



Course	CHEM 302 /Analytical Chemistry
Instructor	Prof. Dr. Selmiye Alkan Gürsel
Term	2023-2024 Spring
Lecture Hours & Zoom Link	Monday 10.40-11.30 (FENS G025) Thursday 13.40-15.30 (FASS G048)

Instructor's Contact Information

Office Phone	02164839573
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Office hours	Monday 11.40-12.30 (please email me!)

Teaching Assistants

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General Course Information

Course Description	This course is designed to be a comprehensive introduction to fundamentals of analytical chemistry
Objectives	The overall goals of this course are to <ul style="list-style-type: none">• teach calculations used in analytical chemistry• teach proper solution handling and standards preparation• teach the basics of aqueous solutions and chemical equilibria• teach gravimetric and titrimetric methods• teach the principles of neutralization titrations and titration curves• provide a foundation in electrochemistry which is sufficient for the understanding of many basic phenomena.• provide a basic understanding of common analytical and instrumental techniques
Textbook	Fundamentals of Analytical Chemistry, Skoog/West/Holler/Crouch; 9 th edition (or any other new edition)
Top Hat (online response system)	In lectures, we will use an online response system called Top Hat accessible from tophat.com on your web browser, or through free Top Hat app (tophat.com/mobile-apps) if using tablet. If you have not used the system before, please review this "Getting Started" guide before the first lecture. You must log in Top Hat with your SU email account name with a device connected to SABANCIUNIV WiFi to each lecture.
Grading	<i>Top Hat activities- 10 %</i> <i>Midterm Exam - 25 %</i> <i>Laboratory- 15 %</i> <i>Project - 20 %</i> <i>Final exam - 30 %</i>

Tentative Course Schedule

<i>Week</i>	<i>Date</i>	<i>Topic</i>
1	February 15	Introduction & The Nature of Analytical Chemistry
2	February 19 & 22	Calculations used in Analytical Chemistry
3	February 26 & 29	Calculations used in Analytical Chemistry
4	March 4 & 7	Calculations used in Analytical Chemistry
5	March 11 & 14	Aqueous Solutions and Chemical Equilibria
6	March 18 & 21	Aqueous Solutions and Chemical Equilibria
7	March 25 & 28	Aqueous Solutions and Chemical Equilibria
8	April 1 & 4	Titrimetric Methods
9	April 8 & 11	Break
10	April 15 & 18	Principles of Neutralization Titrations Buffer Solutions
11	April 22 & 25	Midterm Exam (April 25)
12	April 29 & May 2	Introduction to Electrochemistry
13	May 6 & 9	Applications of Standard Electrode Potentials
14	May 13 & 16	Applications of Standard Electrode Potentials
15	May 20 & 23	Project Presentations: Instrumental Techniques
16	May 27	Project Presentations: Instrumental Techniques