RTU Course "Fundamentals of Medical Physics"

15D02 Medicīnas fizikas un biomedicīnas inženier.pr.g.

General data

Code	MEE332
Course title	Fundamentals of Medical Physics
Course status in the programme	Compulsory/Courses of Limited Choice; Courses of Free Choice
Course level	Undergraduate Studies
Course type	Professional
Field of study	Medical Engineering
Responsible instructor	Dehtjars Jurijs
Academic staff	Sagalovičs Genādijs
Volume of the course: parts and credits points	1 part, 3.0 Credit Points, 4.5 ECTS credits
Language of instruction	LV, EN
Possibility of distance learning	Not planned
Abstract	Conservation laws in biology; metabolism; human mechanics; physics of vision; physics of hearing; biological membranes; biopotentials; biomedical measurements: conductivity, temperature, pressure; ionising and non-ionising radiation and its application in medicine.
Goals and objectives of the course in terms of competences and skills	
Structure and tasks of independent studies	
Recommended literature	Remizov Osnovy medicinskoi fiziki i biofiziki. M. Medcina, 1990B.H. Brown, R.H. Smallwood, et al. Medical physics and biomedical engineering, IoP Publishing, Bristol, 1999 (BIMI bibliotēkā)J.A. Pope. Medical physics, Heinemann Educational, 1988 (BIMI bibliotēkā)
Course prerequisites	

Course outline

Theme	Hours
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	2
	16

Learning outcomes and assessment

Learning outcomes	Assessment methods

Study subject structure

Part	CP	ECTS	Hours per Week			Tests			Tests (free choice)		
			Lectures	Practical	Lab.	Test	Exam	Work	Test	Exam	Work
1.	3.0	4.5	2.0	1.0	0.0		*			*	