

Molecular Medicine Division Course Plan

Course Leader	Course Title		2024/25	2025/26	2025/26	2026/27
			2.	1.	2.	1.
General Requirement for All Students in the Molecular Medicine Division						
Dr. Szabolcs Sipeki Dr. Zsolt Rónai Dr. Tamás Arányi	Principles of Molecular Biology	KV				x
At least one of the following five courses is compulsory for students in Molecular Medicine Division						
Dr. Lívía Vasas	Research Methodologies in Literature	KV				
Dr. Elek Dinya	Introduction to Biometry	KV				
Dr. Piroska Anderlik	Experimental Animals and Animal Experimentation	KV				
Dr. Miklós Cserző Dr. Gábor Turu	Data Analysis and Programming for Biomedical Researchers 1.	KV		x		x
Dr. Miklós Cserző Dr. Gábor Turu	Data Analysis and Programming for Biomedical Researchers 2.	KV	x		x	
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Cellular and Molecular Physiology						
At least one of the following two courses is compulsory for students in the Cellular and Molecular Physiology Program						
Dr. Balázs Enyedi Dr. Gábor Petheő	Role of phagocytes in innate immune reactions and in damage of human organism				x	
Dr. Miklós Geiszt	Introduction in the biology of reactive oxygen derivatives		x			
At least one of the following two courses is compulsory for students in the Cellular and Molecular Physiology Program						
Dr. László Hunyady Dr. András Balla	Structure and function of plasmamembrane receptors			x		
Dr. Péter Várnai	Role and examination of inositol lipides and phosphates in signal transduction of mammalian cells					x
Elective Courses						
Dr. Attila Mócsai Dr. Zoltán Jakus	Transgenic technologies		x			
Dr. Gábor Czirják	Roaming in the world of channels				x	
Dr. Emilia Madarász	In vitro cell technology		x			
Dr. Emilia Madarász	In vitro cell technology in practice		x			

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PATHOBIOCHEMISTRY						
Compulsory Courses						
Dr. Miklós Csala	Principles of pathobiochemistry		x		x	
Dr. Tamás Mészáros, Dr. Zsolt Rónai	Proteins and nucleic acid: in silico theory, in vitro practice		x			
At least one of the following three courses is compulsory for students in the Pathobiochemistry Program						
Dr. Tamás Arányi Dr. Zsófia Nemoda	Techniques for epigenetic analyses		x		x	
Dr. László Homolya	Structure and function of biological membranes		x		x	
Dr. Péter Csermely	Networks and system stability				x	
Elective Course						
Dr. Zsófia Nemoda	Biomedical research writing practicum		x		x	
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EMBRYOLOGY, STEM CELL AND DEVELOPMENTAL BIOLOGY						
Compulsory Courses						
Dr. Nándor Nagy	Developmental biology I. : Principles of developmental biology			x		x
Dr. Nándor Nagy	Developmental Biology II: Organogenesis		x		x	
Dr. Csaba Dávid	Image processing and analysis			x		x

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HUMAN MOLECULAR GENETICS AND GENETIC DIAGNOSTICS						
Compulsory Course						
Dr. Zoltán Wiener	The latest question of the medical genomics			x		x
Elective Courses						
Dr. Miklós Cserző	Bioinformatics and genome analysis in biomedical research			x		x
Dr. Miklós Cserző	Entry level computer-programming for bio-medical students		x		x	
Dr. László Kőhidai	Chemotaxis: Its Biological and Clinical Significance		x		x	
Dr. György Nagy Dr. Tamás Németh	Autoimmune Diseases: From Cells to the Bedside			x		x
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EXPERIMENTAL AND CLINICAL IMMUNOLOGY AND RHEUMATOLOGY						
At least one of the following three courses is compulsory for students in the Experimental and clinical immunology and rheumatology Program						
Dr. Emese Kiss	Clinical immunology and allegology 1.		x		x	
Dr. Emese Kiss	Clinical immunology and allegology 2.			x		x
Dr. Emese Kiss	Role of Interactions Between and Within Cells in the Formation and Regulation of Immune Response		x	x	x	x