



Analytical chemistry

Course Code	Course Num.	Course Name	Credit Hours	Lec.	Lab	Tut	Prerequisites
CHM	231	Analytical Chemistry	4	2	2	2	CHM101

Objectives:

- To provide a basic knowledge and understanding of essential chemical and physical principles for analytical chemistry.
- To introduce basic analytical techniques and practical aspects of classical chemical analysis.
- To solve problems related to chemical analysis and interpret analytical results.

Syllabus:

Review the basic calculations of analytical chemistry, Statistics and data analysis in analytical chemistry, Sampling, Standardization, and Calibration, Fundamentals of chemical equilibria, Effect of Electrolytes on equilibrium systems, Gravimetric analysis, Acid/Base Titrations, Precipitation Titrations, Complexometric Titrations, Oxidation/Reduction Titrations,

References:

- Daniel C. Harris. Quantitative Chemical Analysis , 8th edition, (2010), W. H. Freeman & Co., New York, ISBN: 9781429218153
- David Harvey. Modern Analytical Chemistry , McGraw-Hill, 1st ed, (2000), ISBN: 0-07-237547-7
- Francis Rouessac, Annick Rouessac, John Wiley & Sons. Chemical Analysis: Modern Instrumentation Methods and Techniques, , 2nd ed, (2007). ISBN-13: 978-0470859032
- Skoog D. A., Holler F. J. Crouch S.R, Brooks Cole; Principles of Instrumental Analysis”, 6th edition (2006) , ISBN: 0495012017.

