Level: master

**Course title:** NMR in medical diagnostic

Status: elective

**ECTS**: 9

**Requirements**:

## Learning objectives

Introducing students to the technique of nuclear magnetic resonance, foundation of this technique and application in medicine.

## Learning outcomes

Students obtain knowledge and ability for individual and team scientific research work in medical institutions on nuclear magnetic resonance.

## Syllabus

Theoretical instruction

Characteristics of Nuclear Magnetic Resonance applications in medical imaging (MRI) MRI system components;

Magnetization and relaxation tissue imaging process and methods, the special features of the MRI, pictures and details of background signal;

Time of data collection and optimization procedures, vascular imaging, functional imaging, artifacts, and Security protection when using MRI.

*Practical instruction:* Exercises, other forms of teaching and student individual and group research exercises.

Weekly teaching load				Other:
Lectures: 3	Exercises: 1	Other forms of teaching: 1	Student research:	