

ATILIM UNIVERSITY FACULTY OF MEDICINE
2024-2025 ACADEMIC YEAR

MED 313	Protein Analysis & Proteomics Instructors: Prof. Dr. Nedret KILIÇ
WEEKS-HOURS	TOPICS
26 September 2024 15:30-17:20	Introduction to Proteomics: The proteome, The tasks in proteomics, Challenges in proteomics, Proteomics in relation to other -omics and system biology Lecture Hall 203
3 October 2024 15:30-17:20	Some general applications of proteomics Separation and detection technologies-1: Introduction to experimental strategies in proteomics, Sample preparation Lecture Hall 203
10 October 2024 15:30-17:20	Separation and detection technologies-2: Gel-based technologies/2D gels, Gel-based separation, Visualization and analysis of proteins/peptides in gels Lecture Hall 203
17 October 2024 15:30-17:20	Separation and detection technologies-3: Gel-free separation technologies, HPLC, RPLC, IEC Lecture Hall 203
24 October 2024 15:30-17:20	Separation and detection technologies-4: CE, SEC, Optical detectors Lecture Hall 203
31 October 2024 15:30-17:20	Basic principles of mass spectrometry for proteomics-1 Lecture Hall 203
7 November 2024 15:30-17:20	Basic principles of mass spectrometry for proteomics-2 Lecture Hall 203
14 November 2024 15:30-17:20	MIDTERM
21 November 2024 15:30-17:20	Mass analyzers and mass spectrometers-1 Lecture Hall 203
28 November 2024 15:30-17:20	Mass analyzers and mass spectrometers-2 Lecture Hall 203
5 December 2024 15:30-17:20	Analysis and interpretation of mass spectrometric and proteomic data: Analysis of MS data Lecture Hall 203
12 December 2024 15:30-17:20	Analysis and interpretation of mass spectrometric and proteomic data: Analysis of MS/MS data Lecture Hall 203

19 December 2024 15:30-17:20	Quantification of LC MS and MS/MS data from complex samples Lecture Hall 203
26 December 2024 15:30-17:20	Bioinformatic approaches for mass spectrometric proteome data analysis Novel strategies in proteomics: Imaging mass spectrometry, Quantitative proteomics for biomarker discovery Lecture Hall 203
2 January 2025 15:30-17:20	Overview of semester Lecture Hall 203
9 January 2025 15:30-17:20	FINAL EXAM