

**ANALYTICAL CHEMISTRY (BS-ADP 8<sup>th</sup> Semester)**

<b>Module Code:</b>	<b>Chem-467</b>
<b>Module title:</b>	<b>Analytical Chemistry Lab – II</b>
<b>Name of Scheme:</b>	<b>BS-ADP 8<sup>th</sup> Semester</b>
<b>Department:</b>	<b>School of Chemistry</b>
<b>Faculty:</b>	<b>Science</b>
<b>Module Type:</b>	<b>Compulsory</b>
<b>Module Rating:</b>	<b>1 credit</b>

---

**OBJECTIVES:**

This course is about the advanced spectroscopic techniques. The students will learn the advanced structural elucidation techniques. They will be able to determine the structure of various molecules on the basis of their NMR and mass spectrometric data.

**SYLLABUS OUTLINE:**

- Determination of Chemical Shift values for protons in Ethanol
- Elucidation of <sup>1</sup>H NMR spectrum of Acetone, Ethanol, Benzoic acid, acetaminophen
- Determination of coupling constant in <sup>1</sup>H NMR spectra
- Determination of isomers based on their <sup>1</sup>H NMR spectra
- Structure Elucidation of poly aromatic hydrocarbons (PAH) by GC-MS.
- Identification of haloacetic acid (HAA) by using GC-MS

**RECOMMENDED BOOKS:**

1. Analytical chemistry by Kellner, J.M. Mermet, Wiley-VCH Verlag GmbH & Co. KGaA.
2. A text book of analytical chemistry by Y-Anjaneyulu, K-chamdare khar, ValiManickam, Pharma book syndicate.