

Prerequisite Courses Required for the Registration to the Doctor of Philosophy in Medical Biophysics

1712800 Department of Medical Biophysics

Admission Requirements: Postgraduate students with an M.Sc. or an equivalent degree relevant to Medical Biophysics, are required to take supplementary apposite prerequisite courses (18 Cr.) and pass a qualifying exam before being admitted to the requirements of registration to the Degree of Doctor of Philosophy in Medical Biophysics.

Core Courses (18 Cr): 1712821, 1712822, 1712823, 1712824, 1712825, 1712826.

Code	Name	Hour/ Week		Total Cr
		Theoretical	Practical	
1712821	Biophysics of Proteins and Nucleic Acids – II	2	2	3
1712822	Fundamentals of Tissue Engineering – II	2	2	3
1712823	Introduction to Mathematical Modeling in Medical Biophysics – II	2	2	3
1712824	Advances in Radiological Biophysics and Dosimetry – II	2	2	3
1712825	Advances in Biomedical Engineering – II	2	2	3
1712826	Biotransport – II	2	2	3
		12	12	18

Doctor of Philosophy in Medical Biophysics

1712800 - Department of Medical Biophysics

Admission Requirements: Postgraduate students with an M.Sc. or an equivalent degree in Medical Biophysics, after passing apposite pre-requisite courses.

Core Courses (18 Cr): 1712801, 1712802, 1712803, 1712804, 1712805, 1712806.

Elective Courses (6 Cr): 1712807, 1712808, 1712809, 1712810, 1712811, 1712812, 1712813, 1712814, 1712815, 1712816, 1712817, 1701820, 1703820, 1704820, 1706820, 1707820, 1709820, 1718820, 1719820, 1721820.

Ph.D. Thesis: (24 Cr)

Core Courses (18 Cr)

Code	Name	Hour/ Week		Total Cr
		Theoretical	Practical	
1712801	Biophysics of Membranes and Membrane Proteins	2	2	3
1712802	Advanced Topics in Tissue Engineering	2	2	3
1712803	Modeling Physiological Systems	2	2	3
1712804	Radiobiology and Radionuclides	2	2	3
1712805	Medical Instrumentation	2	2	3
1712806	Mechanics of Human Movement	2	2	3
		12	12	18

Elective Courses (6 Credit Hours)

1712807	Biosolid and Biofluid Mechanics	2	2	3
1712808	Introduction to Theoretical Molecular Biophysics	2	2	3
1712809	Methods in Molecular and Cellular Biophysics	2	2	3
1712810	Mathematical Methods II	2	2	3
1712811	Advanced Signal Processing	2	2	3
1712812	Proteome Informatics	2	2	3
1712813	Introduction to Modern Biomaterials	2	2	3
1712814	Biological Micro- and Nanotechnology	2	2	3
1712815	Biocompatibility	2	2	3
1712816	Fundamental Neuroscience	2	2	3
1712817	Journal Club in Medical Biophysics II	2	2	3
1701820	Biochemistry	2	2	3
1703820	Physiology	2	2	3
1704820	Pharmacology	2	2	3
1706820	Bacteriology	2	2	3
1707820	Parasitology	2	2	3
1709820	Histochemistry and Cell Biology II	2	2	3
1718820	Radiodiagnosis	2	2	3
1719820	Nuclear Medicine	2	2	3
1721820	Medical Statistics	2	2	3