

# Universa v Novem mestu University of Novo mesto

# CLEAN COPY OF THE HIGHER EDUCATION PROFESSIONAL STUDY PROGRAMME 1st CYCLE

# PHYTOTHERAPY,

implemented by University of Novo mesto Faculty of Health Sciences

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#### 1 GENERAL PROGRAMME INFORMATION

Name of study programme:	Phytotherapy
Cycle:	first
Type:	professional higher education study programme
Duration:	3 years
Scope:	180 ECTS credits
Klasius P-16:	0917 – Traditional and complementary medicine and therapy
Research area (Frascati):	medical and health sciences
Slovenian Qualifications Framework (SQF)	level 7
European Qualifications Framework (EQF)	level 6
Qualifications Framework for the European Higher Education Area (QF-EHEA)	first cycle
Accreditation:	• NAKVIS, decision No. 6033-453/2019/8; of 18 June 2020.

In developing the *Phytotherapy* first-cycle professional higher education study programme, the following documents were applied consistently:

- Higher Education Act (Ur. l. RS, No. 75/16);
- Criteria for the Accreditation and External Evaluation of Higher Education Institutions and Study Programmes (Ur. l. RS, No. 42/17);
- Criteria for Credit Assignment to Study Programmes According to ECTS (Ur. 1. RS. No. 95/10);
- Complementary and Alternative Medicine Act (Ur. l. RS, No. 94/07 and 87/11);
- Rules Determining Complementary and Alternative Medicine (CAM) Systems and Methods, and on the Procedure for the Register, Acknowledgement and Supervision of CAM Systems and the Methods to Be Introduced in CAM Services (Uradni list RS, No. 79/08, 115/08, 101/11 and 74/17);
- Rules Amending the Rules Determining Complementary and Alternative Medicine (CAM) Systems and Methods, and on the Procedure for the Register, Acknowledgement and Supervision of CAM Systems and the Methods to Be Introduced in CAM Services (Uradni list RS, No. 79/08, 115/08, 101/11 and 74/17);
- Programme for the Medical Examination for Healers with Reference to Scholarly Literature, RS, Ministry of Health;
- WHO Traditional Medicine Strategy 2014-2023.
- CAM 2020 (2014). The Contribution of Complementary and Alternative Medicine to Sustainable Healthcare in Europe. Brussels: Eurocam.

In defining the objectives, competencies and learning outcomes for the *Phytotherapy* first-cycle professional higher education study programme, we turned to the World Health Organization (WHO) Guidelines for the Appropriate Use of Herbal Medicines, retrieved on 5 June 2019 from https://apps.who.int/medicinedocs/en/d/Jh2945e/); to the

guidelines of the European Scientific Cooperative on Phytotherapy (retrieved on 5 June 2019 from http://escop.com/about-escop/); and to the recommendations of Društvo fitoterapevtov Slovenije/Slovenian Society of Phytotherapists. We have taken into account the characteristics of comparable foreign higher education study programmes at the 1st and 2nd cycle in the field of phytotherapy, and the opinions of a group of experts from practice.

The study programme has been designed according to the principles of establishing a European Higher Education Area and is comparable to similar foreign and domestic higher education programmes.

### 2 DEFINITION OF BASIC OBJECTIVES AND COMPETENCIES

# 2.1 Basic Programme Objectives

The basic objective of the *Phytotherapy* professional higher education study programme is to educate and qualify students for a quality, safe, responsible and ethical practice of the phytotherapy healing method, which includes research-based findings and traditional knowledge of herbalism, and is classified under the basic methods of complementary medicine. The study programme is well-rounded and is founded on theory and practice; it trains students in the phytotherapy healing method for maintaining and improving health and has a thought-out method of theoretical and practical knowledge acquisition, assessment and verification.

Other basic programme objectives are:

- To assimilate expert and theoretical knowledge in the field of phytotherapy, which is required for quality organization and operation, for the professional implementation of the healing method, and for controlling the implementation;
- To become qualified for the use of medicinal plants to alleviate pain and treat disease;
- To become qualified for solving specific technical problems in the field of phytotherapy:
- To become qualified for communication and an informed discussion within the profession and between professions;
- To become qualified for practising the method independently, for professional criticism, and for assuming responsibility in decision making;
- To become qualified for the use of methodological tools for diagnosing, solving and evaluating cases;
- To develop the ability to recognize one's needs for learning, knowledge transfer and promotion of a healthy lifestyle.

The study programme provides the acquisition of expert knowledge and qualifications for:

- Working in the field of phytotherapy as a healing method and as a method of complementary or integrative medicine;
- Embarking on independent entrepreneurial activity;
- Continuing studies at the second cycle and in specialization programmes;
- Permanent professional and personal growth;
- Understanding the global professional, political, social and cultural environment in relation to the profession.

A graduate who has completed the *Phytotherapy* professional higher education study programme will be qualified for:

- In-depth expert theoretical and practical knowledge in the professional field of phytotherapy, supported by a broad theoretical and methodological foundation Knowledge (SQF);
- Carrying out complex professional operational tasks using methodological tools; mastering demanding and complex work processes in the field of phytotherapy while independently applying knowledge to new work situations; solving problems in various specific working environments related to the field of education and training; developing original findings, creations and critical reflection – Skills (SQF);
- Working in diverse environments and in various functions, and for passing on new knowledge; Assuming responsibility for defining and achieving the results of their own work and/or the results of the work of a heterogeneous group in the specified work areas; An informed discussion in specific working environments related to the field of education and training; Recognizing their own needs for learning; taking the initiative for their own learning; becoming qualified for knowledge transfer within a group Competencies (SQF).

# 2.2 General Competencies

From the aspect of general competencies, a graduate of the *Phytotherapy* professional higher education study programme will be qualified for:

- Coherent mastery of the core knowledge; the ability to integrate knowledge from diverse areas and applications;
- Combining knowledge, skills, ethical values and behaviour for prudent, appropriate, safe and professional conduct during the implementation of the phytotherapy method;
- The ability to recognize and interpret the signs of a person's normal and changing health, and the environmental effects on health;
- The ability to versatilely and systematically adapt a person's treatment based on the relevant physical, mental, social, cultural, psychological, spiritual and societal factors;
- Safe and efficient organization, implementation and evaluation of their own work using methodological tools;
- The ability to effectively pass on theoretical knowledge and skills to service users;
- Protecting health and the environment, for their own safety, and for the safety of others;
- Cooperation, working in a team with other healthcare professionals;
- Understanding the general structure of the core discipline (science) and its association with other disciplines;
- Understanding and applying the methods of critical analysis and theory development, and their application to solving concrete work problems;
- Using information and communication technology and systems in the professional field;
- Oral and written communication in the professional field;
- A responsible attitude towards their own professional development.

## 2.3 Course-Specific Competencies

Under the programme, graduates acquire the following course-specific competencies for:

- Knowledge and understanding of the particularities of phytotherapy compared to other therapeutic approaches;
- Knowledge and understanding of the classification of phytotherapy into the field of health care and the field of complementary and alternative medicine;
- Understanding the functioning of the human organism, health and disease;
- A critical understanding of the fact that phytotherapy is founded on 1) scientific findings and 2) on the experiences of folk medicine or traditional herbalism, and that the two complement each other;
- Coherent mastery of the core knowledge; the ability to integrate knowledge from diverse areas and applications;
- The ability to incorporate new, often misleading, information and interpretations into the context of biomedicine;
- The ability to analyse, synthesize, and predict solutions and consequences;
- Systematic mastery of the knowledge of medicinal plants, their metabolites, their pharmacological action, and their potential acute and chronic adverse effects;
- Comprehensive knowledge of the spectrum of different phytotherapy methods and of the uses of concoctions made from medicinal plants for treating, alleviating and preventing various diseases and medical problems;
- The ability to use theoretical phytotherapeutic knowledge in versatile and systematic clinical care of patients according to the principles of the biopsychosocial model;
- The ability to sensibly integrate phytotherapeutic and conventional therapeutic methods to optimize the treatment of patients;
- Introducing modern empirically and scientifically tested CAM methods into the healthcare system.
- The ability to professionally communicate with experts from other scientific fields and becoming qualified for successful work in interprofessional teams;
- Autonomy in professional work;
- Commitment to professional ethics, including the knowledge of methods for evaluating and optimizing their work, and the knowledge of protecting the dignity, privacy and confidentiality of patients.

### 3 DATA ON THE INTERNATIONAL COMPARABILITY OF THE PROGRAMME

When developing the *Phytotherapy* study programme, similar study programmes were examined in the European Higher Education Area and in the world.

The following programme elements were analysed and taken into consideration:

- The formal composition and content of the study programme in the field of study;
- Professional consistency;
- The name, cycle and type of the proposed study programme;
- The formal and content structure;
- The basic objectives, the students' anticipated learning outcomes, and the general and course-specific competencies of graduates;
- Enrolment access and conditions, and the criteria for the selection of candidates in the event of limited enrolment;
- The duration of studies, the progression requirements, the requirements for completion of studies, and the title awarded;
- The syllabi (course contents, titles and number) and the course curricula;
- Vertical and horizontal integration of courses under the study programme;
- The proportion of elective courses;
- The proportion of practical training and the mode of its implementation;

- The annual and total study requirements having been allocated credits in accordance with the Criteria for Credit Assignment to Study Programmes According to ECTS;
- The modes and forms of the implementation of studies;
- Modes of grading that enable proper assessment of the learning outcomes and competencies attained, and enable the students to study regularly and to effectively monitor their own progress;
- Conditions for the completion of studies.

Study programmes that have aided us in designing the proposed study programme are the following:

Table 1: Higher education institutions and comparable Phytotherapy study programmes

Higher	Study	City,	Duratio	Type of	Website
education	programme	country	n,	programme	
institution		•	number of credits		
FH Campus Wien University of Applied Sciences	Holistic Therapy and Salutogenesis	Vienna, Austria	120 ECTS credits	Master's degree programme for advanced professional training, part- time	https://www.fh- campuswien.ac.at/ en/studies/study- courses/detail/gan zheitliche- therapie-und- salutogenese.html ?tx_asfhcw_course %5Bcontroller%5D =Course&cHash=7 e02e48eedef198bd 7f0a951335affa4
University of Westminster	Herbal Medicine BSc Honours	London, Great Britain	3 years	Undergraduate study programme accredited by European Herbal & Traditional Medicine Practitioners Association (EHTPA)	
Pacific Rim College	Undergraduate study programme "Diploma of Phytotherapy"	Canada	6 semester s, 128 CPs 2130 hours	Undergraduate study programme	https://www.pacifi crimcollege.com/fa culties- programs/program /diploma-of- phytotherapy/
American College of Healthcare Sciences	"Master of Science in Herbal Medicine"	Portland, USA	36 CPs	Master's study programme	https://achs.edu/pr ogram/master- science-herbal- medicine
American College of	"Graduate Certificate in	Portland, USA	15 CPs	Undergraduate study programme	https://achs.edu/pr ogram/graduate- certificate-herbal-

Healthcare Sciences	Herbal Medicine"				medicine
Endeavour College of Natural Health	"Bachelor of Complementar y Medicine"	Southern Hemisphe re, Australia	6 semester s	Online undergraduate study programme	https://www.endea vour.edu.au/course s/bachelor- complementary- medicine/

We have mostly selected programmes that comply with the Bologna Process and/or have a tradition of education and are being implemented at renowned higher education institutions. The selected programmes enable students to gain expert knowledge and qualifications for solving demanding technical and work problems; they include the compulsory component of practical training; they develop skills for communicating within the phytotherapy profession and with other medical professions; they develop graduates' professional criticism and responsibility, initiative and autonomy in decision making and management within the phytotherapy profession.

In the above-mentioned study programmes, which are of different designs, we analysed the proportions of individual courses in the syllabus, which aided us in planning the syllabus, taking into consideration the specifics of the Slovenian area and the identified needs for education in the field of phytotherapy.

Faculty	Study cycle	Phytoth courses	erapy	Science/Bi courses	omedicine	Social courses	science	Other complementary and alternative medicine	
		No. of courses	ECTS credits	No. of courses	ECTS credits	No. of courses	ECTS credits	No. of courses	ECTS credits
FH Campus Wien University of Applied Sciences	MSc	4	8	20	40	11	40	10	22
University of Westminster	BSc	9	90	7	70	2	20	0	0
Pacific Rim College	BSc	2	72	1	32	1	13	0	0
American College of Healthcare Sciences	MSc	7	21	3	9	2	6	0	0
American College of Healthcare Sciences	BSc (short course)	4	12	0	0	1	3	0	0
Endeavour College of Natural Health	BSc	1	2	6	16	4	8	6	14
Total		27	205	37	167	21	90	16	36
Average		4.5	34.2	6.2	27.8	3.5	15.0	2.7	6.0
Average	in %		43.1		26.5		18.4		8.1

The credit system in programmes at faculties and universities outside the EU differs, which is why the data were converted into proportions of individual courses.

In the proposed *Phytotherapy* first-cycle professional higher education study programme, the ratio between individual course units is as follows:

- Phytotherapy courses: 42.7%
- Science/Biomedicine courses: 36.7%

- Social science courses: 17.2%
- Other complementary and alternative medicine: 0 (some of these courses are covered by the learning units: Holistic Theory of Life as the Basis of Alternative Medicine, and Integrative and Complementary Medicine, which encompass 6.1% of credits under the study programme)

This ratio matches the average proportion of individual course areas in the analysed study programmes.

Practical training, i.e. clinical practice, is included in only two study programmes (University of Westminster, Pacific Rim College). The rest do not envisage the practical training of students. In our study programme we opted for the form of practical training that is feasible in our environment, i.e. at the growers/producers of medicinal herbs and herbal concoctions, and at sellers of phytotherapeutic concoctions (pharmacies, green pharmacies) where customers are advised.

# 4 INTERNATIONAL COOPERATION DATA FOR THE HIGHER EDUCATION INSTITUTION

In 2009, the faculty was awarded the Erasmus Charter for Higher Education (ECHE) for the first time, which served as a basis for international cooperation.

The faculty is actively entering into cooperation with similar institutions in Slovenia and abroad, developing its international activity in four areas:

- Organization of international scientific panels: Each year, the faculty organizes an international scientific conference. The common thread of these scientific meetings is the holistic care of a patient.
- Exchange of students and higher education teachers: The faculty promotes the international mobility of students and higher education teachers. Under the Erasmus<sup>+</sup> programme, the planned mobilities of students and higher education teachers are carried out each year.
- Participation in international scientific and research projects: With the participating faculties, we plan and implement joint research work.
- Individual contacts between the teaching staff, researchers and technical collaborators: Higher education teachers attend scientific and expert meetings abroad.

All activities relating to international cooperation are coordinated by the International Mobility Office. As it is necessary that the faculty is internationally recognizable, we are using various dissemination methods to spread awareness of the importance of mobility at the local and global level.

# 5 SYLLABUS WITH CREDIT ALLOCATION TO STUDY REQUIREMENTS

The proposal for the *Phytotherapy* first-cycle professional higher education study programme has been prepared in accordance with the provisions of the Higher Education Act and in accordance with the Criteria for the Accreditation and External Evaluation of Higher Education Institutions and Study Programmes.

### 5.1 Credit allocation to the programme and individual learning units

The *Phytotherapy* first-cycle professional higher education study programme has been allocated credits in accordance with the Criteria for Credit Assignment to Study Programmes According to ECTS. The ECTS enables the student to accumulate and transfer credits from one study programme to another, and the mutual recognition of fulfilled requirements between higher education institutions from the Republic of Slovenia and abroad. It ensures the transparency and comparability of systems and study programmes, which creates a basis for the mobility of students and for the recognition of study requirements.

A credit is a unit of measurement for assessing the work performed by the student on average. One credit stands for 25 to 30 hours of a student's workload, with the annual student workload ranging from 1500 to 1800 hours. Individual parts of the programme have been allocated credits in accordance with the criteria: an individual course at least 3 CPs; a module at least 5 CPs; a week of placement 2 CPs, and the bachelor's thesis 6 CPs.

The ECTS criteria promote the introduction of student-centred teaching strategies: the starting point is the student's study load or workload. The student is assigned the credits after fulfilling the prescribed study requirements under the programme. The student load comprises: lectures, tutorials, laboratory work, fieldwork and other forms of organized study work (research work, project work); individual student work (regular work; literature review; seminar, project and research papers; preparing for examinations or other types of knowledge assessment); the bachelor's thesis or final paper in parts of the study programme.

#### 5.2 Number and titles of learning units

The table below shows the syllabus with the titles of learning units; the credits allocated to the entire programme and to individual learning units; the annual or total number of hours of a student's study requirements; and the annual and total number of organized group or one-on-one hours under the programme.

Table 2: Syllabus with credit allocation to study requirements

Seq.				OSW			OSW	ISW	ASW	CPs
No.	Learning unit	${f L}$	T	LW	ОТ	FW	USW	1577	ASW	CPS
	1st YEAR									
	1st semester									
1.	Anatomy, Physiology and Pathology	60		30			90	135	225	9
	Medical Basics of Complementary and									
2.	Alternative Medicine Methods	45	15				60	90	150	6
3.	Health Education and Hygiene	30	15				45	55	100	4
4.	Informatics	30		20			50	25	75	3
5.	General and Systematic Botany	25		20			45	30	75	3
6.	First Aid	40			30		70	55	125	5
	2nd semester									
7.	Applied Botany of Medicinal Plants	60	20			70	150	150	300	12
8.	Healthy Nutrition and Dietetics	45	15	5			65	35	100	4
9.	Basics of Internal Medicine	40	15				55	70	125	5
10.	Ethics	30	15				45	55	100	4
	Holistic Theory of Life as the Basis of									
11.	Alternative Medicine	45	15				60	65	125	5
	TOTAL	450	110	75	30	70	735	765	1500	60

### Legend:

Study requirements: L = lectures, T = tutorials, LW = laboratory work, OT = office tutorial, FW = fieldwork, OSW = organized study work, ISW = individual student work, ASW = annual student workload, CPs = credits.

Seq.				osw			OSW	ISW	ASW	CPs
No.	Learning unit	${f L}$	T	LW	ОТ	FW	USW	1577	ASW	CPS
	2nd YEAR									
	3rd semester									
1.	Phytotherapy	60	90				150	150	300	12
2.	Public Health	30	15				45	55	100	4
3.	Advising and Working with Customers	30	15				45	55	100	4
4.	Psychology	30	15				45	55	100	4
5.	Biochemistry, Cell Biology, Biophysics	45		10			55	95	150	6
	4th semester									
6.	Integrative and Complementary Medicine	30	30				60	90	150	6
7.	Pharmacology	30	30				60	90	150	6
	Legislation in the Field of Complementary and Alternative Medicine, Health Care and Social									
8.	Services	30	30				60	90	150	6
	Microbiology with Parasitology and									
9.	Epidemiology	30	15	15			60	90	150	6
10.	Elective course 1 – technical	45	15				60	90	150	6
	TOTAL:	360	255	25			640	860	1500	60

#### Legend:

Study requirements: L = lectures, T = tutorials, LW = laboratory work, OT = office tutorial, FW = fieldwork, OSW = organized study work, ISW = individual student work, ASW = annual student workload, CPs = credits.

Seq.				osw			OSW	ISW	ASW	CPs
No.	Learning unit	${f L}$	T	LW	ОТ	$\operatorname{PT}$	USW	15 W	ASW	CFS
	3st YEAR									
	5th semester									
1.	Pharmacognosy	60	40	50			150	150	300	12
2.	Basics of Business	45	15				60	40	100	4
3.	Basics of Research	30	15	5			50	100	150	6
	Preparation and Application of Phytotherapeutic									
4.	Concoctions	40	20	40			100	100	200	8
	6th semester									
5.	Elective course 2 – technical	45	15				60	90	150	6
6.	Elective course 3 – general	45	15				60	90	150	6
7.	Practical training	•				160	160		160	8
8.	Bachelor's thesis							250	250	10
	TOTAL:	265	120	95		160	640	820	1460	60

Legend:

Study requirements: L = lectures, T = tutorials, LW = laboratory work, OT = office tutorial, PT = practical training, OSW = organized study work, ISW = individual student work, ASW = annual student workload, CPs = credits.

Review of requirements	L	${f T}$	LW	$\mathbf{OT}$	FW	CT	OSW	ISW	ASW	CPs
first year	450	110	75	30	70		735	765	1500	60
second year	360	255	25				640	860	1500	60
third year	265	120	95			160	640	820	1460	60
TOTAL	1075	485	195	30	70	160	2015	2445	4460	180

# 5.3 Type and proportion of learning units and their incorporation into the programme structure

The entire study programme encompasses organized forms of study work and individual student work, and comprises 4460 hours amounting to 180 CPs. It lasts three academic years. It comprises the joint/compulsory study courses (24), elective courses (3), practical training and the bachelor's thesis. The prescribed learning units being implemented as organized forms of study work are lectures, tutorials, laboratory work, office tutorials, fieldwork and clinical training.

**Lectures** are an important method in the educational process. Taking into consideration contemporary findings on the nature of learning, a learning environment has been created in which the focus has shifted from teaching to learning; from what the teacher must do to what the student must do while following instructions. In lectures the student learns the required theoretical background. During the knowledge acquisition process, the student is mentally active, thinks, analyses, makes deductions, argues, searches for solutions to problems, etc.

Tutorials are an organized form of study work intended for refreshing, consolidating and building on the learning contents acquired by the student in lectures. The learning environment is stimulating and information-rich, promotes creativity, imagination and positive communication. The work is carried out individually and in groups. The individual's active role and interdependence in attaining the ultimate objectives are important. The learning units which contain tutorials can be discerned from the syllabus and individual curricula.

Laboratory work in a laboratory enables learning by discovery, inquiry-based learning or scientific investigation. During laboratory work, students gain experience and begin to think in terms of cause and effect. The teacher guides them, and teaches them careful observation and data recording. Systematic observation includes describing, asking questions, predicting, verifying (testing) and explaining. Work is carried out in smaller groups (15-18 students). The learning units which contain laboratory work can be discerned from the syllabus and individual curricula.

*Fieldwork* is implemented under the course Applied Botany of Medicinal Plants and the elective courses Learning about Wild Edible Plants, Medicinal Fungi, and Ecotherapy. During fieldwork, students come to know medicinal plants in their natural environment in various stages of vegetation. They come to know the picking method in practice and how to protect the natural environment when picking medicinal and other plants and fungi in the natural environment. The teacher guides their observation of nature, familiarizes the students with the principles of nature protection, teaches them how to properly pick plants and prepare a herbarium or portfolio with observation notes. Work is carried out in groups of 12 to 15 students.

#### Practical training

The purpose of practical training is to educate prospective professional staff in a real working environment; to transfer knowledge from the higher education institution to the actual working environment and back; and to adapt the study programme to the needs of the working environment. Practical training is an organized part of the professional higher education study programme. The programme envisages 160 hours (4 weeks) of work in a phytotherapist's typical working environment, amounting to 8 credits, and which will take place in a phytotherapist's typical work areas: on a farm engaged in the

growing and processing of medicinal herbs, and at a pharmacy that sells products to customers and advises them.

The practical training is organized entirely by the faculty. In cooperation with the placement coordinator (a higher education teacher employed at the faculty), the student will make contact with the institution where they will attend practical training. The student attends practical training under the guidance of a mentor with at least a higher education degree, who is qualified for mentoring. The mentor assigns work to the student based on the practical training curriculum. The mentor informs, guides, leads, supervises and grades the student.

*Individual student work* comprises regular work, writing project papers, seminar papers and reports, literature review, preparing for examinations, and writing the bachelor's thesis.

# 5.3.1 Elective courses under the study programme

Elective courses are held in the second and third year. Elective courses stand for 18 CPs of the programme or 10% of the requirements. In the second year, the student selects one of the technical courses offered; in the third year, the student selects one technical and one general elective course. These enable students to plan their studies individually according to their wishes. The sixth semester syllabus provides optimal opportunities for external selection or for the international mobility of students.

Table 3: Elective courses under the *Phytotherapy* professional higher education study programme

Seq.			OS	SW					
No.	Learning unit	${f L}$	T	OT	FW	osw	ISW	ASW	$\mathbf{CPs}$
TECHN	ICAL ELECTIVE COURSES								
1.	Learning about Wild Edible Plants	40	15		35	90	60	150	6
2.	Medicinal Fungi	40	15		35	90	60	150	6
3.	Ecotherapy	40	15		20	75	75	150	6
	Use of Phytotherapeutic								
	Concoctions in Therapeutic								
4.	Massages	40		30		70	80	150	6
GENER	AL ELECTIVE COURSES								
	Writing Technical and Scientific								
5.	Articles	45	15			60	90	150	6
6.	Healthy Lifestyle Strategies	45	15			60	90	150	6

Legend:

Study requirements: L = lectures, T = tutorials, OT = office tutorial, FW = fieldwork,

OSW = organized study work, ISW = individual student work, ASW = annual student workload, CPs = credits

# 5.3.2 Proportion of electiveness under the programme

The ratios between the joint/compulsory and elective units in the *Phytotherapy* professional higher education study programme have been defined in accordance with Article 6 of the Criteria for Credit Assignment to Study Programmes According to ECTS, taking into account the characteristics of the field of study, the cycle and type of study programme, and its internal segmentation.

The programme enables students to realize their own study path. The student can choose from elective courses offered by the parent institution — internal selection. In accordance with the ECTS criteria, the student can take a part of the elective courses at institutions with which the faculty has concluded an agreement — external selection.

The elective part of the study programme comprises three elective courses (18 CPs), namely two technical courses and one general course.

Table 4: Electiveness in the Phytotherapy professional higher education study programme

	Joint compulsor	ry part	of the						
	prograi	nme		Elective p	Total				
	compulsory			internal	external				
Year	part	CPs	%	selection	selection	CPs	%	CPs	%
	joint								
	compulsory								
1.	courses	60	33.3	/	/	0	0	60	33.3
	joint								
	compulsory			elective					
2.	courses	54	30.0	elective course	course	6	3.3	60	33.3
	compulsory								
	courses with								
	practical								
	training and a								
	bachelor's				elective				
3.	thesis	48	26.7	elective course	course	12	6.7	60	33.3
	TOTAL:	162	90.0	_		12	10.0	180	100

The joint compulsory part of the programme comprises 162 CPs or 90%, while the elective part comprises 18 CPs or 10%. The student can take the elective courses at the parent institution or at another institution in Slovenia or abroad with which the faculty has concluded an agreement.

The student may decide to fulfil a part of the study requirements within the scope of mobility at a similar foreign institution with which the faculty has concluded a bilateral agreement.

### 5.4 Ratio between lectures, practical work and other forms of study

In developing the *Phytotherapy* professional higher education study programme, we have consistently followed the Criteria for Credit Assignment to Study Programmes According to ECTS.

<i>Table 5:</i> Proportion of	1 4	4: 11	1	: 1 <i>C</i> -	
Table of Proportion of	iectures, pr	'acticai work	and other o	organized to	rms of study
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	Theoretical education			Practical training						ECTS
	${f L}$	${f T}$	LW	ОТ	FW	$\mathbf{CT}$	osw	ISW	ASW	CPs
1st YEAR	450	110	75	30	70	0	735	765	1500	60
2nd YEAR	360	255	25	0	0	0	640	860	1500	60
3rd YEAR	265	120	95	0	0	160	640	820	1460	60
TOTAL	1075	485	195	30	70	160	2015	2445	4460	180
TOTAL IN										
%	24.10	10.87	4.37	0.67	1.57	3.59	45.18	54.82	100	
Total in										
hours	1755			260			2015	2445	4460	
Total in %	39.35			5.83			45.18	54.82	100	

The *Phytotherapy* professional higher education study programme encompasses **4460** hours. The theoretical part of the programme comprises 1755 hours or 39.35%, 24.10% of which are lectures, 10.87% are tutorials and 4.37% is laboratory work. Practical training comprises 30 hours of office tutorials, 70 hours of fieldwork and 160 hours of practical training. Individual student work has been allocated 2445 hours or 54.82% of the programme.

The annual student workload (ASW) includes *organized study work* implemented in the form of lectures, tutorials and laboratory work, office tutorials, fieldwork and clinical training; and *individual student work* (regular work, literature review, seminar papers, a project paper, a research paper, preparing for examinations and other forms of assessment, and preparing and defending the bachelor's thesis).

In three years, the student will presumably do 4460 hours of work (ASW) or 25 hours per 1 CP on average.

# 5.5 Practical education under the programme, implementation and credit assignment

In accordance with Article 33 of the Higher Education Act, practical education in a working environment is a compulsory part of a first-cycle study programme for attaining professional higher education.

Practical training is an organized part of the *Phytotherapy* first-cycle professional higher education study programme. The programme envisages 160 hours (4 weeks) of work in a phytotherapist's typical working environment, amounting to 8 credits or 3.59% of the study programme, and which will take place in a phytotherapist's typical work areas: on a farm engaged in the growing and processing of medicinal herbs, and at a pharmacy that sells products to customers and advises them.

Mentors are an important link in the chain of preparing students for later independent work. Prior to the start of the study process, the faculty organizes an Introductory Seminar for Practical Training Mentors, which qualifies future mentors for working with students. The seminar programme contains the following contents:

- A mentor's role, competencies, authorizations, tasks;
- A presentation of the *Phytotherapy* professional higher education study programme;
- A detailed presentation of the programme objectives and competencies;

- A presentation of documentation for students attending practical training (activity log, portfolio of forms to be used by the student in recording and evaluating the practical training activities);
- Grading students during practical training;
- An action protocol in the event of an unpleasant/dangerous/harmful event;
- Competencies developed by students during practical training.

The faculty continuously makes sure that its mentors are qualified. It carries out mentor training programmes at least once a year.

The practical training is organized entirely by the faculty. In cooperation with the placement coordinator (a higher education teacher employed at the faculty), the student will make contact with the institution where they will attend practical training. The student attends practical training under the guidance of a mentor with at least a higher education degree, who is qualified for mentoring. The mentor assigns work to the student based on the practical training curriculum. The mentor also informs, guides, leads, supervises and grades the student.

### 5.6 Parts of study programme

In accordance with Article 36 of the Higher Education Act, first- and second-cycle study programmes can be implemented in parts as specified in the programme. An individual part of the study programme denotes a complete thematic set of learning units from the study programme. Within the scope of the *Phytotherapy* first-cycle professional higher education study programme, the following part of the study programme has been defined: *Basics of Phytotherapy*.

# 5.6.1 Basics of Phytotherapy

Within the scope of the *Phytotherapy* first-cycle professional higher education study programme, the part of the study programme entitled *Basics of Phytotherapy* is being implemented. This part of the study programme comprises courses that empower the student for advising customers and working in a business environment, and qualifies students for a competent phytotherapy practice. Through the contents of the study programme, they gain knowledge of the applied botany of medicinal plants, phytotherapy, pharmacognosy, preparing phytotherapeutic concoctions, advising and working with customers, and the basics of business.

The *Basics of Phytotherapy* part of the study programme can be enrolled by students who meet the same enrolment conditions as specified for the *Phytotherapy* first-cycle professional higher education study programme.

With this part of the study programme, the student develops the following general competencies:

- Coherent mastery of the core knowledge; the ability to integrate knowledge from diverse areas and applications;
- Combining knowledge, skills, ethical values and behaviour for prudent, appropriate, safe and professional conduct during the implementation of the phytotherapy method;
- The ability to versatilely and systematically adapt a person's treatment based on the relevant physical, mental, social, cultural, psychological, spiritual and societal factors;
- Being qualified for safe and efficient organization, implementation and evaluation of their own work using methodological tools;
- The ability to effectively pass on theoretical knowledge and skills to service users;

- Being qualified for protecting health and the environment, for their own safety, and for the safety of others;
- Cooperation, working in a team with other healthcare professionals;
- Understanding the general structure of the core discipline (science) and its association with other disciplines;
- Understanding and applying the methods of critical analysis and theory development, and their application to solving concrete work problems;
- Using information and communication technology and systems in the professional field;
- Being qualified for oral and written communication in the professional field;
- A responsible attitude towards personal and business data;
- The ability to recognize and use technical terminology;
- Analysing the results of one's work;
- A responsible attitude towards their own professional development.

With this part of the study programme, the student acquires the following course-specific competencies:

- Professional and theoretical qualification in the field of the applied botany of medicinal plants, which is required for quality organization and operation, and for a professional phytotherapy practice;
- Knowledge of the basics of the systematics and taxonomy of plants and select fungi;
- Gaining systematic knowledge of medicinal, edible and poisonous plants with an emphasis on usability;
- Understanding the basic physiological processes of plants and their ecological characteristics and demands;
- Identifying plants at natural sites based on their morphological properties in various stages of growth and development;
- Knowledge of the basic principles of growing, picking and processing medicinal and edible plants;
- Knowledge of the nature-conservation aspects of protecting endangered plant species in theory and in practice;
- Qualification for solving specific expert problems pertaining to the applied botany of medicinal plants;
- Gaining systematic knowledge of medicinal plants, their metabolites and therapeutic application;
- Overview of the spectrum of different phytotherapy methods and of the uses of medicinal plants for treating, alleviating and preventing various diseases and medical problems;
- Gaining systematic knowledge of medicinal plants, their metabolites and their therapeutic application;
- Development of communication abilities and skills in a professional environment (domestic and international);
- Being qualified for oral and written communication in the professional field;
- Sensitivity/openness to people and social situations, and development of communication skills for the domestic and international environment;
- Becoming qualified for effective communication with customers and social groups in a normal and specific communication environment/atmosphere;
- Cooperation with stakeholders (suppliers, buyers, competition, politics, etc.).

In part of the study programme *Basics of Phytotherapy* can enrol:

- All who have passed the *matura* examination or the vocational *matura* examination;
- All who have passed the leaving examination under any four-year secondary school programme;
- All who have passed the leaving examination under any four-year secondary school programme prior to 1 June 1995.

The syllabus of the *Basics of Phytotherapy* part of the study programme, which contains a selection of courses from the *Phytotherapy* first-cycle professional higher education study programme, comprises 58 ECTS credits. It consists of six courses, which are distributed across all three years of the *Phytotherapy* study programme and are horizontally and vertically complemented and upgraded, practical training, and the final paper.

This part of the study programme comprises 1435 hours or 58 ECTS credits, namely 715 hours of organized study work and 720 hours of individual student work. One ECTS credit is to be awarded for 25 hours of organized and individual student work.

*Table 6*: Syllabus of the *Basics of Phytotherapy* part of the study programme

			OSW				
Seq. No.	Learning unit	$oldsymbol{L}$	T	OSW	ISW	TSW	CPs
1.	Applied Botany of Medicinal Plants	60	90	150	150	300	12
2.	Phytotherapy	60	90	150	150	300	12
3.	Pharmacognosy	60	90	150	150	300	12
4.	Preparation and Application of Phytotherapeutic Concoctions	40	60	100	100	200	8
5.	Advising and Working with Customers	30	15	45	55	100	4
6.	Basics of Business	45	15	60	40	100	4
7.	Practical training		60	60		60	3
8.	Final paper				75	75	3
	TOTAL	295	420	715	720	1435	58

# Legend:

Study requirements: L = lectures, T = tutorials, OSW = organized study work, ISW = individual student work, TSW = total student workload, CPs = credit points.

The student's obligations are:

- Active attendance in lectures and tutorials;
- Preparation, presentation and defence of research papers;
- Written and/or oral examinations;
- Successfully completed practical training;
- Preparation and defence of final paper.

Knowledge assessment and grading have been designed so as to provide the students with constant and quality information on their progression and on the attainment of the set competencies/objectives. The programme demands constant work from the students, which is why knowledge assessment is diagnostic and formative. It is carried out during the implementation and after the completion of individual courses. The students shall be informed of the assessment elements and of the grading criteria orally at the beginning of the programme, and in writing with the curriculum for each course.

The planned methods of assessment and grading are: examinations, seminar papers, oral presentations, tutorials, laboratory work, fieldwork, a portfolio, a written report on practical training, defence of the final paper. The grading procedure will comply with the *ECTS grading scale*.

The student completes the *Basics of Phytotherapy* part of the study programme, which contains a selection of courses from the *Phytotherapy* first-cycle professional higher education study programme, after successfully fulfilling all the proposed requirements in the scope of 58 CPs, for which the student shall receive a certificate, i.e. an authentic instrument (in compliance with paragraph four of Article 32a of the Higher Education Act).

# 6 ENROLMENT CONDITIONS AND SELECTION CRITERIA IN THE EVENT OF LIMITED ENROLMENT

#### 6.1 Enrolment conditions

Pursuant to Article 38 of the Higher Education Act, the following can enrol in the *first year* of the *Phytotherapy* first-cycle professional higher education study programme:

- All who have passed the *matura* examination or the vocational *matura* examination;
- All who have passed the leaving examination under any four-year secondary school programme;
- All who have passed the leaving examination under any four-year secondary school programme prior to 1 June 1995.

### 6.2 Selection criteria in the event of limited enrolment

In the event of limited enrolment, the candidates will be selected based on:

a) Overall results of the <i>matura</i> examination, the vocational <i>matura</i>	up to 60% of
examination or the leaving examination	the points;
b) Overall academic achievement in the 3rd and 4th year	up to 40% of the points.

When selecting candidates for enrolment, we consider their overall results of the *matura* examination, the vocational *matura* examination or the leaving examination, and their overall academic achievement in the third and fourth year of secondary school.

# 7 CRITERIA FOR RECOGNIZING KNOWLEDGE AND SKILLS ACQUIRED PRIOR TO ENROLMENT IN THE PROGRAMME

The higher education institution recognizes the candidates' knowledge and qualifications acquired prior to enrolment if their contents and level of difficulty match the general or course-specific competencies of the *Phytotherapy* first-cycle professional higher education study programme, either fully or partially. The knowledge and qualifications acquired through formal, non-formal and experiential learning shall be recognized. The number of credits shall be recognized based on the candidates' individual applications and the documentation submitted.

The knowledge acquired in this manner can be recognized by the faculty based on:

- School-leaving certificates and other certificates of knowledge acquired outside the higher education sector (a portfolio, certificates of completing courses and other forms of further education);
- Grading the products, services, publications and other works authored by the candidates;
- Assessment and grading of the knowledge acquired by the candidate through prior self-education or experiential learning (possibility of fulfilling study requirements – e.g. examinations, preliminary examinations – without attending lectures, tutorials or seminars);
- Specific parts of requirements (e.g. project papers, programmes, tutorials) based on the knowledge demonstrated by works authored by the candidates (e.g. project work, inventions, patents, publications);
- Relevant work experience.

Individual documented applications of candidates for the recognition of knowledge acquired prior to enrolment shall be examined by a competent commission in accordance with the procedures and rules on the recognition of examinations and other study requirements, and on the recognition of previously acquired knowledge.

A student can request knowledge assessment and grading if the knowledge was acquired through self-education or experiential learning.

The same criteria shall apply to the recognition of knowledge acquired abroad.

#### 8 ASSESSMENT AND GRADING

Knowledge assessment has been designed so as to provide higher education teachers and students with regular and quality information on progression and on the attainment of the competencies/objectives set forth in the study programme. The study programme demands constant work from the students, which is why knowledge assessment is diagnostic, formative and summative. It is carried out prior to and during the implementation, and after the completion of individual courses.

The knowledge grading and assessment methods are set forth in the curricula of individual courses and have been adapted to the assessment of the objectives attained in each course, to the envisaged study achievements, and to the development of general and course-specific competencies.

Owing to diverse methods of learning and teaching, and to ensure validity, reliability and objectivity, higher education teachers use different combinations of knowledge assessment and grading methods in individual courses.

Grading encompasses all the taxonomy areas and all the taxonomy levels; we are also interested in the quality structure and organization of knowledge.

The student shall be informed of the assessment elements and of the grading criteria orally at the beginning of the academic year and/or in writing with the curriculum.

The planned methods of assessment and grading are: examinations, partial examinations, preliminary examinations, seminar/project papers, oral presentations, laboratory work, fieldwork, a portfolio, a written report on practical training, defence of the bachelor's thesis. The above-mentioned knowledge assessment and grading methods shall be carried out individually.

The fulfilled requirements shall be graded in accordance with the Rules on Knowledge Assessment and Grading at the University of Novo mesto, Faculty of Health Sciences, with grades from 1 to 10. *Practical training* shall be graded as *successful* or *unsuccessful*.

Table 7: Grading scale

Grade		ECTS grade		Criterion in %	Knowledge description			
10	excellent	A	excellent	95% - 100%	exceptional results with negligible mistakes			
9	very good	В	very good	85% - 94%	above-average knowledge but with some mistakes			
8	very good	C	good	71% - 84%	good knowledge			
7	good	D	satisfactory	61% - 70%	knowledge with minor mistakes			
6	sufficient	E	sufficient	55% - 60%	knowledge meets minimum criteria			
5-1	insufficient	F	fail	0% - 54%	knowledge does not meet minimum criteria			
*	successful	P	successful		knowledge meets criteria			
*	unsuccessfu l	F	unsuccessful		knowledge does not meet minimum criteria			

As a rule, the teacher involves an individual student or group of students in the grading process, encouraging the students to critically evaluate their independent work, their contribution to the joint product, and to evaluate the work of their peers.

The assessment and grading methods, and the criteria for the final grade can be discerned from each curriculum. Each teacher shall familiarize the students with the course's implementation plan and with the study requirements, or with the proportions contributed to the final grade by individual elements of the assessment and grading of knowledge and skills.

# 9 CONDITIONS FOR PROGRESSION THROUGH THE PROGRAMME

A student can enrol in a higher year if all the requirements set forth in the study programme for enrolment in a higher year have been fulfilled prior to the end of the academic year.

All who have fulfilled the first-year requirements in the minimum scope of 50 CPs and have done all the practical work envisaged by the programme shall progress to the **second year**.

All who have fulfilled the first-year requirements (60 CPs), have acquired at least 50 CPs from the second-year requirements, and have done all the practical work envisaged by the programme shall progress to the *third year*.

**Enrolment in a higher year with unfulfilled requirements** A student can enrol in a higher year without attaining the required credits in the cases and under the conditions laid down in the faculty's statute.

Based on their study achievements, students can complete their studies in a shorter time than envisaged in the study programme.

### 10 PROVISIONS ON TRANSFERS BETWEEN PROGRAMMES

A transfer to the *Phytotherapy* first-cycle professional higher education study programme is possible in compliance with the Criteria for Transferring between Study Programmes (Ur. l. RS, No. 14/19). Individual applications shall be examined by a competent commission. All applications shall be decided on a case-by-case basis.

The following *types of transfers* are possible:

- 1. Between study programmes of the same cycle;
- 2. Between short-cycle higher education study programmes and first-cycle study programmes.

Transfers are possible between study programmes that provide the following *conditions*:

- Upon the completion of studies, they provide the *acquisition of comparable competencies* and,
- in compliance with the recognition criteria, at least half of the requirements can be recognized under the European Credit Transfer and Accumulation System (hereinafter: ECTS) from the first study programme relating to the compulsory courses of the second study programme.

Depending on the scope of requirements recognized from the first study programme in the Republic of Slovenia or abroad, the student can enrol in the same or higher year of the second study programme.

In the case of a transfer, the following can be recognized:

- Comparable study requirements fulfilled by the student under the first study programme;
- Previously acquired knowledge demonstrated by the student with the relevant documents.

In accordance with the Criteria for Transfers and Recognition of Fulfilled Study Requirements, students can enrol in a higher year of the second study programme if the recognition procedure arising from the transfer recognizes at least as many credits and the exact credits that are a condition for enrolment in the higher year of a state-approved study programme.

# 11 MODES AND FORMS OF IMPLEMENTATION OF STUDIES

At the University of Novo mesto, Faculty of Health Sciences, the *Phytotherapy* first-cycle professional higher education study programme is being implemented as a part-time study. The study is being implemented in compliance with the applicable norms according to the academic calendar. As a rule, one year of study is implemented within one academic year.

Remote study (e-study) or a combined form of study: We are not planning this form of study. The nature of the field of study requires direct work with students. The decision of the senate will exceptionally determine the form of distance learning for individual study units or parts of study units of the program.

#### 12 CONDITIONS FOR COMPLETION OF STUDIES

A condition for the completion of studies is successful fulfilment of all the study requirements prescribed by the programme in the amount of 180 CPs.

If a student has enrolled in the *Phytotherapy* first-cycle professional higher education study programme according to the transfer criteria, the student must fulfil all the study requirements prescribed by the programme and collect at least 60 CPs. The student can transfer the rest of the credits required (up to 120 CPs) from other educational institutions; can gain them through mobility at home and abroad; or can gain them by being recognized the knowledge and skills acquired prior to enrolment in the *Phytotherapy* first-cycle professional higher education study programme.

#### 13 CONDITIONS FOR COMPLETION OF A PART OF THE STUDY PROGRAMME

A condition for the completion of the *Basics of Phytotherapy* part of the study programme is the fulfilment of all the requirements prescribed by the programme in the amount of 58 CPs.

### 14 PROFESSIONAL TITLE

After the completion of studies, the student is awarded the following professional title in accordance with the Professional and Academic Titles Act:

- in the case of a female graduate diplomirana fitoterapevtka (VS), abbreviated dipl. fitot. (VS);
- in the case of a male graduate *diplomirani fitoterapevt (VS)*, abbreviated *dipl. fitot. (VS)*.

Pursuant to Article 32 of the Higher Education Act and the provisions of the Diploma Supplement Rules, the University of Novo mesto, Faculty of Health Sciences, shall issue a Diploma Supplement to the graduates of the *Phytotherapy* first-cycle professional higher education study programme.

Marjan Blažič, PhD, Acad. Prof., Rector

