

**Sarvajanik University**

**Faculty of Science**

**B.Sc. (Hons)**

Faculty: Science	Department: All
Program: B.Sc. (Hons)	Type: Major
Subject: Foundation Laboratory in Applied Sciences-1	Credits: 4
Semester: 1	
<b>Course description:</b> The objectives of this practical course is to introduce and explain basic skills of Biotechnological, Chemistry, Environmental Science and Microbiology techniques.	
<b>Student Learning Outcome:</b> <ul style="list-style-type: none"><li>● Practical part of the paper will help to understand various laboratories and their fundamental work.</li><li>● It will also help in development of basic preparation &amp; handling skills of glasswares and instruments available in Biotechnology, Chemistry, Environmental Science and Microbiology laboratories.</li></ul>	

**List of Practicals:**

1. Introduction to three Biotechnology laboratories and Instrumentation Room.
2. Introduction to Biosafety and Biohazards.
3. Qualitative analysis of unknown organic compounds containing monofunctional groups (carbohydrates, aryl halides, aromatic hydrocarbons, nitro compounds, amines and amides) and simple bifunctional groups, for e.g. salicylic acid, cinnamic acid, nitrophenols etc. (Minimum Seven)
4. Determination of minimum quadrat size by species-area curve method.
5. Determination of porosity, bulk density, water holding capacity and field capacity of soil.
6. Study of bright field microscope
7. Examination of Hay infusion by wet mount technique