

MARIS STELLA COLLEGE (AUTONOMOUS),
Department of Chemistry
2015-2016

1. Organized a guest lecture 'Theoretical concepts of molecular spectroscopy' on 24.11.2015 for II B.Sc Chemistry combination students.

Resource person: Mr T.N.V.S.S. Satya Dev, Faculty, PG Dept. of Chemistry
P.B. Siddhartha college of Arts & Sciences
Vijayawada.

Outcomes of the programme:

Students are enlightened with the basic concepts of **spectroscopy** like

- Electronic spectroscopy: different regions of electromagnetic radiation, selection rules, types of transitions
- IR spectroscopy: general principle, Hook's Law, modes of vibrations
- NMR: General principle, different conditions required to record NMR spectrum, equivalent and non-equivalent protons concept.
- Basic concepts of microwave spectroscopy
- Differences between ESR and H^1 NMR



2. Organized a skill development training programme on 'HPLC instrumental methods of analysis and basic organic synthesis' at Shree Icon Pharmaceutical laboratory, Vijayawada from 2.1.2016 to 15.2.2016 for 15 students from III B.Sc – MPC, CBZ and Bio Tech groups.

Hands on training is given to a group of 15 students from B.Sc (MPC, CBZ, Bio Tech) programme on HPLC method development and validation, simple organic synthesis and purity check.

Course out comes:

Upon completion of the course, students would

- CO1: Able to correlate the theoretical concepts practically.
- CO2: Gain hands on experience on High Performance Liquid Chromatography for chemical analysis.
- CO3: Learn simple organic synthesis and reaction monitoring, puritycheck by Thin Layer Chromatography.