



**SPC Government College**

**Beawer Road, Ajmer-305001**



# **Program Outcomes of Chemistry**

## Program Outcomes of M.Sc. Chemistry

**General learning outcomes** of chemistry in PG program:- The various courses across this programme in Chemistry equips the scholars with the following abilities:

- Learner applies his /her knowledge in various aspects of chemistry viz:- in natural products, pharmaceuticals, dyes, textile polymers, petrochemical products, forensic etc. and also to develop an understanding of the interdisciplinary approaches to the chemistry subject.
- He or she generates awareness and sense of responsibilities towards environment
- He or she can demonstrate and apply fundamental knowledge of basic principles of various fields of chemistry. It would help learners to communicate scientific information in a clear and concise manner both orally and in writing.
- He or she collaborates effectively on term oriented projects in the field of chemistry or other related fields.
- Learners augment the recent development in the field of green and eco-friendly reactions, pharmaceutical, bioinorganic chemistry and relevant field of research and development.

## Specific Learning Outcomes:

After completion of the PG program in chemistry -

- The learner will be able to represent the rate Law of chain reaction, Kinetic of photochemical and uni - molecular reaction, statistical thermodynamics, understand the quantum chemistry, phase diagram in physical branch.
- Learner will be able to visualise molecules in 3D, understands the concept of chemistry, symmetry element, and symmetry operations.
- He or she will develop the competence to prepare precise solutions for quantitative analysis, synthesise inorganic complexes, understand and demonstrate Ion exchange chromatography, extrapolate chromatography, surmise the principle and working of different instruments like colorimeter, conductivity metre and spectrophotometer, in Inorganic branch.
- Learner will be able to comprehend chemical Bonding, reactivity of various organic compound, various facets of the subject such as acidity, basicity, aromaticity, stereochemistry, stereochemical aspect, mechanism of various organic reactions, oxidising and reducing agents, and will develop the competence regarding different purification techniques, extraction and will become well versed with various safety techniques, handling of chemicals etc in organic branch.