

Organic Chemistry Laboratory:

- ❖ The organic chemistry laboratory mainly focusses on the synthesis of organic compounds with medicinal and other industrial applications. In addition, extraction of bioactive molecules from various medicinal plants along with their separation and chemical/spectroscopic characterization is also part of the organic chemistry laboratory course. The various separation techniques which are used for separation of organic compounds include column chromatography, thin layer chromatography as well as the sophisticated technique of high performance liquid chromatography (HPLC).
- ❖ Extraction of essential oils from aromatic plants using hydrodistillation and steam distillation constitutes an important aspect of laboratory course. Value addition of these essential oils is also performed in order to design novel perfumes for commercialization.
- ❖ The main experiments in the organic chemistry laboratory course of M.Sc course include the following:
 - Synthesis of organic compounds with pharmaceutical applications.
 - Extraction, separation and chemical/spectroscopic characterization of various organic compounds from plants.
 - Distillation of essential oils from aromatic plants using hydrodistillation and steam distillation techniques.
 - Synthesis and spectroscopic characterization of various perfume molecules along with their aroma/olfactory evaluation.

The key instruments in the organic chemistry laboratory include:

- High Performance Liquid Chromatography (HPLC).
- UV Spectrophotometer.
- FT-IR
- Steam distillation unit for essential oils.
- Hydrodistillation unit for essential oils.
- Magnetic stirrers
- UV chamber for TLC
- Fume hood.
- Rotatory evaporator.