2021/22

COURSE CATALOGUE, COMPETENCIES AND LEARNING OUTCOMES

GRADUATE STUDY PROGRAMME OF RADIOLOGIC TECHNOLOGY

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CONTENTS:

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I. COMPETENCIES OF THE GRADUATE UNIVERSITY STUDY PROGRAMME OF RADIOLOGIC TECHNOLOGY

After completing the graduate study programme of radiologic technology the students will be fully qualified to work independently or in a team. Upon completion of their studies, the students acquire the following competences:

1. Knowledge

1.1. **Basic knowledge in biomedical, legal, economic and pedagogical sciences:** apply knowledge of biomedicine, fundamental human rights and deontology, health insurance system, pedagogy and didactics and management of processes and projects in the health system.

1.2**. Expert knowledge in health care**: manage and lead business processes in the evidence-based radiologic technology, the latest scientific and technological advances and work in science, teaching and lifelong learning programs.

2. Personal skills

2.1. **Problem solving and decision making**: demonstrate observational and critical skills in development and implementation of solutions to practical problems in providing diagnostic procedures, independently apply urgent measures for life protection.

2.2. **Communication skills**: provide positive interactions with patients, associates, other health professionals and the general public through oral and written forms of communication (including E-communication).

2.3. **Teamwork skills**: with professional and responsible behaviour make significant contribution to various situations and interprofessional groups, and the work of professional organizations and committees.

3. Professional skills

3.1. **Diagnostic procedures in radiology**: Independently work in diagnostic and therapeutic radiologic technology in human and veterinary medicine and other areas of applying the evidence-based methods in radiologic technology. Possess and improve the necessary clinical skills and effective communication with health team members, patients and their families. Plan, manage and handle tasks and processes as well as resources in radiology and radiologic technology. Assess data and statistical information on resources which serve as a basis for long-term planning. Check documentation, confidential information and statistical data related to patients, manage and control quality in radiology.

3.2. **Diagnostic procedures in interventional radiology**: work independently or as a part of a team with a radiologist when performing radiologic diagnostic and dignostic-therapeutic interventional procedures (vascular and non-vascular): analogue and digital diagnostic radiology; conventional contrast imaging methods with interventional procedures, fluoroscopy with targeted radiographic imaging. Use of sophisticated methods based on the latest guidelines and protocols in interventional radiology.

3.3. **Diagnostic procedures in radiotherapy and oncology**: work independently or as a part of a team with a specialist in radiotherapy and oncology based on the latest knowledge and evidence. Ensure, check and carry out the quality control of radiation procedures in cooperation with a responsible person in the team. Inform patients about possible side effects of radiation and their basic care.

3. Professional skills

3.4. **Diagnostic procedures in nuclear medicine**: work independently or as a part of a team with a specialist in nuclear medicine. Independently prepare radionuclides and participate in labelling radiopharmaceuticals. Separate single doses (activities) and activity measurements with dose calibrators. Participate in taking a patient's medical history, prepare patients for gamma camera imaging. Operate sophisticated devices with modern methods of the evidence-based nuclear medicine. Inform patients about possible side effects and their basic care.

3.5. **Organizational skills**: plan, organise and provide health care in diagnostic procedures based on acquired knowledge and skills applying principles important for independent and team work, cooperate with other stakeholders in the health sector (public and private), including participation in the practical training of health staff based on acquired knowledge and skills.

3.6. **Information skills**: work independently or as a part of a team for using information technology in radiologic technology. Participating in generating and testing of the hardware and software solutions and monitoring their radiologic implementation Supervise management and maintenance of digital image archives , viewing stations and IT solutions and technologies.

3.7. **Research skills**: explain scientific foundations of the evidence-based diagnostic procedures, including sufficient understanding of the structure, physiological functions and behaviour of the healthy and the sick as well as the relationship between health condition and physical and social environments

4. Independence and resposibility

4.1. **Independence**: demonstrate independence in organization of education, leadership and management, development of strategies and business plans relevant to the profession

4.2. **Responsibility**: apply legal and ethical principles of the profession in independent and team work; carry out activities related to continuing professional education and contributes to the development of the profession.

II. COURSE CATALOGUE WITH LEARNING OUTCOMES

Upon completion of the study the Master of Radiologic Technology will be able to:

1. Apply knowledge of the evidence-based diagnostic procedures, basics of law and economics, health insurance system, health statistics.
2. Independently run and manage radiology workflow from areas of expertise as part of a radiology management team.
3. Evaluate diagnostic and therapeutic procedures in radiologic technology according to the adopted protocols and evidence-based professional standards.
4. Plan and analyse material, human and other resources and organize work in the organizational unit.
5. Prepare devices, equipment, accessories and materials (including emergency equipment) for the implementation of diagnostic and therapeutic procedures according to the professional standards and protocols.
6. Apply IT technologies in diagnostic radiology and interventional radiology based on professional standards and protocols.
7. Perform the ultrasound examinations, computed tomography (CT), digital subtraction angiography (DSA), magnetic resonance imaging (MR), functional magnetic resonance imaging (fMRI) and PET-CT based on the latest guidelines and protocols.
8. Apply and perform imaging and therapeutic procedures in radiotherapy based on professional standards and protocols.
9. Research and apply the latest methods of radiologic technology in forensics and other areas beyond diagnostic and intervention technology based on the latest guidelines and protocols.
10. Implement and coordinate procedures for ionizing radiation protection based on positive legal regulations and secondary legislation.
11. Dispose of medical waste materials based on positive legal regulations and secondary legislation.
12. Apply methods of management, verification and quality control in the health system.
13. Understand and apply teaching in the educational institutions, educate health professionals, patients and their families.
14. Act according to the principles of professional ethics and deontology and positive legal regulations and secondary legislation.
15. Use information technology and databases to improve professional knowledge and skills.

I and II SEMESTER – LEARNING OUTCOMES AT THE STUDY LEVEL

CODE	COURSE	DRT 1	DRT 2	DRT 3	DRT 4	DRT 5	DRT 6	DRT 7	DRT 8	DRT 9	DRT 10	DRT 11	DRT 12	DRT 13	DRT 14	DRT 15
ZSZ701	Health Law	+													+	
ZSZ702	Ethics in Health Care														+	
ZSZ703	Patient' Right	+													+	
ZSZ704	Health insurance systems	+	+										+			
ZSZ705	Information systems in health care		+				+						+			+
ZSZ706	Human Resources Management	+	+		+								+			
ZSZ707	Health Care Management	+	+		+								+			
ZSZ708	Economics in health care	+	+		+								+		+	
ZSZ709	Quality control in healthcare		+		+								+		+	
ZSZ710	Pedagogy	+												+		
ZSZ711	Didactics and teaching methods	+												+		
ZSZ712	Health statistics	+												+		+
ZSZ713	Scientific research paper					+								+		+
ZSR701	IT technologies in radiologic technology			+		+	+	+								+
ZSR702	Interventional and angiographic evidence-based methods			+		+		+			+	+				+

III and IV SEMESTER – LEARNING OUTCOMES AT THE STUDY LEVEL

CODE	COURSE	DRT 1	DRT 2	DRT 3	DRT 4	DRT 5	DRT 6	DRT 7	DRT 8	DRT 9	DRT 10	DRT 11	DRT 12	DRT 13	DRT 14	DRT 15
ZSR703	Methods and technology in evidence-based nuclear medicine	+		+		+	+	+			+	+				+
ZSR704	Evidence-based MRI methods and technology	+		+		+	+	+								+
ZSR705	Evidence-based CT methods and technology	+		+		+	+	+				+				+
ZSR706	Methods and technology in evidence-based oncology and radiotherapy	+		+		+	+	+	+		+	+				+
ZSR707	Evidence-based digital radiographic systems*	+		+		+	+	+				+				+
ZSR708	Computerised evidence-based radiological methods*	+		+		+	+	+	+			+				+
ZSR709	Integrated devices in evidence-based diagnostics*	+		+		+	+	+	+		+	+				+
ZSR710	Patient position in clinical trials*	+		+		+										+
ZSR711	Quality control in radiological technology*	+		+		+	+	+	+		+		+			+
ZSR712	Security of medical data and information systems*	+		+		+	+		+							+
ZSR713	Forensic radiography	+				+	+	+		+						+
ZSR714	Applied radiography in other areas*	+				+	+	+		+						+
ZSR715	Master's thesis	+					+							+		+

III. MANDATORY AND ELECTIVE COURSES

LIST OF COURSES							
Year of study: 1							
Semester: I. i II.							
STATUS	CODE	COURSE	CONTACT HOURS				ECTS
			L	S	E	F	
Mandatory	ZSZ701	Health law	35	5	5	0	4
	ZSZ702	Ethics in health care	20	20	0	0	4
	ZSZ703	Patient's right	35	5	5	0	4
	ZSZ704	Health insurance systems	30	5	0	0	4
	ZSZ705	Information systems in health care	10	15	10	0	4
	ZSZ706	Human Resources Management	20	5	10	0	4
	ZSZ707	Basics of management in health care	20	5	10	0	4
	ZSZ708	Economics in health care	20	20	0	0	4
	ZSZ709	Quality control in healthcare	20	15	0	0	4
	ZSZ710	Pedagogy	20	20	0	0	4
	ZSZ711	Didactics and teaching methods	20	20	0	0	4
	ZSZ712	Health statistics	5	10	10	0	3
	ZSZ713	Scientific research paper	5	10	15	0	3
	ZSR701	IT technologies in radiologic technology	15	15	30	0	5
	ZSR702	Interventional and angiographic evidence-based methods	10	10	30	0	5
	TOTAL		285	180	125	0	60

Key
L – lectures
S – seminars
E – exercises
F – field practice

LIST OF COURSES							
Year of study: 2.							
Semester: III i IV							
STATUS	CODE	COURSE	CONTACT HOURS				ECTS
			L	S	E	F	
Mandatory *Elective	ZSR703	Methods and technology in evidence-based nuclear medicine	20	20	30	0	10
	ZSR704	Evidence-based MRI methods and technology	20	20	30	0	10
	ZSR705	Evidence-based CT methods and technology	20	20	30	0	10
	ZSR706	Methods and technology in evidence-based oncology and radiotherapy	20	20	30	0	10
	ZSR707	Evidence-based digital radiographic systems*	15	15	30	0	5
	ZSR708	Computerised evidence-based radiological methods*	10	10	30	0	5
	ZSR709	Integrated devices in evidence-based diagnostics*	10	10	30	0	5
	ZSR710	Patient position in clinical trials*	10	10	30	0	5
	ZSR711	Quality control in radiological technology*	10	10	30	0	5
	ZSR712	Security of medical data and information systems*	10	10	30	0	5
	ZSR713	Forensic radiography	15	15	30	0	5
	ZSR714	Applied radiography in other fields	15	15	30	0	5
	ZSR715	Master's thesis	0	335	0	0	15
	TOTAL		175	510	360	0	95

Key
L – lectures
S – seminars
E – exercises
F – field practice

IV. EXAM AND COURSE ENTRY REQUIREMENTS

CODE	COURSE	COURSE ENTRY REQUIREMENTS	EXAM ENTRY REQUIREMENTS
ZSZ701	Health law	-	In accordance with the Ordinance on the Study and System of Studying
ZSZ702	Ethics in health care	-	In accordance with the Ordinance on the Study and System of Studying
ZSZ703	Patient's right	-	In accordance with the Ordinance on the Study and System of Studying
ZSZ704	Health insurance systems	-	In accordance with the Ordinance on the Study and System of Studying
ZSZ705	Information systems in health care	-	In accordance with the Ordinance on the Study and System of Studying
ZSZ706	Human Resources Management	-	In accordance with the Ordinance on the Study and System of Studying
ZSZ707	Basics of management in health care	-	In accordance with the Ordinance on the Study and System of Studying
ZSZ708	Economics in health care	-	In accordance with the Ordinance on the Study and System of Studying
ZSZ709	Quality control in healthcare	-	In accordance with the Ordinance on the Study and System of Studying
ZSZ710	Pedagogy	-	In accordance with the Ordinance on the Study and System of Studying
ZSZ711	Didactics and teaching methods	-	In accordance with the Ordinance on the Study and System of Studying
ZSZ712	Health statistics	-	In accordance with the Ordinance on the Study and System of Studying
ZSZ713	Scientific research paper	-	In accordance with the Ordinance on the Study and System of Studying
ZSR701	IT technologies in radiologic technology	-	In accordance with the Ordinance on the Study and System of Studying
ZSR702	Interventional and angiographic evidence-based methods	-	In accordance with the Ordinance on the Study and System of Studying
ZSR703	Methods and technology in evidence-based nuclear medicine	-	In accordance with the Ordinance on the Study and System of Studying
ZSR704	Evidence-based MRI methods and technology	-	In accordance with the Ordinance on the Study and System of Studying
ZSR705	Evidence-based CT methods and technology	-	In accordance with the Ordinance on the Study and System of Studying

ZSR706	Methods and technology in evidence-based oncology and radiotherapy	-	In accordance with the Ordinance on the Study and System of Studying
ZSR707	Evidence-based digital radiographic systems*	-	In accordance with the Ordinance on the Study and System of Studying
ZSR708	Computerised evidence-based radiological methods*	-	In accordance with the Ordinance on the Study and System of Studying
ZSR709	Integrated devices in evidence-based diagnostics*	-	In accordance with the Ordinance on the Study and System of Studying
ZSR710	Patient position in clinical trials*	-	In accordance with the Ordinance on the Study and System of Studying
ZSR711	Quality control in radiological technology*	-	In accordance with the Ordinance on the Study and System of Studying
ZSR712	Security of medical data and information systems*	-	In accordance with the Ordinance on the Study and System of Studying
ZSR713	Forensic radiography	-	In accordance with the Ordinance on the Study and System of Studying
ZSR714	Applied radiography in other fields*	-	In accordance with the Ordinance on the Study and System of Studying
ZSR715	Master's thesis	-	In accordance with the Ordinance on the Study and System of Studying

V. CURRICULA OF MANDATORY AND ELECTIVE COURSES

NAME OF THE COURSE	Health Care Law					
Code	**ZSZ701**	Year of study	1.			
Course teacher	Full professor, Jozo Čizmić, PhD	Credits (ECTS)	4			
Associate teachers	Assistant professor Nina Mišić Radanović, PhD	Type of instruction (number of hours)	L	S	E	T
			35	5	5	0
Status of the course	Obligatory	Percentage of application of e-learning	20%			

COURSE DESCRIPTION

Course enrolment requirements and entry competences required for the course	No requirements		
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	Upon completion of the course, students will be able to: • enumerate basic criteria of the legal responsibility of healthcare professionals arising from domestic and foreign legislation, including legal practice; • discuss the issues of legal liability in cases of teamwork regarding the relations between doctors – other health professionals – patients; • explain the rights and obligations of healthcare professionals in performing their activities and evaluation of healthcare activities; • analyze the work and organization of professional chambers in accordance with existing codes of ethics and deontology as well as disciplinary, civil and criminal liability.		
Course content broken down in detail by weekly class schedule (syllabus)	L1	1/ The concept and content of health care rights, relationship to other scientific disciplines and principles of performing health care activities.	5
	L2	2/ The concept healthcare protection and social care for health, health care measures, the level of health care, content and organizational forms of health care, health care institutions.	5
	L3	3 / The rights and obligations of health workers in performing their activities (Provision and withholding of assistance; Mutual relations between health professionals and patients; Appeal of conscience; Confidentiality; Reporting obligation; Management and filing of medical records; Selection of another physician; Search of doctors' offices; Health workers as witnesses and experts).	5
	L4	4/ Ensuring quality of health services (Professional training; Supervision of the work of health professionals; professional chambers).	2
	L5	5/ Chamber of health workers (Mandatory association in the chamber; Exceptions to the mandatory association in the Chamber; Public authority of the Chamber; Chamber's activities; Bodies of the Chamber; Supervision of the work of the Chamber; the Chamber Cooperation with the Ministry of Health and other	2

		bodies; Informing the Chamber; General acts of the Chamber - Statute; Financing of the Chamber; Mutual aid fund; Paying membership fee and other financial obligations of the Chamber).	
	L6	6/ Disciplinary responsibility of health professionals (disciplinary violations; Major and minor disciplinary offense; disciplinary bodies; Disciplinary measures; Fine; Disciplinary proceedings; Proper application of the law; Statute of Limitations; Offense liability), criminal and civil liability,	2
	L7	7 / Code of medical ethics and deontology and other codes of medical professionals.	2
	L8	Criminal liability of health workers, review of incrimination according to the Criminal Code	6
	L9	Liability for damage in healthcare, review of the Law on Obligations	6
	S1	Case study	5
	E1	Case study	5

Format of instruction	X lectures X seminars and workshops X exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work	☐ independent assignments ☐ multimedia ☐ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Regular class attendance. Active participation in the teaching process. Password for AAI EduHr electronic identity for access to e - learning	

Screening student work *(name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)*						
	Class attendance	1	Research		Practical training	
	Experimental work		Report			
	Essay		Seminar essay		(Other)	
	Tests		Oral exam		(Other)	
	Written exam	3	Project		(Other)	

Grading and evaluating student work in class and at the final exam

Verification indicators	Success (points)	Rating share (%)
Written exam	20	100
Total	**20**	**100**

RATIO OF SUCCESS AND EVALUATION

Achieved success percentage (%)	Criterion	rating
60-69,9	meets minimum criteria	sufficient (2)
70-79,9	average success	good (3)
80-89,9	above average success	very good (4)
90-100	outstanding success	excellent (5)

Required literature (available in the	**Title**	**Number of copies in the library**	**Availability via other media**

library and via other media)	Jozo Čizmić, Ljubica Žunić, OSNOVE ZDRAVSTVENOG PRAVA, 2014., Sveučilište u Splitu	4	/
Optional literature (at the time of submission of study programme proposal)	1. Čizmić, J., Medicinsko pravo – pojam, izvori, načela, Zbornik radova s Poslijediplomskog tečaja stalnog medicinskog usavršavanja I. kategorije, Split, 2007. 11-36 (predavanje, domaća recenzija, objavljeni rad, znanstveni). 2. Žunić, Lj., Mihanović, F,. Značaj poznavanja medicinskog prava za zdravstvene radnike. Radiološki vjesnik 4/2009. str. 4-10. 3. Law on Health Care, (Narodne novine no. 100/18, 125/19, 147/20) 4. Law on Patients' Rights (Narodne novine, no. 169/04, 37/08) 5. Law on Midwifery, (Narodne novine, no. 120/08, 145/10) 6. Law on Nursing (Narodne novine, no. 121/03, 117/08, 57/11) 7. Law on Medical Practice (Narodne novine, no. 87/09) 8. Law on Physiotherapy (Narodne novine, no. 120/08)		
Quality assurance methods that ensure the acquisition of exit competences	▪ Teaching quality analysis by students and teachers ▪ Exam passing rate analysis ▪ Committee for control of teaching reports ▪ External evaluation		
Other (as the proposer wishes to add)			

NAME OF THE COURSE	Health Care Ethics					
Code	**ZSZ702**	Year of study	1.			
Course teacher	Assistant professor Ana Ćurković, PhD	Credits (ECTS)	4			
Associate teachers	Assistant professor Ana Jeličić, PhD	Type of instruction (number of hours)	L	S	E	T
			20	20	0	0
Status of the course	Obligatory	Percentage of application of e-learning	20%			

COURSE DESCRIPTION

Course enrolment requirements and entry competences required for the course	No requirements		
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	After completed the course, the student will be able to: • enumerate basic knowledge on medical ethics • explain basic knowledge on bioethics, causes of its origin and its needs in practice • develop autonomy in decision making and care about patient • explain to the patient all necessary information to increase his involvement in the treatment • explain the philosophy of the profession • explain legal and ethical codes of the profession • integrate legal and ethical codes of the profession in the work • analyze and participate in ethical judgment.		
Course content broken down in detail by weekly class schedule (syllabus)	L,S	Medical ethics (origin, development in the world and in our country); origin and development of bioethics; different views on bioethics; European roots of bioethics; development of bioethics in Croatia; principlism; ethical pluralism and interdisciplinarity; pluriperspectivism in medical practice.	2,1
	L,S	The philosophy of nursing and healthcare professions; (regional) ethics (nursing ethics and its historical development.	1,2
	L,S	Main ethical theories in medical activities, ethics of virtue, ethics of duty, utilitarian ethics and ethics of care.	2,1
	L,S	Principlism in health care, identity and integrity of healthcare (nursing) profession and knowledge and skills/techne,	1,2
	L,S	Moral excellence of healthcare professionals in practice; ethical codes of different professions.	1,2
	L,S	The patient as active participant in the treatment process.	1,2
	L,S	Reorientational model of health care – focus on person as a complete human being.	2,1
	L,S	Ethical anlysis and ethical decision-making in health care.	1,2
	L,S	Ethical models of decision.making.	2,1
	L,S	Intuitive and critical thinking and action in practice.	
	L,S	Bioethics in nurisng and other professions.	
	L,S	Integrative model – interdisciplinarity and pluriperspectivism.	2,1
	L,S	Other topics: professional (regional) ethics of healthcare professionals; main ethical theories in professional practice of	1,2

		healthcare professionals; identity and integrity of healthcare professions; healthcare professions – science and skills.	
	L,S	Ethical analysis and ethical decision-making of healthcare professionals.	2,1
	L,S	Intuitive and critical thinking and acting in professional practice.	2,1

Format of instruction	☒ lectures ☒ seminars and workshops ☐ exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work	☐ independent assignments ☐ multimedia ☐ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Regular class attendance. Active participation in the teaching process. Password for AAI EduHr electronic identity for access to e - learning	

Screening student work *(name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)*						
	Class attendance	1,0	Research		Practical training	
	Experimental work		Report			
	Essay		Seminar essay		(Other)	
	Tests		Oral exam		(Other)	
	Written exam	3,0	Project		(Other)	

Grading and evaluating student work in class and at the final exam

Verification indicators	Success (points)	Rating share (%)
Written exam	30	100
Total	**30**	**100**

RATIO OF SUCCESS AND EVALUATION

Achieved success percentage (%)	Criterion	rating
60-69,9	meets minimum criteria	sufficient (2)
70-79,9	average success	good (3)
80-89,9	above average success	very good (4)
90-100	outstanding success	excellent (5)

	Title	**Number of copies in the library**	**Availability via other media**
Required literature (available in the library and via other media)	Kešina I. Etika u zdravstvu. Skripta za diplomske studije. (lecture handouts for graduate study programme). 40%		
	Jukić I. Skripta za preddiplomske i diplomske zdravstvene studije (chapters 7-12). (lecture handouts for undergraduate and graduate study programme). 40%		
	Bagatin J. Etika u zdravstvu. (course materials). 20%		
Optional literature (at the time of submission of study programme proposal)	LJ.Zergollern-Čupak, Bioetika i biomedicina, Pergamena, Zagreb, 2006; R.L.Lucas, Bioetika za svakoga, Verbum, Split, 2007; N.Gosić, Bioetika in vivo, Pergamena, Zagreb, 2005; N.Gosić, Bioetička edukacija, Pergamena, Zagreb 2005; A. Frković, Medicina i bioetika, Pergamena, Zagreb, 2010; L. Tomašević, Moralno-teološki aspekt palijativne skrbi i hospicijskog pokreta, u: I. ŠEGOTA (uredio), Bioetika i palijativna medicina. VI. Bioetički okrugli stol (BOS6) Rijeka, Zbornik radova, Medicinski fakultet u Rijeci – Katedra za društvene znanosti, Rijeka 2006,		

	str. 103-111; L. Tomašević, Smrt i njezino (ne)dostojanstvo, u: V.VALJAN (ur.), Integrativna bioetika i izazovi suvremene civilizacije, Zbornik radova Prvog međunarodnog bioetičkog simpozija u Bosni i Hercegovini (Sarajevo, 32.III.-1.IV. 2006.), Bioetičko društvo u BIH, Sarajevo, 2007; str.259-271.
Quality assurance methods that ensure the acquisition of exit competences	▪ Teaching quality analysis by students and teachers ▪ Exam passing rate analysis ▪ Committee for control of teaching reports ▪ External evaluation
Other (as the proposer wishes to add)	

NAME OF THE COURSE	Patient's Right					
Code	**ZSZ703**	Year of study	1.			
Course teacher	Full professor, Jozo Čizmić, PhD	Credits (ECTS)	4			
Associate teachers	Assistant professor Nina Mišić Radanović, PhD	Type of instruction (number of hours)	L	S	E	T
			35	5	5	0
Status of the course	Obligatory	Percentage of application of e-learning	20%			

COURSE DESCRIPTION

Course enrolment requirements and entry competences required for the course	No requirements
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	Upon completion of the course, students will be able to: • explain specialist, theoretical and practical knowledge about the patient's rights; • defend patient's rights; • identify cases of violation of patient's rights; • explain to patients their rights that are guaranteed by Croatian regulations, international conventions and declarations.

Course content broken down in detail by weekly class schedule (syllabus)

L1	1/ The concept of the patient's rights,	4
L2	2/ Legal sources . national and international	2
	(Law on the Protection of Patients' Rights, the Convention on Human Rights and Biomedicine, the Convention on the Rights of the Child, Declaration on the Rights of Patients in Europe),	
L3	3/ Principles of protection of patients' rights (principles of humanity and availability),	2
L4	4 / The right to co-decision,	2
L5	5/ The right to information,	1
L6	6/ The right to second opinion,,	1
L7	7/ Refusing to receive information,	1
L8	8/ Accepting and refusing diagnostic or treatment procedure,	1
L9	9/ Protection of patient who is not able to give his consent,	1
L10	10/ Protection of patient who is the subject of scientific research,	1
L11	11/ Interventions on the human genome	1
L12	12/ The right of access to medical records	2
L13	13/ The right to confidentiality (professional secret),	2
L14	14/ The right to maintain personal contacts	1
L15	15/ The right to voluntary abandonment of health facilities,	1
L16	16/ The right to privacy,	1
L17	17/ The right to compensation of damage,,	2
L18	18/ The Commission for Protection of Patients' Rights regional government and the Ministry of Health (structure and area of activities, procedure in front of the committee, penalties),	1
L19	19/ Protection of patients' right associations,	1
L20	20/ Realization of patients' individual rights,	1

	L21	21/ Compulsory hospitalization.	2
	L22	22/ The criminal offense of infanticide, unlawful termination of pregnancy, legal aspects of euthanasia in the Republic of Croatia, execution on demand	4
	S1	1/ Case study	5
	E1	2/ Case study	5

Format of instruction	X lectures X seminars and workshops X exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work	☐ independent assignments ☐ multimedia ☐ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Regular class attendance. Active participation in the teaching process. Password for AAI EduHr electronic identity for access to e - learning	

Screening student work *(name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)*						
	Class attendance	1,0	Research		Practical training	
	Experimental work		Report			
	Essay		Seminar essay		(Other)	
	Tests		Oral exam		(Other)	
	Written exam	3,0	Project		(Other)	

Grading and evaluating student work in class and at the final exam

Verification indicators	Success (points)	Rating share (%)
Written exam	20	100
Total	**20**	**100**

RATIO OF SUCCESS AND EVALUATION

Achieved success percentage (%)	Criterion	rating
60-69,9	meets minimum criteria	sufficient (2)
70-79,9	average success	good (3)
80-89,9	above average success	very good (4)
90-100	outstanding success	excellent (5)

Required literature (available in the library and via other media)	**Title**	**Number of copies in the library**	**Availability via other media**
	Jozo Čizmić, Ljubica Žunić, OSNOVE ZDRAVSTVENOG PRAVA, 2014., Sveučilište u Splitu	4	/

Optional literature (at the time of submission of study programme proposal)

1. Čizmić, J., Pravo pacijenata na obaviještenost, s posebnim osvrtom na zaštitu tajnosti podataka o zdravstvenom stanju pacijenta. Zbornik Pravnog fakulteta Sveučilišta u Rijeci. 29 (2008) , 1; 227-275 (članak, znanstveni)
2. Law on Health Protection (Narodne novine no. 100/18, 125/19, 147/20)
3. Law on Patient's Rights (Narodne novine, no. 169/04, 37/08)
4. Law on Midwifery (Narodne novine, no. 120/08, 145/10)
5. Law on Nursing (Narodne novine, no. 121/03, 117/08, 57/11)

	6. Law on Medical Practice (Narodne novine, no. 87/09) 7. Law on Physiotherapy (Narodne novine, no. 120/08)
Quality assurance methods that ensure the acquisition of exit competences	▪ Teaching quality analysis by students and teachers ▪ Exam passing rate analysis ▪ Committee for control of teaching reports ▪ External evaluation
Other (as the proposer wishes to add)	

<table>
<tr><td colspan="2">NAME OF THE COURSE</td><td colspan="5">Health Insurance Systems</td></tr>
<tr><td>Code</td><td>ZSZ704</td><td>Year of study</td><td colspan="4">1.</td></tr>
<tr><td>Course teacher</td><td>Full professor Mirko Klarić, PhD</td><td>Credits (ECTS)</td><td colspan="4">4</td></tr>
<tr><td rowspan="2">Associate teachers</td><td rowspan="2">Assistant professor Nada Tomasović Mrčela, MD, PhD</td><td rowspan="2">Type of instruction (number of hours)</td><td>L</td><td>S</td><td>E</td><td>T</td></tr>
<tr><td>30</td><td>5</td><td>0</td><td>0</td></tr>
<tr><td>Status of the course</td><td>Obligatory</td><td>Percentage of application of e-learning</td><td colspan="4">20%</td></tr>
<tr><td colspan="7">COURSE DESCRIPTION</td></tr>
<tr><td>Course enrolment requirements and entry competences required for the course</td><td colspan="6">No requirements</td></tr>
<tr><td>Learning outcomes expected at the level of the course (4 to 10 learning outcomes)</td><td colspan="6">Upon completion of the course students will be able to:
– explain the financing of the compulsory health insurance;
– comment on the financing of the voluntary health insurance;
– comment on the supplementary health insurance;
– analyze additional health insurance, private health insurance;
– explain the financing of healthcare facilities in the network of public health care service.</td></tr>
<tr><td>Course content broken down in detail by weekly class schedule (syllabus)</td><td colspan="6">1. Administrative aspects of the health insurance
The rights of the individual and the change of the state character. Globalization and the crisis of the social state. Public administration reform. Health organization and management. Formal organizational structures. Primary health care protection. More cost-effective functioning of the system. System integration. Rational use of available capacities. Secondary health care protection. Tertiary health care protection. Informal organizational structure. Croatian Institute of Public Health - the structure and functioning. The network of public health care in the Republic of Croatia.

2. Financing models of health insurance
Definition and functions of the health care system. Methods of financing of three systems of health systems organisations. National health model. (Beveridgean model). Health insurance model (Bismarck model). Liberal market model (American model). The health systems model. Tax-financed health care system. The health system is financed through contributions. Voluntary health insurance. Personal medical savings account. A direct payment of health careprotection (direct payment for services not covered by insurance, the participation of citizens in paying a portion of health care costs and additional payment of health services). Comparative presentation of health systems of EU member states and other countries.

3. Financing of the health care system in the Republic of Croatia
Historical development of health care system financing. Sources of financing. Public funding. Contributions as an instrument of financing of the pension and health systems. The concept of contributions. Types of compulsory contributions. Contributions from salary. Contributions for pension insurance based on generational solidarity - the first pension pillar. Contribution based on compulsory individual capitalized savings - the second pension pillar. Contributions on salary. Contributions for basic health insurance. Special contribution for health insurance in the event of accidents at work and occupational diseases. Special contribution for the use of healthcare abroad. Employment insurance. Special contribution for the promotion of employment of persons with disabilities. The rights from the</td></tr>
</table>

	compulsory health insurance. The base for calculation of contributions for compulsory insurance. Contribution rates for compulsory insurance. Control of calculation and collection of contributions. Croatian Institute for Health Insurance. Practical examples of calculation of compulsory contributions and taxes on income from employment and other income of doctors. Taxes from the state budget and the budgets of local and regional governments. Capital investments. Interest. Dividends. Direct payments of patients (administrative fees, participation fees etc.). Private financing. The funds from voluntary insurance. Contributions for voluntary insurance - expenditure on income from employment. Premiums for life insurance with elements of savings, premiums for supplementary and private health insurance and premiums of voluntary pension insurance. The rights resulting from supplementary and private health insurance. Donations. Sources of public-private financing of the health system. Municipal bonds and public-private partnerships. The relationship between the Government, the Ministry of Health and Social Welfare and the Croatian Institute for Health Insurance in terms of the financing of the health system. The directions of reforms of the public health financing in the Republic of Croatia (financing of the compulsory health insurance, financing of voluntary health insurance, supplemental health insurance, additional health insurance, private health insurance, financing of health care institutions in the public health service network) .
Format of instruction	☒ lectures ☒seminars and workshops ☐ exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work ☐ independent assignments ☐ multimedia ☐ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Regular class attendance. Active participation in the teaching process. Password for AAI EduHr electronic identity for access to e - learning

Screening student work *(name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)*						
Class attendance		Research		Practical training		
Experimental work		Report				
Essay		Seminar essay	2.0	(Other)		
Tests		Oral exam		(Other)		
Written exam	2.0	Project		(Other)		

Grading and evaluating student work in class and at the final exam

Success Indicator	**Maximal points**	**Weight of the partial score (%)**
Written exam	30	50
Seminar paper (problem solving, presentation)	30	50
In total	**60**	**100**

CRITERIA FOR GRADING

Achieved overall points (%)	Criterion	Grade
60-69.9	meets the minimum criteria	sufficient (2)
70-79.9	average success	good (3)

	80-89.9	above-average success	very good (4)
	90-100	exceptional success	excellent (5)

	Title	Number of copies in the library	Availability via other media
Required literature (available in the library and via other media)	Mirko Klarić Upravno-politički aspekti sustava zdravstvene zaštite 2004. Magistarska radnja, Pravni fakultet u Zagrebu. 40 % Zoran Šinković Financiranje javnog zdravstva u Čizmić, J. – Klarić, M. (ur.): Aktualnosti zdravstvenog zakonodavstva i pravne prakse. 2011. Pravni fakultet u Splitu i Grad Novalja. 20 % Siniša Zrinščak Zdravstvena politika Hrvatske. U vrtlogu reformi i suvremenih društvenih izazova 2007. Revija za socijalnu politiku, god. 14, br. 2., 2007. 15 % Siniša Zrinščak Sustavi zdravstvene politike u svijetu: osnovna obilježja i aktualni procesi 1999. Revija za socijalnu politiku, god. 6, br 1, 1999. 15 % Miroslav Mastilica Financiranje zdravstvene zaštite u L. Kovačić (ur.): Organizacija i upravljanje u zdravstvenoj zaštiti. 2003. Medicinska naklada, Zagreb. 10 %		
Optional literature (at the time of submission of study programme proposal)	1. G. Carrin i drugi: A Simulation Model of Financial Needs and Government Budget Options for the Functioning of the Health System: Technical document, World Health Organization, Geneva, No. 21. january, 1998. 2. Schonbach, K.: Marketorjentirung der Krankenkassen auf der Grundlage von Gesundheitszielen, Arbeit und Socialpolitikm br, 3. – 4., 1997		
Quality assurance methods that ensure the acquisition of exit competences	Students and lecturers' analysis of the quality of teaching, - Analysis of the exam success rate, - Reports of the Teaching Control Committee, - External evaluation (visits by the quality control teams of the National Agency for Quality Control - external evaluation and self-analysis.		
Other (as the proposer wishes to add)			

<table>
<tr><td colspan="2">NAME OF THE COURSE</td><td colspan="5">Health Care Information Systems</td></tr>
<tr><td>Code</td><td>ZSZ705</td><td>Year of study</td><td colspan="4">1.</td></tr>
<tr><td>Course teacher</td><td>Full professor Ana Jerončić, PhD</td><td>Credits (ECTS)</td><td colspan="4">4</td></tr>
<tr><td rowspan="2">Associate teachers</td><td rowspan="2">Mr. sc. Renato-Zdenko Jerončić</td><td rowspan="2">Type of instruction (number of hours)</td><td>L</td><td>S</td><td>E</td><td>T</td></tr>
<tr><td>10</td><td>15</td><td>10</td><td>0</td></tr>
<tr><td>Status of the course</td><td>Obligatory</td><td>Percentage of application of e-learning</td><td colspan="4">20%</td></tr>
<tr><td colspan="7">COURSE DESCRIPTION</td></tr>
<tr><td>Course enrolment requirements and entry competences required for the course</td><td colspan="6">No requirements</td></tr>
<tr><td>Learning outcomes expected at the level of the course (4 to 10 learning outcomes)</td><td colspan="6">Upon completion of the course, students will be able to:

• Define basic concepts related to health information systems.
• Provide examples of healthcare information systems in Croatia
• Describe the basic operation of clinical decision support and other models that learn from data
• Distinguish models that learn from data in terms of their interpretability and reliability
• List basic biomedical and health knowledge resources in books, journals, electronic databases, and other sources
• Describe the major approaches used to indexing knowledge-based content
• Apply advanced searching techniques to the major biomedical and health knowledge resources
• List ways to protect the privacy and security of health information in health information systems</td></tr>
<tr><td>Course content broken down in detail by weekly class schedule (syllabus)</td><td colspan="6">Topics:

1. Healthcare data, information, and knowledge (1L+1S+1P)
2. Information systems in healthcare; Electronic health records; Standards and Interoperability (3L+5S+3P)
3. Clinical decision support (3L+5S+2P)
4. Health information privacy and security (1L+1S)
5. Information retrieval from medical knowledge resources (2L+3S+5P)

In total: 10 lectures + 15 seminars + 10 practicals</td></tr>
<tr><td>Format of instruction</td><td colspan="3">☒ lectures
☒seminars and workshops
☒exercises
☐ on line in entirety
☐ partial e-learning
☐ field work</td><td colspan="3">☐ independent assignments
☐ multimedia
☐ laboratory
☐ work with mentor
☐ (other)</td></tr>
</table>

<table>
<tr><td>Student responsibilities</td><td colspan="6">Regular class attendance.
Active participation in the teaching process.
Password for AAI EduHr electronic identity for access to e - learning</td></tr>
<tr><td rowspan="5">Screening student work (name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)</td><td>Class attendance</td><td></td><td>Research</td><td></td><td>Practical training</td><td></td></tr>
<tr><td>Experimental work</td><td></td><td>Report</td><td></td><td></td><td></td></tr>
<tr><td>Essay</td><td></td><td>Seminar essay</td><td>2.0</td><td>(Other)</td><td></td></tr>
<tr><td>Tests</td><td></td><td>Oral exam</td><td></td><td>(Other)</td><td></td></tr>
<tr><td>Written exam</td><td>2.0</td><td>Project</td><td></td><td>(Other)</td><td></td></tr>
<tr><td>Grading and evaluating student work in class and at the final exam</td><td colspan="6">
<table>
<tr><th>Success Indicator</th><th>Maximal points</th><th>Weight of the partial score (%)</th></tr>
<tr><td>Written exam</td><td>30</td><td>50</td></tr>
<tr><td>Seminar paper (problem solving, presentation)</td><td>30</td><td>50</td></tr>
<tr><td>In total</td><td>60</td><td>100</td></tr>
</table>
CRITERIA FOR GRADING
<table>
<tr><th>Achieved overall points (%)</th><th>Criterion</th><th>Grade</th></tr>
<tr><td>60-69.9</td><td>meets the minimum criteria</td><td>sufficient (2)</td></tr>
<tr><td>70-79.9</td><td>average success</td><td>good (3)</td></tr>
<tr><td>80-89.9</td><td>above-average success</td><td>very good (4)</td></tr>
<tr><td>90-100</td><td>exceptional success</td><td>excellent (5)</td></tr>
</table>
</td></tr>
<tr><td>Required literature (available in the library and via other media)</td><td colspan="6">
<table>
<tr><th>Title</th><th>Number of copies in the library</th><th>Availability via other media</th></tr>
<tr><td>Josipa Kern i Mladen Petrovečki, ur. Medicinska informatika, 2009., Medicinska naklada.</td><td>15/50-70</td><td>-</td></tr>
</table>
</td></tr>
<tr><td>Optional literature (at the time of submission of study programme proposal)</td><td colspan="6">1. Lynda R Hardy (editor). Fast Facts in Health Informatics for Nurses, 1st edition. Springer, 2020
2. Volpe S. Health Informatics: Multidisciplinary Approaches for Current and Future Professionals: HIMSS Book Series, 2022.
3. Callahan Hunt E, Breckenridge Sproat S, et al. The Nursing Informatics Implementation Guide (Health Informatics): Springer, 2004</td></tr>
<tr><td>Quality assurance methods that ensure the acquisition of exit competences</td><td colspan="6">▪ Teaching quality analysis by students and teachers
▪ Exam passing rate analysis
▪ Committee for control of teaching reports
▪ External evaluation</td></tr>
<tr><td>Other (as the proposer wishes to add)</td><td colspan="6"></td></tr>
</table>

<table>
<tr><td colspan="2">NAME OF THE COURSE</td><td colspan="5">Human Resource Management</td></tr>
<tr><td>Code</td><td colspan="2">ZSZ706</td><td>Year of study</td><td colspan="4">1st</td></tr>
<tr><td>Course teacher</td><td colspan="2">Dejan Kružić, PhD, Full professor tenure</td><td>Credits (ECTS)</td><td colspan="4">4</td></tr>
<tr><td rowspan="2">Associate teachers</td><td colspan="2" rowspan="2">Ana Juras, PhD, Research associate
Ante Mihanović, PhD, Senior lecturer</td><td rowspan="2">Type of instruction (number of hours)</td><td>L</td><td>S</td><td>E</td><td>T</td></tr>
<tr><td>20</td><td>5</td><td>10</td><td>0</td></tr>
<tr><td>Status of the course</td><td colspan="2">Obligatory</td><td>Percentage of application of e-learning</td><td colspan="4">Up to 50%</td></tr>
<tr><td colspan="7">COURSE DESCRIPTION</td></tr>
<tr><td>Course enrolment requirements and entry competences required for the course</td><td colspan="6">No requirements</td></tr>
<tr><td>Learning outcomes expected at the level of the course (4 to 10 learning outcomes)</td><td colspan="6">The main learning outcome of the course: Identify opportunities and manage human resources in a modern organization.
Individual learning outcomes:
(1) Enable students to independently design and manage their professional development - career.
(2) Identify and valorize various aspects of human resource management.
(3) Design, evaluate and implement a compensation system.
(4) Critically review and determine the adequacy of selected recruitment and selection models.
(5) Valorize various incentives for motivation and monitor their realization.</td></tr>
<tr><td>Course content broken down in detail by weekly class schedule (syllabus)</td><td colspan="6">– Significance and specifics of management of human resources as the most important resource of the organization.
– Changes in the environment and human resource management. Job analysis and job design.
– Planning human resource needs and its possible outcomes.
– Staff recruitment, selection and hiring.
– Introduction to work and staff training. Career management.
– Personnel preparation and development. Selection of preparation and development methods.
– Employee performance assessment.
– Motivation to work. Motivation theories.
– Rewarding and compensation system. Forms of compensation.
– Labor relations and trade union organizing.</td></tr>
<tr><td>Format of instruction</td><td colspan="3">X lectures
X seminars and workshops
X exercises
☐ on line in entirety
X partial e-learning
☐ field work</td><td colspan="3">X independent assignments
X multimedia
☐ laboratory
☐ work with mentor
☐ (other)</td></tr>
<tr><td>Student responsibilities</td><td colspan="6">Regular class attendance.
Active participation in the teaching process.
Password for AAI EduHr electronic identity for access to e - learning.</td></tr>
<tr><td>Screening student work (name the</td><td>Class attendance</td><td>0,40</td><td>Research</td><td></td><td>Practical training</td><td>0,80</td></tr>
</table>

proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)	Experimental work		Report			
	Essay		Seminar essay		(Other)	
	*Tests		Oral exam		(Other)	
	*Written exam	2,80	Project		(Other)	
	* Successful passing of both tests/colloquia replaces the written exam. Each of the tests carries 40 points. At all forms of knowledge testing (test, written exam) it is necessary to achieve a minimum of 60% of the total number of points.					

Grading and evaluating student work in class and at the final exam

Evaluation indicators	Success (points)	Share in overall grade (%)
Attendance and activity on lectures and seminars (for 100% attendance)	10	10,0
Written exam or two written tests	70	70,0
Practical training	20	20,0
Total	**100**	**100**

PERFORMANCE AND GRADE RATIO

Achieved success percentage (%)	Criteria	Grade
60%-69%	meets the minimum criteria	sufficient (2)
70%-79%	average success	good (3)
80%-89%	above average success	very good (4)
90% and above	exceptional success	excellent (5)

Required literature (available in the library and via other media)

Title	Number of copies in the library	Availability via other media
Juras, A. (2021). *Osnove menadžmenta u zdravstvu*. OZS, Sveučilište u Splitu, odabrana poglavlja.		
Belak, V. (2014). *Menadžment u teoriji i praksi*, odabrana poglavlja.		
Noe i sur. (2006). *Menadžment ljudskih potencijala, Mate, Zagreb*, odabrana poglavlja.		
Written course materials from lectures and exercises in e-form		

Optional literature (at the time of submission of study programme proposal)

Alfirević, N., Pavić, I., Matić, I. (2007). Menadžment – Priručnik za nastavu, EFST, selected chapters.

Berman, E., Bowman, J., West, J. i Van Wart, M. (2018). Upravljanje ljudskim potencijalima u javnoj službi – Paradoksi, procesi i problemi. Mate d.o.o., Zagreb.

Buble, M. (2006). Menadžment. Ekonomski fakultet Split, Split, odabrana poglavlja.

Fried, B. (2018). Fundamentals of Human Resources in Healthcare, 2nd Edition. Health Administration Press, Chicago, USA.

Niles, N. (2019). Basic Concepts of Health Care Human Resource Management, 2nd Edition. Jones & Bartlett Learning, Burlington, USA.

Quality assurance methods that ensure the acquisition of exit competences	▪ Survey on the quality of teaching and teaching materials ▪ Class attendance and teaching activities (periodic review by the head of studies) ▪ Exam or two tests passing rate analysis ▪ Committee for control of teaching reports ▪ External evaluation
Other (as the proposer wishes to add)	

<table>
<tr><td colspan="2">NAME OF THE COURSE</td><td colspan="5">Health Care Management</td></tr>
<tr><td>Code</td><td>ZSZ707</td><td>Year of study</td><td colspan="4">1st</td></tr>
<tr><td>Course teacher</td><td>Dejan Kružić, PhD,
Full professor tenure</td><td>Credits (ECTS)</td><td colspan="4">6</td></tr>
<tr><td rowspan="2">Associate teachers</td><td rowspan="2">Ana Juras, PhD,
Research associate
Ante Mihanović, PhD,
Senior lecturer</td><td rowspan="2">Type of instruction (number of hours)</td><td>L</td><td>S</td><td>E</td><td>T</td></tr>
<tr><td>20</td><td>5</td><td>10</td><td>0</td></tr>
<tr><td>Status of the course</td><td>Obligatory</td><td>Percentage of application of e-learning</td><td colspan="4">Up to 50%</td></tr>
<tr><td colspan="7">COURSE DESCRIPTION</td></tr>
<tr><td>Course enrolment requirements and entry competences required for the course</td><td colspan="6">No requirements</td></tr>
<tr><td>Learning outcomes expected at the level of the course (4 to 10 learning outcomes)</td><td colspan="6">The main learning outcome of the course: Identify the possibilities and ways of managing a modern health organization.
Individual learning outcomes:
(1) Identify and valorize different aspects of health care organization management.
(2) Determine the adequacy of the existing organization and design a more appropriate way of planning and implementing goals in the health care organization.
(3) Critically review strategic, tactical, and operational planning in a health care organization.
(4) Valorize various incentives for motivation and propose an adequate leadership style for the health care organization.
(5) Critically review and determine the adequacy of selected quality control models and tools in the health care organization.
(6) Design, evaluate and implement adequate principles and methods of ethical management and socially responsible business.</td></tr>
<tr><td>Course content broken down in detail by weekly class schedule (syllabus)</td><td colspan="6">– Health care as an environment for management. Business, technological, social and legal-political environment of health care.
– Conceptual definition of management. Basic principles, theories and functions of health management.
– Management in health care: methods, techniques and tools.
– Planning as a function of management. Concept, content, levels and time horizon of planning.
– Nature and purpose of planning. Stages of the planning process. Responsibility for planning in health care organizations.
– Conceptual definition of organizing as a function of management. Designing an organizational structure. Hierarchical and non-hierarchical organizations.
– Staffing as a function of management. Planning, recruitment, selection, training and development of personnel in health care organizations.
– Leadership as a function of management. Basic features of leadership, leadership models and modern approaches to leadership.
– Basic principles of managerial control - the concept, process and areas of control. Implementation of the control function in health care organizations.
– Socially responsible business and ethics in healthcare.</td></tr>
<tr><td>Format of instruction</td><td colspan="3">X lectures</td><td colspan="3">X independent assignments</td></tr>
</table>

	X seminars and workshops **X** exercises ☐ *on line* in entirety **X** partial e-learning ☐ field work	**X** multimedia ☐ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Regular class attendance. Active participation in the teaching process. Password for AAI EduHr electronic identity for access to e - learning.	

Screening student work *(name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)*						
	Class attendance	0,40	Research		Practical training	0,80
	Experimental work		Report			
	Essay		Seminar essay		(Other)	
	*Tests		Oral exam		(Other)	
	*Written exam	2,80	Project		(Other)	
	* Successful passing of both tests/colloquia replaces the written exam. Each of the tests carries 40 points. At all forms of knowledge testing (test, written exam) it is necessary to achieve a minimum of 60% of the total number of points.					

Grading and evaluating student work in class and at the final exam

Evaluation indicators	Success (points)	Share in overall grade (%)
Attendance and activity on lectures and seminars (for 100% attendance)	10	10,0
Written exam or two written tests	70	70,0
Practical training	20	20,0
Total	**100**	**100**

PERFORMANCE AND GRADE RATIO

Achieved success percentage (%)	Criteria	Grade
60%-69%	meets the minimum criteria	sufficient (2)
70%-79%	average success	good (3)
80%-89%	above average success	very good (4)
90% and above	exceptional success	excellent (5)

	Title	**Number of copies in the library**	**Availability via other media**
Required literature (available in the library and via other media)	Juras, A. (2021). *Osnove menadžmenta u zdravstvu*. OZS, Sveučilište u Splitu. Belak, V. (2014). *Menadžment u teoriji i praksi*, odabrana poglavlja. Buble, M. (2006). *Menadžment*. Ekonomski fakultet Split, Split, odabrana poglavlja.		

	Written course materials from lectures and exercises in e-form		
Optional literature (at the time of submission of study programme proposal)	Alfirević, N., Pavić, I., Matić, I. (2007). *Menadžment – Priručnik za nastavu,* EFST, selected chapters. Fried, B. (2018). *Fundamentals of Human Resources in Healthcare, 2nd Edition.* Health Administration Press, Chicago, USA. Kalauz, S. (2014). *Organizacija i upravljanje u zdravstvenoj njezi*. Medicinska naklada, Zagreb. Murray, E. (2017). *Nursing leadership and management: For patient safety and quality care*. FA Davis Company, Philadelphia, SAD.		
Quality assurance methods that ensure the acquisition of exit competences	▪ Survey on the quality of teaching and teaching materials ▪ Class attendance and teaching activities (periodic review by the head of studies) ▪ Exam or two tests passing rate analysis ▪ Committee for control of teaching reports ▪ External evaluation		
Other (as the proposer wishes to add)			

NAME OF THE COURSE	Health Care Economics					
Code	**ZSZ708**	Year of study	1.			
Course teacher	Prof. Žejlko Mrnjavac, PhD Prof. Lana Kordić, PhD	Credits (ECTS)	4			
Associate teachers		Type of instruction (number of hours)	L	S	E	T
			20	20	0	0
Status of the course	Obligatory	Percentage of application of e-learning	30%			

COURSE DESCRIPTION

Course enrolment requirements and entry competences required for the course	No requirements
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	Upon completion of the course, students will be able to apply advanced economic theory and methods to different part of the health system, their critical review, and independent economic research in this area. Individual learning outcomes: • state economic terminology; • analyze the economic way of thinking; • explain the functioning of health care in the Republic of Croatia, • develop the methods of economic analysis in modern healthcare economics; • indicate the economic rationality in the selection and assessment of the medical justification for certain treatments; • develop critical thinking; • apply adopted knowledge about the world and national experiences in providing health care protection; • predict changes in the wider community that affect the development and functioning of the healthcare system.

Course content broken down in detail by weekly class schedule (syllabus)

Type of instruction	Topic	Number of student hours
L and S	Introduction: health economics in international perspective (The importance of economics in health care and healthcare protection, economic way of thinking about health care protection (rational choice, the market and its limitations, external effects, public goods,microeconomic decisions and microeconomic policies)	2 + 2
L and S	The demand for health and health services; Demand, elasticity and health;	2 + 2
L and S	Production, health and health care: efficient use of inputs¸ Cost of delivering health services;	2 + 2
L and S	Basic market model; Supplier-induced demand and agency;	2 + 2
L and S	Market failure and government; The economics of regulation; Ublic-private parnership ih health –critical review;	2 + 2

	L and S	Health insurance around the word –voluntary insurance-based system, social insurance system and parallel system	2 + 2
	L and S	Health systems around the world; Reliance on the state: public health service systems	2 + 2
	L and S	Challenges of financing thehealth systems nowedays;	2 + 2
	L and S	Croatia health system review – Analysis of health care reforms in Croatia	2 + 2
	L and S	The theoretical bases of economic evaluation; Economic evaluation vs EU funding;	2 + 2

Format of instruction	X lectures x seminars and workshops ☐ exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work	☐ independent assignments ☐ multimedia ☐ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Regular class attendance. Active participation in the teaching process. Password for AAI EduHr electronic identity for access to e - learning.	

Screening student work *(name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)*						
	Class attendance	0.5	Research	1	Practical training	
	Experimental work		Report	0.5		
	Essay		Seminar essay		(Other)	
	Tests	1	Oral exam		(Other)	
	Written exam	1	Project		(Other)	

Grading and evaluating student work in class and at the final exam

Evaluation indicators	Success (points)	Share in overall grade (%)
Attendance and activity on lectures and seminars (for 100% attendance)	2,5	5
Written exam or two written tests	40	80,0
Practical training	7,5	15,0
Total	**50**	**100**

PERFORMANCE AND GRADE RATIO

Achieved success percentage (%)	Criteria	Grade
60%-69%	meets the minimum criteria	sufficient (2)
70%-79%	average success	good (3)
80%-89%	above average success	very good (4)
90% and above	exceptional success	excellent (5)

Required literature (available in the library and via other media)	**Title**	**Number of copies in the library**	**Availability via other media**
	Authorized lectures and presentations on course's web page		Merlin

	McPake, B., Normand, C. Health economics: an international perspective, second edition 2008. Routledge Taylor & Francis Group, London i New York. (selected chapters)		Merlin
	Phillips, J.C.Health Economics: an introduction for health professionals 2005. Blackwell Publishing Ltd, USA. (selected chapters)		Merlin
	Vehovec, M. (ur.) 2014. O zdravstvu iz ekonomske perspektive, Ekonomski institut, Zagreb. (selected chapters)		Web
Optional literature (at the time of submission of study programme proposal)	1. Documents and reports by national and international healthcare institutions 2. The most recent papers. Some of them: • Kordić, L., 2022. Mesuring hospital efficiency and effectiveness, in Pržiklas Družeta, R., Škare, M. and Kraljević Pavelić, S. (eds.) 2022. Novel Perspectives of Personalized Medicine and Healthcare Systems, Nova Science Publishers, New York. • Kordić, L., Mrnjavac, Ž., Bejaković, P., 2022. Private investment in health, in Pržiklas Družeta, R., Škare, M. and Kraljević Pavelić, S. (eds.) 2022. Novel Perspectives of Personalized Medicine and Healthcare Systems, Nova Science Publishers, New York. • Šimudić, B., Kordić, L., Mrnjavac, Ž., 2022. Health tourism in Croatia – Questioning economic impact and policy regulation, in Pržiklas Družeta, R., Škare, M. and Kraljević Pavelić, S. (eds.) 2022. Novel Perspectives of Personalized Medicine and Healthcare Systems, Nova Science Publishers, New York. • Kordić, L., 2017. Ownership versus efficiency: A cross-country comparation of health systems, DIEM: Dubrovnik International Economic Meeting, Managing Business Growth in a Volatile Environment, Vol. 3, No. 1, 288-299. • Arnerić, J., Kordić, L., 2017. Contribution of Private Sector to the Effectiveness of Health Care Provision, Proceedings of the 14th International Symposium on OPERATIONAL RESEARCH, SOR'17, Zadnik Stirn, L., Kljajić Borštnar, M., Žerovnik, J., Drobne, S. (ed.), Slovenian Society Informatika – Section for Operational Research, Ljubljana, September 27-29 2017, Bled, Slovenia, 359-364. • Kordić, L., Šimundić, B., 2017. The efficiency of health tourism infrastructure in Croatia, 11th International Days of Statistics and Economics, Conference Proceedings, Löster, T., Pavelka, T. (ed.), Libuše Macáková, Melandrium, September 14-16 2017, Prague, Czech Republic, 734-743.		
Quality assurance methods that ensure the acquisition of exit competences	▪ Teaching quality analysis by students and teachers ▪ Exam passing rate analysis ▪ Committee for control of teaching reports ▪ External evaluation		
Other (as the proposer wishes to add)	/		

NAME OF THE COURSE	Health Care Quality Control					
Code	**ZSZ709**	Year of study	1.			
Course teacher	Associate professor Ante Obad, MD, PhD	Credits (ECTS)	4			
Associate teachers	Assistant professor Nada Tomasović Mrčela, MD, PhD	Type of instruction (number of hours)	L	S	E	T
			20	15	0	0
Status of the course	Obligatory	Percentage of application of e-learning	20%			

COURSE DESCRIPTION

Course enrolment requirements and entry competences required for the course	No requirements		
Course objectives	The student will learn what is a quality control system in health care, what its components are and what is a quality management methodology.		
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	After completing the course the student will be able to: • analyze the relationship between the outcomes of health care and the health needs of patients (health service users); • apply the Donabedian model in assessing the quality of health care • explain the quality indicators and the functioning of the quality monitoring system in health care; • explain the total quality management in health care		
Course content broken down in detail by weekly class schedule (syllabus)		The course content includes theoretical and practical knowledge and skills needed for successful total quality management in health care. The thematic units are organized to better understand the process of quality management and positioning of the individual depending on their position within the systematization of jobs in the health institution:	
	L	The meaning of quality in modern business environment. Defining quality. Quality of health care	2
	L	Quality as a factor of competitiveness. Quality costs. Total quality management.	2

	S	Orientation towards service users Satisfation of employees Team work	4
	L	Quality goals. Quality management methods and techniques Donabedian's concept of health care quality assessment (analysis in the field of structure, processes and outcomes)	4
	L	Standards and norms in healthcare. International norms.	6
	L	Health care quality assessment. Quality indicators in health care	6
	S	Audit for the purpose of assessing the quality of health care.	5
	S	Quality assurance of health care	6

Format of instruction	**x lectures** **x seminars and workshops** ☐ exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work	☐ independent assignments ☐ multimedia ☐ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Regular class attendance. Active participation in the teaching process. Password for AAI EduHr electronic identity for access to e - learning.	

Screening student work *(name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)*						
	Class attendance	1	Research		Practical training	
	Experimental work		Report			
	Essay		Seminar essay	1,0	(Other)	
	Tests		Oral exam		(Other)	
	Written exam	2,0	Project		(Other)	

Grading and evaluating student work in class and at the final exam

Evaluation indicators	Success (points)	Share in overall grade (%)
Seminar essay	20	40,0
Written exam	30	60,0
Total	**50**	**100**

PERFORMANCE AND GRADE RATIO

Achieved success percentage (%)	Criteria	Grade
60%-69%	meets the minimum criteria	sufficient (2)
70%-79%	average success	good (3)
80%-89%	above average success	very good (4)
90% and above	exceptional success	excellent (5)

	Title	Number of copies in the library	Availability via other media
Required literature (available in the library and via other media)	Tomasović Mrčela N, Obad A. teaching texts. OZS, 2021.		
Optional literature (at the time of submission of study programme proposal)	Skoko H, Upravljenje kvalitetom, 2000., Sinergija 30%		
	Kovačić L, ur. Organizacija i upravljanje u zdravstvenoj zaštiti, 2003., Medicinska naklada, 15%		
	Čulig, J. – Zovko, V., Priručnik za procjenu radnog učinka, 2001., Zavod za javno zdravstvo Grada Zagreba, 50%		
	Prüs, A. – Groult, E., Rushbrook P, ed., Safe management of wastes from health-care activities, 1999., World Organization, 5%		
Quality assurance methods that ensure the acquisition of exit competences	▪ Teaching quality analysis by students and teachers ▪ Exam passing rate analysis ▪ Committee for control of teaching reports ▪ External evaluation		
Other (as the proposer wishes to add)			

<table>
<tr><td colspan="2">NAME OF THE COURSE</td><td colspan="5">Pedagogy</td></tr>
<tr><td>Code</td><td>ZSZ710</td><td>Year of study</td><td colspan="4">1st</td></tr>
<tr><td>Course teacher</td><td>Tonća Jukić, PhD, Associate Professor</td><td>Credits (ECTS)</td><td colspan="4">4</td></tr>
<tr><td rowspan="2">Associate teachers</td><td rowspan="2">-</td><td rowspan="2">Type of instruction (number of hours)</td><td>L</td><td>S</td><td>E</td><td>T</td></tr>
<tr><td>20</td><td>20</td><td>0</td><td>0</td></tr>
<tr><td>Status of the course</td><td>Obligatory</td><td>Percentage of application of e-learning</td><td colspan="4">20%</td></tr>
<tr><td colspan="6">COURSE DESCRIPTION</td></tr>
<tr><td>Course objectives</td><td colspan="5">To enable students to undertake pedagogical activities.</td></tr>
<tr><td>Course enrolment requirements and entry competences required for the course</td><td colspan="5">No requirements</td></tr>
<tr><td>Learning outcomes expected at the level of the course (4 to 10 learning outcomes)</td><td colspan="5">Upon completion of the course, students will be able to:
explain the nature and function of pedagogy as theory and practice of education and training - training of people;
explain the basic concepts of pedagogy – traditional and modern views;
explain socio-historic function of pedagogy on the process of training and society development;
explain methods and aspects of pedagogical activities in intellectual, labor, technical, physical, health, ethical, and aesthetic aspects of training;
explain pedagogical development theories and levels of qualitative personality development in cognitive, conative and psychomotor aspect;
describe the specifics of andragogic practices;
describe the characteristics of Waldorf and Montessori pedagogy;
explain the importance of pedagogical activities in training for a life in the plural society;
explain the structure and basic characteristics of the school system according to ISCED levels.</td></tr>
<tr><td>Course content broken down in detail by weekly class schedule (syllabus)</td><td colspan="5">Course content refers to the theoretical and practical knowledge, skills, the skills of practical application of pedagogical theory, organisation and administration of educational activities aimed at training students for successful pedagogical work.</td></tr>
</table>

	Type	Thematic units	Hours
	lectures	Scientific definition of pedagogy - epistemological characteristics, goals and objectives, basic concepts of pedagogy, pedagogyand other sciences	4 L
		Education, upbringing and training as basic pedagogical categories, origin and development, character and content of training.	1 L
		Socio-historical dimension of pedagogy – education, upbringing and training as conditioned processes, man – work – society – training.	1 L
		Pedagogical theories of personality development – stages of development, aspects and levels of qualitative development, the role of a teacher in motivating students for „learning“.	4 L
		Aspects of pedagogical activities in the training process, intellectual, labour, technical, physical, health, ethical and aesthetic aspects.	4 L
		Methods of pedagogical activities, personality profile, relationship between teacher – student – learning process.	1 L
		Andragogy – special discipline in the scientific system of pedagogy – specific features, process of life-long learning.	1 L
		Alternative pedagogical theories and practices – Montessori and Waldorf pedagogy.	1 L
		Training for life in a multicultural community, intercultural upbringing, education and training.	1 L
		Basics of methodology of pedagogical research, research project, research methods, observation, hermeneutics, theoretical analysis and pedagogical experiment.	1 L
		Education systems – ISCED, school system in the Republic of Croatia. Curriculum as pedagogical category.	1 L
	seminars	Discussion on pedagogical issues. Analysis of some sources of pedagogical literature and pedagogical practice – from students' seminar papers.	20 S

Format of instruction	☒ lectures ☒ seminars and workshops ☐ exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work	☒ independent assignments ☒ multimedia ☐ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Regular class attendance. Active participation in the teaching process. Password for AAI EduHr electronic identity for access to e - learning.	

Screening student work *(name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the*						
	Class attendance	1,5	Research		Practical training	
	Experimental work		Report			
	Essay		Seminar essay	1	(Other)	
	Tests		Oral exam		(Other)	

ECTS value of the course)	Written exam	1,5	Project		(Other)	

Grading and evaluating student work in class and at the final exam

Indicators	Success (points)	Share in the grade (%)
Written or oral exam	7	70 %
seminar	3	30 %
Total	**10**	**100 %**

RATIO OF SUCCESS AND EVALUATION

Success - percentage (%)	criterion	grade
60 - 69 %	meets the minimum criteria	sufficient (2)
70 - 84 %	average success	good (3)
85 - 94 %	above-average success	very good (4)
95 - 100 %	exceptional success	excellent (5)

Required literature (available in the library and via other media)

Title	Number of copies in the library	Availability via other media
1. Milat, J. (2005). *Pedagogija (ili) Teorija osposobljavanja*. Zagreb: Školska knjiga.	4	no
2. Milat, J. (2007). Epistemologija pedagogije: dileme, pitanja, moguća rješnja. *Pedagogijska istraživanja, 4*(2), 189-201.	-	yes
3. PPT – presentations from lectures and seminars.	-	yes
4. Scientific papers of students' choice.	-	yes

Optional literature (at the time of submission of study programme proposal)

- Chabot, D., & Chabot, M. (2009). *Emocionalna pedagogija, osjećati kako bi se učilo*. Zagreb: Educa.
- Delors, J. (Ed.) (1998). *Učenje - blago u nama*. Zagreb: Educa.
- Glasser, W. (2005). *Kvalitetna škola.* Zagreb: Educa.
- Gudjons, H. (1994). *Pedagogija - temeljna znanja*. Zagreb: Educa.
- Matijević, M., Bilić, V., & Opić, S. (2016). *Pedagogija za učitelje i nastavnike.* Zagreb: Školska knjiga i Učiteljski fakultet Sveučilišta u Zagrebu.
- Miljković, D., Đuranović, M., & Vidić, T. (2019). *Odgoj i obrazovanje: iz teorije u praksu.* Zagreb: IEP-D2, Učiteljski fakultet Sveučilišta u Zagrebu.
- Seitz, M., & Hallwachs, U. (1997). *Montessori ili Waldorf?: knjiga za roditelje, odgajatelje ili pedagoge*. Zagreb: Educa

Quality assurance methods that ensure the acquisition of exit competences

- Teaching quality analysis by students and teachers
- Exam passing rate analysis
- Committee for control of teaching reports
- External evaluation

Other (as the proposer wishes to add)

<table>
<tr><td>NAME OF THE COURSE</td><td colspan="5">Didactics and Teaching Methodology</td></tr>
<tr><td>Code</td><td>ZSZ711</td><td>Year of study</td><td colspan="3">1st</td></tr>
<tr><td>Course teacher</td><td>Tonća Jukić, PhD, Associate Professor</td><td>Credits (ECTS)</td><td colspan="3">4</td></tr>
<tr><td rowspan="2">Associate teachers</td><td rowspan="2"></td><td rowspan="2">Type of instruction (number of hours)</td><td>L</td><td>S</td><td>E</td><td>T</td></tr>
<tr><td>20</td><td>20</td><td>0</td><td>0</td></tr>
<tr><td>Status of the course</td><td>Obligatory</td><td>Percentage of application of e-learning</td><td colspan="3">20%</td></tr>
<tr><td colspan="6">COURSE DESCRIPTION</td></tr>
<tr><td>Course objectives</td><td colspan="5">To enable students to undertake pedagogical activities within the educational program from the profession.</td></tr>
<tr><td>Course enrolment requirements and entry competences required for the course</td><td colspan="5">No requirements</td></tr>
<tr><td>Learning outcomes expected at the level of the course (4 to 10 learning outcomes)</td><td colspan="5">Upon completion of the course, students will be able to:
– explain the mutual relationship between didactics and teaching methodologies and their function and importance for successful learning and teaching;
– explain didactics and teaching methodologies as synthesis of scientific and teaching work;
– explain what the school curriculum is and what it involves;
– plan the teaching process in achieving the goals and objectives of individual teaching subjects in schools;
– explain the teleological importance of teaching as a process of learning and training teaching;
– plan educational, functional and instructional tasks;
– describe methods and methodological forms of teaching – specifics of its application;
– describe the procedure of conducting the teaching process from selection of the topics, methodical organization, indirect implementation and evaluation of success;
– explain didactic, methodical and professional (medical) base for the selection of teaching content of a specific teaching unit;
– create a written plan for the implementation of a methodical unit (subjects);
– create a laboratory or instructional worksheet as a base for independent teaching;
– analyze the processes of identifying and formulating teaching goals and tasks for specific methodical units (subjects);
– use teaching aids in teaching;
– use digital technology for the preparation and carrying out of teaching activities;
– use didactic, methodological and professional medical knowledge in monitoring progress, evaluation and assessment of teaching performance.</td></tr>
<tr><td>Course content broken down in detail by weekly class schedule (syllabus)</td><td colspan="5">The course refers to the theoretical and practical knowledge and skills of practical application of pedagogical theory, organization and administration of educational activities aimed at training students for successful pedagogical work. Seminars: Practical implementation of the methodology for the development of teaching plan and programme – recording, description and analysis of work, systematization of work requirements and design of programme documentation.</td></tr>
</table>

	Type	Thematic units	Hours
	lectures	Didactics – definition: the relationship between pedagogy – didactics – teaching methodology, basic concepts. Education as a training process, members of the educational process. Organisational hypothesis of the modern teaching (socio-cultural, antropological and psychological).	2 L
		Gnoseological base of the teaching process.	1 L
		National general and „school“ curricula - methodological approach to curriculum development; curriculum monitoring and evaluation.	2 L
		Structure and stages of the teaching process.	2 L
		Establishing and formulating the goal and tasks of the teaching: educational, functional and instructional tasks of the teaching.	1 L
		Teaching methodologies and forms.	2 L
		Macro and micro planning and preparation of teaching classes.	1 L
		Didactic and methodological function, choice and implementation of media in teaching. The use of ICT in teaching processes.	1 L
		The use of didactic systems in medical training – traditional approach, problem-solving teaching, module structured classes, multimedia approach, integrated teaching.	3 L
		Laboratory work and practical classes- design of instructional worksheets.	3 L
		Monitoring of progress, control and evaluation of student's performance, monitoring elements of evaluation and assessment, recordkeeping of monitoring documentation, evaluation and assessment of students' performance.	1 L
		Lifelong learning, personality profile, relationship between teacher – student – teaching process. Training for lifelong learning.	1 L
	seminars	Establishing and formulating the teaching goals and tasks of one methodical unit based on practical examples. Analysis of a procedure of completing the “Preparation for teaching“ form for one methodical unit according to the teaching plan and programme of the chosen subject and area. Design of one laboratory and one istructional worksheet.	5 S
		A teaching process given by students in stimulated conditions on the basis of independently or in groups designed written preparations for class teaching, analysis of the student's class with the participation of all students in the group.	15 S

Format of instruction	☒ lectures ☒ seminars and workshops ☐ exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work	☒ independent assignments ☒ multimedia ☐ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Regular class attendance. Active participation in the teaching process. Password for AAI EduHr electronic identity for access to e - learning.	

<table>
<tr><td>Screening student work (name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)</td><td>Class attendance</td><td>1,5</td><td>Research</td><td></td><td>Practical training</td><td></td></tr>
<tr><td></td><td>Experimental work</td><td></td><td>Report</td><td></td><td></td><td></td></tr>
<tr><td></td><td>Essay</td><td></td><td>Seminar essay</td><td>1</td><td>(Other)</td><td></td></tr>
<tr><td></td><td>Tests</td><td></td><td>Oral exam</td><td></td><td>(Other)</td><td></td></tr>
<tr><td></td><td>Written exam</td><td>1,5</td><td>Project</td><td></td><td>(Other)</td><td></td></tr>
<tr><td>Grading and evaluating student work in class and at the final exam</td><td colspan="6">
<table>
<tr><th>Indicators</th><th>Success (points)</th><th>Share in the grade (%)</th></tr>
<tr><td>Written exam</td><td>7</td><td>70 %</td></tr>
<tr><td>Seminar</td><td>3</td><td>30 %</td></tr>
<tr><td>Total</td><td>10</td><td>100 %</td></tr>
</table>
RATIO OF SUCCESS AND EVALUATION
<table>
<tr><th>Success - percentage (%)</th><th>criterion</th><th>grade</th></tr>
<tr><td>60 - 69 %</td><td>meets the minimum criteria</td><td>sufficient (2)</td></tr>
<tr><td>70 – 79,9 %</td><td>average success</td><td>good (3)</td></tr>
<tr><td>80 – 89,9 %</td><td>above-average success</td><td>very good (4)</td></tr>
<tr><td>90 - 100 %</td><td>exceptional success</td><td>excellent (5)</td></tr>
</table>
</td></tr>
<tr><td>Required literature (available in the library and via other media)</td><td colspan="6">
<table>
<tr><th>Title</th><th>Number of copies in the library</th><th>Availability via other media</th></tr>
<tr><td>1. Kostović-Vranješ, V. (2015). Metodika nastave predmeta prirodoslovnog područja. Zagreb: Školska knjiga (chapters 4- 10, 14)</td><td>3</td><td>No</td></tr>
<tr><td>2. Milat, J. (2014). Metodički priručnik za izvođenje nastave. Electronic edition ZS.</td><td>-</td><td>Yes</td></tr>
<tr><td>3. Milat, J. (2019). Osnove didaktike s metodikom: izbor tekstova za pripremanje ispita za studente zdravstvenog studija Sveučilišta u Splitu. Electronic edition ZS.</td><td>-</td><td>Yes</td></tr>
<tr><td>4. PPT presentations from classes.</td><td>-</td><td>Yes</td></tr>
</table>
</td></tr>
<tr><td>Optional literature (at the time of submission of study programme proposal)</td><td colspan="6">

Abou Aldan, D. (2019). Metodika zdravstvene njege: priručnik za nastavnike. Zagreb: Medicinska Naklada.
Bognar, L. & Matijević, M. (2002). Didaktika. Zagreb: Školska knjiga.
Jensen, E. (2003). Super-nastava: nastavne strategije za kvalitetnu i uspješnu školu. Zagreb: Educa.
Jensen, E. (2005). Poučavanje s mozgom na umu. Zagreb: Educa.
Jurčić, M. (2014). Kompetentnost nastavnika – pedagoške i didaktičke dimenzije. Pedagogijska istraživanja, 11(1), 77-93
Kyriacou, C. (2001) Temeljna nastavna umijeća. Zagreb: Educa.
Matijević, M. & Radovanović, D. (2011). Nastava usmjerena na učenika. Zagreb: Školske novine.

</td></tr>
</table>

Quality assurance methods that ensure the acquisition of exit competences	• Teaching quality analysis by students and teachers • Exam passing rate analysis • Committee for control of teaching reports • External evaluation
Other (as the proposer wishes to add)	

NAME OF THE COURSE	Statistics in Health Care				
Code	**ZSZ712**	Year of study	1.		
Course teacher	Antonela Matana, PhD Assistant Professor	Credits (ECTS)	3		
Associate teachers		Type of instruction (number of hours)	L	S	E	T
			5	10	10	0
Status of the course	Obligatory	Percentage of application of e-learning	20%			

COURSE DESCRIPTION

Course enrolment requirements and entry competences required for the course	No requirements
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	Upon completion of the course, students will be able to: • solve problems in data processing; • use statistical analysis; • analyze the data presentation; • analyze scientific reports on medical research.

Course content broken down in detail by weekly class schedule (syllabus)

Type	Thematic units	Hours
L,S,E	Statistical tests.	3
L,S,E	Analysis of contingency tables.	4
L,S,E	Testing of different types of numerical data.	5
L,S,E	Data connection.	5
L,S,E	Probability, basic rules for the calculation of probability.	3
L,S,E	Evaluation of data presentation and analysis of scientific reports on medixcal researches – guidelines for assessment of different types of research organizations.	5

Format of instruction		
	☒ lectures ☒ seminars and workshops ☒ exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work	☐ independent assignments ☐ multimedia ☐ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Regular class attendance. Active participation in the teaching process. Password for AAI EduHr electronic identity for access to e - learning.	

Screening student work *(name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)*						
	Class attendance		Research		Practical training	
	Experimental work		Report			
	Essay		Seminar essay		(Other)	
	Tests		Oral exam		(Other)	
	Written exam	3.0	Project		(Other)	
Grading and evaluating student	The final mark from the course is calculated from the points from the written exam (100 %).					

<table>
<tr><td>work in class and at the final exam</td><td colspan="3"><table>
<tr><td>Grading (%)</td><td>Criteria</td><td>Grades</td></tr>
<tr><td>60-69.9</td><td>meets the minimum criteria</td><td>sufficient (2)</td></tr>
<tr><td>70-79.9</td><td>average success</td><td>good (3)</td></tr>
<tr><td>80-89.9</td><td>above-average success</td><td>very good (4)</td></tr>
<tr><td>90-100</td><td>outstanding success</td><td>oustanding (5)</td></tr>
</table></td></tr>
<tr><td rowspan="3">Required literature (available in the library and via other media)</td><td>Title</td><td>Number of copies in the library</td><td>Availability via other media</td></tr>
<tr><td>Ferenczi&Muirhead (2012) Doktor u jednom potezu: Statistika i epidemiologija. One Stop Doc Statistics and Epidemiology-(prijevod Marušić A . ur.). Medicinska naklada. 80%</td><td></td><td></td></tr>
<tr><td>Bilić Zulle, Lidija; Đogaš, Zoran; Grčević, Danka; Huić, Mirjana; Ivanić, Ana; Katavić, Vedran; Lukić, Ivan Krešimir; Marušić, Ana; Marušić, Matko, Petrak, Jelka; Petrovečki, Mladen; Sambunjak, Dario (2013) Uvod u znanstveni rad u medicini, (5. izdanje), Medicinska naklada 20%</td><td></td><td></td></tr>
<tr><td>Optional literature (at the time of submission of study programme proposal)</td><td colspan="3">1. Petz, B. Osnovne statističke metode za nematematičare. 5. izdanje. Jastrebarsko: Naklada Slap 2004.</td></tr>
<tr><td>Quality assurance methods that ensure the acquisition of exit competences</td><td colspan="3">▪ Teaching quality analysis by students and teachers
▪ Exam passing rate analysis
▪ Committee for control of teaching reports
▪ External evaluation</td></tr>
<tr><td>Other (as the proposer wishes to add)</td><td colspan="3"></td></tr>
</table>

NAME OF THE COURSE	Scientific Research Work					
Code	**ZSZ713**	Year of study	1.			
Course teacher	Davorka Sutlovic, Full professor with tenure	Credits (ECTS)	3			
Associate teachers		Type of instruction (number of hours)	L	S	E	T
			5	10	15	0
Status of the course	Obligatory	Percentage of application of e-learning	20%			

COURSE DESCRIPTION

Course enrolment requirements and entry competences required for the course	No requirements
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	After the completed course, the students will be able to: • analyze scientific papers; • apply evidence-based medicine • carry out independent research

Course content broken down in detail by weekly class schedule (syllabus)

Type	Thematic units	Hours
L, S, E	Critical reading of articles (guidelines for different organisation: intersect research, case study, randomly controlled trials, systematic examinations).	3,2,2
L, S, E	Fundamentals of evidence-based medicine PICO scheme.	3,1,2
S, E	Implementation of independent research.	2,2
S,E	Literature search	1,2
S,E	Scientific research data processing	2,2
S, E	Writing a thesis	1,3
S, E	Interpretation of research results	1,2

Format of instruction		
	☒ lectures ☒ seminars and workshops ☒ exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work	☐ independent assignments ☐ multimedia ☐ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Regular class attendance. Active participation in the teaching process. Password for AAI EduHr electronic identity for access to e - learning..	

Screening student work *(name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)*						
	Class attendance	1	Research		Practical training	
	Experimental work		Report			
	Essay		Seminar essay		(Other)	
	Tests		Oral exam		(Other)	
	Written exam	1	Project	1	(Other)	

<table>
<tr><td>Grading and evaluating student work in class and at the final exam</td><td>
<table>
<tr><th>Indicators</th><th>Success (points)</th><th>Share in the grade (%)</th></tr>
<tr><td>Written exam</td><td>30</td><td>50</td></tr>
<tr><td>Project</td><td>30</td><td>50</td></tr>
<tr><td>Total</td><td>60</td><td>100 %</td></tr>
</table>
RATIO OF SUCCESS AND EVALUATION
<table>
<tr><th>Success - percentage (%)</th><th>criterion</th><th>grade</th></tr>
<tr><td>60 - 69 %</td><td>meets the minimum criteria</td><td>sufficient (2)</td></tr>
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<tr><td>90 - 100 %</td><td>exceptional success</td><td>excellent (5)</td></tr>
</table>
</td></tr>
<tr><td>Required literature (available in the library and via other media)</td><td>
<table>
<tr><th>Title</th><th>Number of copies in the library</th><th>Availability via other media</th></tr>
<tr><td>Marušić, M., urednik, Uvod u znanstveni rad medicini, 5. izd. 2013 Zagreb, Medicinska naklada 80%
Ferenczi, E. – Muirhead, N., Statistika i epidemiologija u jednom potezu, 2011., Zagreb Medicinska naklada. 20%</td><td></td><td></td></tr>
</table>
</td></tr>
<tr><td>Optional literature (at the time of submission of study programme proposal)</td><td>
1. Day RA, Gastel N. How to write and publish a scientific paper, 6th edition. Westport, Connecticut: Greenwood Press, 2006.
2. Lang T, Secic M. How To Report Statistics in Medicine: Annotated Guidelines for Authors, Editors, and Reviewers, 2nd edition. Philadelphia: American College of Physicians, 2006.
3. Ogrinc GS, Headrick LA. Fundamentals of Health Care Improvement. Oakbrook Terrace (Il): USA Joint Commission Resources, 2008.
4. 4. Committee on Assessing Integrity in Research Environments. Integrity in Scientific Research. Washington DC: Institute of Medicine and National Research Council.
</td></tr>
<tr><td>Quality assurance methods that ensure the acquisition of exit competences</td><td>
▪ Teaching quality analysis by students and teachers
▪ Exam passing rate analysis
▪ Committee for control of teaching reports
▪ External evaluation
</td></tr>
<tr><td>Other (as the proposer wishes to add)</td><td></td></tr>
</table>

NAME OF THE COURSE	IT in Radiologic Technology					
Code	**ZSR701**	Year of study	1.			
Course teacher	Assistant Professor Frane Mihanović, PhD	Credits (ECTS)	5			
Associate teachers		Type of instruction (number of hours)	L	S	E	T
			15	15	30	0
Status of the course	Obligatory	Percentage of application of e-learning	20%			

COURSE DESCRIPTION

Course enrolment requirements and entry competences required for the course	No requirements
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	Upon completion of the course, students will be able to: – manage the team for development and maintenance of RIS/PACS systems; – organize and evaluate management and maintenance of digital imaging archives and systems as well as informatic solutions and technologies; – supervise management and archiving of all digital data generated at the radiology department/clinic; – supervise the quality control of work and work processes adopted according to Croatian and international standards; – join the process of generating and testing hardware and software solutions; – supervise and evaluate new radiologic implementations in a team with a radiologist.

Course content broken down in detail by weekly class schedule (syllabus)	Type	Thematic units	Hours
	L,S,E	Course content The course content relates to the acquisition of theoretical and practical knowledge from the field of medical IT technologies. Students are introduced to all medical standards from the the above mentioned field, such as DICOM, HL7, IHE etc	15,15,30

Format of instruction		
	X lectures X seminars and workshops X exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work	☐ independent assignments ☐ multimedia ☐ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Regular class attendance. Active participation in the teaching process. Password for AAI EduHr electronic identity for access to e - learning.	

Screening student work *(name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)*						
	Class attendance	0,5	Research		Practical training	2
	Experimental work		Report			
	Essay		Seminar essay	1	(Other)	
	Tests		Oral exam		(Other)	
	Written exam	1,5	Project		(Other)	

<table>
<tr><td>Grading and evaluating student work in class and at the final exam</td><td>
<table>
<tr><th>Indicators</th><th>Success (points)</th><th>Share in the grade (%)</th></tr>
<tr><td>Class attendance</td><td>5</td><td>10</td></tr>
<tr><td>Seminar essay</td><td>30</td><td>60</td></tr>
<tr><td>Written exam</td><td>15</td><td>30</td></tr>
<tr><td>Total</td><td>50</td><td>100</td></tr>
</table>
RATIO OF SUCCESS AND EVALUATION
<table>
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<tr><td>Required literature (available in the library and via other media)</td><td>
<table>
<tr><th>Title</th><th>Number of copies in the library</th><th>Availability via other media</th></tr>
<tr><td>Janković S, Mihanović F. Course materials. Sveučilište u Splitu. Sveučilišni odjel zdravstvenih studija. Diplomski studij radiološke tehnologije. 80%</td><td></td><td></td></tr>
<tr><td>M. Medvedec. Nove tehnologije i računala. 2003. 10%</td><td></td><td></td></tr>
<tr><td>Oakly J. Digital Imaging- a Primer for Radiographers, Radiologists and Health Care Professionals. 2003. Greenwich Medical Media Limited, London. 10%</td><td></td><td></td></tr>
</table>
</td></tr>
<tr><td>Optional literature (at the time of submission of study programme proposal)</td><td>M. Kiš: Englesko-hrvatski/hrvatsko-engleski informatički rječnik, Naklada Ljevak, Zagreb, 2000.
D.A. Downing, M.A. Covington, M.M. Covington: Dictionary of Computer and Internet Terms, Barron's Educational Series; 8th edition, 2003.
www.gehealthcare.com;www.medical.philips.com; www.medical.siemens.com; selected articles and websites http://www.ncbi.nlm.nih.gov/pubmed/</td></tr>
<tr><td>Quality assurance methods that ensure the acquisition of exit competences</td><td>Students and lecturers' analysis of the quality of teaching,
- Analysis of the exam success rate,
- Reports of the Teaching Control Committee,
- External evaluation (visits by the quality control teams of the National Agency for Quality Control, external evaluation and self-analysis.</td></tr>
</table>

NAME OF THE COURSE	Evidence-based Intervention and Angiography Methods					
Code	**ZSR702**	Year of study	1.			
Course teacher	Assistant Professor Tonči Batinić, MD, PhD	Credits (ECTS)	5			
Associate teachers	Doc.dr.sc. Ivana Štula Mentors from teaching bases	Type of instruction (number of hours)	L	S	E	T
			15	15	30	0
Status of the course	Obligatory	Percentage of application of e-learning	20%			

COURSE DESCRIPTION

Course enrolment requirements and entry competences required for the course	No requirements
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	Upon completion of the course, students will be able to: – participate in teamwork when conducting digital angiography – DSA; - apply work stations for processing digital images in the field of angiography recording; - participate in PTA imaging of blood vessels; - participate in performing embolisation of blood vessels; - participate in stenting of blood vessels; - participate in transcatheter cytostatic application; - participate in fluoroscopically-guided cytological puncture and biopsy; - participate in ultrasond-, CT- and/or MSCT-guided cytological puncture and biopsy; - participate in providing nephrostomy, drainage of bile ducts, cysts and abscesses; – apply principles, modes and technologies for using angiography devices (DSA, Rotating DSA, Filters, Optimisation of radiation dose for patients and staff during device implementation, CT Angio and Angio CT).

Course content broken down in detail by weekly class schedule (syllabus)	Type	Thematic units	Hours
	L,S,E	The course content relates to the acquisition of theoretical and practical knowledge from the field of interventional and angiography digital devices with plain detectors and dynamic plain detectors.	15,15,30

Format of instruction		
	☐X lectures ☐X seminars and workshops ☐X exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work	☐ independent assignments ☐ multimedia ☐ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Regular class attendance. Active participation in the teaching process. Password for AAI EduHr electronic identity for access to e - learning.	

Screening student work *(name the proportion of ECTS credits for each activity so that the*						
	Class attendance	0,5	Research		Practical training	2
	Experimental work		Report			
	Essay		Seminar essay	1	(Other)	

total number of ECTS credits is equal to the ECTS value of the course)	Tests		Oral exam		(Other)	
	Written exam	1,5	Project		(Other)	

Grading and evaluating student work in class and at the final exam

Indicators	Success (points)	Share in the grade (%)
Written exam	60	100
Total	**60**	**100**

RATIO OF SUCCESS AND EVALUATION

Success - percentage (%)	criterion	grade
60 - 69 %	meets the minimum criteria	sufficient (2)
70 – 79,9 %	average success	good (3)
80 – 89,9 %	above-average success	very good (4)
90 - 100 %	exceptional success	excellent (5)

Required literature (available in the library and via other media)

Title	Number of copies in the library	Availability via other media
Hebrang A., Lovrenčić M. Radiologija. 2007. Medicinska naklada, Zagreb.50%		
Mašković J, Janković S.Odabrana poglavlja intervencijske radiologije. 2008.Medicinski fakultet Sveučilišta u Splitu, Split. 50%		

Optional literature (at the time of submission of study programme proposal)

1. Mašković J, Cambj-Sapunar L Kompjuterizirana tomografija i digitalna radiografija za inženjere medicinske radiologije. (Authorized handouts) 2004.
2. Available literature provided by producers of angiography digital radiographic devices and digitalizators.
3. www.gehealthcare.com; www.medical.philips.com; http://www.ncbi.nlm.nih.gov/pubmed/

Quality assurance methods that ensure the acquisition of exit competences

Students and lecturers' analysis of the quality of teaching,
- Analysis of the exam success rate,
- Reports of the Teaching Control Committee,
- External evaluation (visits by the quality control teams of the National Agency for Quality Control, external evaluation and self-analysis.

Other (as the proposer wishes to add)

<table>
<tr><td>NAME OF THE COURSE</td><td colspan="5">Evidence-based Approach to Methods and Technology in Nuclear Medicine</td></tr>
<tr><td>Code</td><td>ZSR703</td><td>Year of study</td><td colspan="3">2.</td></tr>
<tr><td>Course teacher</td><td>Full professor Ante Punda, MD, PhD</td><td>Credits (ECTS)</td><td colspan="3">10</td></tr>
<tr><td rowspan="2">Associate teachers</td><td rowspan="2">Assistant Professor Ana Barić Žižić, MD, PhD
Assistant Professor Vesela Torlak, PhD</td><td rowspan="2">Type of instruction (number of hours)</td><td>L</td><td>S</td><td>E</td><td>T</td></tr>
<tr><td>20</td><td>20</td><td>30</td><td>0</td></tr>
<tr><td>Status of the course</td><td>Obligatory</td><td>Percentage of application of e-learning</td><td colspan="3">20%</td></tr>
<tr><td colspan="6">COURSE DESCRIPTION</td></tr>
<tr><td>Course enrolment requirements and entry competences required for the course</td><td colspan="5">No requirements</td></tr>
<tr><td>Learning outcomes expected at the level of the course (4 to 10 learning outcomes)</td><td colspan="5">Upon completion of the course, students will be able to:
- prepare radionuclides and participate in labelling radiopharmaceuticals;
- arrange individual doses (activities) and measure activities by using dose calibators;
- participate in taking medical history and preparing patients to be examined by means of gamma camera imaging (in collaboration with a doctor);
- set patients in appropriate positions to be examined by means of gamma camera imaging;
- handle NM instrumentation to: choose parameters for providing static, dinamic and SPECT digital images, follow the process of image acquisition, analyse quality and integrity of the acquired image, replace collimatores, process and print the acquired NM image;
- participate in providing radionucleide therapy;
- maintain the quality of work standards at NM departments: daily quality control procedures that medical radiology engineers perform independently (eg. energy calibration of cameras – «peaking», intrinsic or exstrinsic assessment of the uniformity of the vision field; partial participation in periodical quality control procedures performed weekly, monthly or annualy - a range of parameters that have to be measured);
– participate in the programme that provides protection from ionising radiation for medical staff and patients: adhere to the principles of protection, apply protective devices, participate in optimisation of radiation protection and implement decontamination measures (if needed)</td></tr>
<tr><td>Course content broken down in detail by weekly class schedule (syllabus)</td><td colspan="5"><table><tr><td>Type</td><td>Thematic units</td><td>Hours</td></tr><tr><td>L,S,E</td><td>The course content relates to the acquisition of theoretical and practical knowledge that involves application of nuclear medicine methods in oncology, haemathology, cardiology, nephrology, urology, gastroenerology and endocrinology.</td><td>20,20,30</td></tr></table></td></tr>
<tr><td>Format of instruction</td><td colspan="2">X☐ lectures
☐X seminars and workshops
X☐ exercises
☐ on line in entirety
☐ partial e-learning</td><td colspan="3">☐ independent assignments
☐ multimedia
☐ laboratory
☐ work with mentor
☐ (other)</td></tr>
</table>

<table>
<tr><td></td><td colspan="6">☐ field work</td><td colspan="2"></td></tr>
<tr><td>Student responsibilities</td><td colspan="8">Regular class attendance.
Active participation in the teaching process.
Password for AAI EduHr electronic identity for access to e - learning.</td></tr>
<tr><td rowspan="5">Screening student work (name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)</td><td>Class attendance</td><td>2</td><td>Research</td><td></td><td>Practical training</td><td colspan="2">4</td></tr>
<tr><td>Experimental work</td><td></td><td>Report</td><td></td><td></td><td colspan="2"></td></tr>
<tr><td>Essay</td><td></td><td>Seminar essay</td><td></td><td>(Other)</td><td colspan="2"></td></tr>
<tr><td>Tests</td><td></td><td>Oral exam</td><td></td><td>(Other)</td><td colspan="2"></td></tr>
<tr><td>Written exam</td><td>4</td><td>Project</td><td></td><td>(Other)</td><td colspan="2"></td></tr>
<tr><td>Grading and evaluating student work in class and at the final exam</td><td colspan="8">
<table>
<tr><th>Indicators</th><th>Success (points)</th><th>Share in the grade (%)</th></tr>
<tr><td>Written exam</td><td>30</td><td>50</td></tr>
<tr><td>Practical training</td><td>30</td><td>50</td></tr>
<tr><td>Total</td><td>60</td><td>100</td></tr>
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<tr><td></td><td colspan="5">1. Ivančević D (ur) Klinička nuklerna medicina,Medicinska naklada, Zagreb 1999.
2. St. Vincent's Hospital Melbourne.; English R.J., Brown S.E. : Single-photon emission computed tomography: A primer, The Society of Nuclear medicine 1986, 136 Madison Avenue, NY 10016.
3. Prezentacije i nastavni materijal s web-a.</td><td></td><td></td></tr>
<tr><td>Optional literature (at the time of submission of study programme proposal)</td><td colspan="8">1. S. Janković, D. Eterović: Fizikalne osnove i klinički aspekti medicinske dijagnostike, Medicinska naklada Zagreb, 2002.
2.www.gehealthcare.com;www.medical.philips.com; www.medical.siemens.com:; selected articles and websites
3. http://www.ncbi.nlm.nih.gov/pubmed/</td></tr>
<tr><td>Quality assurance methods that ensure the acquisition of exit competences</td><td colspan="8">Students and lecturers’ analysis of the quality of teaching,
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- Reports of the Teaching Control Committee,
- External evaluation (visits by the quality control teams of the National Agency for Quality Control, external evaluation and self-analysis.</td></tr>
<tr><td>Other (as the proposer wishes to add)</td><td colspan="8"></td></tr>
</table>

NAME OF THE COURSE	Evidence-based Approach to Methods and Technology in MRI					
Code	**ZSR704**	Year of study	2.			
Course teacher	Associate professor Krešimir Dolić, MD, PhD	Credits (ECTS)	10			
Associate teachers	Assistant professor Sanja Lovrić Kojundžić, MD, PhD Assistant professor Frane Mihanović, PhD Assistant professor Ivana Štula, MD, PhD Ivan Skejić, bacc. rad. techn.	Type of instruction (number of hours)	L	S	E	T
			20	20	30	0
Status of the course	Obligatory	Percentage of application of e-learning	20%			

COURSE DESCRIPTION

Course enrolment requirements and entry competences required for the course	No requirements
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	Upon completion of the course, students will be able to: - participate in development of new protocols and imaging sequences in agreement with the radiologist for the purpose of improving the quality of diagnostic imaging procedure; - perform MRI and MRA scans; - participate in scientific-research teamwork when MRI tests are performed by means of applying new methods and software solutions; - sort images - manage MRI image database - modify image formats

Course content broken down in detail by weekly class schedule (syllabus)	Type	Thematic units	Hours
	L,S,E	Physical principles and operating modes of magnetic resonance devices.	10,10,15
	L,S,E	Application of MRI imaging methods in all areas of medicine as well as in the field of scientific research.	10,10,15

Format of instruction		
	☐X lectures ☐X seminars and workshops ☐X exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work	☐ independent assignments ☐ multimedia ☐ laboratory ☐ work with mentor ☐ (other)

Student responsibilities	Regular class attendance. Active participation in the teaching process. Password for AAI EduHr electronic identity for access to e - learning.

Screening student work *(name the proportion of ECTS credits for each activity so that the*	Class attendance	1	Research	2	Practical training	2
	Experimental work		Report			
	Essay		Seminar essay	2	(Other)	

total number of ECTS credits is equal to the ECTS value of the course)	Tests		Oral exam		(Other)	
	Written exam	3	Project		(Other)	

Grading and evaluating student work in class and at the final exam

Indicators	Success (points)	Share in the grade (%)
Class attendance	10	10
Seminar essay	60	60
Report	30	30
Total	**100**	**100**

RATIO OF SUCCESS AND EVALUATION

Success - percentage (%)	criterion	grade
60 - 69 %	meets the minimum criteria	sufficient (2)
70 – 79,9 %	average success	good (3)
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Required literature (available in the library and via other media)	**Title**	**Number of copies in the library**	**Availability via other media**
	1. S. Janković, D. Eterović: Fizikalne osnove i klinički aspekti medicinske dijagnostike, Medicinska naklada Zagreb, 2002. 2. Presentations and course materials from the website.		

Optional literature (at the time of submission of study programme proposal)	Literature available from MRI device producers 2.www.gehealthcare.com;www.medical.philips.com; www.medical.siemens.com:; odabrani članci i web stranice 3. http://www.ncbi.nlm.nih.gov/pubmed/
Quality assurance methods that ensure the acquisition of exit competences	Students and lecturers' analysis of the quality of teaching, - Analysis of the exam success rate, - Reports of the Teaching Control Committee, - External evaluation (visits by the quality control teams of the National Agency for Quality Control, external evaluation and self-analysis.
Other (as the proposer wishes to add)	

NAME OF THE COURSE	Evidence-based Approach to Methods and Technologies in CT					
Code	**ZSR705**	Year of study	2.			
Course teacher	Associate professor Tade Tadić, MD, PhD	Credits (ECTS)	10			
Associate teachers		Type of instruction (number of hours)	L	S	E	T
			20	20	30	0
Status of the course	Obligatory	Percentage of application of e-learning	20%			

COURSE DESCRIPTION

Course enrolment requirements and entry competences required for the course	No requirements
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	Upon completion of the course, students will be able to: - participate in CT examinations and diagnostic procedures, dynamic and CTA tests as well as perfusion CT scans; - apply modern software equipment for processing CT images and "raw" data obtained from CT and MSCT scans; - apply modern software equipment for processing images such as (3D, 4D, VRT, Image fusion, SSD, Stereo Image, Real time 3D, virtual endoscopy, densitometry software, etc.); - participate in digital CT coronary angiography and ventriculography with images of heart and venticular function.

Course content broken down in detail by weekly class schedule (syllabus)	Type	Thematic units	Hours
	L,S,E	Physical principles and operating modes of CT and MSCT devices as well as reconstruction of images/layers from "raw" materials.	10,10,15
	L,S,E	Application of CT and MSCT as an imaging method in all areas of medicine as well as in the field of scientific research.	10,10,15

Format of instruction		
	☐X lectures ☐X seminars and workshops ☐X exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work	☐ independent assignments ☐ multimedia ☐ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Regular class attendance. Active participation in the teaching process. Password for AAI EduHr electronic identity for access to e - learning.	

Screening student work *(name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)*						
	Class attendance	1	Research	2	Practical training	2
	Experimental work		Report			
	Essay		Seminar essay	2	(Other)	
	Tests		Oral exam		(Other)	
	Written exam	3	Project		(Other)	

Grading and evaluating student	Indicators	Success (points)	Share in the grade (%)

<table>
<tr><td>work in class and at the final exam</td><td>
<table>
<tr><td>Class attendance</td><td>10</td><td>10</td></tr>
<tr><td>Seminar essay</td><td>60</td><td>60</td></tr>
<tr><td>Report</td><td>30</td><td>30</td></tr>
<tr><td>Total</td><td>100</td><td>100</td></tr>
</table>
RATIO OF SUCCESS AND EVALUATION
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<tr><td>Success - percentage (%)</td><td>criterion</td><td>grade</td></tr>
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<tr><td>70 – 79,9 %</td><td>average success</td><td>good (3)</td></tr>
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2. Presentations and course materials from the website.</td><td></td><td></td></tr>
</table>
</td></tr>
<tr><td>Optional literature (at the time of submission of study programme proposal)</td><td>1. Literature available from CT and MSCT device producers.
2. www.gehealthcare.com;www.medical.philips.com; www.medical.siemens.com:; selected papers and websites
3. http://www.ncbi.nlm.nih.gov/pubmed/</td></tr>
<tr><td>Quality assurance methods that ensure the acquisition of exit competences</td><td>Students and lecturers’ analysis of the quality of teaching,
- Analysis of the exam success rate,
- Reports of the Teaching Control Committee,
- External evaluation (visits by the quality control teams of the National Agency for Quality Control, external evaluation and self-analysis.</td></tr>
<tr><td>Other (as the proposer wishes to add)</td><td></td></tr>
</table>

NAME OF THE COURSE		Evidence-based Approach to Methods and Technology in Oncology and Radiotherapy				
Code	**ZSR706**	Year of study	2.			
Course teacher	Assistant Professor Tihana Boraska Jelavić, MD, PhD	Credits (ECTS)	10			
Associate teachers		Type of instruction (number of hours)	L	S	E	T
			20	20	30	0
Status of the course	Obligatory	Percentage of application of e-learning	20%			

COURSE DESCRIPTION

Course enrolment requirements and entry competences required for the course	No requirements
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	Upon completion of the course, students will be able to: – use linear accelerator; – use CT simulator; – prepare necessary instruments and other equiment needed for radiotherapy; – apply IGRT and new methods in radiotherapy; – participate in construction of radiotherapy masks; – construct protection shields together with lung shields; – construct a mould for application of intracavitary radiotherapy and percutaneous isotope therapy; – costruct splints for children to fix the limbs; – perform imaging procedures of defined radiation fields during planning; – tatoo central point and peripheral points of radiation fields; – record data in patients' radiotherapy protocols; – follow and maintain demarcated radiation fields; – explain the patient about potential difficulties occurring as a consequence of radiation and suggest conversation with the doctor; – suggest ways of protection against radiation (surface and others).

Course content broken down in detail by weekly class schedule (syllabus)	Type	Thematic units	Hours
	L,S,E	Physical principles and operating modes of radiotherapeutic devices and their functions, teletherapy treatment units, brachytherapy treatment units, computers in radiotherapy, controlling linear accelerator, controlling simulator, CT simulation, controlling Co-60 device. New techniques and devices for radiotherapy planning. - ART – Adaptive Radiation Therapy - IMRT- Intensity Modulated Radiation Therapy - MLC- Multileaf Collimator - IGRT – Image Guided Radiation Therapy - MVCB – Megavoltage Cone Beam Imaging Package - Softwares for planning and applying radiotherapy as well as imaging diagnostic equipment - CT and MSCT devices for radiotherapy planning	20,20,30

Format of instruction	X lectures	☐ independent assignments

	X seminars and workshops X exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work	☐ multimedia ☐ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Regular class attendance. Active participation in the teaching process. Password for AAI EduHr electronic identity for access to e - learning.	

Screening student work *(name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)*						
	Class attendance	1	Research	2	Practical training	2
	Experimental work		Report			
	Essay		Seminar essay	2	(Other)	
	Tests		Oral exam		(Other)	
	Written exam	3	Project		(Other)	

Grading and evaluating student work in class and at the final exam

Indicators	Success (points)	Share in the grade (%)
Class attendance	10	10
Seminar essay	60	60
Report	30	30
Total	**100**	**100**

RATIO OF SUCCESS AND EVALUATION

Success - percentage (%)	criterion	grade
60 - 69 %	meets the minimum criteria	sufficient (2)
70 – 79,9 %	average success	good (3)
80 – 89,9 %	above-average success	very good (4)
90 - 100 %	exceptional success	excellent (5)

Required literature (available in the library and via other media)	**Title**	**Number of copies in the library**	**Availability via other media**
	1. Šamija, Krajina, Purišić: RADIOTERAPIJA, Globus Zagreb 1996 2. S. Janković, D. Eterović: Fizikalne osnove i klinički aspekti medicinske dijagnostike, Medicinska naklada Zagreb, 2002. 3. Presentations and course materials from the website.		

Optional literature (at the time of submission of study programme proposal)	1. Literature available from radiotherapeutic device producers. 2.www.gehealthcare.com;www.medical.philips.com; www.medical.siemens.com:; selected articles and websites 3. http://www.ncbi.nlm.nih.gov/pubmed/
Quality assurance methods that ensure the acquisition of exit competences	Students and lecturers' analysis of the quality of teaching, - Analysis of the exam success rate, - Reports of the Teaching Control Committee, - External evaluation (visits by the quality control teams of the National Agency for Quality Control, external evaluation and self-analysis.
Other (as the proposer wishes to add)	

NAME OF THE COURSE	Evidence-based Approach to Digital Radiographic Systems					
Code	**ZSR707**	Year of study	2.			
Course teacher	Stipan Janković, MD, Full professor with tenure	Credits (ECTS)	5			
Associate teachers		Type of instruction (number of hours)	L	S	E	T
			15	15	30	0
Status of the course	Elective	Percentage of application of e-learning	20%			

COURSE DESCRIPTION

Course enrolment requirements and entry competences required for the course	No requirements
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	Upon completion of the course students will be able to: – apply digital and/or digitalized conventional contrasting methods of presentation; – apply digital fluoroscopy with dynamic detectors; – apply digital linear tomography; – use modern software equipment (3D,4D,VRT, Image fusion, SSD, Stereo Image, Real time 3D) for image processing; – use fluoroscopy and fluorography with mobile radiology devices; – perform imaging with mobile digital radiography devices and image transmission; – perform imaging with mobile digital diascopic devices in operating theaters; – perform digital mamography and process digital mammography images; – perform imaging with digital radiography devices with intergrated detectors; – use digitalizators and phosphor plates; – perform digital dental radiography; – perform dental processing by using MSCT and special softwares.

Course content broken down in detail by weekly class schedule (syllabus)	Type	Thematic units	Hours
	L,S,E	Theoretical and practical knowledge from the field of digital radiography devices with flat detectors and digitizers for digitization of radiographic images. Application and integration of those digital systems into radiography devices and modalities as well as their integration into RIS/PACS systems	15,15,30

Format of instruction		
	X lectures X seminars and workshops X exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work	☐ independent assignments ☐ multimedia ☐ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Regular class attendance. Active participation in the teaching process. Password for AAI EduHr electronic identity for access to e - learning.	

Screening student work *(name the proportion of ECTS credits for each activity so that the*						
	Class attendance	0,5	Research	0,5	Practical training	1
	Experimental work		Report			
	Essay		Seminar essay	1	(Other)	

total number of ECTS credits is equal to the ECTS value of the course)	Tests		Oral exam		(Other)	
	Written exam	2	Project		(Other)	

Grading and evaluating student work in class and at the final exam

Indicators	Success (points)	Share in the grade (%)
Written exam	60	100
Total	**60**	**100**

RATIO OF SUCCESS AND EVALUATION

Success - percentage (%)	criterion	grade
60 - 69 %	meets the minimum criteria	sufficient (2)
70 – 79,9 %	average success	good (3)
80 – 89,9 %	above-average success	very good (4)
90 - 100 %	exceptional success	excellent (5)

	Title	**Number of copies in the library**	**Availability via other media**
Required literature (available in the library and via other media)	1. Mašković J, Cambj-Sapunar L Kompjuterizirana tomografija i digitalna radiografija za radiološke tehnologe. (Authorized course material) 2004. 2. S. Janković, D. Eterović: Fizikalne osnove i klinički aspekti medicinske dijagnostike, Medicinska naklada Zagreb, 2002. 3. Presentations and course materials from the website.		
Optional literature (at the time of submission of study programme proposal)	1. Oakly J. Digital Imaging- a Primer for Radiographers, Radiologists and Health Care Professionals. Greenwich Medical Media Limited, London, 2003. 2. Prokop M., Galanski M. Spiral and Multislice Computed Tomograpy of the Body. Thieme, New York, 2003 3. Literature available from producers of digital radiography devices and digitizers. 4.www.gehealthcare.com;www.medical.philips.com; www.medical.siemens.com:; odabrani članci i web stranice 5. http://www.ncbi.nlm.nih.gov/pubmed/		
Quality assurance methods that ensure the acquisition of exit competences	Students and lecturers' analysis of the quality of teaching, - Analysis of the exam success rate, - Reports of the Teaching Control Committee, - External evaluation (visits by the quality control teams of the National Agency for Quality Control, external evaluation and self-analysis.		
Other (as the proposer wishes to add)			

NAME OF THE COURSE	Evidence-based Approach to Computerised Radiological Methods				
Code	**ZSR708**	Year of study	2.		
Course teacher	Associate professor Krešimir Dolić, MD, PhD	Credits (ECTS)	5		
Associate teachers		Type of instruction (number of hours)	L	S	E	T
			10	10	30	0
Status of the course	Elective	Percentage of application of e-learning	20%			

COURSE DESCRIPTION

Course enrolment requirements and entry competences required for the course	No requirements
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	Upon completion of the course students will be able to: – use knowledge, competences and skills related to diagnostic application of computerized tomography devices; – use knowledge, competences and skills related to diagnostic application of magnetic resonance imaging; – use knowledge, competences and skills related to diagnostic application of digital substraction angiography.

Course content broken down in detail by weekly class schedule (syllabus)

Type	Thematic units	Hours
L,S,E	Historical development of computorized diagnostic methods, physical operating principles, parts of devices and operating modes of computorized devices, application of contrasting agents, MR, CT, DSA in diagnostics of specific organ systems: head and neck, thorax, abdomen, pelvis, extremities, skeletal/joint system	10,10,30

Format of instruction	☐X lectures ☐X seminars and workshops ☐X exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work	☐ independent assignments ☐ multimedia ☐ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Regular class attendance. Active participation in the teaching process. Password for AAI EduHr electronic identity for access to e - learning.	

Screening student work *(name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)*						
	Class attendance	0,5	Research	0,5	Practical training	1
	Experimental work		Report			
	Essay		Seminar essay	1	(Other)	
	Tests		Oral exam		(Other)	
	Written exam	2	Project		(Other)	

Grading and evaluating student work in class and at the final exam

Indicators	Success (points)	Share in the grade (%)
Class attendance	5	10
Seminar essay	30	60
Report	15	30
Total	**100**	**100**

RATIO OF SUCCESS AND EVALUATION

Success - percentage (%)	criterion	grade
60 - 69 %	meets the minimum criteria	sufficient (2)
70 – 79,9 %	average success	good (3)
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Required literature (available in the library and via other media)

Title	Number of copies in the library	Availability via other media
1. Hebrang A., Klarić Čustović (ur). Radiologija. Medicinska naklada, Zagreb, 2006. 2. Mašković J, Cambj-Sapunar L Kompjuterizirana tomografija i digitalna radiografija za radiološke tehnologe. (Autorizirana skripta) 2004. 3. Presentations and course materials from the website.		

Optional literature (at the time of submission of study programme proposal)

1. Kelly LL. Computed tomography.Iz Ballinger P.W, Frank E.D: Merrill´s atlas of radiographic positions and radiologoc procedures, Volume III pp 329-355, Mosby, St Louis 2003
2. Oakly J. Digital Imaging- a Primer for Radiographers, Radiologists and Health Care Professionals. Greenwich Medical Media Limited, London, 2003.
3. Prokop M. Spiral and Multislice Computed Tomograpy of the Body. Thieme, New York, 2003.
4. http://www.ncbi.nlm.nih.gov/pubmed/

Quality assurance methods that ensure the acquisition of exit competences

Students and lecturers' analysis of the quality of teaching,
- Analysis of the exam success rate,
- Reports of the Teaching Control Committee,
- External evaluation (visits by the quality control teams of the National Agency for Quality Control, external evaluation and self-analysis.

Other (as the proposer wishes to add)

NAME OF THE COURSE	Evidence-based Approach to Integrated Equipment in Diagnostics					
Code	**ZSR709**	Year of study	2.			
Course teacher	Full professor Ante Punda, MD, PhD Mr. sc. Darijo Radović	Credits (ECTS)	5			
Associate teachers		Type of instruction (number of hours)	L	S	E	T
			10	10	30	0
Status of the course	Elective	Percentage of application of e-learning	20%			

COURSE DESCRIPTION

Course enrolment requirements and entry competences required for the course	No requirements
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	Upon completion of the course students will be able to: – handle “hybrid” modalities, i.e. devices that connect functional and morphological imaging in the area of nuclear medicine and MSCT; – hanle PET CT and MSCT – Biograph; – handle SPECT – CT and MSCT; – handle Gamma camera, Gamma camera coincidence imaging systems; – use computer at the level of basic operatiing systems, computer applications (text and tabular processing systems), i specific NM applications; – use programme for aquisition and analysis of digital NM images; – participate in in-vitro measuring procedures that require a range of different scintillation counters and detectors.

Course content broken down in detail by weekly class schedule (syllabus)	Type	Thematic units	Hours
	L,S,E	Course content is related to acquisition of theoretical and practical knowledge in applying methods from nuclear medicine to "hybrid" modalities, i.e. devices that connect functional and morphological imaging in the area of nuclear medicine and MSCT.	10,10,30

Format of instruction		
	X☐ lectures ☐X seminars and workshops X☐ exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work	☐ independent assignments ☐ multimedia ☐ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Regular class attendance. Active participation in the teaching process. Password for AAI EduHr electronic identity for access to e - learning.	

Screening student work *(name the proportion of ECTS credits for each activity so that the*						
	Class attendance	1	Research		Practical training	2
	Experimental work		Report			
	Essay		Seminar essay		(Other)	

<table>
<tr><td rowspan="2">total number of ECTS credits is equal to the ECTS value of the course)</td><td>Tests</td><td></td><td>Oral exam</td><td></td><td>(Other)</td><td></td></tr>
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<table>
<tr><th colspan="2">Indicators</th><th>Success (points)</th><th>Share in the grade (%)</th></tr>
<tr><td colspan="2">Written exam</td><td>20</td><td>50</td></tr>
<tr><td colspan="2">Practical training</td><td>20</td><td>50</td></tr>
<tr><td colspan="2">Total</td><td>40</td><td>100</td></tr>
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<tr><td></td><td colspan="3">1. Ivančević D (ur) Klinička nuklerna medicina,Medicinska naklada, Zagreb 1999.
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</table>

NAME OF THE COURSE	Patient-centred Clinical Research					
Code	**ZSR710**	Year of study	2.			
Course teacher	Stipan Janković, MD, Full professor with tenure	Credits (ECTS)	5			
Associate teachers		Type of instruction (number of hours)	L	S	E	T
			10	10	30	0
Status of the course	Elective	Percentage of application of e-learning	20%			

COURSE DESCRIPTION

Course enrolment requirements and entry competences required for the course	No requirements
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	Upon completion of the course, students will be able to: – explain, organize and present (partly) clinical research projects; – explain the establishment of procedures (partly) for participation in clinical research projects; – demonstrate procedures and inform patients that will participate in clinical research projects; – provide support for patients who will participate in clinical research projects before, during and after the project; – prepare informed consent – procedure; – critically evaluate patients' behaviour when in critical state.

Course content broken down in detail by weekly class schedule (syllabus)	Type	Thematic units	Hours
	L,S,E	The role of patients in clinical trials. Research and data obtained from patients by means of survey questionnaires or measurements. What influences and how does it influence the quality and reliability of data obtained. Communication skills and researcher bias in clinical research. Project plan in the context of research project.	10,10,30

Format of instruction		
	☐X lectures ☐X seminars and workshops ☐X exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work	☐ independent assignments ☐ multimedia ☐ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Regular class attendance. Active participation in the teaching process. Password for AAI EduHr electronic identity for access to e - learning.	

Screening student work *(name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the*						
	Class attendance	0,5	Research	1	Practical training	1,5
	Experimental work		Report			
	Essay		Seminar essay	1	(Other)	
	Tests		Oral exam		(Other)	

ECTS value of the course)	Written exam	1	Project		(Other)	

Grading and evaluating student work in class and at the final exam

Indicators	Success (points)	Share in the grade (%)
Written exam	60	100
Total	**60**	**100**

RATIO OF SUCCESS AND EVALUATION

Success - percentage (%)	criterion	grade
60 - 69 %	meets the minimum criteria	sufficient (2)
70 – 79,9 %	average success	good (3)
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90 - 100 %	exceptional success	excellent (5)

Required literature (available in the library and via other media)	**Title**	**Number of copies in the library**	**Availability via other media**
	1. Švajger A. Spisi medicinske etike. Zagreb: CBE, 2004:21-35. 2. Jonsen AR, Siegler M, Winslade WJ. Clinical ethics. 5. izd. New York: McGraw-Hill, 2002:173-98. 3. Presentations and course materials from the website.		

Optional literature (at the time of submission of study programme proposal)	1. Beauchamp TL, Childress JF. Principles of biomedical ethics. Oxford: Oxford University Press, 2001:283-336. 2. Rumboldt Z. Etička pitanja u kliničkim istraživanjima. Vrbosn 2005;9:333-41. 3. http://www.ncbi.nlm.nih.gov/pubmed/ 4.www.publicationethics.org.uk; www.cochrane.org
Quality assurance methods that ensure the acquisition of exit competences	Students and lecturers' analysis of the quality of teaching, - Analysis of the exam success rate, - Reports of the Teaching Control Committee, - External evaluation (visits by the quality control teams of the National Agency for Quality Control, external evaluation and self-analysis.
Other (as the proposer wishes to add)	

NAME OF THE COURSE	Quality Control in Radiologic Technology					
Code	**ZSR711**	Year of study	2.			
Course teacher	Stipan Janković, MD, Full professor with tenure	Credits (ECTS)	5			
Associate teachers		Type of instruction (number of hours)	L	S	E	T
			10	10	30	0
Status of the course	Elective	Percentage of application of e-learning	20%			

COURSE DESCRIPTION

Course enrolment requirements and entry competences required for the course	No requirements
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	Upon completion of the course, students will be able to: – manage, record and analyze quality in radiologic technology; – integrate quality system as a compulsory activity of the business processes relating to the provision of health care; – apply principles of risk management; – participate in accreditation processes for business and organization programmes in accordance to positive regulations and international quality standards.

Course content broken down in detail by weekly class schedule (syllabus)

Type	Thematic units	Hours
L,S,E	Definition of Quality Control. Total Quality Management System. Different methods of managing and improving quality. Particularities of quality control in radiologic technology and health care.	10,10,30

Format of instruction		
	☐X lectures ☐X seminars and workshops ☐X exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work	☐ independent assignments ☐ multimedia ☐ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Regular class attendance. Active participation in the teaching process. Password for AAI EduHr electronic identity for access to e - learning.	

Screening student work *(name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)*

Class attendance	0,5	Research	1	Practical training	1,5
Experimental work		Report			
Essay		Seminar essay	1	(Other)	
Tests		Oral exam		(Other)	
Written exam	1,0	Project		(Other)	

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<tr><td>Written exam</td><td>60</td><td>100</td></tr>
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<tr><td>1. Skoko, Hrvoje „Upravljanje kvalitetom“, M.E.P. Consult, 2000.
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2. J. Ransley & H. Ingram „Developing Hospitality Properties & Facilities“, Elsevier, 2004.
3. Nicholas R. Hicks & J. A. Muir Gray „Evidence-based Medicine“, Financial Times Healthcare Management Reports, 1998.
4. http://www.ncbi.nlm.nih.gov/pubmed/</td></tr>
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<tr><td>Other (as the proposer wishes to add)</td><td></td></tr>
</table>

NAME OF THE COURSE	Safety of Medical Data and Information Systems					
Code	**ZSR712**	Year of study	2.			
Course teacher	Assistant Professor Frane Mihanović, PhD	Credits (ECTS)	5			
Associate teachers		Type of instruction (number of hours)	L	S	E	T
			10	10	30	0
Status of the course	Elective	Percentage of application of e-learning	20%			

COURSE DESCRIPTION

Course enrolment requirements and entry competences required for the course	No requirements
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	Upon completion of the course, students will be able to: – use the program for image processing in radiology; – use information systems in health care in the Republic of Croatia.

Course content broken down in detail by weekly class schedule (syllabus)

Type	Thematic units	Hours
L, S, E	The course content comprises the following topics: 1. Structure and organisation of radiologic data. 2. Patients' imaging data. 3. Classifications and data sets in the radiologic technology. 4. Information systems in radiology. 5. Information technology in the service of patients. Safety and protection of data.	10, 10, 30

Format of instruction	☐X lectures ☐X seminars and workshops ☐X exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work	☐ independent assignments ☐ multimedia ☐ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Regular class attendance. Active participation in the teaching process. Password for AAI EduHr electronic identity for access to e - learning.	

Screening student work *(name the proportion of ECTS credits for each activity so that the total*						
	Class attendance	0,5	Research		Practical training	
	Experimental work		Report			
	Essay		Seminar essay	3	(Other)	

number of ECTS credits is equal to the ECTS value of the course)	Tests		Oral exam		(Other)	
	Written exam	1,5	Project		(Other)	

Grading and evaluating student work in class and at the final exam

Indicators	Success (points)	Share in the grade (%)
Class attendance	5	10
Seminar essay	30	60
Written exam	15	30
Total	**50**	**100**

RATIO OF SUCCESS AND EVALUATION

Success - percentage (%)	criterion	grade
60 - 69 %	meets the minimum criteria	sufficient (2)
70 – 79,9 %	average success	good (3)
80 – 89,9 %	above-average success	very good (4)
90 - 100 %	exceptional success	excellent (5)

Required literature (available in the library and via other media)	**Title**	**Number of copies in the library**	**Availability via other media**
	1. Kern J, Petrovečki M, urednici. Medicinska informatika. Zagreb: Medicinska Naklada; 2009. 2. Presentations and course materials from the website.		

Optional literature (at the time of submission of study programme proposal)	3. Van Bemmel JH, Musen MA (eds). Handbook of Medical Informatics. Heidelberg: Springer-Verlag, 1997. 4. Coiera E. Guide to health informatics. 2. izd. London: Arnold; 2003. 5. Shortliffe E, Cimino JJ, urednici. Biomedical Informatics: Computer Applications in Health Care and Biomedicine. New York: Springer; 2006.
Quality assurance methods that ensure the acquisition of exit competences	Students and lecturers' analysis of the quality of teaching, - Analysis of the exam success rate, - Reports of the Teaching Control Committee, - External evaluation (visits by the quality control teams of the National Agency for Quality Control, external evaluation and self-analysis.
Other (as the proposer wishes to add)	

NAME OF THE COURSE	Forensic Radiography						
Code	**ZSR713**		Year of study	2.			
Course teacher	Assistant Professor Frane Mihanović, PhD		Credits (ECTS)	5			
Associate teachers			Type of instruction (number of hours)	L	S	E	T
				15	15	30	0
Status of the course	Obligatory		Percentage of application of e-learning	20%			

COURSE DESCRIPTION

Course enrolment requirements and entry competences required for the course	No requirements
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	Upon completion of the course, students will be able to: – explain dental radiography applied in forensic radiography; – explain radiographic skills needed for ante and post-mortem cases in forensic radiography; – critically evaluate the needs in forensic radiography relative to current possibilities of radiographic imaging and available devices and applications; – analyze and critically evaluate information from broad-spectrum sources related to application of forensic radiography.

Course content broken down in detail by weekly class schedule (syllabus)	Type	Thematic units	Hours
	L,S,E	History and role of forensic radiography in forensic medicine and science. Introduction into medical-legal aspects of forensic radiography, practical approaches and issues in forensic radiography. Forensic radiography, the role and responsibility of a radiology technologist in line with evidence-based practice.	15,15,30

Format of instruction		
	☐X lectures ☐X seminars and workshops ☐X exercises ☐ *on line* in entirety ☐ partial e-learning ☐ field work	☐ independent assignments ☐ multimedia ☐ laboratory ☐ work with mentor ☐ (other)
Student responsibilities	Regular class attendance. Active participation in the teaching process. Password for AAI EduHr electronic identity for access to e - learning.	

Screening student work *(name the proportion of ECTS credits for each activity so that the total*						
	Class attendance	0,5	Research		Practical training	
	Experimental work		Report			
	Essay		Seminar essay	3	(Other)	
	Tests		Oral exam		(Other)	

number of ECTS credits is equal to the ECTS value of the course)	Written exam	1,5	Project		(Other)	

Grading and evaluating student work in class and at the final exam

Indicators	Success (points)	Share in the grade (%)
Class attendance	5	10
Seminar essay	30	60
Written exam	15	30
Total	**50**	**100**

RATIO OF SUCCESS AND EVALUATION

Success - percentage (%)	criterion	grade
60 - 69 %	meets the minimum criteria	sufficient (2)
70 – 79,9 %	average success	good (3)
80 – 89,9 %	above-average success	very good (4)
90 - 100 %	exceptional success	excellent (5)

Required literature (available in the library and via other media)

Title	**Number of copies in the library**	**Availability via other media**
1. Brogdon's Forensic Radiology, Second Edition by Michael J. Thali M.D., Mark D. Viner and B.G. Brogdon (2010) 2. Dentalna radiografija i radiologija. Janković, S. i Miletić, D. (2009). Medicinski fakultet, Split. 3. Presentations and course materials from the website		

Optional literature (at the time of submission of study programme proposal)

1. http://www2.le.ac.uk/departments/emfpu/imaging/brief-history
2. http://www2.le.ac.uk/departments/emfpu/imaging/ct/What%20is%20CT
3. http://www.ncbi.nlm.nih.gov/pubmed/

Quality assurance methods that ensure the acquisition of exit competences

Students and lecturers' analysis of the quality of teaching,
- Analysis of the exam success rate,
- Reports of the Teaching Control Committee,
- External evaluation (visits by the quality control teams of the National Agency for Quality Control, external evaluation and self-analysis.

Other (as the proposer wishes to add)

<table>
<tr><td colspan="2">NAME OF THE COURSE</td><td colspan="5">Radiography Applied in Other Fields</td></tr>
<tr><td>Code</td><td>ZSR714</td><td>Year of study</td><td colspan="4">2.</td></tr>
<tr><td>Course teacher</td><td>Assistant Professor
Frane Mihanović, PhD</td><td>Credits (ECTS)</td><td colspan="4">5</td></tr>
<tr><td rowspan="2">Associate teachers</td><td rowspan="2"></td><td rowspan="2">Type of instruction (number of hours)</td><td>L</td><td>S</td><td>E</td><td>T</td></tr>
<tr><td>15</td><td>15</td><td>30</td><td>0</td></tr>
<tr><td>Status of the course</td><td>Elective</td><td>Percentage of application of e-learning</td><td colspan="4">20%</td></tr>
<tr><td colspan="7">COURSE DESCRIPTION</td></tr>
<tr><td>Course enrolment requirements and entry competences required for the course</td><td colspan="6">No requirements</td></tr>
<tr><td>Learning outcomes expected at the level of the course (4 to 10 learning outcomes)</td><td colspan="6">Upon completion of the course, students will be able to:
– describe the application of radiography in conservation-restauration;
– describe radiological devices and their application in conservation, restauration;
– use software for radiographic digital image-processing
– describe possibilities of digital radiographic imaging in the field of easel painting and polychrome wood;
– describe possibilities of digital radiographic imaging in the field of stone and render;
– describe possibilities of digital radiographic imaging in the field of metal;
– describe possibilities of digital radiographic imaging in other fields.</td></tr>
<tr><td>Course content broken down in detail by weekly class schedule (syllabus)</td><td colspan="6"><table><tr><td>Type</td><td>Thematic units</td><td>Hours</td></tr><tr><td>L, S, E</td><td>Through a series of lectures and practical work students are introduced to the application of digital radiography in conservation and restauration as well as in some other fields
• Application of radiography in conservation-restauration
• Radiological devices – application in conservation, restauration
• Radiographic imaging
• Software for radiographic digital image-processing
• Digital radiographic imaging of easel painting and polychrome wood
• Digital radiographic imaging of stone
• Digital radiographic imaging of metal
• Digital radiographic imaging in other fields</td><td>15, 15, 30</td></tr></table></td></tr>
<tr><td>Format of instruction</td><td colspan="3">☐X lectures
☐X seminars and workshops
☐X exercises
☐ on line in entirety
☐ partial e-learning
☐ field work</td><td colspan="3">☐ independent assignments
☐ multimedia
☐ laboratory
☐ work with mentor
☐ (other)</td></tr>
<tr><td>Student responsibilities</td><td colspan="6">Regular class attendance.
Active participation in the teaching process.
Password for AAI EduHr electronic identity for access to e - learning.</td></tr>
</table>

<table>
<tr><td rowspan="6">Screening student work (name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)</td><td>Class attendance</td><td>0,5</td><td>Research</td><td></td><td>Practical training</td><td>1</td></tr>
<tr><td>Experimental work</td><td></td><td>Report</td><td></td><td></td><td></td></tr>
<tr><td>Essay</td><td></td><td>Seminar essay</td><td>2</td><td>(Other)</td><td></td></tr>
<tr><td>Tests</td><td></td><td>Oral exam</td><td></td><td>(Other)</td><td></td></tr>
<tr><td>Written exam</td><td>1,5</td><td>Project</td><td></td><td>(Other)</td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Grading and evaluating student work in class and at the final exam</td><td colspan="6">
<table>
<tr><th>Indicators</th><th>Success (points)</th><th>Share in the grade (%)</th></tr>
<tr><td>Class attendance</td><td>5</td><td>10</td></tr>
<tr><td>Seminar essay</td><td>30</td><td>60</td></tr>
<tr><td>Written exam</td><td>15</td><td>30</td></tr>
<tr><td>Total</td><td>50</td><td>100</td></tr>
</table>
RATIO OF SUCCESS AND EVALUATION
<table>
<tr><th>Success - percentage (%)</th><th>criterion</th><th>grade</th></tr>
<tr><td>60 - 69 %</td><td>meets the minimum criteria</td><td>sufficient (2)</td></tr>
<tr><td>70 – 79,9 %</td><td>average success</td><td>good (3)</td></tr>
<tr><td>80 – 89,9 %</td><td>above-average success</td><td>very good (4)</td></tr>
<tr><td>90 - 100 %</td><td>exceptional success</td><td>excellent (5)</td></tr>
</table>
</td></tr>
<tr><td>Required literature (available in the library and via other media)</td><td colspan="3">Title</td><td>Number of copies in the library</td><td>Availability via other media</td></tr>
<tr><td></td><td colspan="3">1. Radiography of Cultural Material, Janet Lang, Andrew Middleton (2005.)
2. Presentations and course materials from the website.</td><td></td><td></td></tr>
<tr><td>Optional literature (at the time of submission of study programme proposal)</td><td colspan="6">1.http://www.heritagescience.ac.uk/Research_Projects/projects/CRS/Martin
2.http://www.ncbi.nlm.nih.gov/pubmed/</td></tr>
<tr><td>Quality assurance methods that ensure the acquisition of exit competences</td><td colspan="6">Students and lecturers' analysis of the quality of teaching,
- Analysis of the exam success rate,
- Reports of the Teaching Control Committee,
- External evaluation (visits by the quality control teams of the National Agency for Quality Control, external evaluation and self-analysis.</td></tr>
<tr><td>Other (as the proposer wishes to add)</td><td colspan="6"></td></tr>
</table>

VI. LIST OF COURSES, TEACHERS AND ASSOCIATES

CODE	COURSE	TEACHERS
ZSZ701	Health Law	Full professor, Jozo Čizmić, PhD Assistant professor Nina Mišić Radanović, PhD
ZSZ702	Ethics in Health Care	Assistant professor Ana Ćurković, PhD Assistant professor Ana Jeličić, PhD
ZSZ703	Patient's Right	Full professor, Jozo Čizmić, PhD Assistant professor Nina Mišić Radanović, PhD
ZSZ704	Health insurance systems	Full professor Mirko Klarić, PhD Assistant professor Nada Tomasović Mrčela, MD, PhD
ZSZ705	Information systems in health care	Full professor Ana Jerončić, PhD Mr. sc. Renato-Zdenko Jerončić
ZSZ706	Human Resources Management	Dejan Kružić, PhD, Full professor tenure Ana Juras, PhD, Research associate Ante Mihanović, PhD, Senior lecturer
ZSZ707	Health Care Management	Dejan Kružić, PhD, Full professor tenure Ana Juras, PhD, Research associate Ante Mihanović, PhD, Senior lecturer
ZSZ708	Economics in health care	Full professor Žejlko Mrnjavac, PhD Associate professor Lana Kordić, PhD
ZSZ709	Quality control in healthcare	Associate professor Ante Obad, MD, PhD Assistant professor Nada Tomasović Mrčela, MD, PhD
ZSZ710	Pedagogy	Tonća Jukić, PhD, Associate Professor
ZSZ711	Didactics and teaching methods	Tonća Jukić, PhD, Associate Professor
ZSZ712	Health statistics	Antonela Matana, PhD, Assistant Professor
ZSZ713	Scientific research paper	Davorka Sutlovic, PhD, Full professor with tenure
ZSR701	IT Technologies in Radiologic Technology	Assistant Professor Frane Mihanović, PhD
ZSR702	Interventional and Angiographic Evidence-based Methods	Assistant Professor Tonči Batinić, MD, PhD Doc.dr.sc. Ivana Štula Mentors from teaching bases
ZSR703	Methods and Technology in Evidence-based Nuclear Medicine	Full professor Ante Punda, MD, PhD Assistant Professor Ana Barić Žižić, MD, PhD

		Assistant Professor Vesela Torlak, PhD
ZSR704	Evidence-based MRI Methods and Technology	Associate professor Krešimir Dolić, MD, PhD
ZSR705	Evidence-based CT Methods and Technology	Associate professor Tade Tadić, MD, PhD
ZSR706	Methods and Technology in Evidence-based Oncology and Radiotherapy	Assistant Professor Tihana Boraska Jelavić, MD, PhD
ZSR707	Evidence-based Digital Radiographic Systems*	Stipan Janković, MD, Full professor with tenure
ZSR708	Computerised Evidence-based Radiological Methods*	Associate professor Krešimir Dolić, MD, PhD
ZSR709	Integrated devices in evidence-based diagnostics*	Full professor Ante Punda, MD, PhD Mr. sc. Darijo Radović
ZSR710	Patient position in clinical trials*	Stipan Janković, MD, Full professor with tenure
ZSR711	Quality control in radiological technology*	Stipan Janković, MD, Full professor with tenure
ZSR712	Security of medical data and information systems*	Assistant Professor Frane Mihanović, PhD
ZSR713	Forensic radiography	Assistant Professor Frane Mihanović, PhD
ZSR714	Applied radiography in other fields*	Assistant Professor Frane Mihanović, PhD
ZSR715	Master's thesis	

VII. CURRICULUM VITAE OF TEACHERS AND ASSOCIATES

In alphabetical order:

Title, name and last name of the course leader	**Assistant professor Tihana Boraska Jelavić, M.D., Ph.D.**
Title of the course at the proposed study programme	Evidence based Methodology and Technology in Oncology and Radiotherapy
GENERAL INFORMATION ON COURSE LEADER	
E-mail address	tihana_boraska@yahoo.com
Year of birth	1975
Scientist ID	345685
CROSBI profile ID	**32455**
Research rank and date of the last appointment	Senior scientific associate, 30.6.2021.
Research and teaching or teaching rank, and the date of the last appointment	Assistant professor since 11/2016; employed since 1.6.2019.
Area and field of appointment into research rank	Oncology and radiotherapy
INFORMATION ON CURRENT EMPLOYMENT	
Institution of employment	University Hospital of Split, Department of Health studies university of Split
Date of employment	2014., 1.6.2019.
Job title (professor, researcher, associate teacher, etc.)	Clinical doctor; assistant professor
Field of research	Clinical Oncology
Position in the institution	Clinician, Teacher
INFORMATION ON EDUCATION – Highest degree achieved	
Degree	Ph.D.
Institution	School of Medicine Split, University of Split
Place	Split, Croatia
Date	24.3.2007.
INFORMATION ON ADDITIONAL TRAINING	
Year	2019
Place	Toronto Ontario, Canada
Institution	University Health Network
Field of training	Personalized Learning Program in Radiation Medicine Program
MOTHER TONGUE AND FOREIGN LANGUAGES	
Mother tongue	Croatian
Foreign language and command of foreign language on a scale from 2 (sufficient) to 5 (excellent)	English, 5
COMPETENCES FOR THE COURSE	
Earlier experience as course teacher of similar courses (title of course, study programme where it is/was held, and level of study programme)	Since 2011. teacher on different courses at Kathedra of Clinical Oncology at Split School of Medicine, University of Split: Medicine, Dental medicine, Pharmacy, Medicine in English; teacher at postgraduate courses: Biology of Neoplasms (Mechanisms of origin and progression of urinary bladder tumors) and at Evidence based clinical medicine (Methodics of clinical research); course leader at Department for Health studies, University of Split undergraduate and graduate level (courses: Evidence based methods and

	technologies in oncology and radiotherapy; Radiotherapy planning, Radiotherapy and Oncology)
Authorship of university textbooks from the field of the course	Coauthor of „ Clinical Oncology“, editors Šamija M, Vrdoljak E, Krajina Z. Medicinska naklada, Zagreb, 2006. Coauthor of „Clinical Oncology“, editors Vrdoljak E, Šamija M, Kusić Z, Petković M, Gugić D, Krajina Z. Medicinska naklada, Zagreb, 2013. Coauthor of „Clinical Oncology“, editors Vrdoljak E, Belac Lovasić I, Kusić Z, Gugić D, Juretić A. Medicinska naklada, Zagreb, 2018.
Professional and research papers published in the last five years from the field of the course **(max 5 references)**	1. Vrdoljak J, Boban T, Petrić Miše B, **Boraska Jelavić T**, Bajić Ž, Tomić S, Vrdoljak E. Efficacy and safety of TC dose-dense chemotherapy as first-line treatment of epithelial ovarian cancer: a single-institution retrospective cohort study. Jpn J Clin Oncol. 2019 Feb 23. pii: hyz011. doi: 10.1093/jjco/hyz011. [Epub ahead of print] 2. **Boraska Jelavić T**, Boban T, Brčić L, Vrdoljak E. Is macrocytosis a potential biomarker of the efficacy of dose-dense paclitaxel-carboplatin combination therapy in epithelial ovarian cancer patients? Anticancer Drugs 2017;28(8):922-927. 3. **Jelavić TB**, Miše BP, Ban M, Strikić A, Vrdoljak E. Adjuvant Chemotherapy in Locally advanced Cervical Cancer after Treatment with Concomitant Chemoradiotherapy- Room for Improvement? Anticancer Research 2015;35 (7):4161-4165 4. Omrcen T, Hrepic D, **Boraska Jelavić T**, Vrdoljak E. Combination of adjuvant radiotherapy and androgen deprivation therapy after radical prostatectomy in high risk prostate cancer patients - results from retrospective analysis. J Buon 2015;20(4):1061-7. 5. Vrdoljak E, Petrić Miše B, **Boraska Jelavić T**, Tomić S, Šundov D, Strikić A. Optimal follow-up of ovarian cancer patients. Magazine of European Medical Oncology. 2015;8(1):57-61.DOI: 10.1007/s12254-014-0188-y. ISSN 1865-5041
Professional and research papers In methodology and quality of teaching published in the last five years (**max 5 references**)	
Professional and research projects from the field of the course carried out in the last five years (**max 5 references**)	
Within which program and to what extent did the course teacher acquire methodological, psychological, didactic and pedagogical competencies?	2008. The course of continuing medical education: „Skills of medical education and scientific work“ held at School of Medicine Split, University of Split
PRIZES AND AWARDS	
Prizes and awards for teaching and research	2014. Award for best young oncology researcher of Croatian Oncology Society

Title, name and last name	**Assistant professor Ana Ćurković**
Title of the course at the proposed study programme	Ethics in Health Care
GENERAL INFORMATION ON COURSE LEADER	
E-mail address	ana.curkovic@ozs.unist.hr
Year of birth	1988.
Scientist ID	336731
CROSBI profile ID	31752
Research rank and date of the last appointment	/
Research and teaching or teaching rank, and the date of the last appointment	assistant professor, 24.11.2020.
Area and field of appointment into research rank	Area of biomedicine and health, field of public health and health care, branch of social medicine
INFORMATION ON CURRENT EMPLOYMENT	
Institution of employment	University of Split, University Department of Health Studies
Date of employment	1.4.20212.
Job title (professor, researcher, associate teacher, etc.)	assistant professor
Field of research	Social medicine
Position in the institution	assistant professor
INFORMATION ON EDUCATION – Highest degree achieved	
Degree	PhD
Institution	Split School of Medicine
Place	Split
Date	29.10.2018.
INFORMATION ON ADDITIONAL TRAINING	
Year	/
Place	/
Institution	/
Field of training	/
MOTHER TONGUE AND FOREIGN LANGUAGES	
Mother tongue	Croatian
Foreign language and command of foreign language on a scale from 2 (sufficient) to 5 (excellent)	English 4
COMPETENCES FOR THE COURSE	
Earlier experience as course teacher of similar courses (title of course, study programme where it is/was held, and level of study programme)	Previous participation in courses as a teaching assistant and postdoctoral researcher
Authorship of university textbooks from the field of the course	/
Professional and research papers published in the last five years from the field of the course **(max 5 references)**	Lukežić, Marina; Ćurković, Ana; Kolčić, Ivana; Polašek, Ozren. Socioeconomic status and psychological distress do not predict mortality risk in the island population of Vis, Croatia // Journal of Global Health Economics and Policy, 1 (2021), 1; 2021016, 7 doi:10.52872/001c.29662 Rehberg, Joshua; Stipčić, Ana; Ćorić, Tanja; Kolčić, Ivana; Polašek, Ozren. Mortality patterns in Southern Adriatic islands of Croatia: a registry-based study // Croatian Medical Journal, 59 (2018), 3; 118-123 doi:10.3325/cmj.2018.59.118

	Stipčić, Ana. Važnost socioekonomskih pokazatelja u određivanju zdravlja i zdravstvenih rizika u južnoj Hrvatskoj, 2018., doktorska disertacija, Medicinski fakultet Split, Split. Šolić, Ivana; Stipčić, Ana; Pavličević, Ivančica; Marušić, Ana Transparency and public accessibility of clinical trial information in Croatia: how it affects patient participation in clinical trials // Biochemia Medica: The journal of The Croatian Society of Medical Biochemistry and Laboratory Medicine, 27 (2017), 2; 259-269 doi:10.11613/BM.2017.027.
Professional and research papers In methodology and quality of teaching published in the last five years (**max 5 references**)	Antičević, Vesna; Sindik, Joško; Klarin, Mira; Đogaš, Varja; Stipčić, Ana; Kardum, Goran; Barač, Ivana; Zoranić, Sanja; Perković Kovačević, Marina Effects of social skills training among freshman undergraduate nursing students: a randomized controlled trial // Medica Jadertina, 48 (2018), 1-2; 23-32
Professional and research projects from the field of the course carried out in the last five years (**max 5 references**)	/
Within which program and to what extent did the course teacher acquire methodological, psychological, didactic and pedagogical competencies?	Professional development: Development and improvement of pedagogical competencies of university teachers. University of Split, Faculty of Philosophy, CIRCO - Center for Lifelong Research and Development Education (2014)
PRIZES AND AWARDS	
Prizes and awards for teaching and research	Award for the best poster presentation in the category of young researchers, HandsOn: Biobanks 2014, Helsinki, Finland.

Title, name and last name of the course leader	**Assistant professor Krešimir Dolić, MD, PhD**
Title of the course at the proposed study programme	Evidence-based MRI Methods and Technology Computerised Evidence-based Radiological Methods
GENERAL INFORMATION ON COURSE LEADER	
E-mail address	kdolic@mefst.hr
Year of birth	1979
Scientist ID	345244
CROSBI profile ID	32462
Research rank and date of the last appointment	May 2015. Assist.prof.
Research and teaching or teaching rank, and the date of the last appointment	PhD, April 2013. Associate professor, 25.11.2021.
Area and field of appointment into research rank	Biomedicine and Health, branch Radiology
INFORMATION ON CURRENT EMPLOYMENT	
Institution of employment	University hospital Split/Medical school Split
Date of employment	01.12.2006./30.11.2016.
Job title (professor, researcher, associate teacher, etc.)	Associate professor
Field of research	Clinical radiology
Position in the institution	Head of radiology department/ assist.prof.
INFORMATION ON EDUCATION – Highest degree achieved	
Degree	Assist.prof/subspecialist in neuroradiology
Institution	Medical school Split/University hospital Split
Place	Split
Date	2015/2017
INFORMATION ON ADDITIONAL TRAINING	
Year	2010-2011, 2013
Place	Buffalo, New York
Institution	Buffalo neuroimaging analysis center/Memorial Sloan Kettering
Field of training	Neuroradiology
MOTHER TONGUE AND FOREIGN LANGUAGES	
Mother tongue	Croatian
Foreign language and command of foreign language on a scale from 2 (sufficient) to 5 (excellent)	English - 5
Foreign language and command of foreign language on a scale from 2 (sufficient) to 5 (excellent)	Italian - 2
COMPETENCES FOR THE COURSE	
Earlier experience as course teacher of similar courses (title of course, study programme where it is/was held, and level of study programme)	

Authorship of university textbooks from the field of the course	**1.** Besenski N, Jankovic S, Buca A. **Clinical Radiology of the brain**. Coauthor in „Infective and inflammatory disease of the brain". Medicinska naklada Zagreb. 2011. **2.** Bešenski N, Jankovic S. „**Neuroradiology of the spine**". First author in „ Demyelinating disease of the spine" and „ Infective disease of the spine" and coauthor in "Metabolic disease of the spine" .Medicinska naklada Zagreb. 2013. **3.** Vrdoljak E, Samija M, Kusic Z, Petkovic M, Gugic D, Krajina Z. "Clinical oncology". Medicinska naklada Zagreb, 2013. – contributor. **4.** Saba L, Raz E. **Neurovascular Imaging: From Basics to Advanced Concepts**. First author of chapter: »CCSVI« . Springer-Verlag New York, 2016 **5.** Drviš P, Otorhinolaryngology with head and neck surgery, Autor of the chapter: **Radiological diagnostics of hearing disorders** Redak, Split 2019
Professional and research papers published in the last five years from the field of the course **(max 5 references)**	1. Pavicic Ivelja M, **Dolic K**, Marasovic Krstulovic D, Glavina G, Ivic I. Case of Acute Disseminated Encephalomyelitis Associated with Cytomegalovirus Reactivation in an Immunocompromised Systemic Lupus Erythematosus Patient. Medicina (Kaunas). 2021 Aug 27;57(9):882. 2. Mihalj M, Dolić K, Jurinović P, Miše NI, Titlić M, Pintarić I. Multiple intracranial schwanomas: case report. Acta Clin Croat. 2016 Jun;55(2):331-3. 3. Pavicic Ivelja M, Ivic I, **Dolic K**, Mestrovic A, Perkovic N, Jankovic S. Evaluation of cerebrovascular reactivity in chronic hepatitis C patients using transcranial color Doppler. Plos One. 2019 Jun 11;14(6). 4. Mihalj M, **Dolić K**, Kolić K, Ledenko V. CSF tap test - Obsolete or appropriate test for predicting shunt responsiveness? A systemic review. J Neurol Sci. 2016 Mar 15;362:78-84.
Professional and research papers In methodology and quality of teaching published in the last five years (**max 5 references**)	
Professional and research projects from the field of the course carried out in the last five years (**max 5 references**)	
Within which program and to what extent did the course teacher acquire methodological, psychological, didactic and pedagogical competencies?	
PRIZES AND AWARDS	
Prizes and awards for teaching and research	

Title, name and last name of the course leader	**Stipan Janković, MD, Full professor with tenure**
Title of the course at the proposed study programme	Evidence-based Approach to Digital Radiographic Systems Patient-centred Clinical Research Quality Control in Radiologic Technology
GENERAL INFORMATION ON COURSE LEADER	
E-mail address	stipan.jankovic@ozs.unist.hr
Year of birth	1948
Scientist ID	106463
CROSBI profile ID	11388
Research rank and date of the last appointment	Scientific advisor with tenure
Research and teaching or teaching rank, and the date of the last appointment	Tenured full professor of radiology, 3 December 2004
Area and field of appointment into research rank	Biomedicine and health, clinical medical sciences, radiology
INFORMATION ON CURRENT EMPLOYMENT	
Institution of employment	University Department of Health Studies
Date of employment	1 December 2011
Job title (professor, researcher, associate teacher, etc.)	Tenured full professor
Field of research	Radiology (subspecialisation in neuroradiology)
Position in the institution	Head
INFORMATION ON EDUCATION – Highest degree achieved	
Degree	professor, PhD, Prim., MD
Institution	University of Zagreb
Place	Zagreb
Date	2004
INFORMATION ON ADDITIONAL TRAINING	
Year	1985., 1989., 1991., 1993., 1998., 2014. …
Place	University of Zagreb, Lund – Šweden, Karolinska institut – Sweden, Frankfurt, Ospedale San Rafaelle – Milano, Versaille, ST. Joseph hospital – New York, etc.
Institution	University of Zagreb, Lund – Sweden, Karolinska institut – Sweden, Frankfurt, Ospedale San Rafaelle – Milano, Versaille, ST. Joseph hospital – New York, Istanbul, itd.
Field of training	Neuroradiology, Breast radiology
MOTHER TONGUE AND FOREIGN LANGUAGES	
Mother tongue	Croatian
Foreign language and command of foreign language on a scale from 2 (sufficient) to 5 (excellent)	French (3)
Foreign language and command of foreign language on a scale from 2 (sufficient) to 5 (excellent)	English (2)
Foreign language and command of foreign language on a scale from 2 (sufficient) to 5 (excellent)	Russian (2)
COMPETENCES FOR THE COURSE	
Earlier experience as course teacher of similar courses (title of course, study programme where it	

is/was held, and level of study programme)	
Authorship of university textbooks from the field of the course	Janković, Stipan; Lovrić Kojundžić, Sanja; Čarić, Ana **Osnove radiologije za primalje**, Split: Sveučilište u Splitu, Sveučilišni odjel zdravstvenih studija, 2014 (Autorska) Janković, Stipan; Bešenski, Nada **Klinička neuroradioogija kralježnice i kralježnične moždine**, Zagreb: Medicinska naklada, 2013 (Sveučilišni udžbenik) Janković, Stipan; Čizmić, Jozo **Liječnička pogreška-medicinski i pravni aspekti**, Poslijediplomski tečaj stalnog medicinskog usavršavanja I. kategorije, Split: Impresum, 2007 (zbornik) Janković, Stipan **Mamografija i ultrazvuk dojke**/Poslijediplomski tečaj I. kategorije - tečaj stalnog medicinskog usavršavanja liječnika, Split, 2004, Split: Impresum, 2004 (zbornik) Janković, Stipan; Polić, Stojan; Petričević, Ante; Bačić, Antun **Odabrana poglavlja iz hitne medicine**, Split: Jedinica za znanstveni rad KB Split, 1998 (Autorska) Topić, Elizabeta; Primorac, Dragan; Janković, Stipan; Štefanović, Mario **Medicinska biokemija i laboratorijska medicina u kliničkoj praksi /** Topić, Elizabeta ; Primorac, Dragan ; Janković, Stipan ; Štefanović, Mario (ur.). Zagreb: Medicinska naklada, 2018 Bukovec, Željka; Mirošević, Gorana Endokrinološke i metaboličke bolesti // Medicinska biokemija i laboratorijska medcina u kliničkoj praksi / Topić, Elizabeta ; Primorac, Dragan ; Janković, Stipan ; Štefanović, Mario (ur.). Zagreb: Medicinska naklada, 2018. str. 155-157 Grković, Ivica; Miletić, Damir; Kolić, Krešimir; Janković, Stipan; Glavina, Gordana Radiološka anatomija orofacijalnog područja, anomalije i varijacije // Dentalna radiografija i radiologija Split: Medicinski fakultet Sveučilišta u Splitu, 2009. str. 103-113 Janković, Stipan Rendgenski uređaji // Radiologija / Hebrang, Andrija ; Klarić-Čustović, Ratimira (ur.). Zagreb: Medicinska naklada, 2007. str. 33-56 Drinković, Ivan; Janković, Stipan Bolesti dojke // Radiologija / Hebrang, Andrija ; Klarić-Čustović, Ratimira (ur.). Zagreb: Impresum, 2006. str. 321-329 Janković, Stipan Rentgenski uređaji // Radiologija / Hebrang, Andrija ; Klarić-Čustović, Ratimira (ur.). Zagreb: Impresum, 2006. str. 33-60 Topić, Elizabeta; Salamunić, Ilza; Margetić, Sandra; Getaldić, Biserka; Čulić, Srđana; Dvornik, Štefica; Šimundić, Ana-Maria; Štefanović, Mario; Janković, Stipan; Staničić, Ante Suvremeni pristup medicinskoj dijagnostici u primarnoj zdravstvenoj zaštiti / Topić, Elizabeta ; Janković, Stipan (ur.). Zagreb: Medicinska naklada, 2006 Seminari iz kliničke radiologije / Janković, Stipan (ur.). Split: Medicinski fakultet, 2005 (monografija) Janković, Stipan

	Mamografija i ultrazvuk dojke/Poslijediplomski tečaj I. kategorije - tečaj stalnog medicinskog usavršavanja liječnika, Split, 2004.. Split: Impresum, 2004 (zbornik) Medicinskobiokemijska dijagnostika u kliničkoj praksi / Topić, Elizabeta ; Primorac, Dragan ; Janković, Stipan (ur.). Zagreb: Medicinska naklada, 2004 (Udžbenici i skripta) Janković, Stipan; Miše, Stjepan; Jakšić, Ana Uputstva liječnicima pri upućivanju bolesnika na specijalističku dijsgnostiku i specijalističko-konzilijarne preglede u Kliničku bolnicu Split, 2003. (podatak o recenziji nije dostupan, uputstva). Janković, Stipan Acta medica Croatica, tematski broj 2002., 2002. (podatak o recenziji nije dostupan, urednik časopisa). Janković, Stipan; Eterović, Davor Fizikalne osnove i klinički aspekti medicinske dijagnostike Zagreb: Impresum, 2002 Janković, Stipan Odabrana poglavlja iz gastroenterologije // Odabrana poglavlja iz gastroenterologije / Hozo, Izet ; Miše, Stjepan (ur.). Split: Impresum, 1999. str. 1-1 Kalajžić, Josip; Janković, Stipan; Rešić, Biserka Magnetska rezonancija: Naša iskustva u neuroradiologiji // Zbornik radova 2. Kongresa Hrvatskog društva radiologa Osijek, Hrvatska, 1998. str. 67-67 (poster, sažetak, znanstveni) Janković, Stipan Hitna radiološka dijagnostika gastrointestinalnog trakta // Hitna stanja u gastroenterologiji / Hozo, Izet ; Miše, Stjepan (ur.). Split: Impresum, 1998. str. 61-70 Janković, Stipan Radijacijska oštećenja // Harrison Principi interne medicine / Ivančević, Željko (ur.). Split: Impresum, 1997. str. 2179-2185 Janković, Stipan; Mihanović, Frane **Radiološki uređaji i oprema u radiologiji, radioterapiji i nuklearnoj medicini /** Janković, Stipan ; Mihanović, Frane (ur.). Split: Sveučilište u Splitu, 2015 Janković, Stipan; Marinović Guić, Maja **Osnove radiologije za fizioterapeute** Split: Sveučilište u Splitu, Sveučilišni odjel zdravstvenih studija, 2014 Janković, Stipan; Mihanović, Frane **Uvod u radiologiju** Split: Sveučilište u Splitu, Sveučilišni odjel zdravstvenih studija, 2014 Bešenski, Nada; Janković, Stipan; Buča, Ante **Klinička neuroradiologija mozga** Zagreb: Medicinska naklada, 2011 Mamografski probir raka dojke: Organizacija, rani rezultati i kontrola kvalitete (poslijediplomski tečaj I kategorije stalnog medicinskog usavršavanja), Medicinski fakultet Sveučilišta u Splitu, 2008. Stipan Janković, Damir Miletić Dentalna radiografija i radiologija. Split: Medicinski fakultet Split, 2009 (Autorska)
Professional and research papers	(Loughborough University, School of Sport, Exercise and Health Sciences, Loughborough, UK) Novokmet, Natalija; Lela, Ivana; Zajc

published in the last five years from the field of the course **(max 5 references)**	Petranović, Matea; Havaš Auguštin, Dubravka; Šarac, Jelena; Čoklo, Miran; Karelović, Deni; Žižić, Ana; Škrabić, Veselin, Stanišić, Lada; Orehovec, Biserka et al.
	Nutritional status before pregnancy, blood glucose and maternal body size in pregnancy, and the anthropometry of newborns – preliminary insights from the cribs study // 5th International Conference on Nutrition and GrowthPariz, Francuska, 2018. str.
	Fuchs, Nives; Novokmet, Natalija; Lela, Ivana; Zajc Petranović, Matea; Havaš Auguštin, Dubravka; Šarac, Jelena; Carić, Tonko; Dolanc, Ivan; Karelović, Deni; Škrabić, Veselin et al.
	Impact of pre-pregnancy BMI on blood glucose levels in pregnancy and on the anthropometry of newborns – preliminary insights from the Croatian Islands' Birth Cohort Study (CRIBS) // Collegium antropologicum, 42 (2018), 2; 89-93
	Bukovec, Željka; Mirošević, Gorana
	Endokrinološke i metaboličke bolesti // Medicinska biokemija i laboratorijska medcina u kliničkoj praksi / Topić, Elizabeta ; Primorac, Dragan ; Janković, Stipan ; Štefanović, Mario (ur.).
	Zagreb: Medicinska naklada, 2018. str. 155-157
	Perinić Lewis, Ana; Zajc Petranović, Matea; Carić, Tonko; Pribačić Ambrožić, Vanda; Karelović, Deni; Janković, Stipan; Missoni, Saša
	A sociodemographic profile of the participants in the Croatian Islands' Birth Cohort Study (CRIBS)/ Sociodemografski profil sudionica u Kohortnoj studiji rođenih na istočnojadranskim otocima (CRIBS) // Hrvatski geografski glasnik, 81 (2019), 1; 83-105
	doi:https://.org/10.21861/HGG.2019.81.01.04
	Delale, E.A.; Novokmet, N.; Fuchs, N.; Dolanc, I.; Karelović, D.; Janković, S.; Musić Milanović, S.; Cameron, N.; Missoni, S.
	Some determinants of quality of life of pregnant women // Book of Abstracts of the 33rd Annual Conference of the European Health Psychology Society
	Dubrovnik, Hrvatska, 2019. str. 677-677
	Bočkor, Luka; Delale, Eva Anđela; Carić, Tonko; Novokmet, Natalija; Fuchs, Nives; Karelović, Deni; Janković, Stipan; Musić Milanović, Sanja; Cameron, Noel; Missoni, Saša
	Health locus of control and quality of life of pregnant women. // 3rd Congress of Joint European Neonatal Societies (jENS 2019)
	Maastricht, Nizozemska, 2019. str. 101-101

Professional and research papers In methodology and quality of teaching published in the last five years (**max 5 references**)	Janković, Stipan; Koren, Sonja; Šarić, Matea; Orlandini, Rahela; Antičević, Vesna; Švaljug, Deana; Buljubašić, Ante The Croatian Model of University Education for Nurses // International Archives of Nursing and Health Care, 4 (2018), 2; 4:093, 4 doi:10.23937/2469-5823/1510093 Antičević, Vesna; Ćurković, Ana; Šarić Gudelj, Ana; Janković, Stipan The role of Sociodemographic Characteristics, Types of Internet Activities and Psychological Characteristics in the Internet Addiction // XII congreso internacional y xvii nacional de psicología clínica, Libro de Actas Santander, Španjolska, 2019. str. 605-605 Pavicic Ivelja, Mirela; Ivic, Ivo; Dolic, Kresimir; Mestrovic, Antonio; Perkovic, Nikola; Jankovic, Stipan Evaluation of cerebrovascular reactivity in chronic hepatitis C patients using transcranial color Doppler // PLOS ONE, 14 (2019), 6; e0218206, 10 doi:10.1371/journal.pone.0218206 Delale, Eva Anđela; Novokmet, Natalija; Fuchs, Nives; Dolanc, Ivan; Mrdjen-Hodžić, Rafaela; Karelović, Deni; Janković, Stipan; Musić Milanović, Sanja; Cameron, Noel; Missoni, Saša

	Stress, locus of control, hope and depression as determinants of quality of life of pregnant women: Croatian Islands' Birth Cohort Study (CRIBS) // Health Care for Women International, 42 (2021), 12; 1358-1378 doi:10.1080/07399332.2021.1882464
Professional and research projects from the field of the course carried out in the last five years (**max 5 references**)	A prospective study of PFAS exposure and cardiovascular disease outcomes in an Island population, Study period: 4/1/2021 to 3/31/2026
Within which program and to what extent did the course teacher acquire methodological, psychological, didactic and pedagogical competencies?	For over 40 years, since 1972, I have worked continuously as a doctor, and as a teacher from 1978 until today. During that time I have been the editor, co-editor, author and/or co-author of 30 books. I published over 250 scientific and professional articles, several studies, expertise, over 1000 forensic examinations (over 500 were written independently or in an expert team), moving up from the position of the assistant to the tenured full professor in 2004. From 2005 to 2009 I was Dean of the School of Medicine, University of Split for two terms, and from 2011 until today I have been, with a short break, the Head of the UDHS. I was a Deputy Head of the Clinical Institute of Radiology, University Hospital of Split for 12 years, and the Head of the Clinical Institute for over 18 years. I was a member and/or head of several governing councils in Split and the Republic of Croatia and a member of the ASHE team for re-accreditation. I was a member of the National Council for Higher Education and the National Council for Health of the Republic of Croatia. Since 2004 I have been the Head of the Commission for professional conferences and associations, and promotion of science of the Ministry of Science, Education and Sports, Croatia. I received the European diploma in neuroradiology (ECONR) in 2013. I am included in the bok of the most prominent Croatian doctors, and in the millennium edition of Who is Who in the world (Marquis 2000). I was a military volunteer from April 1, 1991 to June 30, 1996. Now I am a member of the Association of Croatian Homeland War volunteer doctors, and a member of the Association of Croatian Homeland War Veterans of the 158. brigade and 6. DP Split and president of the Military Veterans Court of Honour.
PRIZES AND AWARDS	
Prizes and awards for teaching and research	- Split-Dalmatia County award ”for significant personal contribution to the development of health care in our county through the development of diagnostic radiology at University Hospital of Split” in 2001. - Croatian Medical Association Memorial Award (1997) for “participation in the war”, Croatian Medical Association Charter (2003) ”in recognition of outstanding contribution to the Association, medical science and health care in the Republic of Croatia” - in 2008 Diploma Croatian Medical Association. - In April 2004 a Certificate of Appreciation ”for the contribution in raising standards of the University Hospital Centre Split” - Certificate of Appreciation of the Croatian Society of Radiology ”for help and support in all areas of activity.” - In 2006 an annual national award for promotion and popularization of science in the Republic of Croatia,

	- in 2008 the highest award of the Croatian Medical Association Ladislav Rakovac Award ”for achievements in the development of health, medical thought and science, and in particular for the effective work in the Association.” - In 2009 the annual award of the Croatian Anthropological Society, The ”Dragutin Gorjanović Kramberger” for outstanding contribution to the development of science and anthropology in the Republic of Croatia - Diploma of the Croatian Medical Association on the occasion of the 135th anniversary”for outstanding contribution to cherishing honourable tradition of the Croatian Medical Association, medical science and health care in Republic of Croatia” - As the lead author and editor of the best university textbook”- Dental radiography and radiology” the Certificate of Appreciation on the occasion of the School of Medicine Day in 2010 - In 2014 ”as the author of the best university textbook at the School of Medicine in Split in the academic year 2012/2013” (Clinical neuroradiology of the spine and spinal cord) the Certificate of Appreciation and Recognition ”for continuous and rich publishing activity in the field of radiology”. - A military volunteer from April 1, 1991 to June 30, 1996, when demobilized with the rank of reserve major of medical profession. For contribution to the defence of the homeland and patriotic merits in the war I was awarded the Commemorative Medal of the Homeland War 1990 - 1992, Medal for Participation in Operation ”Storm”, Commemorative Medal of the Homeland’s Gratitude, and the Order of the Croatian Trefoil, special Certificate of Appreciation from General Ante Gotovina for contribution in the winning operation ”Storm”, and the Order of Ban Jelačić in March 2013. - In 1985 the ”Medal of Merit”. - In 2021 University of Split award for contribution to the development and promotion of the University of Split.

Title, name and last name of the course leader	**Tonća Jukić, Ph.D., Associate Professor**
Title of the course at the proposed study programme	Pedagogy, Didactics and Teaching Methodology
GENERAL INFORMATION ON COURSE LEADER	
E-mail address	tjukic@ffst.hr
Personal web page	-
Year of birth	1978.
Scientist ID	290210
CROSBI profile ID	22126
Research rank and date of the last appointment	senior research associate, 7. 2. 2018.
Research and teaching or teaching rank, and the date of the last appointment	associate professor, 1. 10. 2019.
Area and field of appointment into research rank	social sciences, pedagogy
INFORMATION ON CURRENT EMPLOYMENT	
Institution of employment	Faculty of Humanities and Social Sciences, University of Split
Date of employment	1.12. 2006.
Job title (professor, researcher, associate teacher, etc.)	associate professor
Field of research	teaching process, pedagogical science
Position in the institution	teacher
INFORMATION ON EDUCATION – Highest degree achieved	
Degree	Ph. D.
Institution	Faculty of Humanities and Social Sciences, University of Zagreb
Place	Zagreb
Date	16. 5. 2011.
INFORMATION ON ADDITIONAL TRAINING	
Year	2002./2003.
Place	Split
Institution	Forum for Freedom in Education, Zagreb
Field of training	Pedagogy, Didactics
MOTHER TONGUE AND FOREIGN LANGUAGES	
Mother tongue	Croatian
Foreign language and command of foreign language on a scale from 2 (sufficient) to 5 (excellent)	English (5)
Foreign language and command of foreign language on a scale from 2 (sufficient) to 5 (excellent)	Italian (3)
COMPETENCES FOR THE COURSE	
Earlier experience as course teacher of similar courses (title of course, study programme where it is/was held, and level of study programme)	Experience at Faculty of Humanities and Social Sciences Split: - Systematic Pedagogy, Study of Pedagogy, Undergraduate study - Fundamentals of Pedagogy, Study of Pre-school Education, Undergraduate study - Fundamentals of Pedagogy, Teacher Study, Integral study - Systematic pedagogy, Lifelong learning program (PPDMO, CIRCO) - Pedagogy, Lifelong learning program (PPDMS, CIRCO) - Creativity as pedagogical challenge, Pedagogy, Undergraduate study

	- Extracurricular and after-school activities, Pedagogy, Graduate study Experience at Faculty of Science Split: - Extracurricular and after-school activities, Lifelong learning program
Authorship of university textbooks from the field of the course	-
Professional and research papers published in the last five years from the field of the course **(max 5 references)**	1. Nemeth-Jajić, J., & Jukić, T. (2021). Definiranje i uporaba nazivlja za e-izvedbu nastave. *Metodički ogledi*, *28*(1), 89-114 2. Jukić, T. (2021). Styles of creativity in education. In R. Duev (Ed.) *Science and society: contribution of humanities and social sciences.* Skopje: Faculty of philosophy in Skopje. 3. Jukić, T. (2019, June). Creativity in Education. In *Proceedings of the Seventh International Science Conference Contemporary Education – Conditions, Challenges and Perspectives* (pp. 11-16). Southwest University Neofit Rilski. 4. Jukić, T., & Mandarić Vukušić, A. (2017/2018). Crisis of Upbringing and Education: How to become a part of the solution rather than being part of the problem. *Vospitanie: Journal of Educational Sciences, Theory and Practice*. *10*(14), 11-20.
Professional and research papers In methodology and quality of teaching published in the last five years (**max 5 references**)	1. Jukić, T., & Nemeth-Jajić, J. (2020). Motiviranje adolescenata na čitanje: primjeri dobre prakse. In I. Batarelo Kokić, A. Bubić, T. Kokić, A. Mandarić Vukušić (Ed..) *Čitanje u ranoj adolescenciji.* Split: Filozofski fakultet (pp. 97-121).
Professional and research projects from the field of the course carried out in the last five years (**max 5 references**)	-
Within which program and to what extent did the course teacher acquire methodological, psychological, didactic and pedagogical competencies?	- Faculty of Science and Education University of Split, 6 teaching methodologies - Forum for Freedom in Education, Project Reading and Writing for Critical Thinking (RWCT), (since 2006 leads pedagogical-didactic workshops for teachers)
PRIZES AND AWARDS	
Prizes and awards for teaching and research	-

Title, name and last name	**Dejan Kružić, PhD** **Full professor tenure**
Title of the course at the proposed study programme	Human Resources Management Health Care Management
GENERAL INFORMATION ON COURSE LEADER	
E-mail address	dkruzic@efst.hr
Year of birth	1954.
Scientist ID	92243
CROSBI profile ID	20710
Research rank and date of the last appointment	Scientific advisor - tenure
Research and teaching or teaching rank, and the date of the last appointment	Full professor tenure, 24.5.2018.
Area and field of appointment into research rank	Social sciences, Field of Economy, branch Economics of Entrepreneurship
INFORMATION ON CURRENT EMPLOYMENT	
Institution of employment	Faculty of Economics, Business and Tourism Split
Date of employment	01.03.2003.
Job title (professor, researcher, associate teacher, etc.)	Professor at the Department of management
Field of research	Crisis management, Entrepreneurship
Position in the institution	Full professor tenure
INFORMATION ON EDUCATION – Highest degree achieved	
Degree	PhD
Institution	Faculty of Economics, Business and Tourism Split
Place	Split
Date	1983.
INFORMATION ON ADDITIONAL TRAINING	
Year	
Place	
Institution	
Field of training	
MOTHER TONGUE AND FOREIGN LANGUAGES	
Mother tongue	Croatian
Foreign language and command of foreign language on a scale from 2 (sufficient) to 5 (excellent)	English (3)
Foreign language and command of foreign language on a scale from 2 (sufficient) to 5 (excellent)	Italian (2)
COMPETENCES FOR THE COURSE	
Earlier experience as course teacher of similar courses (title of course, study programme where it is/was held, and level of study programme)	Crisis management; Entrepreneurship; Family business; Entrepreneurial planning; Public-private partnership projects; Postgraduate and graduate university studies; Undergraduate university and professional study
Authorship of university textbooks from the field of the course	Kružić, D. (ur.), *Obiteljsko poduzetništvo*, Ekonomski fakultet Mostar i Ekonomski fakultet Split, 2016. Buble, M., Kružić, D.: *Poduzetništvo – realnost sadašnjosti i izazov budućnosti*, RRiF, Zagreb, 2006.
Professional and research papers	Kružić, D., Ivić, M., Cindrić, I.*: Corporate Social Responsibility as a Reputation Mechanism for the Companies Operating in Media Industry*, Proceedings of the 7th International OFEL Conference on

published in the last five years from the field of the course **(max 5 references)**	Governance, Management and Entrepreneurship: Embracing Diversity in Organisations, Zagreb, 2019. Škokić, V., Kružić, D., *Knowledge creation and the need for new research directions in entrepreneurship studies*, Management Education and Research in the Upcoming Epoch: Rethinking Discipline and Reconceptualization Modes of Creating Knowledge (Tipurić, D., Aleksić, A., ur.). Ekonomski fakultet Zagreb, Zagreb, 2017. Bulog, I., Jukić, I., Kružić, D., *Managerial Skills: Does Family Ownership Make a Difference*? Proceedings of the 5th International OFEL Conference on Governance, Management and Entrepreneurship: The Paradoxes of Leadership and Governance in the Postmodern Societx, Tipurić, D., Galetić, F. (ur.), CIRU, Zagreb, 2017. Kružić, D. (ur.), *Obiteljsko poduzetništvo*, Ekonomski fakultet Mostar i Ekonomski fakultet Split, 2016.
Professional and research papers In methodology and quality of teaching published in the last five years (**max 5 references**)	
Professional and research projects from the field of the course carried out in the last five years (**max 5 references**)	
Within which program and to what extent did the course teacher acquire methodological, psychological, didactic and pedagogical competencies?	
PRIZES AND AWARDS	
Prizes and awards for teaching and research	Medal of the City of Split (2003) for outstanding contribution to local development management and for an overall scientific and professional activities. Award of the Faculty of Economics in Split for the book *Family Business* (2004). Recognition of the Faculty of Economics in Split for valuable scientific work - for co-authorship of the book *Influence of organizational variables on the success of business process improvement programs* (2010). Recognition of the Faculty of Economics in Split for valuable scientific work - the book *Family Businesses - Life Cycles, Inheritance and Sustainability* (2012). Recognition of the Faculty of Economics in Split for valuable scientific work - for co-authorship of the book *Possibilities of Restructuring Aluminij d.d. Mostar* (2013). Award of the Faculty of Economics in Split for valuable scientific work - for co-authorship of the book *Family Entrepreneurship* (2015).

Title, name and last name of the course leader	Assist.prof. Sanja Lovric Kojundzic, MD,PhD
Title of the course at the proposed study programme	Radiological Vocabulary and Standards Radiological Methods in Special Working Fields Multiplanar Reconstruction Images of Body Structures
GENERAL INFORMATION ON COURSE LEADER	
E-mail address	lovric.sanja@gmail.com
Personal web page	
Year of birth	1974
Scientist ID	276580
CROSBI profile ID	22950
Research rank and date of the last appointment	PhD 06.11.2009.
Research and teaching or teaching rank, and the date of the last appointment	Assist.prof 21.07.2016.
Area and field of appointment into research rank	Biomedicine and Health; Clinical Medical Sciences; Branch - Radiology
INFORMATION ON CURRENT EMPLOYMENT	
Institution of employment	Clinical Hospital Split /University of Split, School of Medicine
Date of employment	15.09.2008. / 01.03.2018.
Job title (professor, researcher, associate teacher, etc.)	Assist.prof radiology specialist, subspecialist in neuroradiology
Field of research	Medical Radiology
Position in the institution	Head of the Department of Medical Radiology radiology specialist, subspecialist in neuroradiology
INFORMATION ON EDUCATION – Highest degree achieved	
Degree	Subspecialist in neuroradiology / Assist.prof.
Institution	Clinical Hospital Split /University of Split, School of Medicine
Place	Split
Date	2015/2017
INFORMATION ON ADDITIONAL TRAINING	
Year	
Place	
Institution	
Field of training	
MOTHER TONGUE AND FOREIGN LANGUAGES	
Mother tongue	Croatian
Foreign language and command of foreign language on a scale from 2 (sufficient) to 5 (excellent)	English 5
COMPETENCES FOR THE COURSE	
Earlier experience as course teacher of similar courses (title of course, study programme where it is/was held, and level of study programme)	Head of the Department of Medical Radiology Lecturer at the Department of Medical Radiology (Croatian and English Studies), University of Split, School of Medicine Lecturer at the postgraduate university study "Biology of neoplasms". Lecturer in several postgraduate courses of the I category. Leader of 3 courses at Health studies - Radiological technology (Radiological vocabulary and norms, Multiplanar presentation of body structure, X-ray methods in special working conditions)
Authorship of university textbooks from the field of the course	1. Histological atlas: http://www.vms.hr/HistologyAtlas/index.htm 2. Clinical neuroradiology of the brain (Chapter II: Hereditary brain disorders)

	3. Clinical neuroradiology of the spine and spinal cord (Chapter VII,Degenerative diseases of the spine) 4. Basics of radiology for midwives, University of Split, University Department of Health Studies
Professional and research papers published in the last five years from the field of the course **(max 5 references)**	1. Lovrić Kojundžić S, Budimir Mršić D, Jelovina I, Benzon B, Tomasović M. The applicability of magnetic resonance imaging classification system (MRICS) for cerebral palsy and its association with perinatal factors and related disabilities in a Croatian population-based sample. Croat Med J. 2021 Aug 31;62(4):367-375. PMID: 34472740. 2. Marcic Lj, Marcic M, Lovric Kojundzic S, Marcic B, Capkun V, Vukojevic K. Personalized Approach to Patient with MRI Brain Changes after SARS-CoV-2 Infection. Journal of personalized medicine vol. 11,6 442. 21 May. 2021, doi:10.3390/jpm11060442 3. Stula I, Kojundzic SL, Guic MM, Novak K. Carotid artery stenosis in correlation with neck and carotid artery anatomy. Vascular. 2021 May 30:17085381211018603. doi: 10.1177/17085381211018603. Epub ahead of print. PMID: 34053369. 4. Sunara D, Krnić Martinić M, Lovrić Kojundžić S, Marčić L. Vestibular neuronitis in a vestibular schwannoma patient. Auris Nasus Larynx. 2021 Apr 25:S0385-8146(21)00126-7. doi: 10.1016/j.anl.2021.04.003. Epub ahead of print. PMID: 33910770 5. Šošo D, Aljinović J, Lovric Kojundzic S, Marinović I, Čečuk Jeličić E, Marasović Krstulović D. Ultrasound-Verified Peripheral Arthritis in Patients with *HLA-B*35* Positive Spondyloarthritis. Life (Basel) 2021 Jun; 11(6): 524. Published online 2021 Jun 4. doi: 10.3390/life1106052
Professional and research papers In methodology and quality of teaching published in the last five years (**max 5 references**)	
Professional and research projects from the field of the course carried out in the last five years (**max 5 references**)	
Within which program and to what extent did the course teacher acquire methodological, psychological, didactic and pedagogical competencies?	
PRIZES AND AWARDS	
Prizes and awards for teaching and research	

Title, name and last name of the course leader	Frane Mihanović, PhD, Assistant professor
Title of the course at the proposed study programme	IT in Radiologic Technology Evidence-based Approach to Methods and Technology in MRI Safety of Medical Data and Information Systems Forensic Radiography Radiography Applied in Other Fields
GENERAL INFORMATION ON COURSE LEADER	
E-mail address	frane.mihanovic@ozs.unist.hr
Personal web page	/
Year of birth	1962
Scientist ID	354821
CROSBI profile ID	33405
Research rank and date of the last appointment	Research Associate, 2017.
Research and teaching or teaching rank, and the date of the last appointment	Assistant professor, 2017.
Area and field of appointment into research rank	Biomedicine and Health, Anatomy
INFORMATION ON CURRENT EMPLOYMENT	
Institution of employment	University of Split, University Department of Health Studies
Date of employment	10. 2011.
Job title (professor, researcher, associate teacher, etc.)	Assistant professor
Field of research	Radiological technology
Position in the institution	/
INFORMATION ON EDUCATION – Highest degree achieved	
Degree	PhD
Institution	University of Split, School of Medicine
Place	Split
Date	July 26, 2016
INFORMATION ON ADDITIONAL TRAINING	
Year	2014.
Place	Helsinki
Institution	Aalto University, Finnish National Board of Education
Field of training	Higher education, Education and employability
MOTHER TONGUE AND FOREIGN LANGUAGES	
Mother tongue	Croatian
Foreign language and command of foreign language on a scale from 2 (sufficient) to 5 (excellent)	English, 4
Foreign language and command of foreign language on a scale from 2 (sufficient) to 5 (excellent)	German, 2
COMPETENCES FOR THE COURSE	
Earlier experience as course teacher of similar courses (title of course, study programme where it is/was held, and level of study programme)	Computers in radiology, New technologies in radiology, Introduction to scientific work.
Authorship of university textbooks from the field of the course	1. S. Janković, F. Mihanović i suradnici. Radiološki uređaji i oprema u radiologiji, radioterapiji i nuklearnoj medicini, Sveučilište u Splitu, Sveučilišni odjel zdravstvenih studija, Split, 2015., ISBN 978-953-7220-21-1

	2. F. Mihanović. Computed tomography as a method in conservation and restoration, Saarbrücken, LAP, LAMBERT Academic Publishing, 2013., ISBN 978-3-659-45047-1 3. S. Janković, F. Mihanović. Uvod u radiologiju, Sveučilište u Splitu, Sveučilišni odjel zdravstvenih studija, Split, 2013. ISBN 978-953-7220-17-4
Professional and research papers published in the last five years from the field of the course **(max 5 references)**	1. Ivanović, A. i Mihanović, F. (2020). Accuracy of measurements performed on digital panoramic radiographs with and without an extra-oral calibration object. ST-OPEN, 1 (-), 1-11. https://doi.org/10.48188/so.1.1 2. Bazina AM, Peričić TP, Galić I, Mihanović F, Kovačević N, Galić T. Knowledge and attitudes of water polo coaches about sports-related dental injuries and dental emergency procedures. Dent Traumatol. 2020 Aug;36(4):382-389. doi: 10.1111/edt.12551. Epub 2020 Mar 4. PMID: 32058660. 3. Marić, Josipa; Bašić, Željana; Jerković, Ivan; Mihanović, Frane; Anđelinović, Šimun; Kružić, Ivana, Facial reconstruction of mummified remains of Christian Saint-Nicolosa Bursa // Journal of cultural heritage, 42 (2020), 249-254 doi:10.1016/j.culher.2019.08.008 4. Kružić, Ivana; Jerković, Ivan; Mihanović, Frane; Marušić, Ana; Anđelinović, Šimun; Bašić, Željana, Virtual autopsy in legal medicine: literature review and example of application on the mummified remains // Medicine, Law & Society, 11 (2018), 2; 67-90 doi:10.18690/ml&s.11. 2 .67 -90.2018 5. Jerković, Ivan; Kružić, Ivana; Bašić, Željana; Mihanović, Frane; Anđelinović, Šimun,The oldest evidence of calcific myonecrosis? // International journal of osteoarchaeology, 28 (2017), 2; 199-200 doi:10.1002/oa.2641
Professional and research papers In methodology and quality of teaching published in the last five years (**max 5 references**)	
Professional and research projects from the field of the course carried out in the last five years (**max 5 references**)	Estimation of the age of the subjects based on magnetic resonance imaging of the knee using artificial intelligence
Within which program and to what extent did the course teacher acquire methodological, psychological, didactic and pedagogical competencies?	Postgraduate doctoral study, Basic course of communication skills for SOZS employees
PRIZES AND AWARDS	
Prizes and awards for teaching and research	Acknowledgment from SOZS

First and last name and title of teacher	**Nina Mišić Radanović, PhD.** **Assistant professor**
The course he/she teaches in the proposed study programme	Health Law Patient's Right
GENERAL INFORMATION ON COURSE TEACHER	
E-mail address	nina.misic.radanovic@unist.hr
Personal web page	
Year of birth	1988.
Scientist ID	348995
Research or art rank, and date of last rank appointment	
Research-and-teaching, art-and-teaching or teaching rank, and date of last rank appointment	Assistant professor, 10.7.2018.
Area and field of election into research or art rank	Scientific area: social sciences Scientific field: law
INFORMATION ON CURRENT EMPLOYMENT	
Institution where employed	University of Split, University Department of Forensic sciences
Date of employment	14.11. 2012.
Name of position (professor, researcher, associate teacher, etc.)	Assistant professor
Field of research	Criminal law, Criminal procedure law, Civil law, Civil procedure law, Medical law
Function	Head of Chair of law sciences
INFORMATION ON EDUCATION – Highest degree earned	
Degree	PhD.
Institution	Faculty of law, University of Mostar
Place	Mostar
Date	21.10.2017.
INFORMATION ON ADDITIONAL TRAINING	
Year	
Place	
Institution	
Field of training	
MOTHER TONGUE AND FOREIGN LANGUAGES	
Mother tongue	Croatian
Foreign language and command of foreign language on a scale from 2 (sufficient) to 5 (excellent)	English - 4
Foreign language and command of foreign language on a scale from 2 (sufficient) to 5 (excellent)	Italian - 3
COMPETENCES FOR THE COURSE	
Earlier experience as course teacher of similar courses (name title of course, study programme where it is/was offered, and level of study programme)	- Law in Forensic sciences - graduate university study of Forensics - Civil law and civil procedure - graduate university study of Forensics - Criminal law - graduate university study of Forensics - Forensics and liability in medicine - graduate university study of Forensics - Introduction to law I. – undergraduate university study of Forensics

	- Introduction to law II. - undergraduate university study of Forensics
Authorship of university/faculty textbooks in the field of the course	
Professional, scholarly and artistic articles published in the last five years in the field of the course (5 works at most)	1. MIŠIĆ RADANOVIĆ, Nina: *Pristanak pacijenta na medicinski zahvat kao razlog za isključenje protupravnosti,* Zbornik radova Pravnog fakulteta u Splitu, god.55. 4/2018. str. 865.-892. 2. MIŠIĆ RADANOVIĆ, Nina: *Novo kazneno djelo prisile prema zdravstvenom radniku,* Zbornik radova s međunarodnog kongresa „1. Kongres KOKOZ-a i 3. Hrvatski kongres medicinskog prava s međunarodnim sudjelovanjem“, Rabac, 2019., str. 147.-170. 3. MIŠIĆ RADANOVIĆ, Nina: *Prijepori o kaznenoj odgovornosti medicinskih djelatnika za stručnu pogrešku*, Godišnjak Akademije pravnih znanosti Hrvatske, Vol. XI. No.1, 2020, str. 41-62, 4. MIŠIĆ RADANOVIĆ, Nina, VUKUŠIĆ, Ivan: *Quality standard and causality in healthcare malpractice,* ECLIC, Osijek, rujan 2020. 5. MIŠIĆ RADANOVIĆ, Nina: *Pravni aspekti odbijanja medicinskog postupka*, Godišnjak Akademije pravnih znanosti Hrvatske, XII (2021.) str. 263.-287.
Professional and scholarly articles published in the last five years in subjects of teaching methodology and teaching quality (5 works at most)	
Professional, science and artistic projects in the field of the course carried out in the last five years (5 at most)	
The name of the programme and the volume in which the main teacher passed exams in/acquired the methodological-psychological-didactic-pedagogical group of competences?-pedagoške kompetencije?	Seminar for development and training of pedagogical competencies of university lecturers, CIRCO - Center for research and development of lifelong learning, February 28, 2013.
PRIZES AND AWARDS, STUDENT EVALUATION	
Prizes and awards for teaching and scholarly/artistic work	Commendation to the first author of the best scientific work created at the University Department of Forensic Sciences published in the academic year 2019/2020 Acknowledgment for special contribution to the work of the Commission for launching the undergraduate university study of Forensics
Results of student evaluation taken in the last five years for the course that is comparable to the course described in the form (evaluation organizer, average grade, note on grading scale and course evaluated)	Student surveys – average grade 4,8

Title, name and last name	**Assistant professor Antonela Matana, PhD**
Title of the course at the proposed study programme	Statistics in Health Care
GENERAL INFORMATION ON COURSE LEADER	
E-mail address	antmatana@ozs.unist.hr
Year of birth	1989.
Scientist ID	365156
CROSBI profile ID	34453
Research rank and date of the last appointment	Research associate, 10.7. 2019
Research and teaching or teaching rank, and the date of the last appointment	Assistant professor, 24.11.2020.
Area and field of appointment into research rank	Biomedicine and Health, Basic Medical Sciences
INFORMATION ON CURRENT EMPLOYMENT	
Institution of employment	The University of Split, University Department of Health Studies
Date of employment	20. 4 2021
Job title (professor, researcher, associate teacher, etc.)	Assistant professor
Field of research	Biostatistics
Position in the institution	Assistant professor
INFORMATION ON EDUCATION – Highest degree achieved	
Degree	PhD
Institution	University of Split, School of Medicine
Place	Split, Croatia
Date	21.12.2018
INFORMATION ON ADDITIONAL TRAINING	
Year	2019.
Place	Split, Croatia
Institution	The University of Split, Faculty of Science
Field of training	Bioinformatics and Statistics
Year	2017
Place	London, England
Institution	Imperial College London, London
Field of training	Genome-wide association studies
Year	2017
Place	Split, Croatia
Institution	The University of Split, Faculty of Science
Field of training	Bioinformatics and Statistics
MOTHER TONGUE AND FOREIGN LANGUAGES	
Mother tongue	Croatian
Foreign language and command of foreign language on a scale from 2 (sufficient) to 5 (excellent)	English - 5
COMPETENCES FOR THE COURSE	
Earlier experience as course teacher of similar courses (title of course, study programme where it is/was held, and level of study programme)	-
Authorship of university textbooks from the field of the course	-
Professional and research papers	Matana A, Boutin T, Torlak V, Brdar D, Gunjaca I, Kolcic I, et al. Genome-wide analysis identifies two susceptibility loci for positive

published in the last five years from the field of the course **(max 5 references)**	thyroid peroxidase and thyroglobulin antibodies. J Clin Endocrinol Metab. 2019. Matana A, Ziros PG, Chartoumpekis DV, Renaud CO, Polasek O, Hayward C, et al. Rare and common genetic variations in the Keap1/Nrf2 antioxidant response pathway impact thyroglobulin gene expression and circulating levels, respectively. Biochem Pharmacol. 2019. Matana A, Popovic M, Boutin T, et al. Genetic Variants in the ST6GAL1 Gene Are Associated with Thyroglobulin Plasma Level in Healthy Individuals. Thyroid. 2019;29(6):886-893. Punda A, Škrabić V, Torlak V, Gunjača I, Boraska Perica V, Kolčić I, Polašek O, Hayward C, Zemunik T, Matana A. Thyroid hormone levels are associated with metabolic components: a cross-sectional study. Croat Med J. 2020 Jul 5;61(3):230-238. Matana A, Brdar D, Torlak V, Boutin T, Popović M, Gunjača I, Kolčić I, Boraska Perica V, Punda A, Polašek O, Barbalić M, Hayward C, Zemunik T. Genome-wide meta-analysis identifies novel loci associated with parathyroid hormone level. Mol Med. 2018 Apr 11;24(1):15.
Professional and research papers In methodology and quality of teaching published in the last five years (**max 5 references**)	-
Professional and research projects from the field of the course carried out in the last five years (**max 5 references**)	2021 – Principal investigator at the Institutional project "Adherence to the pattern of the Mediterranean diet and the level of physical activity in children and youth in Croatia" 2020 - 2024 Associate at the Croatian Science Foundation "Research project" Regulation of thyroid and parathyroid function and blood calcium homeostasis ", leader prof. Tatijana Zemunik 2014 - 2018 Doctoral student at the Croatian Research Institute of Research Project IP-11-2013 No. 1498 "Discovery of new gene loci involved in the regulation of thyroid and thyroid function", leader prof. Tatijana Zemunik
Within which program and to what extent did the course teacher acquire methodological, psychological, didactic and pedagogical competencies?	Undergraduate study of Mathematics and Informatics at the Faculty of Science in Split, Croatia.
PRIZES AND AWARDS	
Prizes and awards for teaching and research	2021. University of Split Science Award 2020 in the category of Young Scientists for the best-ranked scientists according to WoSCC and Scopus databases 2017. Best Presentation Award, „ICHG 2017: 19th International Conference on Human Genetics, December 18-19 2017'', Bangkok, Thailand 2012. Scholarship of the European Society of Human Genetics (ESHG) for participation in a training course: „Introduction to the statistical analysis of genome-wide association studies”, Department of Genomics of Common Disease, Imperial College London, UK

Title, name and last name of the course leader	**Associate professor Tomislav Omrčen**
Title of the course at the proposed study programme	Radiotherapy and Oncology; Planning in Radiotherapy; Evidence based Methodology and Technology in Oncology and Radiotherapy
GENERAL INFORMATION ON COURSE LEADER	
E-mail address	tomislavomrcen@yahoo.com
Personal web page	
Year of birth	1968.
Scientist ID	345720
CROSBI profile ID	32531
Research rank and date of the last appointment	Senior research associate, 21.4.2021.
Research and teaching or teaching rank, and the date of the last appointment	Associate professor, 25.11.2021
Area and field of appointment into research rank	Biomedicine and Health, Clinical Medical Sciences, Oncology
INFORMATION ON CURRENT EMPLOYMENT	
Institution of employment	School of Medicine, University of Split
Date of employment	17.11.2016.
Job title (professor, researcher, associate teacher, etc.)	Professor
Field of research	Urologic oncology, gastrointestinal tumors
Position in the institution	Deputy Head, Chair of Oncology
INFORMATION ON EDUCATION – Highest degree achieved	
Degree	Medical doctor
Institution	School of Medicine, University of Zagreb
Place	Zagreb
Date	1994.
INFORMATION ON ADDITIONAL TRAINING	
Year	2000-2004., Specialization in Radiotherapy and Oncology
Place	Split
Institution	University Hospital Split
Field of training	Oncology
MOTHER TONGUE AND FOREIGN LANGUAGES	
Mother tongue	Croatian
Foreign language and command of foreign language on a scale from 2 (sufficient) to 5 (excellent)	English, 3
Foreign language and command of foreign language on a scale from 2 (sufficient) to 5 (excellent)	German, 2
COMPETENCES FOR THE COURSE	
Earlier experience as course teacher of similar courses (title of course, study programme where it is/was held, and level of study programme)	Head of compulsory courses Tumors of childhood, Tumors of the digestive system and Tumors of the central nervous system at the University Postgraduate Specialist Study "Oncology and Radiotherapy" , School of Medicine, University of Split.
Authorship of university textbooks from the field of the course	E Vrdoljak, I Belac Lovasić, Z Kusić, D Gugić, A Juretić. Clinical oncology. Medicinska naklada, Zagreb 2018.
Professional and research papers published in the last five years from the field of the course **(max 5 references)**	1. Vrdoljak E, Magri C, Gamulin M, Bošković L, **Omrčen T**, Bajić Ž et al. Real-world safety and efficacy of nivolumab for ≥ 2nd line treatment of metastatic renal cell carcinoma: A retrospective cohort study in Croatia, Hungary, and Malta**.** Neoplasma 2021;68(1):208-215.

	2. **Omrčen T,** Eterović D, Vrdoljak E**.** Predictors of resistance to abiraterone acetate or enzalutamide in patients with metastatic castration-resistant prostate cancer in post-docetaxel setting: a single-center cohort study. Anticancer Drugs. 2020;31(7):742-746. 3. **Omrčen T**, Katić A, Tomić S, Eterović D, Vrdoljak E. Predictors of outcome in elderly patients with metastatic colorectal cancer: the final results of a prospective phase II study of bevacizumab in combination with capecitabine as first-line treatment. Anticancer Drugs. 2020;31(5):518-522. 4. Soljic M, Mrklic I, Tomic S, **Omrcen T**, Sutalo N, Bevanda M et al. Prognostic value of vitamin D receptor and insulin-like grpwth factor receptor 1 expression in triple-negative breast cancer. J Clin Pathol. 2018;71(1):34-39. 5. **Omrcen T,** Katic A, Vrdoljak E. The role of the multidisciplinary team in the decision making process in stage one testicular cancer – Retrospective cohort analysis. J BUON. 2017; 22(5):1333-1337.
Professional and research papers In methodology and quality of teaching published in the last five years (**max 5 references**)	
Professional and research projects from the field of the course carried out in the last five years (**max 5 references**)	
Within which program and to what extent did the course teacher acquire methodological, psychological, didactic and pedagogical competencies?	
PRIZES AND AWARDS	
Prizes and awards for teaching and research	

First and last name and title of teacher	**Davorka Sutlovic, Full professor with tenure**
The course he/she teaches in the proposed study programme	Scientific and Research Work
GENERAL INFORMATION ON COURSE TEACHER	
Address	R. Boškovića 35, 21000 Split
Telephone number	+385/21/564801
E-mail address	dsutlovic@ozs.unist.hr
Personal web page	http://ozs.unist.hr/o-odjelu/ustroj-odjela/uprava/pomocnik-procelnika-odjela-za-nastavu
Year of birth	1961.
Scientist ID	256403
Research or art rank, and date of last rank appointment	Scientific advisor with tenure; 2019.
Research-and-teaching, art-and-teaching or teaching rank, and date of last rank appointment	Full professor with tenure 2020.
Area and field of election into research or art rank	Biomedicine and health- Basic medical sciences Interdisciplinary sciences - Basic medical sciences/pharmacy
INFORMATION ON CURRENT EMPLOYMENT	
Institution where employed	University of Split -University department of health studies / Medical School Split
Date of employment	2019. /2008.
Name of position (professor, researcher, associate teacher, etc.)	Full professor with tenure
Field of research	chemistry and instrumental tehniques
Function	Head of the Department of Basic medical sciences; Assistant to the Head of Department for Education
INFORMATION ON EDUCATION – Highest degree earned	
Degree	Ph.D.
Institution	UNIVERSITY OF SPLIT- SCHOOL OF MEDICINE
Place	SPLIT
Date	2005
INFORMATION ON ADDITIONAL TRAINING	
Year	2018; 2015; 2011; 2007; 2005; 2005; 2005; 2004; 2004; 1998;
Place	*Slovenia-Otočec; Italy-Florence; Italy, Pavia and Verona; Greek-Athens; ZAGREB; Germany – Duisburg; ZAGREB; Plitvice; Germany - Darmstadth; PULA ;*
Institution	European Societies of Toxicology ; Forensic Toxicology Unit, Department of Health Science, University of Florence; Clinical Hospital; Medical School; Medical School- Department of forensic science and criminology; Shimadzu; Center for Criminalistic Investigation " Ivan Vučetić"; European Societies of Toxicology; Applied Biosystems; European Societies of Toxicology;
Field of training	Specialized toxicology course - Regulatory toxicology; Toxicology; Clinical toxicology; Forensic toxicology; Forensic toxicology; Toxicology; Forensic toxicology; Toxicology; Toxicology; Toxicology
MOTHER TONGUE AND FOREIGN LANGUAGES	
Mother tongue	Croatian
Foreign language and command of foreign language on a scale from 2 (sufficient) to 5 (excellent)	English (3)

COMPETENCES FOR THE COURSE	
Earlier experience as course teacher of similar courses (name title of course, study programme where it is/was offered, and level of study programme)	**1. UNDERGRADUATE AND GRADUATE**: ON MEDICINE STUDY from 2000. - Forensic science from 2007. - Small dose of toxicology from 2007. - Drugs Abuse in sport 2. **UNDERGRADUATE AND GRADUATE**: STUDY OF PHARMACY from 2011. - Forensic pharmacy from 2011. - Pharmaceutical toxicology 3. **UNDERGRADUATE AND GRADUATE**: STUDY OF MEDICAL LABORATORY DIAGNOSTICS from 2012. - INSTRUMENTAL TECHNIQUES IN MLD from 2012. - Food Toxicology from 2019. - General chemistry and stoichiometry from 2019. - Analytical chemistry from 2019. - Organic chemistry from 2019. - Introduction to scientific work 4. **GRADUATE**: STUDY FOR FORENSIC SCIENCES from 2010. -2017. Forensic chemistry and toxicology I from 2010. -2017. Forensic chemistry and toxicology II from 2010. - 2017. Applied forensic toxicology from 2010. - 2017. Food Toxicology 5. **POSTGRADUATE STUDY:** 5.1.ON MEDICAL SCHOOL SPLIT from 2007. - Biochemical mechanisms of toxicity 5.2.ON LAW SCHOOL SPLIT - STUDY OF MEDICAL LAW from 2007. - Forensic medicine from 2007. - CSI Split - Medical criminology 5.3. ON PHARMACEUTICAL AND BIOCHEMISTRY SCHOOL OF ZAGREB STUDY OF TOXICOLOGY from 2011. - Forensic toxicology in human medicine
Authorship of university/faculty textbooks in the field of the course	1. SutloviC Davorka, et al. Fundamentals of Forensic Toxicology. Split: Redak; 2011. 2. Sutlovic Davorka, et al. Food Toxicology. Split: Redak; 2011. 3. Sutlović Davorka. Basics of chemistry, forensics manual for students. Split: Redak; 2013. 4. Kovačić, Zdravko; Nestić, Marina; Sutlović, Davorka. Forensic toxicology // Forensic medicine and deontology/ Mayer, Davor (ur.). Zagreb: Medicinska naklada, 2018. 153-201.
Professional, scholarly and artistic articles published in the last five years in the field of the course (5 works at most)	1. Sutlović, Davorka; Kuret, Sendi; Definis, Marija New psychoactive and classic substances in pooled urine samples collected at the Ultra Europe festival in Split, Croatia *// Arhiv za higijenu rada i toksikologiju,* **72** (2021), 3; 198-204 doi:10.2478/aiht-2021-72-3509 (međunarodna recenzija, članak, znanstveni) 2. Nedoklan, Srđan; Knezović, Zlatka; Knezović, Nina; Sutlović, Davorka

	Nutrition and mineral content in human teeth through THE CENTURIES *// Archives of oral biology,* **124** (2021), 105075, 8 doi:.org/10.1016/j.archoralbio.2021.105075 (međunarodna recenzija, članak, znanstveni) 3. Sutlović, Davorka; Ključević, Željko; Kuret, Sendi ABCB1, CYP2B6, and CYP3A4 genetic polymorphisms do not affect methadone maintenance treatment in HCV-positive patients *// Arhiv za higijenu rada i toksikologiju,* **71** (2020), 4; 353-358 doi:10.2478/aiht-2020-71-3378 (međunarodna recenzija, članak, znanstveni) 4. Patrician, Alexander; Versic-Bratincevic, Maja; Mijacika, Tanja; Banic; Ivana; Marendic, Mario; Sutlović, Davorka; Dujić, Željko; Ainslie, Philip N. Examination of a New Delivery Approach for Oral Cannabidiol in Healthy Subjects: A Randomized, Double-Blinded, Placebo-Controlled Pharmacokinetics Study. *// Advances in therapy,* **36** (2019), 11; 3196-3210 doi:10.1007/s12325-019-01074-6 (međunarodna recenzija, članak, znanstveni) 5. Ključević, Željko; Benzon, Benjamin; Ključević, Nikola; Veršić Bratinčević, Maja; Sutlović, Davorka Liver damage indices as a tool for modifying methadone maintenance treatment: a cross-sectional study *// Croatian medical journal,* **59** (2018), 298-306 (međunarodna recenzija, članak
Professional and scholarly articles published in the last five years in subjects of teaching methodology and teaching quality (5 works at most)	
Professional, science and artistic projects in the field of the course carried out in the last five years (5 at most)	1. 2007. - Heavy metals in human remains from Klis and Bribir ancient county; LEADER; FUNDING SOURCE - MINISTRY OF SCIENCE, EDUCATION AND SPORTS 2. 2007. - Cardiovascular effects of wine and its constituents; RESEARCHER -FUNDING SOURCE - MINISTRY OF SCIENCE, EDUCATION AND SPORTS 3. Co-leader of the European project "I-SEE European project on New Psychoactive Substance" (2015-2017) 4. Head of the scientific research project of the Government of the Republic of Croatia "Intoxication with new psychoactive substances - treatment protocol" (2017) 5. Head of the scientific research project of the Government of the Republic of Croatia "Monitoring of intoxications with new psychoactive substances by analysis of urine samples" (2018)
The name of the programme and the volume in which the main teacher passed exams in/acquired the methodological-psychological-didactic-pedagogical group of competences?-pedagoške kompetencije?	Mandatory education at the Medical Faculty Split Tempus Project Training of Trainers in Vienna (2x), Pécs and Zagreb
PRIZES AND AWARDS, STUDENT EVALUATION	
Prizes and awards for teaching and scholarly/artistic work	
Results of student evaluation taken in the last five years for the course	

that is comparable to the course described in the form (evaluation organizer, average grade, note on grading scale and course evaluated)	

Title, name and last name of the course leader	**Assistant professor Ivana Štula, MD, PhD**
Title of the course at the proposed study programme	Computerised Tomography Equipment and Workflow Quality Control
GENERAL INFORMATION ON COURSE LEADER	
E-mail address	stulaivana@gmail.com
Personal web page	
Year of birth	1967
Scientist ID	
CROSBI profile ID	40319
Research rank and date of the last appointment	
Research and teaching or teaching rank, and the date of the last appointment	Assistant Professor
Area and field of appointment into research rank	Radiology
INFORMATION ON CURRENT EMPLOYMENT	
Institution of employment	University of Split, School of Medicine
Date of employment	
Job title (professor, researcher, associate teacher, etc.)	Assistant professor
Field of research	Radiology
Position in the institution	
INFORMATION ON EDUCATION – Highest degree achieved	
Degree	Doctor of science
Institution	University of Splt, School of Medicine
Place	Split
Date	08.02.2013
INFORMATION ON ADDITIONAL TRAINING	
Year	
Place	
Institution	
Field of training	
MOTHER TONGUE AND FOREIGN LANGUAGES	
Mother tongue	
Foreign language and command of foreign language on a scale from 2 (sufficient) to 5 (excellent)	English 4
Foreign language and command of foreign language on a scale from 2 (sufficient) to 5 (excellent)	German 2
COMPETENCES FOR THE COURSE	
Earlier experience as course teacher of similar courses (title of course, study programme where it is/was held, and level of study programme)	Computed tomography Quality Control of the process and device
Authorship of university textbooks from the field of the course	Mašković J, Jankovic S. Selected chapters of interventional radiology. University of Splt, School of Medicine, Split 2008.
Professional and research papers published in the last five years from the field of the course **(max 5 references)**	1. Vuković I, Brešković T, Duplančić D, Batinić T, **Štula I**, Bulat C, Tomić S. Castelman's disease presenting as a tumorous paracardiac formation. Acta clinica Croatica 2016; 55:161-6.

	2. Krnić D, Družijanić N, **Štula I**, Čapkun V, Krnić D. Incarcerated inguninal hernia mesh repair: Effect on testicular blood flow and sperm autoimmunity. Med Sci Monit.2016; 22:1524-33 3. Vidjak V, **Štula I**, Matijevic F, Kavur L, Sertić Milić H; Blašković D. Embolisation of pulmonary arteriovenous malformations – case series Pol J Radiol 2018; 83: e326-e332 4. **Štula I,** Marinović Guić M, Lovrić Kojundžić S, Gabrić J. Severe thrombosis of abdominal aorta with distal embolism as the only clinical manifestation of COVID-19 infection. Hrvatski časopis zdravstvenih znanosti, **1** (2021), 1;34-36 doi:10.48188/hczz.1.1.2 5. **Stula I,** Kojundzic SL, Guic MM, Novak K. Carotid artery stenosis in correlation with neck and carotid artery anatomy. Vascular. 2021 May 30:17085381211018603. doi: 10.1177/17085381211018603.
Professional and research papers In methodology and quality of teaching published in the last five years (**max 5 references**)	
Professional and research projects from the field of the course carried out in the last five years (**max 5 references**)	
Within which program and to what extent did the course teacher acquire methodological, psychological, didactic and pedagogical competencies?	
PRIZES AND AWARDS	
Prizes and awards for teaching and research	