DEPARTMENT OF CHEMISTRY

The Course Outcome of UG Course B.Sc. in Chemistry

After completion of degree, students gained the theoretical as well as practical knowledge of handling chemicals. Also they expand the knowledge available opportunities related to chemistry in the government services through PSC particularly in the field of food safety, health inspector, pharmacists etc. Achieve the skill required to succeed in graduate school. Professional school and chemical industry like cement industries, agro product, petrochemical industries etc.

Semester-1 (Fundamental Of Chemistry; Code-CEMGCO01T):

(This course covers the fundamental principles and laws of chemistry. Topics include quantum number, electronic configuration, chemical bonding etc.)

Course Outcome: Upon successful completion students should be able to apply the fundamental principles of measurement, matter, atomic theory, periodicity to the subsequent course in science.

Semester-2 (Inorganic Chemistry; Code- CEMGCOR02T):

(This course aims to familiarize students with the principle of analytical chemistry and basic analytical technique)

Course Outcome: Upon successful completion students should be able to facilitate the learner to make solution of various molar concentration. Describe bonding models that be applied to a consideration of the properties of transition metal compounds.

Semester-3 (Physical and Organic Chemistry; Code- CEMGCOR03T):

(This course covers the basic physical principles that are foundation of essentially all materials and biological chemistry.)

Course Outcome: Upon successful completion students should be able to state and apply the laws of thermodynamics; perform calculation with ideal and real gases, design practical engine by using thermodynamic cycles, predict chemical equilibrium and spontaneity of reaction and are expected to apply their knowledge to deduce structure, synthesize simple organic molecules using studied reactions. Relationship between organic chemistry and other discipline.

Semester-4 (Analytical and Environmental Chemistry; Code- CEMGCOR04T):

(This prepares students for career as leader in understanding and addressing complex environmental issues from a problem oriented, interdisciplinary perspective.)

Course Outcome**:** By the end of this course, students should be able to handle organic chemicals in a safe and competent manner. How to use the scientific method to create, test and evaluate a

hypothesis. How to perform common laboratory technique including reflux, distillation, recrystalization etc.

Semester-5 (Polymer Chemistry; Code- CEMGDSE01T):

(Knowledge of polymer chemistry helps the students to describe the role of rubber toughening in improving the mechanical properties of polymer; differential between natural and manmade polymer isolate the key design feature of a product.)

Course Outcome: After studying this course students should be able to indicate how properties of polymeric materials can be exploited by a product designer, describe the role of rubber-toughening in improving the mechanical properties of polymer.

Semester-6 (Industrial Chemistry; Code CEMGDSE03T):

The course is designed to teach the students the essential skills and knowledge involved in industrial chemistry. A key skill emphasized is problem solving both quantitative and qualitative. The course trains the students to be result oriented in the chemical, petrochemical, biochemical and allied technological field.