

Course Title: Advanced Laboratory Methods (Ph.D.)

Field and Level of Study: Ph.D. in Biochemistry

Faculty: Medicine

Academic Year: 2024-2025 (1404-1403 Persian Calendar)

Type of Credit: Compensatory

Number of Credits: 1 Theoretical Credit, 1 Practical Credit

Semester: Bahman

Teaching Staff: Dr. Babaahmadi / Dr. Mohammadi / Dr. Ijder / Dr. Faridi / Dr. Taghavi / Dr. Hashemnia

Class Day and Time: Wednesdays, 8:00 AM - 10:00 AM

Session	Date	Course Topics (Concepts Expected to be Taught)	Learner Activities	Teaching Method	Instructor
First	1403/11/23	Concepts and General Principles of PCR		Theory	Dr. Babaahma di
Second	1403/11/30	Concepts and General Principles of PCR		Practical	Dr. Babaahma di
Third	1403/12/07	Concepts and General Principles of Real-Time PCR		Theory	Dr. Babaahma di
Fourth	1403/12/14	Concepts and General Principles of Real-Time PCR		Theory	Dr. Babaahma di
Fifth	1403/12/21	Concepts and General Principles of Real-Time PCR		Practical	Dr. Babaahma di
Sixth	1404/01/19	Types of Electrophoresis (Agarose Gel, SDS-PAGE, ...)		Theory	Dr. Faridi
Seventh	1404/01/26	Types of Electrophoresis (Agarose Gel, SDS-PAGE, ...)		Practical	Dr. Faridi
Eighth	1404/02/02	Concepts and General Principles of Western Blot		Theory	Dr. Babaahma di
Ninth	1404/02/09	Concepts and General Principles of Western Blot		Practical	Dr. Babaahma di
Tenth	1404/02/16	Concepts and General Principles of Chromatography		Theory	Dr. Faridi
Eleventh	1404/02/23	Concepts and General Principles of Chromatography		Practical	Dr. Faridi
Twelfth	1404/02/30	Concepts and General Principles of Flow Cytometry		Theory	Dr. Ghasemia n
Thirteenth	1404/03/06	Concepts and General Principles of Flow Cytometry		Practical	Dr. Ghasemia n
Fourteenth	1404/03/13	Overview of Cloning		Theory	Dr. Ijder
Fifteenth	1404/03/20	Methods of Performing Cloning		Practical	Dr. Ijder
Sixteenth	1404/03/27	Methods of Performing Cloning		Practical	Dr. Ijder
Seventeenth	1404/04/03	Immunohistochemistry and ICC		Theory/Practical	Dr. Ijder