

BORYS GRINCHENKO KYIV UNIVERSITY

"APPROVED"

the decision of the Academic Council of
Borys Grinchenko Kyiv University
May 25, 2017, Minutes No. 5

ACADEMIC PROFESSIONAL PROGRAM

227.00.02 Physical therapy, ergotherapy
the first (bachelor's) degree of higher education

Branch of knowledge:	22 Health care
Specialty:	227 Physical therapy, ergotherapy
Qualification:	Bachelor in Physiotherapy, ergotherapy

Launched on 01. 09 2017
(order from 26. 05. 2017 p. № 348)

Kyiv-2017

Introduction

The academic professional program was developed on the basis of the Standard of higher education project for the first (Bachelor) level. Branch of knowledge: 22 Health care. Specialty: 227 Physical therapy, ergotherapy

Developed by a working group including:

O. Bismak, Candidate of Sciences in Physical education and Sports, Associate Professor, Head of the Department of Physical Rehabilitation and Bio-kinesiology of the Faculty of Health, Physical Education and Sports (head of the project team);

T. Segeda, Doctor of Biological Sciences, Senior Researcher, Professor of the Department of Physical Rehabilitation and Bio-kinesiology of the Faculty of Health, Physical Education and Sports

V. Ryzhkovskiy, Candidate of Medical Sciences, Associate Professor, Assistant Professor of the Department of Physical Rehabilitation and Bio-kinesiology of the Faculty of Health, Physical Education and Sports.

Independent experts:

I. Roi - Head of the Rehabilitation Department of the DU “Institute of Traumatology and Orthopedics of the National Academy of Medical Sciences of Ukraine”, Doctor of Medical Sciences, Professor

O. Nikanorov - Professor of the Department of Physical Rehabilitation in the National University of Physical Education and Sports of Ukraine, Doctor of Physical Education and Sports, Associate Professor

Reviews of professional associations / employers:

N. Buchinsky - Head of the Department of Restorative Treatment and Physiotherapy of the MOCEADC of Shevchenkivskiy district of Kyiv

The Educational Programme has been introduced since 2017.

The term of the Educational Programme is reviewed every five years.

Updated:

Date of revision of AP / amendments to AP			
Signature			
AP guarantor name			

I.**Profile of the Academic Program**

Specialty: 227 Physical therapy, ergotherapy

1 – General Information	
Full name of the higher educational institution and the structural unit	Borys Grinchenko Kyiv University, Ukraine Faculty of Health, Physical Education and Sports
Level of the higher education and the qualification (in original language)	Level of the higher education (bachelor) Specialty: 227 Physical therapy, ergotherapy Educational programme : 227.00.02 «Physical therapy, ergotherapy» Educational qualification: Bachelor in Physical therapy, ergotherapy
Official title of Educational Program	227.00.02 «Physical therapy, ergotherapy»
Type of diploma and volume of Educational Program	Bachelor`s degree, unitary, 240 credits ECTS / terms of study 3 years 10 months
Availability of Accreditation	National Agency for Quality Assurance in Higher Education Ukraine Application deadline for accreditation – 2021
Cycle / Level	National Qualifications Framework of Ukraine - 7th level FQ-EHEA - first cycle, EQF-LLL - 6th level
Prerequisites	Availability of full secondary education
Language (s) of Teaching	Ukrainian
Validity of Educational Programs	4 years
Internet address of the Educational program	http://kubg.edu.ua
2 - The Program Objectives	
The aim of the Programme is to train qualified and competitive specialist (who deals with physical rehabilitation) and would be capable of solving complicated specialized tasks and practical problems in the process of professional activity in physical therapy and ergotherapy, with wide access to future employment.	
3 - Characteristics of the Program	
Subject area (branch of knowledge, specialty, specialization)	Branch of knowledge: 22 Health care Specialty: 227 Physical therapy, ergotherapy Block of medical and biological subjects / block of professional rehabilitation subjects (34/66) Research Objects and Activities - complex disorders of motor function and human activity, their correction to restore fully-functional lifestyle in accordance with people`s desires and needs in the environmental, social and cultural sphere. Educational Objectives (expected application of acquired competencies) - application of acquired competencies for the

	<p>development and implementation of preventive and rehabilitation strategies, also to the design, implementation and improvement of an individual physical therapy plan, ergotherapy in order to improve health, functional capacity, adaptation to surrounding conditions, increase of motor activity level for adults with different possibilities; preparation for research related to issues of professional identity and competence.</p> <p>Theoretical content of the subject area - knowledge of theoretical, medical and biological subjects and special subjects of professional and practical training, which are necessary for solving complex professional applied, educational and research tasks.</p> <p>The methods, techniques and technologies student must master for practical application: review, rehabilitation examination and testing of patient's basic functional capabilities; data processing; planning of rehabilitation measures; application of strategies of physical therapy, methods, means and techniques aimed at disease prevention, improvement of health, restoration of motor patient / client functions; verbal and nonverbal communication; professional competences and responsibilities; ethical norms; provision of pre-medical assistance.</p> <p>Equipment – devices and equipment for rehabilitation examination and testing of motor functions of the patient / client; instruments and equipment for rehabilitation measures; devices and equipment for control of the basic vital indicators of the patient; additional technical devices and self-service aid.</p>
The Program data	The Educational Program data
The main focus of the Program and Specialization	<p>Special education in the field 22 - Health care, specialty 227 Physical therapy, ergotherapy</p> <p>Key words: physical therapy, ergotherapy, rehabilitation</p>
Important features of the Program	Only full-time training
4 – Eligibility of graduates for employment and further education	
Employment eligibility	<p>Workings places in medical institutions, rehabilitation centers, social protection institutions, sports training centers, sports teams.</p> <p>According to the National Classifier of Occupational DK 003: 2010 (amendment No. 5, Order of the Ministry of Economic Development and Trade of Ukraine dated August 10, 2016 No. 1328 "On Approval of the Amendment No. 5 to the National Classifier DK 003: 2010"), specialists who have received education by the educational and professional program "Physical therapy, ergotherapy "can occupy the following primary positions:</p> <p>2229.2 Ergotherapist 2229.2 Physical Therapist</p>
Further education	Continuing education at the second level (Master`s degree) of higher education
5 – Teaching and education	
Teaching and education	Student-driven education is organized in accordance with democratic principles of teaching and personally oriented, active and creative approaches to educational process. Teaching is conducted in the form of lectures, seminars, practical assignment.

Assessment	Intermediate and final examinations; written and oral examinations, credits, practical reports, tests, course-papers, bachelor`s research paper, state exam
6 – Program competencies	
Integrated competency	Ability to solve complex specialized problems and practical issues connected with violations of motor function of organs and systems, primarily muscular-skeletal system, nervous and cardio respiratory systems with the application of the practices, theories and methods of fundamental, medical and clinical sciences, physical culture in conditions of complexity and uncertainty.
Professional competences of the specialty (PC)	<p>PC-1 Research-analytical. The ability to predict the state of individual and public health, to analyze health as a system category, to identify promising ways of managing health, to have knowledge of innovative approaches to increasing the reserve capacity of the human body.</p> <p>Ability to use basic knowledge about the structure and functions of the human body as a whole and its individual organs and systems of organs, knowledge about the chemical bases of human life, their changes during muscle activity, on the functions of the human body and mechanisms homeostasis, about the main environmental factors that affect onto human health during professional training.</p> <p>Ability to conduct scientific research on professional issues, Realize preparatory work on scientific research, use effective methods of research in physical rehabilitation.</p> <p>PC-2 Prognostic. Ability to establish rehabilitation diagnosis, conduct patient examination and determine the means of physical rehabilitation for various diseases and injuries. Ability to identify prospective ways of using physical means of rehabilitation, to program physical rehabilitation lessons, to develop and substantiate physical rehabilitation programs at different nosologies, depending on age, sex, peculiarities of disease progression, physical preparedness.</p> <p>PC-3 Technologically rehabilitational. Ability to determine effective approaches to choosing the necessary method of using physical exercises with medical purpose, to realize the peculiarities of the use of physical rehabilitation facilities for various diseases and injuries.</p> <p>Ability to perform classical and sports massage, understand forms, different types and classification of classical and sport massage.</p> <p>Ability to provide pre-care in life-threatening conditions: to provide pre-care during sudden cardiovascular diseases, injuries of the loco-motorics, during bleeding.</p> <p>PC-4 Organizational. Ability to use the latest rehabilitation technologies and modern diagnostic systems in professional realm.</p> <p>Ability to use organizational skills towards functioning of physical rehabilitation organizations, to organize healthy lifestyle services, centers for physical rehabilitation by the place of residence, rest and work of citizens.</p>

7 - Program Results

- PR-1** Ability to demonstrate knowledge of basic ethic concepts, the theory of state and law, the structure of the national legal system, understanding of ethical norms and leading branches of the law of Ukraine, to have knowledge about key legal documents in health care field.
- PR-2** Ability to realize the rights and obligations of a citizen of Ukraine. Ability to make conscious social choice and apply democratic decision-making technologies, respect the Ukrainian people, state of Ukraine, its symbolism, culture, language, readiness to act with social responsibility and public consciousness.
- PR-3** Ability to demonstrate communicative skills in native and foreign languages in a professional realm, to adhere to the ethics of business communication, ethical norms and norms of social behaviour, knowledge of professional discourse, terminology of their specialty, sources of replenishment of the vocabulary of modern Ukrainian literary language.
- PR-4** Implementing knowledge and professional skills for providing high-quality performances on the basis of instructions, methodological recommendations, entitlements, criteria, etc., ability to make recommendations for innovative quality requirements.
- PR-5** Achieve self-professional leadership and success. Ability to ensure the organization of the students activities, athletes and their management; ability to solve educational tasks.
- PR-6** Mastering professional skills to apply modern methods of identifying individual and public health, knowledge about personal and social principles of preservation and strengthening of individual health.
- PR-7** Ability to demonstrate knowledge about the correct using of human motor activity during leisure activities for the preservation and health strengthening.
- PR-8** Ability to apply knowledge about the programming principles of physical rehabilitation classes and the ability to program physical rehabilitation classes.
- PR-9** Ability to demonstrate knowledge about conceptual characteristics of "rehabilitation", "types of rehabilitation" and "complex therapy", to show knowledge of the clinical and physiological effects of physical exercises onto human body.
- PR-10** Ability to adhere to a certain algorithm of actions during the medical gymnastics act, taking into account the pathology, diagnosis, period and course of the disease.
- PR-11** Ability to demonstrate integrated knowledge and skills of physical rehabilitation for further training by appropriate professional direction.
- PR-12** Ability to apply knowledge about technologies which is used for assessing the level of human activity.
- PR-13** Carrying out knowledge, which is related with pragmatically methods of coping with scientific information from special literary sources and the Internet, ability to design scientific work, to identify the problem, hypothesis, purpose, task,

object and subject of research, to formulate working plan of theoretical and experimental research.

PR-14 Ability to operate with knowledge of the basic provisions of qualimetry, ability to use survey and questioning methods, ability to use the expert judgment method.

PR-15 Mastering professionalism of providing recommendations towards the prevention and elimination the consequences which are caused by psycho-emotional stress, To show the competent awareness about basic principles of medical activity of a person for the prevention of non-communicable diseases, features of complex interaction of various components onto healthy lifestyle.

PR-16 Ability to demonstrate basic and auxiliary massage techniques, taking into account the body and client's individual characteristics, the ability to perform self-massage and give advice to another person in regards to it realization Ability to use sport massage techniques taking into account the stage of sports training, loading conditions, the functional state of the athlete.

PR-17 Ability to apply knowledge about causes and symptoms of hypertonic and ischemic illness, myocardial infarction and stroke. Ability to use the method of providing pre-treatment during sudden cardiovascular diseases.

PR-18 Applying knowledge about causes and symptoms of trauma during motor activity, to shoe the level of awareness of traumatic shock characteristics, its course, main features, types and signs of bone fractures. Ability to perform transport immobilization onto damaged bones. Ability to use the technique of pre-treatment in case of neck, spine, chest, limbs injuries.

PR-19 Ability to demonstrate knowledge about peculiarities which are related to different types of wounds (cut, stab-wound, bullet-wound, etc.), knowledge about types of bleeding and their consequences, mastery of the method of pre-care during external and internal bleeding.

PR-20 Implementation basic knowledge of ergotherapy in everyday practice, use modern knowledge of basic biomedical and social sciences at practice; use modern models and approaches that are used in ergotherapeutic practice.

PR-21 Ability to demonstrate awareness in the physical, social, cultural, institutional and economic realm in accordance with the nature of practice: to understand the impact of physical, social, cultural, institutional and economic factors that are relevant to practical activity; to adapt the services of ergotherapy to reflect the patient-centric approach associated with the physical, social, cultural, institutional and economic environment.

PR-22 Develop client-centered plan with patient, members of multidisciplinary team, and other involved parties: integrate patient / client needs and wishes that are related to all aspects of planning; Identify priority of occupational problems and possible pragmatic goals of the client; to analyze physical, cultural, social, and institutional

	<p>environmental factors, which can react upon professional activity and participation; to analyze and propose options for enhancing the inclusiveness and availability of the customer environment; to develop realistic, measurable, understandable, and purposeful results that are coordinated with the personal life goals and values; ability to plan the necessary services, taking into consideration the limitations and necessary service delivery, which considers it restricts the limits or limitations of the facility; to readdress with additional services if it is necessary.</p> <p>PR-23 Ability to demonstrate knowledge of the spatial organization (which is cooperate with various organizations) in the realm of physical rehabilitation. Ability to use organizational techniques (to organize a working place). Ability to organize clients' reception, to place informative materials, messages, etc. To be awareness about protocol and ethics, business style, availability of rules that deals with cleanliness provision.</p>
<p>8 – Resource support for the Programme Implementation</p>	
<p>Staff support</p>	<p>Staff assistance consists of the teaching staff of the Faculty of Health, Physical Education and Sports, the Institute of Philology, the Faculty of History and Philosophy.</p>
<p>Resources and technical support</p>	<p>Students' training (for the educational program) is conducted in the Faculty of Health, Physical Education and Sports, which is located at a separate educational building on the Tymoshenko, 13-B street. The notified building represents one of the most modern buildings of educational direction. This building includes a lot of rooms - 60 lecture halls, among them: 2 lecture amphitheatres; 15 are equipped with SMART boards, which allows teachers to widely use interactive and multimedia learning tools; medical and biological centers of competencies; a massage room; 12 computer classes, two of them are equipped with modern lingua-phone tools. All workplaces in computer classes have access to internet. The premises have Wi-Fi zones.</p> <p>Medical and biological competence center is actively used for conducting physical rehabilitation classes, physical therapy cabinet, a massage room, a sports complex which includes three sports halls (sports-games area, gymnastic hall and a gym) and a 25 m long swimming pool.</p>

Information and educational support	<p>Teaching complexes and methodological support have been developed for all subjects, including on-line support. The Moodle distance learning system is used to expand access to quality education. E-learning courses are created, aimed at individual learning of students by educational material under the direction of a teacher.</p> <p>E-learning courses are aimed at students' individual working with educational materials under teachers' supervision. Given curriculum offers different subjects, complete with seminars' outlines and practical classes, tasks for laboratory work; methodological materials for conducting seminars and practical classes, writing course papers; didactic aid of students' independent work (including using ICT); lists of recommended literature (basic and supplementary); packages of complex tests; cross-curriculum of practice, all types of practice programs; methodological support of attestation; criteria for assessing the knowledge and skills of students have been developed. University key subdivision for information is the library which is a modern informational, communicational and resource center. University Library Fund counts 329218 copies by 01.10.2017. The fundamentals cover various branches of knowledge grouped by institutes and faculties.</p> <p>The Faculty of Health, Physical Education and Sports, with qualified skilled workers supporting this educational program;</p> <p>Central Library, with a total library fund of 11,246 copies. Reading hall affords 103 seats, 19 of them are computerized and connected to the Internet.</p>
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9 – Academic Mobility	
National credit mobility	—
International credit mobility	<p>The Regulating procedures for implementing academic mobility right through educational process in the University came into effect on September 30, 2016. Agreements with universities of European countries provide student mobility, mainly within the framework of the Erasmus + and KA1 program. Among them are the University of Vilnius (Lithuania), the University of Constantine the Philosopher in Nitra (Slovakia), the University of Extremadura (Spain), the Silesian University in Katowice (Poland), the Jan Długosz Academy in Częstochowa (Poland), the University of Ostrava (Czech Republic), the University of Paris Sorbonne (France), University of Lisboa (Portugal) and others.</p>
Foreign students education `	—

II. List of the Program components and its Logical Sequence

2.1. List of components

Component code	Code e/d	Components of the Programme (Subjects, course projects (papers), practice, qualification paper)	Amount of credits	Form of final control
1	2	3	4	5
Compulsory components				
CC 1	CSG.1	University studies	4	credit
CC 2	CSG.2	Ukrainian studies	6	exam
CC 3	CSG.3	Philosophical studies	4	Exam
CC 4	CSG.4	Foreign language	10	Exam
CC 5	CSG.5	Physical education	4	Credit
CC 6	CSP.01	General anatomy	8	Exam
CC 7	CSP.02	General physiology and age-physiology	6	Exam
CC 8	CSP.03	Pathological anatomy and physiology (in major)	6	Exam
CC 9	CSP.04	Medical knowledge basics	4	Credit
CC 10	CSP.05	Medical law and deontology	4	Credit
CC 11	CSP.06	Latin language and medical terminology	4	Exam
CC 12	CSP.07	Physiology of motor activity	4	Exam
CC 13	CSP.08	First Aid basics	4	Credit
CC 14	CSP.09	Physical therapy fundamentals	4	Exam
CC 15	CSP.10	Research methods in physical therapy	4	Credit
CC 16	CSP.11	Biomechanics and clinical kinesiology	4	Exam
CC 17	CSP.12	Biochemistry of motor activity	4	Credit
CC 18	CSP.13	Instrumental methods of functional diagnostics and treatment	4	Exam
CC 19	CSP.14	Rehabilitation institutions activity organization	4	Credit
CC 20	CSP.15	Internal and surgical diseases (in major)	4	Exam
CC 21	CSP.16	Recovery treatment of internal organs diseases and surgical diseases	6	Exam
CC 22	CSP.17	Traumatology and Orthopedics	4	Exam
CC 23	CSP.18	Neurology and Neurosurgery (in major)	4	Exam
CC 24	CSP.19	Therapeutic massage	4	Credit
CC 25	CSP.20	Recovery treatment of musculoskeletal system violations	8	Exam
CC 26	CSP.21	Recovery treatment of nervous system diseases and injuries	8	Exam
CC 27	CSP.22	Clinical rehabilitational management under different nosologies	4	Credit
CC 28	CSP.23	Models of rehabilitation services (based on international functioning classification)	4	Credit
CC 29	CSP.24	Course work CSP.16	1	
CC 30	CP.01	Educational practice	3	Credit
CC 31	CP.02	Academic(clinical) practice	6	Credit
CC 32	CP.03	Academic (clinical/ full time) practice	24	Credit
CC 33	CP.04	Pre-diploma practice	4,5	Credit
CC 34	CA.1	Complex exam	2	
CC 35	CA.2	Bachelor`s paper defense	1,5	
Total amount of compulsory components			180	
Elective components				
<i>Elective block 1 «Kinesiology»</i>				
EC 1.1	ESC.1.1	Psychological basics of physical therapy	4	credit

EC 1.2	ESC.1.2	Preformed physical factors studies	4	credit
EC 1.3	ESC.1.3	Therapeutic exercises	4	credit
EC 1.4	ESC.1.4	Kinesiological taping	4	credit
EC 1.5	ESC.1.5	Rehabilitation massage	4	credit
EC 1.6	ESC.1.6	Sports medicine	5	exam
EC 1.7	ESC.1.7	Sports traumatology	4	exam
EC 1.8	ESC.1.8	Non-traditional rehabilitational methods	4	credit
EC 1.9	ESC.1.9	Insurance, transportation and positioning in physical therapy	4	credit
EC 1.10	EP.1.1	Special academic	3	credit
<i>Elective block 2 «Ergonomics»</i>				
EC 2.1	ESC.2.1	Ergotherapy basics	4	credit
EC 2.2	ESC.2.2	Correctional pedagogy basics	4	credit
EC 2.3	ESC.2.3	Social work basics	4	credit
EC 2.4	ESC.2.4	Logopedics and defectology basics	4	credit
EC 2.5	ESC.2.5	Social psychology and labor psychology	4	credit
EC 2.6	ESC.2.6	Homecare for ill and disabled people	5	exam
EC 2.7	ESC.2.7	Creation of positive environment for ill and disabled people	4	exam
EC 2.8	ESC.2.8	Basics of management, marketing and administration in ergotherapy	4	credit
EC 2.9	ESC.2.9	Technical facilities in ergotherapy	4	credit
EC 2.10	EP.2.1	Special academic	3	credit
Total amount of elective components			60	
PROGRAM TOTAL			240	

I Year		II Year		III Year		IV Year	
1 semester	2 semester	3 semester	4 semester	5 semester	6 semester	7 semester	8 semester
University studies (4)		First aid basics (4)	Research methods in physical therapy	Biochemistry of motor activity (4)	Traumatology and Orthopedics) (in major) (4)	Neurology and Neurosurgery (in major) (4)	Recovery treatment of internal organs diseases and surgical diseases (8)
Ukrainian studies (2+4)			Instrumental methods of functional diagnostics and treatment (4)	Internal and surgical diseases (in major) (4)			
Foreign language (6+4)					Physical therapy fundamentals (4)		Recovery treatment of musculoskeletal system violations (8)
Physical education (2+2)		Biomechanics and clinical kinesiology (4)	Rehabilitation institutions activity organization (4)	Recovery treatment of internal organs diseases and surgical diseases (3+3)		Clinical rehabilitational management under different nosologies (2+2)	
General anatomy (8)	General physiology and age-physiology (6)		Models of rehabilitation services (based on international functioning classification) (4)	Therapeutic massage (4)	Sports traumatology (2+2)		
Medical knowledge basics (4)	Pathological anatomy and physiology (in major) (6)			Sports medicine (5)	Non-traditional rehabilitational methods (4)		
					Insurance, transportation and positioning in physical therapy (2+2)		

Latin language and medical terminology (4)	Medical law and deontology (4)	Psychological basics of physical therapy (4)	Kinesiological taping (4)		Creation of positive environment for ill and disabled people (2+2)	
	Physiology of					

	motor activity (4)	Preformed physical factors studies (4)	Rehabilitation massage (2+2)		Basics of management, marketing and administration in ergotherapy (2+2)		
					Technical facilities in ergotherapy (4)		
		Therapeutic exercises (4)	Logopedics and defectology basics (2+2)		Special academic (3)	Academic (clinical/ full time) practice (12+12)	
		Ergotherapy basics (4)	Social psychology and labor psychology (4)	Homecare for ill and disabled people (5)	Special academic (3)		Pre-diploma practice (4,5)
		Correctional pedagogy basics (4)					
		Social work basics (4)					Bachelor`s paper defense (1, 5)
Total credits: 30	Total credits: 30	Total credits: 30	Total credits: 30	Total credits: 30	Total credits: 30	Total credits: 30	Whole credits: 30

 - **Compulsory subjects;**
(specialisation «Ergonomics»)

 - **Elective subjects (specialisation «Kinesiology»);**

 - **Compulsory subjects**

III. Certification of graduates

Educational Program graduates' attestation majoring in 227 Physical therapy, ergotherapy is conducted in a form of "Крок-1ФР" national exam and bachelor's paper defense. Graduates receive standardized BA Diploma with the qualification - Bachelor of Physical therapy and Ergotherapy. Attestation of graduates is open and public.

IV. Matrix of competencies according to the Program

Marks of program competencies and educational components	CC 1	CC 2	CC 3	CC 4	CC 5	CC 6	CC 7	CC 8	CC 9	CC 10	CC 11	CC 12	CC 13	CC 14	CC 15	CC 16	CC 17	CC 18	CC 19	CC 20	CC 21	CC 22	CC 23	CC 24	CC 25	CC 26	CC 27	CC 28	CC 29	CC 30	CC 31	CC 32	CC 33	CC 34		
GC_1	+		+																																	
GC_2	+	+																																		
GC_3		+		+																																
GC_4	+				+																															
GC_5	+																																			
FC_1						+	+	+	+			+	+	+		+	+	+											+							
FC_2															+			+																		
FC_3													+							+	+	+	+	+	+	+	+					+	+	+	+	+
FC_4																			+									+		+						

V. Matrix of learning outcomes according to the Program

Marks of program learning outcomes and educational components	CC 1	CC 2	CC 3	CC 4	CC 5	CC 6	CC 7	CC 8	CC 9	CC 10	CC 11	CC 12	CC 13	CC 14	CC 15	CC 16	CC 17	CC 18	CC 19	CC 20	CC 21	CC 22	CC 23	CC 24	CC 25	CC 26	CC 27	CC 28	CC 29	CC 30	CC 31	CC 32	CC 33	CC 34	
PR-1			+																																
PR-2	+	+																																	
PR-3		+		+						+	+																								
PR-4								+			+																				+				
PR-5	+																														+				
PR-6																+		+											+	+				+	
PR-7												+																		+				+	
PR-8														+															+	+				+	
PR-9														+																+				+	
PR-10																					+				+	+			+	+	+			+	
PR-11																											+			+	+	+			+
PR-12																+														+	+	+			+

V. Matrix of learning outcomes according to the Program (Continued)

Marks of program learning outcomes and educational components	CC 1	CC 2	CC 3	CC 4	CC 5	CC 6	CC 7	CC 8	CC 9	CC 10	CC 11	CC 12	CC 13	CC 14	CC 15	CC 16	CC 17	CC 18	CC 19	CC 20	CC 21	CC 22	CC 23	CC 24	CC 25	CC 26	CC 27	CC 28	CC 29	CC 30	CC 31	CC 32	CC 33	CC 34	
PR-13															+	+														+	+	+	+	+	
PR-14						+	+																									+	+	+	+
PR-15								+																				+				+	+	+	+
PR-16																								+								+	+	+	+
PR-17													+								+	+		+								+	+	+	+
PR-18																							+									+	+	+	+
PR-19									+				+										+									+	+	+	+
PR-20																												+				+	+	+	+
PR-21																																+	+	+	+
PR-22																																+	+	+	+
PR-23																			+													+	+		+

