, sampling techniques, algorithm design, data base design and web design.

**PSO 2:** Analyse the concepts of mathematics, statistics and computers science able to use them in algorithm design and data science.

**PSO 3:** Acquire the skills to use various sampling techniques, statistical inference, data analysis in MS-Excel, implementation of numerical algorithms by using various programming languages.

**PSO 4:** Ability to interlink the skills developed and develop an aptitude to address the problems in DBMS, web and mobile app development.

### **B.Sc., Mathematics, Physics, Computer Science (M.P.Cs) OUTCOMES**

**PSO 1:** Understand the concepts of vector spaces, group theory, quantum mechanics, optical, thermal, electrical, mechanical properties of a materials, probability, algorithm design, data base

**PSO 2:** Understand the concepts of vector spaces, group theory, quantum mechanics, optical, thermal, electrical, mechanical properties of a materials, probability, algorithm design, data base

**PSO 3:** Analyse the concepts of mathematics, physics and computers science able to relate them in numerical programming of models of physical systems.

**PSO 4:** Acquire the skills to study the properties of materials, implementation of numerical algorithms by using various

**PSO 5:** Ability to interlink the skills developed and acquires an aptitude to address the problems in simulations of material properties, web and mobile app development.

### **B.Sc., Mathematics, Electronics, Computer Science (M.E.Cs) OUTCOMES**

**PSO 1:** Understand the concepts of basic electronic components, networks, communication systems, microprocessors and micro controllers, algorithms, C language, Arduino programming, Networking, cloud and Big Data.

**PSO 2:** Analyse the concepts of mathematics, Electronics and computer Networks and able to use them in solving real world problems.

**PSO 3:** Acquire the skills to use various electronic components, microprocessor, microcontroller, Arduino, Raspberry PI and simulators.

**PSO 4:** Ability to interlink the skills developed and gets an aptitude to address the problems in smart home design, smart vehicles, smart sensors in various fields.

### **B.COM (Vocational Computers) OUTCOMES**

**PSO 1 :** To understand the nature, scope and concepts of Accounting, Business Operations and Management.

**PSO 2 :** To enable the students to understand the concepts of computer software and its applications in business operations.

**PSO 3 :** To equip the students with business analytics and e-commerce skills.

**PSO 4 :** To develop the students with communication, leadership and entrepreneurial skills.

**PSO 5 :** To make them learn the latest technologies and their application in modern business operations.

### **M.C.A. (Master of Computer Applications) OUTCOMES**

- 1) Apply the knowledge of mathematics and computing fundamentals to various real-life applications for any given requirement
- 2) Design and develop applications to analyse and solve all computer science related problems

- 3) Design applications for any desired needs with appropriate considerations for any specific need on societal and environmental aspects
- 4) Analyse and review literatures to invoke the research skills to design, interpret and make inferences from the resulting data
- 5) Integrate and apply efficiently the contemporary IT tools to all computer applications
- 6) Solve and work with a professional context pertaining to ethics, social, cultural and cyber regulations
- 7) Involve in perennial learning for a continued career development and progress as a computer professional
- 8) Function effectively both as a team leader and team member on multi-disciplinary projects to demonstrate computing and management skills
- 9) Communicate effectively and present technical information in oral and written reports
- 10) Utilize the computing knowledge efficiently in projects with concern for societal, environmental, and cultural aspects
- 11) Function competently as an individual and as a leader in multidisciplinary projects
- 12) Create and design innovative methodologies to solve complex problems for the betterment of the society
- 13) Apply the inherent skills with absolute focus to function as a successful entrepreneur.

## **M.Sc. ORGANIC CHEMISTRY**

### **COURSE OUTCOMES:**

**Student will be able to understand the concept related to**

- Aromaticity, Reactive intermediate, Isomerism and stereochemistry.
- Organic reactions of industrial significance with respect to the chemo selectivity, regioselectivity and enantioselectivity.
- Analyze the product distribution and stereochemistry of the various organic products.
- impart training in the synthesis of organic molecule and in analysis of chemical methods.
- Recall the importance of analysis of organic molecules
- The qualitative analysis of mixture, the functions of various reagents & reaction mechanisms.
- Evaluate the properties synthesized organic products and their derivatives through spectroscopic and analytical data.

- Determination of a structure of unknown organic compounds using spectroscopy techniques.
- Separation of various components present in given mixture using suitable chromatographic methods.
- Apply their understanding about the retrosynthetic approaches involved in organic reactions of industrial significance.

## **M.Sc. ANALYTICAL CHEMISTRY**

### **COURSE OUTCOMES:**

**Student will be able to understand the concept related to**

- Analyze different errors using statistical methods in chemical analysis.
- Analyze different constituents through instrumental methods of analysis.
- Prepare different samples from gross sample and analyze the sample for concentration of analyte.
- Apply absorption and emission techniques for trace element analysis from different materials.
- Analyze thermal behavior of different organic and inorganic materials using TGA, DTA and DSC.
- Student can opt suitable chromatographic method for the separation of various components present in given mixture.
- Analyze various foreign substances present in water for assess quality of water.