Faculty of Medicine in Rijeka

Curriculum
2022/2023

For course

Physics of Medical Diagnostics

Study program:	**Medical Studies in English (R)** University integrated undergraduate and graduate study
Department:	**Department of Medical Physics and Biophysics**
Course coordinator:	**prof. dr. sc. Jurković Slaven, spec. med. fiz.**
Year of study:	**3**
ECTS:	**1**
Incentive ECTS:	**0 (0.00%)**
Foreign language:	**Possibility of teaching in a foreign language**

Course information:

Physics of Medical Diagnostics is a course which gives students an insight into the physical principles required for the acquisition of acceptable diagnostic information. The main part of the course will be dedicated to application of ionizing radiation for imaging. Also, the introduction into physics principles of use non-ionizing radiation (ultrasound and magnetic resonance imaging) for imaging will be presented. The purpose of this course is to introduce students into physical principles of medical imaging and devices used for this purpose.

List of assigned reading:

1. P. Allisy-Roberts and J. Williams:Farr's Physics for Medical Imaging 2nd edition, Elsevier, 2008.

List of optional reading:

1. D.R.Dance, S.Cristofides; A.D.A.Maidment, I.D.McLean, K.H.Ng: Diagnostic Radiology Physics-A Handbook for Teachers and Students, http://www.pub.iaea.org/MTCD/Publications/PDF/Pub1564webNew-74666420.pdf
2. D.L. Bailey, J.L. Humm, A. Todd-Pokropek, A. van Aswegen: Nuclear Medicine Physics-A Handbook for Teachers and Students, http://www-pub.iaea.org/MTCD/publications/PDF/Pub1617web-1294055.pdf
3. P. Fish: Physics and Instrumentation of Diagnostic Medical Ultrasound, John Wiley & Sons, 1996.
4. C.R. Hill, J.C. Bamber, G.R. ter Haar: Physical Principles of Medical Ultrasonics, John Wiley & Sons, 2004.

Curriculum:

Student obligations:

The attendance at lectures and seminars is mandatory. If necessary, a student can be absent from 30% of the classes of the overall course workload. Students' obligations are course attendance, active participation, preparation of the seminar and presentation in front of the group.

Exam (exam taking, description of the written/oral/practical part of the exam, point distribution, grading criteria):

Students who: cannot take the final exam.
• They did not prepare a seminar before presenting it in front of the group and who have 30% or more unexcused absences from classes
Such a student is graded F (fail), cannot earn ECTS credits or take the final exam, that is, must re-enroll in the course the following academic year.

The final exam can be taken by students who:
• have create a seminar that was positively evaluated and successfully presented it front of the group.

For the final exam It is enough to register the final exam through the STUDOMAT and if the previously mentioned conditions are met, in the ISVU system will be entered "passed".

Other notes (related to the course) important for students:

Professors and associates are available every day during working hours through e-mail addresses for all questions regarding classes.
Slaven Jurković, PhD, Associate Professor slaven.jurkovic@uniri.hr
Gordana Žauhar, PhD, Full Professor gordana.zauhar@uniri.hr
Marijana Majetić, senior laboratory technician marijana.majetic@uniri.hr - administrator

COURSE HOURS 2022/2023

Physics of Medical Diagnostics

List of lectures, seminars and practicals:

EXAM DATES (final exam):
