

RADIOLOGY	
GENERAL INFORMATION	
Course coordinator	Asst. Prof. Damir Štimac, MD, PhD
Assistant/Associate	Asst. Prof. Tajana Turk, MD, PhD Asst. Prof. Tatjana Rotim, MD, PhD Asst. Prof. Tamer Salha, MD, PhD Asst. Prof. Kristina Bojanić, MD, PhD Domagoj Kretić, MD, PhD Neven Raguž, MD Dijana Dumančić, MD Zdravka Krivdić-Dupan, MD Mateo Grigić, MD Silva Guljaš, MD Domagoj Matijević, MD Ingrid Prlić Seršić, MD Vjekoslav Kopačin, MD Josipa Ratković, MD
Study Programme	Integrated undergraduate and graduate university study of Medicine
Status of the course	Mandatory
Year of study, semester	4 th year; 8 th semester
ECTS	4
Workload (hours)	Lectures (20); Seminars (20); Exercises (20)
Expected number of students	70
COURSE DESCRIPTION	
Course objectives	
<p>Introduce radiology imaging basics to students of medicine: from ionizing irradiation in X ray and CT machines, to ultrasound imaging principles, and magnetic resonance, and their application in interventional, invasive and non invasive radiology practice. Demonstrate all diagnostic potentials that modern imaging techniques offer, and possible trends in radiology in future.</p> <p>Illustrate modern diagnostic imaging algorithms, and optimal examinations in radiology in particular symptoms, and clinical scenarios. Introduce radiologic pathology to students, and teach them to recognize basic clinical pathology which is needed in everyday practice, on basis of previously acquired clinical knowledge and skills.</p> <p>Introduce multidisciplinary approach to patients and abnormal health conditions, and role of radiologist in multidisciplinary team.</p>	
Enrolment requirements and entry competencies	
Theoretic knowledge of normal and pathological processes in human physiology, and basic clinical cases.	
Learning outcomes at the Programme level	
1.1, 2.1, 2.3, 3.1, 3.2, 4.2	
Learning outcomes (5-10)	
Following attended lectures, seminars and exercises, personal learning and passed exam, students would comprehend:	
<ol style="list-style-type: none"> 1. Optimal imaging choices for basic abnormal health conditions. 	

2. Recognize radiologic image of emergency health abnormalities in general practice.
3. Imaging options in radiology
4. Indications and contraindications of certain radiology examinations
5. Justification for certain imaging methods
6. how to protect population from unwanted side effects of radiology examinations - dominantly from ionizing irradiation.

Course content

Lectures

- Introduction
- Radiation protection
- Thoracic radiology
- Muskuloskeletal radiology
- Hepatobilira radiology
- Urogenital radiology
- Gastrointestinal radiology
- Vascular radiology
- Invasive and Interventional radiology
- Neuroradiology

Seminars

- Ultrasound Imaging - physical principles
- Colour Doppler Imaging - physical principles
- CT and CTA - physical principles
- MR and MRA - physical principles
- Ultrasound in medical practice and Emergency
- Advanced imaging methods

Exercises

- Introduction
- Thoracic radiology
- Muskuloskeletal radiology
- Hepatobilira radiology
- Urogenital radiology
- Gastrointestinal radiology
- Vascular radiology
- Invasive and Interventional radiology
- Neuroradiology

CT, CTA, MR, and MRA imaging examples

Mode of teaching

Lectures; Seminars; Exercises

Student obligations

Students are expected to attend all class sessions, as well as to take all the examinations. However, they are allowed for excused absences, totalling 30% of all classes.

Monitoring student work (*alignment of learning outcomes, teaching methods, and grading*)

Teaching activity	ECTS	Learning outcome	Student activity	Assessment methods	Grade points	
					Min.	Max.

Class attendance	2	1-6	Class attendance	Evidence sheet	-	-
Final exam	2	1-5	Learning for the written exam	Grading of the written exam	1	5
Total	4				1	5

Evaluation/grading of the final exam:

The final grade is given on the final exam according to the number of correct answers. The test contains 30 questions, solved on a computer (contains theoretical, clinical and imaging questions).

It is evaluated as follows:

Percentage of correct answers (%)	Grade points
>90%	5 (A)
>70% - 90%	4 (B)
>50% do 70%	3 (C)
40% do 50%	2 (D)
<40%	1 (F) - failed

Required reading (available in the library and through other media)

Title	Number of copies in the library	Availability through other media
1. Andrija Hebrang i suradnici: Radiologija	0	
2. Damir Miletić i suradnici: Osnove kliničke radiologije	0	

Additional reading

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Course evaluation procedures

Anonymous, quantitative, standardized student survey providing feedback on the course as well as on the work of course coordinators and their assistants/associates is being conducted by the QA Office of the Faculty of medicine Osijek.

Note /Other

E-learning does not count towards course contact hours, but is being used in teaching and comprises links to various web pages, as well as video and audio materials available on web pages.