



**SARAJEVO UNIVERSITY
FACULTY OF HEALTH STUDIES
IN SARAJEVO**



**CURRICULUM FOR STUDY PROGRAMME 3:
RADIOLOGY TECHNOLOGIES
FOR TITLE OF:
BACHELOR OF RADIOLOGY TECHNOLOGIES**



Study programme for radiology technologies educates competent cadre for work with conventional and digital machines in the fields of radiodiagnostics, radiotherapy and nuclear medicine. Professionals in this field work in radiodiagnostics on both conventional and digital radiological machines and make radiological image with all ionizing and nonionizing radiation energies used in diagnostics. **Bachelor (BA) of radiology technologies** in the field of radiotherapy works on machines with open and closed sources of ionizing radiation used for therapy purposes, in the field of nuclear medicine on machines that register and measure different doses of radioactive isotopes applied into patient's organism for diagnostic and therapy purposes. Applies all legislations on protection against harmful ionizing radiation of patients, himself/herself and all employees.

Competencies of Bachelor (BA) of radiology technologies

Bachelor (BA) of radiology technologies with university degree (VII level of qualification – 4-year study programme) is competent, that is, enabled to carry out following tasks independently and as a team member:

- Development of set radiology (radioscopy and/or radiography) image, or recording, of optimum quality, on all conventional radiological diagnostics machines, with ionizing and nonionizing radiation energies;
- Development of set radiology (radioscopy and/or radiography) image, or recording, of optimum quality, on all modern digital radiological diagnostics machines, with ionizing and nonionizing radiation energies;
- Evaluation of quality of made radiology recordings, delivery of recordings to radiologist for interpretation and their proper storing in digital archives;
- Management of open sources of radioactive ionizing radiation;
- Patient preparation for treatment with preparations containing radiopharmaceuticals;
- Preparation of radiopharmaceuticals for application on patients for diagnostic purposes;
- Preparation of radiopharmaceuticals for application on patients for therapy purposes;
- Work with machines that register and measure different doses of radiopharmaceuticals injected into patient's organism for diagnostic purposes;
- Work with machines that register and measure different doses of radiopharmaceuticals injected into patient's organism for therapy purposes;
- Work with open sources of ionizing radiation used for therapy purposes;
- Work with closed sources of ionizing radiation used for therapy purposes;
- Radiotherapy planning (computer planning of radiation);
- Creation of individual protection for patients (work in casting/modelling) and CT planning of radiotherapy;
- Correct positioning of patients and application of set radiation dose;
- Application of all legislations on protection against harmful ionizing radiation of patients, himself/herself and all employees;
- Educational work in educational institutions.

Bachelor (BA) of radiology technologies upon completions of studies, given the competencies, may have a wide range of employment opportunities in institutions on all levels of healthcare system, as well as in the non-health related sector.



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FIRST YEAR, SEMESTER I				
CODE AND COURSES	Class contact hours: H= L + P	Independent work hours	Total work hours	ECTS credits
RB.0111 Healthcare systems	90 = 45 + 45	60	150	6
RB.0112 Human anatomy	90 = 45 + 45	160	250	10
RB.0113 Health ecology	90 = 30 + 60	60	150	6
RB.0114 Sociology of health	60 = 30 + 30	90	150	6
RB.0115 Physical education	45 = 15 + 30	5	50	2
TOTAL FOR SEMESTER I				
5 compulsory courses	375 = 165 + 210	375	750	30

FIRST YEAR, SEMESTER II				
CODE AND COURSES	Class contact hours: H= L + P	Independent work hours	Total work hours	ECTS credits
RB.0121 Introduction to health statistics and informatics	60 = 30 + 30	65	125	5
RB.0122 Improvement of health and health education	90 = 45 + 45	35	125	5
RB.0123 Human physiology	90 = 45 + 45	160	250	10
RB.0124 Protection and care in urgent states	75 = 45 + 30	50	125	5
RB.0125 English language	30 = 15 + 15	95	125	5
TOTAL FOR SEMESTER II				
5 compulsory courses	345 = 180 + 165	405	750	30
TOTAL FOR THE FIRST YEAR				
10 compulsory courses	720 = 345 + 375	780	1500	60



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SECOND YEAR, SEMESTER III				
CODE AND COURSES	Class contact hours: H= L + P	Independent work hours	Total work hours	ECTS credits
RB.0231 Dysfunction of human organism	75 = 45 + 30	125	200	8
RB.0231 Applied epidemiology	75 = 45 + 30	50	125	5
RB.3233 Radiology equipment	105 = 45 + 60	145	250	10
RB.6234 Fundamentals of clinical practice	60 = 30 + 30	15	75	3
RB.0235 Physics	60 = 45 + 15	40	100	4
TOTAL FOR SEMESTER III				
5 compulsory courses	375 = 210 + 165	375	750	30

SECOND YEAR, SEMESTER IV				
CODE AND COURSES	Class contact hours: H= L + P	Independent work hours	Total work hours	ECTS credits
RB.3241 Conventional radiology methods	90 = 30 + 60	85	175	7
RB.3242 Imaging techniques I	135 = 45 + 90	115	250	10
RB.3243 Ultrasound techniques (US)	60 = 30 + 30	90	150	6
RB.0244 Radiographic morphology	90 = 45 + 45	85	175	7



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TOTAL FOR SEMESTER IV				
4 compulsory courses	375 = 150 + 225	375	750	30
TOTAL FOR THE SECOND YEAR				
9 compulsory courses	750 = 360 + 390	750	1500	60

THIRD YEAR, SEMESTER V				
CODE AND COURSES	Class contact hours: H= L + P	Independent work hours	Total work hours	ECTS credits
RB.3351 Radiotherapy technologies	90 = 30 + 60	85	175	7
RB.3352 Computed tomography (CT)	90 = 30 + 60	60	150	6
RB.3353 Magnetic resonance imaging (MRI)	90 = 30 + 60	85	175	7
RB.3354 Imaging techniques II	105 = 30 + 75	145	250	10
TOTAL FOR SEMESTER V				
4 compulsory courses	375 = 120 + 255	375	750	30

THIRD YEAR, SEMESTER VI				
CODE AND COURSES	Class contact hours: H= L + P	Independent work hours	Total work hours	ECTS credits
RB.3361 Radiotherapy planning	75 = 30 + 45	75	150	6
RB.3362 Radiotherapy consequences	45 = 30 + 15	55	100	4
RB.3363 Digital subtraction angiography – DSA	75 = 30 + 45	50	125	5
RB.3364 Introduction to radioisotope technology	75 = 30 + 45	50	125	5
RB.3365 Professional practice I	120 = 0 + 120	130	250	10

CODE AND COURSES



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TOTAL FOR SEMESTER VI				
5 compulsory courses	390 = 120 + 270	360	750	30
TOTAL FOR THE THIRD YEAR				
9 compulsory courses	765 = 240 + 525	735	1500	60

FOURTH YEAR, SEMESTER VII				
CODE AND COURSES	Class contact hours: H= L + P	Independent work hours	Total work hours	ECTS credits
RB.3471 Scintigraphy and PET CT	90 = 30 + 60	60	150	6
RB.3472 Radiopharmacy in clinical practice	90 = 30 + 60	60	150	6
RB.3473 Radionucleotide therapy	75 = 30 + 45	25	100	4
RB.3474 Dosimetry in radiotherapy and radioisotope technologies	60 = 15 + 45	40	100	4
RB.3475 Professional practice II	120 = 0 + 120	130	250	10
TOTAL FOR SEMESTER VII				
5 compulsory courses	435 = 105 + 330	315	750	30

FOURTH YEAR, SEMESTER VIII				
CODE AND COURSES	Class contact hours: H= L + P	Independent work hours	Total work hours	ECTS credits
RB.3481 Radiation protection in radiology technologies	90 = 30 + 60	110	200	8
RB.3482 Work quality control in radiology technologies	90 = 30 + 60	60	150	6
RB.3483 Application of informatics in radiology technologies	90 = 30 + 60	60	150	6



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RB.3484 Professional practice III	120 = 0 + 120	130	250	10
TOTAL FOR SEMESTER VIII				
4 compulsory courses	390 = 90 + 300	360	750	30
TOTAL FOR THE FOURTH YEAR				
9 compulsory courses	825 = 195 + 630	675	1500	60
TOTAL FOR THE FOUR-YEAR UNDERGRADUATE PROGRAMME, THE FIRST CYCLE, FOR THE BACHELOR'S (BA) DEGREE				
37 compulsory courses	3065 = 1130 + 1935	2935	6000	240