Course Code & Title : **CBC215 Chemistry and Biological Chemistry Laboratory 1**

Academic Units : 3 AU

Pre-requisite : CBC 112, CBC 113 or CBC 115 or By permission

Course Description : **CBC215 Chemistry and Biological Chemistry Laboratory 1**

[Laboratory: 60; Pre-requisite: CBC 112, CBC 113 or CBC115 or By permission; Academic Units: 3]

**Learning Objectives**
To enhance student's laboratory skills, to introduce more advanced instrumentation and techniques.

**Content**
Laboratory includes synthesis, qualitative and quantitative analysis of organic and inorganic compounds. Experiments are designed to illustrate topics covered in CM2021 and CM2031. Techniques of separation, organic and inorganic reactions, preparation and systematic identification of compounds by their spectroscopic and chemical properties

**Learning Outcomes**
Students will be able to carry out more advanced synthetic procedures, including air-sensitive reactions and multi-step procedures. They will be able to record and interpret various spectra including IR, $^1$H NMR, $^{13}$C NMR and UV-vis. Students will further enhance their skills in time management, problem solving, spectroscopic interpretation and data handling.

**Student Assessment**
Assessment will be by written laboratory reports and laboratory performance throughout the term (100%).

**Textbooks/References**
CM2061 Lab Manual and e-resources