



MUTAH UNIVERSITY
Faculty of Engineering
Department of Chemical Engineering



Industrial Analytical Chemistry Course Syllabus

Course Code	Course Name	Credits	Contact Hours
0404214	Industrial Analytical Chemistry	3	48

INSTRUCTOR/COORDINATOR

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Website	

TEXTBOOK

Fundamental of analytical chemistry by Skoog, 9th Edition, 2004

Quantitative Chemical Analysis, Daniel Harris, 8th Edition.

Fundamentals of Analytical Chemistry, Douglas A. Skoog, Donald M. West, F. James Holler, Stanley R. Crouch. Ninth Ed.

SPECIFIC COURSE INFORMATION

A. Brief Description of the Content of the Course (Catalog Description)

This course covers the concept of chemical analysis and its steps, the preparation of chemical solutions and concentrations, gravimetric analysis and its calculations, volumetric analysis principles and their applications in practical life.

B. Pre-requisites (P) or Co-requisites ©

P: 0404112

C. Course Type (Required or Elective)

Required (Compulsory department course)

SPECIFIC GOALS

A. Specific Outcomes of Instruction

1. Possessing the basic theoretical skills in traditional chemical analysis [SLO 1]
2. evaluating and processing data in an appropriate computational and statistical manner [SLO 1]
3. identifying methods of gravimetric and volumetric analysis and the theoretical foundations upon which each of them is based [SLO 1]
4. studying the different types of reagents and the field of action of each type. [SLO 1]

B. Student Outcomes Addressed by the Course

1	2	3	4	5	6	7				
✓										

BRIEF LIST OF TOPICS TO BE COVERED

List of Topics	No. of Weeks	Contact Hours
Nature of analytical chemistry	2	6 hours
Errors in chemical analysis	2	6 hours
Calculation used in analytical chemistry	3	9 hours
Gravimetric method of analysis	3	9 hours
Volumetric analysis	3	9 hours
Chemical equilibria	3	9 hours
Total	16	48 hours

METHODS OF ASSESSMENT

No.	Method of assessment	Week and Date	%
1	Home works	6th week	20
2	midterm Exam	9th week	30
3	Final Exam	End of Semester	50
Total			100