Course (Unit) Title	**Chemistry of Periodic Elements**
Course (Unit) Code	CHE103G1
Credit Value	01 (15 hours of lectures and tutorials)
Objective/s	• Describe main group elements, transition metals, transition metal complexes and their properties • Explain chemistry of lanthanoides and actinoides element and their applications
Intended Learning Outcomes	• Discuss chemistry of main group elements, transition and inner transition elements and noble gases in the periodic table • Compare general properties of lanthanoides and actinoides. • Describe applications of lanthanoides and actinoides in industries
Contents	**Main Group Elements** • Hydrogen • Group 1 Elements: alkali metals • Group 2 Elements: alkaline earth metals • Group 13 Elements: boron and other metals • Group 14 Elements • Group 15 Elements: pnictogens • Group 16 Elements: chalcogens • Group 17 Elements: halogens • Group 18 Elements: noble gases **Transition Metals** • Transition metals and their complexes • Properties and periodic trends of transition metals • Applications of transition metals **Lanthanoides and Actinoides** • Properties of the f-block elements • Separation of lanthanoides and actinoides and their applications
Teaching and Learning Methods / Activities	Lectures, Tutorials and Assignments
Evaluation	In course assessment 30% End of course examination 70%
Recommended References	• Cotton, F. A.; Wilkinson, G.; Murillo, C. A. and Bochmann, M., *Advanced Inorganic Chemistry*, 6th Edition, Wiley, 1999. • Massey, A. G., *Main Group Chemistry*, 2nd Edition, Wiley, 2000. • Shriver, D.; Weller, M.; Overton, T.; Rourke, J. and Armstrong, F., *Inorganic Chemistry*, 6th Edition, W. H. Freeman and Company, 2014.