Course (Unit) Title	**Inorganic and Organic Chemistry Laboratory 1I**
Course (Unit) Code	CHE204G3
Credit Value	03(135 hours of practical work)
Objective/s	• Develop basic practical skills involved in qualitative, quantitative analyses • Provide training on synthesis of simple organic compounds • Train on data interpretation and structure elucidation of organic compounds
Intended Learning Outcomes	• Determine the amount of substances using iodometric and complexometric titrimetry • Identify and confirm the cations and anions in a given mixture in the presence of phosphate ions. • Synthesize simple organic compounds • Deduce the structure of organic compounds by interpreting spectral data
Contents	**Quantitative Inorganic Analysis** • Iodometric titrations • Complexometric titrations • Advanced Redox titrations **Qualitative Inorganic Analysis** • Identification of different anions and cations in the mixture with the presence of phosphate ions **Synthesis of Organic compounds** • Separation of organic compounds • Synthesis of simple organic compounds and determination of their melting points **Structure elucidation of organic compounds** • Identification of organic structures by interpretation of UV,IR, NMR, and mass spectra
Teaching and Learning Methods / Activities	Laboratory demonstrations and hands on experiments, Assignments
Evaluation	In course assessment (Theory and Practical)30% End of course examination 70%

Recommended References	• Vogel, A. I., *Text book of Qualitative Inorganic Analysis*, Longman Scientific, 2004. • Denney, R. C., Thomas, M. J. K., David J. B., and Mendham J., *Text Book of Quantitative Inorganic Analysis*, 6th Edition, Longman Scientific, 2005. • Williams D.H., and Fleming.I., *Spectroscopic methods in organic chemistry*, McGraw-Hill, 2008 • Silverstein R.M, Webster F.X, Kiemle.D and Bryce D.L. *Spectroscopic Identification of organic compounds*, 8th Edition. Wiley, 2014