



BACHELOR OF MIDWIFERY CURRICULUM AT THE FACULTY OF HEALTH STUDIES IN MOSTAR

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#### 1. INTRODUCTION

The curriculum of the undergraduate university study programme of midwifery is the result of the regular review process, which began with the Decision of the Senate at the session held on 26 February 2022. The regular revision procedure was carried out according to the Rulebook on the procedure of adopting new and regular revisions of existing study programmes. It stipulates that the Committee coordinates a revised curriculum. The Committee also includes student representatives and external users, and the scientificteaching/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 14 July 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. 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 into seven categories: amendment of course titles (this group also includes the reconstruction of individual courses that before included a wide range of materials with a large number of teaching hours, and are now separated), amendment of course hours and ECTS points, amendment of course hours within the existing course schedule, rotation of existing courses within the semester/study year, elimination of outdated compulsory courses for the profession, and introduction of new compulsory courses that contribute to the acquisition of competences and learning outcomes defined by the EU occupational standard, and amendment of course status (elective/compulsory). The essential changes of this revision refer to the decrease in theoretical training, and the increase of the share of practical classes in accordance with the EU directive on regulated professions 2005/36/EC and 2013/55/EU. Obstetrics or midwifery is one of the oldest medical professions. For centuries, the experience and skills of numerous midwives, and later their efforts to contribute to the higher quality of work and a better status of the profession through their education, have been incorporated into the history of midwifery. Following the historical development of society and medicine, it is clearly evident that the legislation, the number of midwives and the care of pregnant women were without a doubt one of the significant indicators of the level of development of a particular environment, nation and even an entire era. Midwifery as a profession is included in the regulated professions that must harmonize their education with the requirements of the EU Directive 2005/36/EC as well as with the existing Act on Regulated Professions and the Recognition of Foreign Professional Qualifications. According to the recommendations and standards of the World Health Organization and the European Community, for the introduction of many new diagnostic and therapeutic procedures, professional and educated midwives are needed at all levels of perinatal care. Also, high technological standards have been introduced in midwifery care processes. In regard of the great progress of perinatal medicine, continuous and lifelong education that follows world standards is needed so that midwifery bachelors have knowledge, skills and experience at a higher education level and so that like midwives in European countries, they can independently manage pregnancy and childbirth in a hospital, recognize a pathological pregnancy, and refer the pregnant woman to a specialist in time. A highly educated midwife is trained to provide appropriate supervision to women during pregnancy, childbirth and the postpartum period, manage labor, and take care of the newborn. The midwife has an important role in the enlightenment, not only of women and their families, but also of the community, which includes preparation for parenthood. The objective of the study programme is to advance the midwifery profession by promoting independent midwives as the most suitable caregivers for women and by maintaining normal childbirth and all in order to improve the reproductive health of women, newborns and their families.

### 2. GENERAL INFORMATION ON THE STUDY PROGRAMME

Study program	Midwifery
Cycle	First cycle (undergraduate study)
Туре	University study
Scientific area	Biomedicine and healthcare
Scientific field	Clinical Medical Sciences / Health Sciences
Academic title	Bachelor of midwifery
EQF qualification level	6
Duration of study program	3 years / 180 ECTS
Total number of ECTS credits	3 years / 180 ECTS
Language	Croatian
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	<ul> <li>education of professional for independent work in clinical hospitals and health centers, as well as strengthening the role of midwives in public health, women and family health promotion</li> <li>develop the ability to recognize the changing needs of women/mothers and children throughout pregnancy and the postnatal period</li> <li>provide an educational framework that will encourage the development of analytical and critical thinking skills and thus ensure a competent approach to the theory and practice of midwifery</li> <li>develop awareness of the relevant and latest research evidence, and facilitate its application/implementation into the midwifery practice</li> <li>develop the ability to make timely and prudent judgments, as well as provide internationally recognized professional higher education for work in the field of healthcare and enable the student to acquire the necessary competencies for work in the midwifery profession and for continuing studies at graduate level.</li> </ul>
Competencies of the study programme	<ol> <li>health promotion, participation in informing and counseling related to family planning and protection of reproductive health</li> <li>guidance of program for preparation for childbirth and parenthood, including health education for preserving health and avoiding risk factors for this particular population, monitoring of healthy pregnancy, carrying out necessary tests, and monitoring of fetal condition with appropriate clinical methods and technical means</li> <li>identification of high risk pregnancy based on appropriate methods and counseling within the scope of profession: referral to specialists in case of pathological pregnancy and be part of treatment team</li> <li>counseling and care of women during pregnancy, childbirth and postpartum period</li> <li>carrying out of normal delivery, including the performance of episiotomy and providing emergency healthcare during delivery in the absence of a specialist</li> <li>identification of pathological changes in mother and child and acting within the profession with referral to specialist</li> </ol>

- 7. caring for the mother and monitoring the postpartum period with appropriate advice on the care of the child in order to enable her to provide the child with the optimum progress
- 8. preforming physical examination and care of newborn, taking all initiatives in case of need and performing emergency resuscitation when necessary
- 9. counseling and help for women in menopause
- 10. counseling, help and care for women with gynecological issues
- 11. performing midwifery care and treatment as ordered by the specialist
- 12. keep medical and healthcare documentation
- 13. educational work on education of own staff and scientific research work

# Learning outcomes of the study programme

- explains basic concepts and law of science on which midwifery work is based, in particular the midwifery profession, obstetrics and gynecology FZSPB-IU-1
- 2. explains basic concepts and ethical regularities of the profession and the provisions of the legislation important for the profession of midwifery IU-FZSPB-IU-2
- explains basic concepts and laws of biological functions, anatomy and physiology of the organism, and pharmacology in the field of obstetrics and neonatology, as well as the relationship between health and the physical and social environment of man and his behavior FZSPB-IU-3
- 4. applies the knowledge gained in authorized institutions through independent management of prenatal care, childbirth and postnatal care, with the exception of pathological pregnancy, and childbirth, and neonatal resuscitation of the newborn in the absence of the specialist FZSPB-IU-4
- explains the importance, necessity and methods of professional training and development of healthcare workers and experience in working with them FZSPB-IU-5
- 6. presents ways of adequate informing and counseling in terms of family planning FZSPB-IU-6
- 7. diagnoses pregnancy and monitors the normal course of pregnancy by performing appropriate examinations FZSPB-IU-7
- 8. recognizes the need for examination in case of earliest possible diagnosis of risk pregnancy FZSPB-IU-8
- organizes and carries out a program for parenthood and full preparation for labor, including advice on hygiene and nutrition FZSPB-IU-9
- provides adequate care and assistance to the mother during labor and monitors the condition of the fetus in the womb using appropriate clinical methods and technical means FZSPB-IU-10
- 11. manages spontaneous delivery, including episiotomy and emergency breech births FZSPB-IU-11
- 12. recognizes the need for specialist referral and undertakes emergency precautions in the absence of a specialist, particularly in case of manual removal of placenta accompanied by manual examination of the uterus FZSPB-IU-12
- preforms examination and care of the newborn taking all initiatives in case of need of emergency resuscitation FZSPB-IU 13
- 14. implements care of a mother and follows her progress over the

	postpartum period and provides all the necessary advice on the
	care of the child in order to enable her to provide the child with
	the optimum progress FZSPB-IU-14
	15. preforms treatment ordered by the doctor of medicine,
	specialist of gynecology and obstetrics FZSPB-IU-15
	16. finds and evaluates medical information in midwifery, applying
	the principles of evidence-based medicine and critical thinking FZSPB-IU-16
	17. explains and applies methods of scientific research work and
	statistical data processing, independently monitors and
	evaluates the results of one's own work and follows professional
	literature FZSPB-IU-17
	18. maintains midwifery documentation and evaluates achieved goals in midwifery care FZSPB-IU-18
	19. produces a structured text using medical and healthcare
	terminology, elaborates professional healthcare topics and
	presents professional works in a foreign language FZSPB-IU-19
	20. performs preoperative preparation and postoperative care
	procedures after operative delivery and gynecological
	procedures, performs oral and parenteral therapy prescribed by
	the specialist FZSPB-IU-20
	21. performs outpatient midwifery care of women in labor, women
	in the postpartum period, newborns and gynecological patients
	FZSPB-IU-21
Opportunity after graduation	After the successful completion of undergraduate studies, students
	have the opportunity to work in public and private health care
	institutions and continue their education at graduate studies.
Accreditation	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.

#### 3.1. Connection with the University development strategy

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. Healthcare in Bosnia and Herzegovina needs highly educated midwives who will master the specific knowledge and skills of midwifery care, but also midwifes educated in the field of management and leadership, public health and education. At the first level (undergraduate studies), training is focused on basic midwifery skills. According to the instructions of the World Health Organization, the academic level of education of all nurses and other health professionals must be at university level. A special strategic goal is basic skills training necessary for independent work performance, and this includes a three-year education with a load of 180 ECTS-points, after which the student is awarded a title of bachelor.

# 3.2. Compliance with the achievements of a certain scientific/artistic area and labor market and connection with the standards of occupations/qualifications

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 of the Directives on regulated or ruled professions, 2005/36/EC and 2013/55/EU. 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 Midwifery relating to university undergraduate university study programme of Midwifery.

Also, student representatives and external users were appointed to the Committee for the development of the revised curriculum to harmonize with the labour market. Public hearing was organized with the participation of experts from practice and economics, and their suggestions were taken into account in the development of the curriculum.

Since no occupational standard or qualification standard has been defined at any level in B&H, the following documents have been taken into account:

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

- EU Directives on regulated or ruled professions 2005/36/EC and 2013/55/EU,
- WHO guidelines on preservation and improvement of health (WHO guidelines for 2021) and the International Confederation of Midwives
- Munich Declaration, 2000,
- 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.

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".

Midwifery as a profession is included in the regulated professions that must harmonize their education with the requirements of the EU Directive 2005/36/EC as well as with the Act on Regulated Professions and the Recognition of Foreign Professional Qualifications. According to the recommendations and standards of the World Health Organization and the European Community, and taking into account the great progress of perinatal medicine, the introduction of many new diagnostic and therapeutic procedures, professional and educated midwives are needed at all levels of perinatal care. The Faculty of Health Studies in Mostar is an institution to which the entire southern Bosnia and Herzegovina and a part of neighboring Croatia and Montenegro gravitate. Therefore, an undergraduate university study of Midwifery is absolutely justified for the education of medical staff needed in our healthcare institutions. The study programme is the study of Midwifery, established in 2014. Accordingly, its expediency with regard to the needs of the labor market in the public and private sector has been validated and confirmed on several occasions. In short, we believe that the current number of students who annually enroll to the undergraduate studies of Midwifery is in line with real social needs. Also, according to current data, the number of unemployed midwives who have passed the state exam is negligible.

#### 3.3. Comparability with study programmes in the country and abroad

Study programme preformed at the Midwifery department and the development of midwifery as a profession are in line with European standards, and is based on close cooperation with other institutions of a similar profile in the Republic of Croatia (Faculty of Health Studies in Rijeka).

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 credits.

#### 3.4. Openness to 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 programme and transfer from other study programmes

The Rulebook on Study of the University of Mostar defines the right to enroll 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 Herzegovina 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.

Applicants who enroll at the Faculty, and during their previous education did not study Latin for at least 1 year, must enroll in the Latin language course in the first year of study with the load of 20 hours of lectures and pass the same course before enrolling in the first year of study.

#### 3.6. Conditions for enrolment 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 final thesis worth 5 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 three-year study programme for a total of six 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 100% of practicals.

Summer clinical practice is a mandatory form of the teaching process that is carried out in accordance with the study curriculum and the annual study plan. As a rule, the student performs clinical practice at the University Clinical Hospital Mostar as a constituent unit of the University of Mostar, the Healthcare Center Mostar or some other teaching base with which the Faculty has a contractual agreement, according to the schedule established by the competent Committee. With the approval of the Committee, a student can also perform the clinical in an institution or company that has an organizational unit that deals with professional tasks that are in line with the professional profile of his studies. During clinical practice, the student performs the skills prescribed by the study plan listed in the clinical practice booklet. Successful fulfillment of the abovementioned obligations is a condition for semester verification and enrollment in the next semester/year of study.

#### 3.8. Structure of the study programme

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 5400 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.

The student is obliged to choose one of the offered foreign languages (English or German), which are offered in the second and fourth semesters, with 2 ECTS credits in the 2nd semester and 1.5 ECTS credits in the 4th semester. Regardless of the foreign language the student chooses, they acquire competencies and learning outcomes defined at the level of the study programme in accordance with the EU directive.

In relation to the total number of ECTS credits, a sum of ECTS credits acquired in elective courses is 4 ECTS, and the student can choose a total of 4 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. In accordance with the EU Directives, midwifery training includes at least three years of study or 4,600 hours of theoretical and clinical training, whereby the duration of theoretical training represents at least one third, and the duration of clinical training at least one half of the minimum duration of training.

**Table 3.8.1** Representation of teaching load, hours of theory and practice, and the share of workload in the undergraduate university study programme of Midwifery

Form of teaching	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	Total	%
Lectures	370	335	220	925	17,1%
Practicals	595	745	890	2230	41,3%
Seminars	225	180	140	545	10,1%
Summer clinical practice	270	330	300	900	16,7%
Independent work	340	210	250	800	14,8%
Total	1800	1800	1800	5400	100,0%

**Table 3.8.2** The share of workload in the study programme in relation to the theoretical and clinical training of the undergraduate university study of Midwifery

Load type	Number of hours	Share %
Theoretical teaching	1470	32%
Clinical teaching	3130	68%
Total	4600	100%

**Table 3.8.3** Share of workload in the curriculum per module

Title of module	ECTS	%
Midwifery Module	106	59%
Clinical sciences module	27	15%
Basic sciences module	15.5	8,6%
Public health module	5	2.7%
Medical humanities module	10.5	5.9%
Science and health module	12	6.6%
Elective courses	4	2.2%
TOTAL	180	100%

In the three years of the undergraduate study of midwifery there are active classes and independent student work of 5400 hours. Student independent work of 800 hours includes the time a student needs for independent study of the subject, preparation of seminars, mid-terms, final tests, preparation and writing of final and diploma theses, not counting contact hours with the teacher (lectures, seminars, practicals, and professional practice). Load of independent work is defined in the syllabus of each individual course (and in this case is 14.8%).

The undergraduate university study programme of Midwifery consists of six modules with 49 compulsory and 4 elective courses, midwifery summer clinical practice at the end of each year of study in the duration of 900 hours, and the final thesis of 150 hours.

Four elective courses (2.2% of the total program points) are offered from the midwifery, basic and clinical sciences, public health, medical humanities, and science and health modules. 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.

Table 1. Structures of the undergradute university study programme of Midwifery with shares of forms of teaching, clinical practice and independent work

		1 <sup>st</sup> \	/ear						
1 <sup>st</sup> Winter semester									
Course code	Course title	Tea	aching ho	urs	I. In total	II.	III.	Load hours	
		L*	P*	S*	teaching	Clinical practice	Independent work	(1.+11.+111.)	ECTS
						•			
FZSPB101	Anatomy	20	30	20	70	0	50	120	4
FZSPB102	Physiology and pathophysiology	20	25	20	65	0	25	90	3
FZSPB103	Basics and the process of midwifery care	30	165	10	205	0	20	225	7,5
FZSPB104	Computers and administration in midwifery	10	35	5	50	0	10	60	2
FZSPB105	Basics of biomedical statistics	15	40	0	55	0	20	75	2,5
FZSPB106	Basics of biochemistry	10	25	10	45	0	15	60	2
FZSPB107	Health promotion and health education	10	10	15	35	0	10	45	1,5
FZSPB108	Physiology of pain	10	0	10	20	0	25	45	1,5
FZSPB109	Mental health	15	0	10	25	0	20	45	1,5
FZSPB110	Microbiology and parasitology	20	25	10	55	0	20	75	2,5
FZSPB111	Biophysics and protection against ionizing radiation	10	20	10	40	0	20	60	2
	Total	170	375	120	665	0	235	900	30
ECTS compulsory co	ECTS compulsory courses							30	
ECTS elective course	ECTS elective courses							0	
ECTS TOTAL									30

		1 <sup>st</sup> '	/ear						
2 <sup>nd</sup> Summer semester									
Course code	Course title	Tea	aching ho	ours	I. In total	II.	III.	Load hours	
		L*	P*	S*	teaching	Clinical	Independent	(1.+11.+111.)	ECTS
						practice	work		
FZSPB212	Sex education and family planning	20	30	20	70	0	5	75	2,5
FZSPB213	Pharmacology	30	0	10	40	0	20	60	2
FZSPB214	Embryology and human genetics	30	0	15	45	0	15	60	2
FZSPB215	Pathology	15	10	0	25	0	5	30	1
FZSPB216	Foreign language I	10	20	10	40	0	20	60	2
FZSPB217	Public health	15	5	5	25	0	5	30	1
FZSPB218	Physiology of pregnancy	30	20	25	75	0	15	90	3
FZSPB219	Prenatal midwifery care	30	115	10	155	0	10	165	5,5
FZSPB220	Summer clinical practice I	0	270	0	270	270	0	270	9
FZSPB221	Learning and teaching methods	20	20	10	50	0	10	60	2
	Total	200	490	105	795	270	105	900	30
ECTS compulsory co	ourses								30
ECTS elective cours	es								0
ECTS TOTAL									30

	2 <sup>nd</sup> year								
	3 <sup>rd</sup> Winter semester								
Course code	Course title	Tea	ching ho	urs	I. In total	II.	III.	Load hours	
		L*	Р*	S*	teaching	Clinical practice	Independent work	(1.+11.+111.)	ECTS
FZSPB322	Physiologic labor and the puerperium	20	20	20	60	0	15	75	2,5
FZSPB323	Midwifery care during labor	20	230	20	270	0	15	285	9,5
FZSPB324	Midiwfery care during puerperium	20	130	10	160	0	20	180	6
FZSPB325	Physiology of lactation	15	50	15	80	0	10	90	3
FZSPB326	Nutrition and dietetics	15	10	10	35	0	10	45	1,5
FZSPB327	Healthy newborn	20	0	15	35	0	10	45	1,5
FZSPB328	Midwifery care of a healthy newborn	15	80	10	105	0	15	120	4
FZSPB329	Medical sociology	15	0	0	15	0	15	30	1
FZSPB330	Health psychology	15	0	10	25	0	5	30	1
	Total	155	520	110	785	0	115	900	30
ECTS compulsory co	urses								30
ECTS elective course	es								0
ECTS TOTAL									30

			2 <sup>nd</sup> year						
4 <sup>th</sup> Summer semester									
Course code	Course title	Tea	ching ho	urs	I. In total	II.	III.	Load hours	
		L*	P*	S*	teaching	Clinical	Independent	(1.+11.+111.)	ECTS
						practice	work		
FZSPB431	Gynecology	30	0	10	40	0	5	45	1,5
FZSPB432	Midwifery care in gynecology	20	150	10	180	0	30	210	7
FZSPB433	Basicis of anesthesiology and reanimation	15	30	0	45	0	15	60	2
FZSPB434	Basics of transfusion medicine	15	10	0	25	0	5	30	1
FZSPB435	Basics of surgery	15	0	0	15	0	15	30	1
FZSPB436	Foreign language II	10	20	10	40	0	5	45	1,5
FZSPB437	Legislation in health and social care	15	0	10	25	0	5	30	1
FZSPB438	Human reproduction	15	0	10	25	0	5	30	1
FZSPB439	Bioethics	15	0	10	25	0	5	30	1
FZSPB440	Basics of clinical medicine	20	0	5	25	0	5	30	1
FZSPB441	Summer clinical practice II	0	0	0	0	330	0	330	11
	Total	170	210	65	445	330	95	870	29
ECTS compulsory co	urses								29
ECTS elective course	ECTS elective courses								1
ECTS TOTAL									30

			3 <sup>rd</sup> year						
5 <sup>th</sup> Winter semester									
Course code	Course title	Tea	ching ho	urs	I. In total	II.	III.	Load hours	
		L*	P*	S*	teaching	Clinical	Independent	(1.+11.+111.)	ECTS
						practice	work		
FZSPB542	High-risk and pathological pregnancy	25	20	20	65	0	25	90	3
FZSPB543	Midwifery care of high-risk pregnancies	20	190	15	225	0	30	255	8,5
FZSPB544	Complications in childbirth and puerperium	20	40	15	75	0	15	90	3
	Midwifery care in childbirth and puerperium with				260	0	10	270	9
FZSPB545	complications	20	230	10					
FZSPB546	Basics of scientific research work	15	35	10	60	0	15	75	2,5
FZSPB547	Sick newborns and premature infants	30	0	15	45	0	15	60	2
	Total	130	515	85	730	0	110	840	28
ECTS compulsory cou	urses								28
ECTS elective course	ECTS elective courses							2	
ECTS TOTAL									30

		3 <sup>rd</sup> y	ear ear						
	6 <sup>th</sup> Summer semester								
Course code	Course title	Teaching hours		I. In total	II.	III.	Load hours		
		L*	P*	S*	teaching	Clinical	Independent	(1.+11.+111.)	ECTS
						practice	work		
FZSPB648	Midwifery care of a sick newborn	20	170	10	200	0	10	210	7
FZSPB649	Patronage and clinic work	15	100	15	130	0	20	150	5
FZSPB650	Law in healthcare	15	0	10	25	0	5	30	1
FZSPB651	Management in healthcare	10	10	5	25	0	5	30	1
FZSPB652	Summer clinical practice III	0	0	0	0	300	0	300	10
FZSZA653	Final thesis	0	50	0	0	0	100	150	5
	Total	60	330	40	380	300	140	870	29
ECTS compulsory co	urses								29
ECTS elective course	ECTS elective courses							1	
ECTS TOTAL									30

<sup>\*</sup>L – lectures, P\* - practicals, S\*- seminars

# List of compulsory courses with ECTS point per module

Module	Course		ECTS
Midwifery Module	1.	Basics and the process of midwifery care	7,5
	2.	Prenatal midwifery care	5,5
	3.	Midwifery care during labor	9,5
	4.	Midiwfery care during puerperium	6
	5.	Midwifery care of a healthy newborn	4
	6.	Midwifery care in gynecology	7
	7.	Midwifery care of high-risk pregnancies	8,5
	8.	Midwifery care in childbirth and puerperium with	9
		complications	
	9.	Midwifery care of a sick newborn	7
	10.	Summer clinical practice I, II and III	30
	11.	Sex education and family planning	2,5
	12.	Physiology of lactation	3
	13.	Nutrition and dietetics	1,5
	14.	Patronage and clinic work	5
	Total		106

Module		Course	ECTS
Clinical sciences module	1.	Microbiology and parasitology	2,5
	2.	Biophysics and protection against ionizing radiation	2
	3.	Gynecology	1,5
	4.	Basicis of anesthesiology and reanimation	2
	5.	Basics of transfusion medicine	1
	6.	Human reproduction	1
	7.	High-risk and pathological pregnancy	3
	8.	Complications in childbirth and puerperium	3
	9.	Healthy newborn	1,5
	10.	Physiology of pregnancy	3
	11.	Physiologic labor and the puerperium	2,5
	12.	Basics of surgery	1
	13.	Sick newborns and premature infants	2
	14.	Basics of clinical medicine	1
		Total	27

Module	Course	ECTS
Basic sciences module	1. Anatomy	4
	2. Physiology and pathophysiology	3
	3. Patology	1
	4. Embryology and human genetics	2
	5. Basics of biochemistry	2
	6. Physiology of pain	1,5
	7. Pharmacology	2
	Total	15,5

Module	Course		ECTS
Public health module	1.	Health promotion and health education	1,5
	1.	Management in healthcare	1
	2.	Mental health	1,5
	3.	Public health	1
		Total	5

Module	Course	ECTS
Medical humanities	Medical sociology	1
module	2. Bioethics	1
	3. Law in healthcare	1
	4. Legislation in health and social care	1
	5. Foreign language I and II	3,5
	Learning and teaching methods	2
	7. Health psychology	1
	Total	10,5

Module	Course		ECTS
Science and health	1.	Computers and administration in midwifery	2
module	2.	Basics of biomedical statistics	2,5
	3.	Basics of scientific research work	2,5
	4.	Final thesis	5
		Total	12

Module	Course	ECTS
Elective courses	Elective courses 1, 2, 3 i 4	4
	Total	4

# 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 or part-time students. Full-time students are those who study according to the programme with a full teaching schedule. Part-time students are students who attend the study programme in addition to work or other activities.

#### 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/midwifery 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 undergraduate university study programme of Midwifery: University Clinical Hospital Mostar, the Institute of Public Health, 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.

## 3.12. Learning outcomes matrix

IU-study program	FZSP	FZS																			
IU-course	B-	PB-																			
	IU-1	IU-2	IU-3	IU-4	IU-5	IU-6	IU-7	IU-8	IU-9	IU-	IU-										
										10	11	12	13	14	15	16	17	18	19	20	21
IU-FZSPB101			Х																		
IU-FZSPB102			Х																		
IU-FZSPB103	Х	Х	Х	Х										Х	Х			Х			
IU-FZSPB104																Х	Х	Х			
IU-FZSPB105																Х	Х				
IU-FZSPB106			Х				Х									Х					
IU-FZSPB107			Х		Х	Х			Х					Х							
IU-FZSPB108			Х							Х					Х	Х					
IU-FZSPB109	Х	Х	Х		Х	Х								Х							
IU-FZSPB110			Х																		
IU-FZSPB111		Х	Х		Х											Х					
IU-FZSPB212			Х			Х															
IU-FZSPB213			Х																		
IU-FZSPB214	Х		Х			Х	Х	Х													
IU-FZSPB215			Х									Х									
IU-FZSPB216																Х	Х		Х		
IU-FZSPB216-A																Х			Х		
IU-FZSPB217	Х	Х			Х											Х					
IU-FZSPB218			Х	Х	Х	Х	Х		Х									Х			
IU-FZSPB219			Х	Х		Х		Х	Х						Х	Х					
IU-FZSPB220	Х	Х	Х	Х		Х		Х	Х	Х					Х	Х		Х		Х	
IU-FZSPB221					Х	Х			Х												
IU-FZSPB322			Х	Х								Х		Х							
IU-FZSPB323	Х			Х			Х			Х	Х	Х		Х		Х					
IU-FZSPB324	х	Х	Х	х					х			х		Х				Х		Х	

IU-study	FZSP	FZS																			
program	B-	PB-																			
IU-course	IU-1	IU-2	IU-3	IU-4	IU-5	IU-6	IU-7	IU-8	IU-9	IU-	IU-										
										10	11	12	13	14	15	16	17	18	19	20	21
IU-FZSPB325			Х						Х					Х							
IU-FZSPB326	Х								Х					Х		Х		Х			
IU-FZSPB327	Х	Х	Х	Х	Х				Х				Х	Х		Х	Х	Х			
IU-FZSPB328			Х	Х									Х	Х							
IU-FZSPB329	Х	Χ																			
IU-FZSPB330	Х		Х	Х																	
IU-FZSPB431	Х		Х									Χ									
IU-FZSPB432															Х			Х		Х	
IU-FZSPB433		Х	Х	Х						Х			Х	Х		Х				Х	
IU-FZSPB434			Х							Х			Х		Х						
IU-FZSPB435	Х	Х	Х	Х									Х	Х				Х		Х	x
IU-FZSPB436																Х	Х		Х		
IU-FZSPB436/A																Х			Х		
IU-FZSPB437	Х	Х																			
IU-FZSPB438			Х			Х			Х						Х						
IU-FZSPB439		Х																			
IU-FZSPB440			Х		Х							Х						Х			
IU-FZSPB441	Х			Х			Х		Х	Х	Х	Х	Х	Х	Х			Х		Х	
IU-FZSPB542			Х					Х		Х					Х			Х			
IU-FZSPB543	Х	Х	Х	Х		Х	Х	Х	Х			Х			Х			Х			
IU-FZSPB544				Х			Х				Х			Х							
IU-FZSPB545								Х		Х	Х	Х	Х	Х		Х					x
IU-FZSPB546																Х	Х		Х		
IU-FZSPB547	Х	Х	Х	Х					Х			Х	Х	Х	Х						x
IU-FZSPB648	Х	Х		Х				Х	Х	Х		Х	Х								
IU-FZSPB649		Х	Х		Х	Х	Х	Х	Х					Х	Х			Х			Х
IU-FZSPB650			Χ																		
IU-FZSPB651	Х	Х			Х					Х											
IU-FZSPB652	Х	Х	Х	Х				Х	Х	Х	Х	Х	Х	Х	Х	Х		Х			Х

## 4. STUDY PLAN

	1	st year					
	1 <sup>st</sup> Win	ter semester					
Course code	Course title	Course status	Tea	ching ho	urs	Hours of	ECTS
			L	Р	S	practice	
FZSPB101	Anatomy	Compulsory	20	30	20	0	4
FZSPB102	Physiology and pathophysiology	Compulsory	20	25	20	0	3
FZSPB103	Basics and the process of midwifery care	Compulsory	30	165	10	0	7,5
FZSPB104	Computers and administration in midwifery	Compulsory	10	35	5	0	2
FZSPB105	Basics of biomedical statistics	Compulsory	15	40	0	0	2,5
FZSPB106	Basics of biochemistry	Compulsory	10	25	10	0	2
FZSPB107	Health promotion and health education	Compulsory	10	10	15	0	1,5
FZSPB108	Physiology of pain	Compulsory	10	0	10	0	1,5
FZSPB109	Mental health	Compulsory	15	0	10	0	1,5
FZSPB110	Microbiology and parasitology	Compulsory	20	25	10	0	2,5
FZSPB111	Biophysics and protection against ionizing radiation	Compulsory	10	20	10	0	2
ECTS for core cours	es						30
ECTS for elective co	urses						0
ECTS IN TOTAL							30

		1 <sup>st</sup> year					
		2 <sup>nd</sup> Summer semester					
Course code	Course title	Course status	Tea	aching ho	urs	Hours of	ECTS
			L	Р	S	practice	
FZSPB212	Sex education and family planning	Compulsory	20	30	20	0	2,5
FZSPB213	Pharmacology	Compulsory	30	0	10	0	2
FZSPB214	Embryology and human genetics	Compulsory	30	0	15	0	2
FZSPB215	Pathology	Compulsory	15	10	0	0	1
FZSPB216	Foreign language I	Compulsory	10	20	10	0	2
FZSPB217	Public health	Compulsory	15	5	5	0	1
FZSPB218	Physiology of pregnancy	Compulsory	30	20	25	0	3
FZSPB219	Prenatal midwifery care	Compulsory	30	115	10	0	5,5
FZSPB220	Summer clinical practice I	Compulsory	0	0	0	270	9
FZSPB221	Learning and teaching methods	Compulsory	20	20	10	0	2
ECTS for core cours	ses						30
ECTS for elective co	ourses						0
ECTS IN TOTAL							30

	2 <sup>s</sup>	year										
	3 <sup>rd</sup> Winter semester											
Course code	Course title	Course status	Tea	ching ho	urs	Hours of	ECTS					
			L	Р	S	practice						
FZSPB322	Physiologic labor and the puerperium	Compulsory	20	20	20	0	2,5					
FZSPB323	Midwifery care during labor	Compulsory	20	230	20	0	9,5					
FZSPB324	Midiwfery care during puerperium	Compulsory	20	130	10	0	6					
FZSPB325	Physiology of lactation	Compulsory	15	50	15	0	3					
FZSPB326	Nutrition and dietetics	Compulsory	15	10	10	0	1,5					
FZSPB327	Healthy newborn	Compulsory	20	0	15	0	1,5					
FZSPB328	Midwifery care of a healthy newborn	Compulsory	15	80	10	0	4					
FZSPB329	Medical sociology	Compulsory	15	0	0	0	1					
FZSPB330	Health psychology	Compulsory	15	0	10	0	1					
ECTS for core course	S						30					
ECTS for elective cou	rses						0					
ECTS IN TOTAL							30					

2 <sup>st</sup> year								
4 <sup>th</sup> Summer semester								
Course code	Course title	Course status	Teaching hours			Hours of	ECTS	
			L	Р	S	practice		
FZSPB431	Gynecology	Compulsory	30	0	10	5	1,5	
FZSPB432	Midwifery care in gynecology	Compulsory	20	150	10	30	7	
FZSPB433	Basicis of anesthesiology and reanimation	Compulsory	15	30	0	15	2	
FZSPB434	Basics of transfusion medicine	Compulsory	15	10	0	5	1	
FZSPB435	Basics of surgery	Compulsory	15	0	0	15	1	
FZSPB436	Foreign language II	Compulsory	10	20	10	5	1,5	
FZSPB437	Legislation in health and social care	Compulsory	15	0	10	5	1	
FZSPB438	Human reproduction	Compulsory	15	0	10	5	1	
FZSPB439	Bioethics	Compulsory	15	0	10	5	1	
FZSPB440	Basics of clinical medicine	Compulsory	20	0	5	5	1	
FZSPB441	Summer clinical practice II	Compulsory	0	330	0	0	11	
ECTS for core courses						29		
ECTS for elective courses						1		
ECTS IN TOTAL						30		

3 <sup>st</sup> year 5 <sup>th</sup> Winter semester							
L	Р	S	practice				
FZSPB542	High-risk and pathological pregnancy	Compulsory	25	20	20	0	3
FZSPB543	Midwifery care of high-risk pregnancies	Compulsory	20	190	15	0	8,5
FZSPB544	Complications in childbirth and puerperium	Compulsory	20	40	15	0	3
	Midwifery care in childbirth and puerperium with	Compulsory	20	230	10	0	9
FZSPB545	complications						9
FZSPB546	Basics of scientific research work	Compulsory	15	35	10	0	2,5
FZSPB547	Sick newborns and premature infants	Compulsory	30	0	15	0	2
ECTS for core courses							28
ECTS for elective courses						2	
ECTS IN TOTAL						30	

3 <sup>st</sup> year							
6 <sup>th</sup> Summer semester							
Course code	Course title	Course status	Teaching hours			Hours of	ECTS
			L	Р	S	practice	
FZSPB648	Midwifery care of a sick newborn	Compulsory	20	170	10	0	7
FZSPB649	Patronage and clinic work	Compulsory	15	100	15	0	5
FZSPB650	Law in healthcare	Compulsory	15	0	10	0	1
FZSPB651	Management in healthcare	Compulsory	10	10	5	0	1
FZSPB652	Summer clinical practice III	Compulsory	0	0	0	300	10
FZSZA653	Final thesis	Compulsory	0	50	0	100	5
ECTS for core courses							29
ECTS for elective courses							1
ECTS IN TOTAL						30	

<sup>\*</sup>L – lectures, P\* - practicals, S\*- seminars