



MASTER OF RADIOLOGICAL TECHNOLOGY

CURRICULUM AT THE FACULTY OF HEALTH STUDIES IN MOSTAR

2022.

CONTENTS

1. INTRODUCTION	. 3
2. GENERAL INFORMATION ABOUT THE STUDY PROGRAMME	4
3. BASIC CHARACTERISTICS OF THE STUDY PROGRAMME	7
4. STUDY PLAN	20

1. INTRODUCTION

The curriculum of the graduate university study programme of Radiological technology is the result of the regular review process, which began with the Decision of the Senate at the session held on February 26, 2022(No. 01-993-1 / 22). The regular revision procedure was carried out according to the Rulebook on the procedure of adopting new and regular revisions of existing study programmes (No. 01-993-1 / 22). It stipulates that the Committee coordinates a revised curriculum. The Committee also includes student representatives and external users, and the scientific-teaching/artistic-teaching council of the organizational unit submits their proposal to the University Senate for adoption.

In order to involve all stakeholders in the process of improving the study programme, a public hearing was held on July 14, 2022 (No. 01-1086/22).

The conclusions of the public debate were taken into account during the development of the curriculum.

In addition to the conclusions of the public debate, the recommendations of the Expert Committee from the last institutional accreditation in 2020 were taken into account. The recommendations include practical work outside the University (where applicable), application of legal and internal acts on the minimum share of pre-examination obligations in the final grade of all courses, and the application of modern teaching methods with the student at the center of the teaching process.

Also, during the development of the curriculum, all strategic tasks in the strategic area of education from the University Development Strategy 2017-2023, which relate to the curriculum and teaching process, were carried out (more in the chapter "3.1. Connection to the University Development Strategy").

In addition, when making decisions on the type of changes, all relevant statistical data and survey results collected and conducted in the period since the last revision/adoption of the study programme were analyzed on June 2, 2021 (No. 01-3666/21).

Taking into account all the above, the following changes have been made in this revised curriculum in comparison to the existing one. The changes can be classified six categories: amendments to mode of study (full time/part time), elimination of outdated/irrelevant courses for the profession and introduction of courses that contribute to the acquisition of competences and learning outcomes defined by the EU occupational standard, introduction of new compulsory and elective courses, amendments of course titles, and amendments of course hours and ECTS points.

The rapid development of the radiological profession in the world, stimulated by the development of radiological devices and radiological technology, resulted in the need to open new studies in the field of radiological technology. The organization of university studies in the field of radiological technology in the majority of European countries is based on the guidelines of the Bologna Declaration and the 3 + 2 study scheme, with the fact that graduate studies are organized in the field of public health, process management, healthcare organization, and in the educational field of an individual study. Guided by the reasons for starting the studies, the study program is based on the synergy of educational management with additional knowledge from certain subspecialist areas of radiological technology such as computed tomography (CT), magnetic resonance (MR), information technology (IT), digital radiology systems, interventional radiology, etc.

In this way, we create a profile of an expert who can responsibly participate in the education of radiological technologists.

2. GENERAL INFROMATION ON THE STUDY PROGRAM

Study program	Radiological technology
Study program	2 nd cycle (graduate study)
Cycle	
Type	University study
Scientific area	Biomedicine and healthcare
Scientific field	Clinical Medical Sciences/Health Sciences
Academic title	Master of Radiological Technology
QF-EHEA qualitification level	7
Duration of study program	2 years, 120 ECTS
Total number of ECTS credits	2 years/120 ECTS
Language	Croatian language
Mode of study	Full time / Part time
Institution administering study	University of Mostar
programme	
Home Institution	University of Mostar, Faculty of Health Studies
Objectives of the study program	Improvement of skills in certain areas of radiological technology:
	computed tomography (CT), magnetic resonance (MR), information
	technology (IT), digital radiological systems, and interventional
	radiology.
Competencies of the study program	- Planning, organization and management of human and material resources, as well as support systems in the field of radiological
	technology, management of complex work processes.
	- Management of the quality system, participation in coordination of
	a healthcare team and management of radiological documentation.
	- Use of information technologies and databases for improving
	professional knowledge and skills and participation in scientific
	research work
	 Participation in the education of students of radiological technology and related professions
	- Participation and management of radiological - technological
	business processes within the scope of competencies and as a member of the radiological management team.
	- Evaluation of diagnostic and therapeutic procedures in radiological
	technology according to adopted protocols and evidence-based professional standards.
	- Competencies in analog and digital diagnostic radiology:
	independent management or work in a team with a radiologist
	specialist during: MR examination, CT examination, conventional
	and digital examinations, conventional contrast imaging methods,
	fluoroscopy with targeted radiographic imaging, digital fluoroscopy
	with dynamic detectors, conventional tomography, imaging during
	endoscopic retrograde choledochopancreatography (ERCP), digital
	subtraction angiography (DSA), digital coronarography and
	ventriculography (CDSA), fluroscopy and fluorography with mobile
	radiological devices, work with mobile digital radiographic devices
	and image transmission, work with mobile digital radiographic devices
	in operating rooms, independent performance of digital
	mammography and digital mammographic image processing, work
	manningraphy and digital manningraphic image processing, work

Learning outcomes of the study program	 with plate digitizer and phosphor plates, dental radiography and digital dental radiography. Competencies in IT in radiological technology: independent leadership or team work for: management and participation in the work of the development and maintenance team of the radiological information system and picture archiving and communication system (RIS/PACS), implements supervision over the management and maintenance of digital image archives and systems as well as IT solutions and technologies, supervises the management and archiving of all digital data generated in the radiology department, carries out and supervises the quality control of work and work processes adopted according to Croatian and international standards. Competencies in interventional radiology: work in a team when performing percutaneous transluminal angioplasty (PTA), embolization procedures, stenting of blood vessels, transcatheter application of cytostatics, fluoroscopically guided cytological punctures and biopsies , CT-guided punctures and biopsies, nephrostomy placement, cyst and abscess drainage, familiarization with the principles, methods and technologies used in angiographic devices (DSA, Rotational DSA, Filters, Optimizing the radiation dose of the device for the patient and staff, CT angio and Angio CT). Manages the quality control system and performance monitoring in radiological technology (FZSRTM-IU-2) Manages work of a radiological team (FZSRTM-IU-3) Keeps radiological documentation (FZSRTM-IU-4) Organizes education programs for the improvement of knowledge in radiological technology (FZSRTM-IU-5) Participates in scientific research work (FZSRTM-IU-6) Educates students of radiological technology and related professions (FZSRTM-IU-7) Applies skills of effective communication with patients and their family members, as well as staff and associates (FZSRTM-IU-8) Supervises the implementation and application of methods and metaces of d
	IU-1)2. Manages the quality control system and performance monitoring in radiological technology (FZSRTM-IU-2)
	 Organizes education programs for the improvement of knowledge in radiological technology (FZSRTM-IU-5) Participates in scientific research work (FZSRTM-IU-6)
	 Applies skills of effective communication with patients and their family members, as well as staff and associates (FZSRTM-IU-8) Supervises the implementation and application of methods and measures of disinfection of radiological rooms and devices
	(FZSRTM-IU-9) 10. Adapts communication to the needs of the interlocutor and the situation (FZSRTM UL 10)
	situation (FZSRTM-IU-10) 11. Recognizes the needs of patients and their family members as well as staff and associates (FZSRTM-IU-11)
	12. Manages the work process in accordance with the needs of the professional organization (FZSRTM-IU-12)
	13. Uses a computer a computer to perform work tasks and communicates with patients and colleagues (FZSRTM-IU-13)
	 14. Manages personal and professional development (FZSRTM-IU-14) 15. Uses theoretical knowledge and practical skills from the field of radiology, which enable professional access, and conducting of procedures independently and as a team in all diagnostic and interventional disciplines (FZSRTM-IU-15)

	 16. Explains the principle of operation of magnetic resonance devices, computed tomography, digital subtraction angiography, handles them independently and in a team, knows their technological and operational capabilities, purpose and limitations (FZSRTM-IU-16) 17. Applies information technologies (IT) in radiological diagnostics (FZSRTM-IU-17) 18. Implements procedures that protect the patient from ionizing radiation (FZSRTM-IU-18)
Opportunity after graduation	Upon successful completion of their studies, students have the
	opportunity to work in public and private healthcare institutions and / or continue their education in doctoral studies.
Accredation	The University of Mostar received a Decision on Institutional Reaccreditation on 14 January 2020 from the competent Ministry of Education, Science, Culture and Sports of the HNŽ on the recommendation of the Agency for Development of Higher Education and Quality Assurance of B&H, after which the University was registered in the State Register of Accredited Higher Education Institutions.

3. CHARACTERISTICS OF THE STUDY PROGRAM

3.1. Correlation with the University development startegy

In the *Development Strategy of the University of Mostar 2018 - 2023* in the strategic field of education, several strategic goals are related to the curriculum and its elements.

Objective 1 defines that the University, in cooperation with stakeholders, will develop, approve, implement and continuously monitor and improve study programmes at all levels. The following tasks arise from clearly defined learning outcomes related to labour market needs, following the European Qualifications Framework (EQF):

- Task 1: clearly define the objectives and anticipated learning outcomes of each study programme and harmonize the content of the study programme with them, following the appropriate level of the European Qualifications
 Framework and the qualification standard
- Task 2: Introduce a transparent and consistent process of revision and improvement of study programmes with the participation of students and other stakeholders
- Task 5: ensure realistic allocation of ECTS credits, through a defined system of ECTS coordination at all study levels

- Task 6: improve the interdisciplinarity of all study programmes by enabling elective courses at the university level. Objective 3 refers to the development of a wide network of teaching bases, including organizations from different fields of activity, to establish cooperation that will enable the connection of practice, science, art, and higher education. The following tasks arise from it:

- Task 2: increase the number of hours and the share of teaching practice in the study programmes and the share
 of ECTS credits acquired by it
- Task 3: increase the number of bachelor/master papers related to the topic and content.

Key strategic postulates of the Faculty of Health Studies that lead to realization of the vision while respecting the mission and academic values of the University are modern study programmes that will be directed towards the development of a wide range of competencies, as well as education and activities that will be directed towards the development of the economy, society and culture.

University studies at the Faculty of Health Studies of the University of Mostar enable the establishment of a system of continuous training, refresher training and acquisition of latest cognitions, as well as constant monitoring and recognition of the priorities of healthcare needs in the country and the European environment. At the second level (graduate study), education is focused on training students for teamwork, planning processes, projects, decision-making and leadership, alongside the evaluation process, as well as additional specialist skills and knowledge in the chosen fields. A special strategic goal is training for teaching work and new educational methods, and it includes a two-year education with a load of 120 ECTS-points, after which the title of master's degree is obtained.

3.2. Corelation with scientific/artistic achievements of certain scientific fields and labor market and correlation with occupational/qualification standards

Objectives, competencies, and learning outcomes at the level of the study programme are defined in a way that is in line with the achievements of a particular Biomedicine and healthcare area and labour market and related to the standards profession. To harmonize with the achievements of the particular Biomedicine and healthcare, the representatives of teachers in the Committee for the development of the revised curriculum and other teachers who participated in the development of syllabi for each course took into account current achievements and trends in scientific area Biomedicine and healthcare, field Clinical Medical Sciences/Health Sciences, branches Radiological technology relating to graduate university study programme of Radiological technology.

In addition to the above document, the following documents were also considered:

• Review of the European Core Curriculum for Radiotherapy Technologists, Second review of the European Core Curriculum For RTs

- Bologna Declaration. The European Higher Education Area. The Bologna Declaration, a joint declaration of The European Ministers of Education convened in Bologna. Available from: <u>http://www.ond.vlaanderen.be/hogeronderwijs/</u>)
- Goal 18 WHO development of human resources in healthcare till 2010
- Healthcare for all in 2021, WHO
- Confederation of EU Rectors' Conferences and the Association of European Universities. The Bologna Declaration on the European space for higher education: an explanation. Available at: http://ec.europa.eu/education/policies /educ/bologna /bologna.pdf.
- Joint declaration on harmonisation of the architecture of the European higher education system Paris, Sorbonne, 1998. Available at:
 - http://www.bologna.org.gu.se/digitalAssets759/759802_Sorbonnedeklarationen1998.pdf..
- The Decision of the Council of Ministers of Bosnia and Herzegovina on the Adoption of the Road Map for Implementation of the EU Directive 2005/36/EC and 2013/55/EU on Regulated Profession (Official Gazette of B&H, no. 10/16),
- Law on Healthcare (Official Gazette of the Federation of B&H No. 41/10 and 75/13)
- Rulebook on internships and professional exams for health professionals (Official Gazette of the FB&H, 51/17),
- Rulebook on Amendments to the Rulebook on internship and professional examination of healthcare workers.

Jobs/competencies/learning outcomes from all the above documents are implemented in the competencies and learning outcomes at the level of the study programme listed in chapter "2. General information about the study programme". They are realised in core courses, in order to ensure that all students achieve them with the acquired qualification. The coverage of these learning outcomes at the level of the study programme with the learning outcomes at the level of core courses is presented in the chapter "3.12. Matrix of learning outcomes".

3.3. Comparability with study program sin the country and abroad

Study programme preformed at the university graduate study programme of Radiological technology and the development of this profession are in line with European standards, and the study programme is based on close cooperation with other institutions of a similar profile in the Republic of Croatia. Comparability is reflected exclusively in the competencies and learning outcomes at the level of study programmes and in the duration of studies, while the study programme retains its specifics mainly through the structure, course names, and ECTS.

3.4. Student mobility

Student mobility is defined by the Rulebook on international mobility, which refers to administrative support for students, student mobility documents, insurance, method of application, the procedure for recognizing mobility and information package. The unique recognition methodology is defined at the university level by the Senate Decision on the adoption of a single form for the Decision on recognition of courses, ECTS credits, grades, and professional practice during student mobility, which is recorded in the diploma supplement. Students can find information on mobility programmes and accompanying forms on the University's website and through the Vice Dean for Quality and Inter-Institutional Cooperation who forwards information from the International Office to student representatives.

3.5. Conditions for enrolment in the study program and transfer from other study programs

The *Rulebook on Study of the University of Mostar* defines the right to enrol in undergraduate, graduate, and integrated study programmes, which is done through a public competition. The Senate, at the proposal of the scientific-teaching / artistic-teaching council of the organizational unit, and with the consent of the Governing Board of the University and the competent Ministry of Education, Science, Culture and Sports of the Herezegovina Neretva County, announces a public tender. It is published on the website and bulletin board of the Faculty of Health Studies, which contains information on the conditions for enrolment, entrance examination, tuition fees, criteria for selecting candidates, and other information.

When transferring from other study programmes, a request is submitted to the dean Faculty of Health Studies, and the appropriate committee decides on the possibilities and conditions for enrolment.

3.6. Conditions for enrollment in the next semester and year of study and graduation

Conditions for enrollment in the next semester and year of study are defined by the Rulebook on Study of the University of Mostar and the general act of the Faculty of Health Studies.

The study program is completed by writing and defense of thesis worth 13 ECTS credits. The procedure of the defense and thesis's methodology are defined by Rulebook on Study of the University of Mostar and the general act of the Faculty of Health Studies.

3.7. Organization of the study programme

The study is organized as a two-year study programme for a total of four semesters. Classes are organized in a block system, and detailed schedules are disclosed per semester and study group. In accordance with the principles of the Bologna Declaration, the proposed study program is structured and evaluated with ECTS credits. Study programs are divided into study years and semesters. In accordance with ECTS credits, one academic year of the study program is worth 60 ECTS, or 30 ECTS credits for one semester.

Students can study as full-time or part-time students. Full-time students are those who study according to the full-time teaching schedule. Part-time students are students who enroll the study program alongside work or other activity. The syllabus of each course defines the amount and type of classes that part-time students are required to attend and alternatively, the workload for the part of classes that they are not required to attend. Part-time students should attend at least 50% of lectures and seminars (by own choice) and perform practicals to the extent specified for part-time students.

3.8. Structure of the study program

The structure of the study programme is reflected in the number of hours of each type of teaching and teaching in total, the number of hours of practice, and the number of hours of independent student work in the total student workload of 3600 hours. According to the Rulebook on the procedure for adopting new and regular revisions of existing study programmes (No. 01-993-1/22), only core courses are listed in the curriculum, while electives are adopted in the annual curriculum for each academic year. Therefore, the table will show the number of hours of each type of teaching and teaching in total, the number of hours of practice, and the number of hours of independent work only in core courses. In relation to the total number of ECTS credits, a sum of ECTS credits acquired in elective courses is 12 ECTS, and the student can choose a total of 6 elective courses.

Besides core and elective courses at the level of the study programme and at the level of organizational unit, i.e., in addition to 30 ECTS credits per semester, a student can choose university elective courses from the list adopted by the Senate each academic year, which are recorded in diploma supplement.

The purpose of elective courses at the study programme level is a more detailed elaboration of learning outcomes already acquired in core courses but following student preferences. The purpose of university elective courses is to acquire competencies not provided by the study programme, but that can help students achieve competitiveness in the market and contribute to building one's personality through education.

Table 3.8.1 Representation of teaching load, hours of theory and practice, and the share of workload in the graduate university study programme of Radiological technology

Form of teaching	1 st year	2 nd year	Total	%
Lectures	210	170	380	11%
Seminars	305	140	445	12%
Practicals	215	255	470	13%
Independent work	1070	1235	2305	64%
Total	1800	1800	3600	100%

In the two years of the graduate university study of Radiological technology there are active classes and independent student work of 3600 hours. Student independent work of 2305 hours includes the time a student needs for independent study of the subject, preparation of seminars, mid-terms, final tests, preparation and writing of graduate theses, not counting contact hours with the teacher (lectures, seminars and practicals).

The graduate university study programme of Radiological technology consists of six modules with 15 compulsory and 6 elective courses and the graduate thesis of 390 hours.

Six elective courses 10 % of the total program points. The decision on elective courses to be taken in the current academic year is ruled by the Scientific Teaching Council of the Faculty of Health Studies in accordance with the needs for the improvement of the teaching program.

Learning outcomes that are acquired by fulfilling individual study obligations, as well as the number of hours expected for each study obligation that ensures the acquisition of the expected learning outcomes, are listed in the description of each individual subject from the study programme.

Table 1. Structures of the gradute university study programme of Radiological technology with shares of forms of teaching, clinical practice and independent work

		1 st ye	ear						
	1 ^s	^t Winter s	emester						
Course code	Course title	Tea	Teaching hours			П.	III.	Load hours	
		L*	L* P* S*			Clinical	Independent	(1.+11.+111.)	ECTS
						practice	work		
FZSZAM101	Medical informatics and advanced statistics	25	50	40	115	0	155	270	9
FZSZAM102	Quality management in healthcare	25	20	50	95	0	145	240	8
FZSZAM103	Introduction to scientific research work	25	40	30	95	0	145	240	8
FZSZAM104	Communication skills	15	10	10	35	0	55	90	3
	Total	90	120	130	340	0	500	840	28
ECTS compulsory co	urses								28
ECTS elective course	S								2
ECTS TOTAL									30

	1	l. 1	st year						
	2 nd	Summer	semeste	r					
Course code	Course title	Teaching hours			I. In total	П.	III.	Load hours	
		L* P* S*			teaching	Clinical	Independent	(1.+11.+111.)	ECTS
						practice	work		
FZSZAM207	Didactics	25	50	40	115	0	155	270	9
FZSZAM208	Management in healthcare	25	30	50	105	0	135	240	8
FZSZAM209	Economics and legislation in health care	25	0	50	75	0	165	240	8
FZSZAM210	The art of medical education	15	15	15	45	0	45	90	3
	Ukupno	90	95	155	340	0	500	840	28
ECTS compulsory co	urses								28
ECTS elective course	S								2
ECTS TOTAL									30

	2 nd year										
3 rd Winter semester											
Course code	Course title	Teaching hours			I. In total	١١.	III.	Load hours			
		L* P* S*			teaching	Clinical	Independent	(1.+11.+111.)	ECTS		
						practice	work				
FZSRTM301	Coronary angiography and intervention methods and devices	20	60	20	100	0	140	240	8		
FZSRTM302	Methods and devices of magnetic resonance	20	60	20	100	0	140	240	8		
FZSRTM303	Methods and devices of computed tomography	20	60	20	100	0	140	240	8		
	total	60	180	60	300	0	420	720	24		
ECTS compulsor	y courses								24		
ECTS elective co	ECTS elective courses										
ECTS TOTAL									30		

	2 nd year										
4 th Summer semester											
Course code	Course title	Teaching hours			I. In total	П.	III.	Load hours			
		L* P* S*			teaching	Clinical	Independent	(1.+11.+111.)	ECTS		
						practice	work				
FZSZAM423	Supervision in healthcare	20	10	15	45	0	75	120	4		
FZSRTM405	Digital radiography	20	45	15	80	0	130	210	7		
FZSRTM406	Health ethics systems	15	0	0	15	0	45	60	2		
FZSZAM430	Master's thesis draft	5	10	10	25	0	35	60	2		
FZSZAM429	Thesis	0	0	0	0	0	390	390	13		
	Total	60	65	40	165	0	675	840	28		
ECTS compulso	ry courses								28		
ECTS elective co	purses								2		
ECTS TOTAL									30		

L – lectures, P - practicals, S*- seminars

3.9. Optimal number of enrolled students with regard to space, equipment and number of teachers

Enrolment quotas before the beginning of each academic year are adopted by the Governing Board of the University, at the proposal of the Senate, and with the consent of the competent ministry. Students can study as full-time and part-time students.

3.10. Resources needed for conducting the study program

Teachers from the University and teachers from reference higher education institutions in academic ranks from the relevant scientific area, field, and branch participate in the implementation of the study programme. Data on the structure of teaching staff by rank and education, gender and age structure, scientific research productivity, mobility, and project activities of teaching staff are regularly monitored through the bodies from the quality assurance system. These data are processed at the level of the study programme and organizational unit, and are published in annual reports.

In terms of physical resources for the implementation of study programmes, the Faculty of Health Studies has classrooms with classic and modern audio-visual equipment, a cabinet equipped with multimedia and video equipment, a TV system, IT equipment with a maximum of two students per computer, a library - an IT center, and a microbiological research laboratory. Healthcare cabinet with simulation models and clinical skills cabinet. Clinical hospital wards with equipment for performance of health care. The Faculty of Health Studies has a Clinical Skills Cabinet equipped with highly sophisticated models - simulators.

Based on the signed cooperation agreements, the resources of other institutions are also used for the performance of the graduate university study programme of Radiological technology: University Clinical Hospital Mostar, The polyclinic "Vitalis", The Health center Mostar, and School of Medicine of the University of Mostar.

3.11. Quality assurance of the study program

The purpose, goal, structure, operation and areas of evaluation of the quality assurance system of the University of Mostar are defined by the Rulebook on the structure and operation of the quality assurance system of the University of Mostar. According to the Rulebook, the quality assurance system at the University of Mostar consists of permanent bodies of the quality assurance system at the university level: the Quality Assurance and Improvement Committee and the Office for Quality Assurance and Improvement. The Faculty of Health Studies is operated by the Quality Assurance and Improvement Committee, which consists of the Vice Dean for Teaching, the Quality Coordinator, and the representative of the teaching staff, the student representative, and the representative of the administrative and technical staff. The Quality Coordinator Faculty of Health Studies is also a member of the Quality Assurance and Improvement Committee. The Rulebook defines the competencies and activities of each body from the quality assurance system. Bodies from the quality assurance system carry out regular activities defined by the University Quality Assurance Manual at the University of Mostar, which relate to conducting surveys and monitoring and data processing. Based on the implemented activities, annual reports are prepared at the level of the study programme, organizational unit, and the University.

IU-study	FZSRT	FZSRT	FZSRT	FZSRT	FZSRT	FZSRT	FZSRT	FZSRT	FZSRT	FZSRT								
program	M-IU-1	M-IU-2	M-IU-3	M-IU-4	M-IU-5	M-IU-6	M-IU-7	M-IU-8	M-IU-9	M-IU-								
										10	11	12	13	14	15	16	17	18
IU-course																		
IU-FZSZAM101						х							х	х				
IU-FZSZAM102	х	x										х		х				
IU-FZSZAM103		х				х							х					
IU-FZSZAM104								x		х			х					
IU-FZSZAM207							х	х		х				х				
IU-FZSZAM208	х	х	х					х	х					х				
IU-FZSZAM209	х		х				х					х		х				
IU-FZSZAM210					х		х											
IU-FZSRTM301		x		х											x	х	х	
IU-FZSRTM302		x		х											x	х	х	
IU-FZSRTM303		x		х											x	х	х	х
IU-FZSZAM423	х	х								х				х				
IU-FZSRTM405		х		х							х				х	х	х	
IU-FZSRTM406		х									х							
IU-FZSZAM430						х				х			х					

4. STUDY PLAN

		1 st year									
1 st Winter semester											
Course code	Course title	Course status	Tea	ching ho	urs	Hours of	ECTS				
			L*	P*	S*	practice					
FZSZAM101	Medical informatics and advanced statistics	Compulsory	25	40	40	0	9				
FZSZAM102	Quality management in healthcare	Compulsory	25	20	50	0	8				
FZSZAM103	Introduction to scientific research work	Compulsory	25	40	30	0	8				
FZSZAM104	Communication skills	Compulsory	15	10	10	0	3				
ECTS for core course	es						28				
ECTS for elective co	ECTS for elective courses										
ECTS IN TOTAL							30				

	1 st year												
2 nd Summer semester													
Course code	Course title	Course status	Tea	ching ho	urs	Hours of	ECTS						
			L*	P*	S*	practice							
FZSZAM207	Didactics	Compulsory	25	50	40	0	9						
FZSZAM208	Management in healthcare	Compulsory	25	30	50	0	8						
FZSZAM209	Economics and legislation in health care	Compulsory	25	0	50	0	8						
FZSZAM210	The art of medical education	Compulsory	15	15	15	0	3						
ECTS for core course	<u>'S</u>						28						
ECTS for elective courses													
ECTS IN TOTAL							30						

2 nd year 3 rd Winter semester										
L*	P*	S*	practice							
FZSRTM301	Coronary angiography and intervention methods and devices	Compulsory	20	60	20	0	8			
FZSRTM302	Methods and devices of magnetic resonance	Compulsory	20	60	20	0	8			
FZSRTM303	Methods and devices of computed tomography	Compulsory	20	60	20	0	8			
ECTS for core courses										
ECTS for elective courses										
ECTS IN TOTAL										

2 nd year 4 th Summer semester										
			L*	P*	S*	practice				
FZSZAM423	Supervision in healthcare	Compulsory	20	10	15	0	4			
FZSRTM405	Digital radiography	Compulsory	20	45	15	0	7			
FZSRTM406	Health ethics systems	Compulsory	15	0	0	0	2			
FZSZAM430	Master's thesis draft	Compulsory	5	10	10	0	2			
FZSZAM429	Thesis	Compulsory	0	0	0	0	13			
ECTS for core courses										
ECTS for elective courses										
ECTS IN TOTAL										

L – lectures, P - practicals, S*- seminars