

Weeks 1-7, lect1, MONDAY 12:00-12:45, Ophthalmology; lect2, THURSDAY 10:00-10:45, Internal Medicine "A"

Biophysics  
Pharmacy  
spring semester

Week	Date	#	Title
1	10 Febr (Monday) 12:00-13:00	1	Introduction to the course. Generation and absorption of X-rays. X-ray contrast materials
	13 Febr (Thursday) 10:00-11:00	2	Ionizing radiations and their interaction with materials. Dosimetry, tissue effects, detection of radiation.
2	17 Febr (Monday) 12:00-13:00	3	Research, diagnostic and therapeutic application of stable and radioactive isotopes. Contrast materials, radiopharmaceuticals.
	20 Febr (Thursday) 10:00-11:00	4	Medical imaging (CT, PET, SPECT, MRI)
3	24 Febr (Monday) 12:00-13:00	5	Diffusion at the molecular level, statistical interpretation. Fick's 1st law. Thermodiffusion. Osmosis.
	27 Febr (Thursday) 10:00-11:00	6	Structure of biological membranes. Membrane transport
4	3 March (Monday) 12:00-13:00	7	Pharmacology of ion channels (gating, selectivity). Patch clamp technique.
	6 March (Thursday) 10:00-11:00	8	Origin of membrane potential Resting potential, action potential, electric excitability.
5	10 March (Monday) 12:00-13:00	9	Fluorescence spectroscopy, fluorescence techniques
	13 March (Thursday) 10:00-11:00	10	Methods of pharmacological research. Gelectrophoresis, isoelectric focussing, blotting. Detecting molecular interactions (SPR, FCS, FRET)
6	17 March (Monday) 12:00-13:00	11	Lasers and their biomedical applications. Photodynamic therapy.
	20 March (Thursday) 10:00-11:00	12	Optical and electron microscopy.
7	24 March (Monday) 12:00-13:00	13	Fluid mechanics, blood circulation. Newtonian fluids, viscosity, creams and emulsions
	27 March (Thursday) 10:00-11:00	14	Biophysics of drug delivery. Nanotechnology approaches.
10.			<b>Biophysics grade offering exam (electronic exam),</b>