

**ATILIM UNIVERSITY**  
**FACULTY OF MEDICINE**  
**2025-2026 ACADEMIC YEAR**

<b>MED 313</b>	<b>Protein Analysis &amp; Proteomics</b> <b>Instructor: Prof. Dr. Nedret KILIÇ</b>
<b>TIME (Weeks/Hours)</b>	<b>TOPICS</b>
25 September 2025 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: C001
2 October 2025 15:30-17:20	Separation and detection technologies-1: Introduction to experimental strategies in proteomics, Sample preparation Lecture Hall: C001
9 October 2025 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: C001
16 October 2025 15:30-17:20	Separation and detection technologies-3: Gel-free separation technologies, HPLC, RPLC, IEC Lecture Hall: C001
23 October 2025 15:30-17:20	Separation and detection technologies-4: CE, SEC, Optical detectors Lecture Hall: C001
30 October 2025 15:30-17:20	Basic principles of mass spectrometry for proteomics-1 Lecture Hall: C001
6 November 2025 15:30-17:20	Basic principles of mass spectrometry for proteomics-2 Lecture Hall: C001
13 November 2025 15:30-17:20	<b>MIDTERM EXAM</b> <b>Lecture Hall: C001</b>
20 November 2025 15:30-17:20	Mass analyzers and mass spectrometers-1 Lecture Hall: C001

27 November 2025 15:30-17:20	Mass analyzers and mass spectrometers-2 Lecture Hall: C001
4 December 2025 15:30-17:20	Analysis and interpretation of mass spectrometric and proteomic data: Analysis of MS data Lecture Hall: C001
11 December 2025 15:30-17:20	Analysis and interpretation of mass spectrometric and proteomic data: Analysis of MS/MS data Lecture Hall: C001
18 December 2025 15:30-17:20	Quantification of LC MS and MS/MS data from complex samples Lecture Hall: C001
25 December 2025 15:30-17:20	Novel strategies in proteomics: Imaging mass spectrometry, Quantitative proteomics for biomarker discovery Lecture Hall: C001
1 January 2026	<b>HAPPY NEW YEAR</b>
8 January 2026 15:30-17:20	Overview of the semester Lecture Hall: C001
15 January 2026 15:30-17:20	<b>FINAL EXAM</b> <b>Lecture Hall: C001</b>