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ANALYTIC REPORT OF EU APPROACHES TO PHYSICAL THERAPY EDUCATION

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CHAPTER 1
ANALYSIS OF EDUCATIONAL PROGRAMS AND CURRICULUM FOR PHYSICAL THERAPY IN THE NORTHERN AND WESTERN EUROPE COUNTRIES

According to the European Classification of Skills/Competences, Qualifications and Occupations (ESCO), the International Standard Classification of Occupations (ISCO) physical therapy specialists are included in the category of health professionals.

Physical therapy is now a special educational program, taught in many non-medical faculties in almost all of Europe.

Further we consider some aspects of approaches to the training of physical therapists in the countries of the European Union.

1.1. Denmark

Bachelor's degree can be obtained at University College in 10 cities: Esbjerg Haderslev, Hillerod, Holstebro, Copenhagen, Naestved, Odens, Roskilde, Alborg and Aarhus.

Entry requirements: diploma from a Gymnasium or College with a social or medical assistant degree with a certain level of academic achievement.

Full-time study takes 3.5 years.

The programmeincludes210 ECTS credits, of which 20 ECTS credits – optional elements, 20 ECTS credits – interdisciplinary elements, and a bachelor's thesis (graduation thesis) consists of 20 ECTS credits.

One year of study corresponds to 60 ECTS credits. The program is divided into semesters of 30 ECTS credits each. A semester can be divided into modules with 10 ECTS-credit points each.

The program consists of theoretical elements with a total of 168 ECTS credits and internships (clinical practices) with a total of 42 ECTS credits.

The training is organized in the following subject areas:

1. Health Science Subjects - 145 ECTS credits;
2. Natural Sciences - 40 ECTS credits;
3. Humanities subjects - 15 ECTS credits;
4. Social Sciences - 10 ECTS credits.

The compulsory (general) part is studied in the first 4 semesters of the program: its general content is the same in all educational institutions. However, the organization, procedure and methods of training may vary.

Content is divided into 7 topics:

1. Physiotherapy, profession, science and training - 10 ECTS credits;
2. Basic physical therapy examination and substantiation - 20 ECTS credits;
3. Physical therapy interventions with an emphasis on movement analysis and adaptation of physical activity- 20 ECTS credits;
4. Basic physical therapy examination, substantiation and diagnostics - 10 ECTS credits;
5. Physical therapy examination, clinical justification of diagnosis, treatment and rehabilitation - 20 ECTS credits;
6. Physical therapy in health promotion and prevention - 10 ECTS credits;
7. Physical therapy clinical substantiation and decision-making in treatment and rehabilitation - 30 ECTS credits.

The variable part is specific to each particular educational institution, lasts more than 3 semesters and is presented on each educational site.

Its content does not go beyond 4 topics:

1. Physical therapy in health promotion and prevention;
2. Physiotherapy clinical considerations and decision making in treatment and rehabilitation;
3. Advanced physiotherapy and decision making in physiotherapy interventions;
4. Independent and responsible professional practice and development.

Master’s degrees can be obtained only at the University of Southern Denmark (SDU) in Odense.

Entry requirements: bachelor's degree in physiotherapy, received after September 2001.

Full-time study takes 3,5 years.

The programme includes 120ECTS credits.

The program consists of 4 compulsory modules, optional modules and master's thesis. Each module consists of the 8-week course and ends with a unit test. Schematically, education looks like this:

Term 1:

1. Project Management - 5 ECTS credits;
2. Introduction to the history of physiotherapy, theory and basics of information competence - 5 ECTS credits;
3. Epidemiology and Biostatistics - 15 ECTS credits;
4. Systematic reviews and meta-analysis in physiotherapy - 5 ECTS credits.

Term 2:

1. Health Economics - 5 ECTS credits;
2. Right to Health Care - 5 ECTS credits;
3. Qualitative development of physiotherapy - 5 ECTS credits;
4. Humanistic approaches in health research - 5 ECTS credits;
5. Evidence-based physiotherapy - 10 ECTS credits.

Term 3:

1. Additional module - 30 ECTS credits.

Term 4:

1. Master's thesis - 30 ECTS credits.

1.2. Norway

Bachelor’s degrees can be obtained at 5 Colleges and Universities: Western Norway Colleges, Bjorknes University College, Norwegian University of Science and Technology, Arctic University of Norway, Oslo Metropolitan University.

Entry requirements: diploma of completion of upper secondary education with a certain level of academic achievement.

Full-time study takes 3 years (at Bjorknes University College - 4 years).

The program includes 180 ECTS credits. ¼ of the program is practice, distributed over all 3 years of study, and 15 ECTS credits are provided for writing a thesis.

Physiotherapy education is divided into two areas of study: physiotherapy and mensendieck. Mensendieck is a separate method in physiotherapy, which is often used for preventive purposes. It is a comprehensive focus on health and treatment, and focuses on achieving balance and harmony with the patient or client. Physical therapy and mensendieck are two equal educational programs that are identical in terms of education, qualifications for master's programs and employment opportunities.

There are separate programs for each field of study. At the same time, 100 credits are common and 80 credits are special for each of the directions.

In the first year of study, general disciplines are studied, and the following - special ones.

Indicative program (Oslo Metropolitan University):

Term 1:

1. Anatomy - 30 ECTS credits;
2. Physiology - 15 ECTS credits;
3. Communication and ethics in physiotherapy - 10 ECTS credits;
4. Review, motion estimation and functions - 20 ECTS credits.

Tern 2:

1. Pathology - 10 ECTS credits;
2. Prevention and treatment of diseases of the musculoskeletal system - 15 ECTS credits;
3. Prevention, treatment, rehabilitation and habilitation for specific groups of patients:
    - Pediatrics - 7 ECTS credits;
    - Geriatrics - 6 ECTS credits;

- Neurology - 16 ECTS credits;
- Respiratory and cardiovascular pathology - 16 ECTS credits;
- Psychiatry - 6 ECTS credits;
- General subjects - 5 ECTS credits;
- Practice - 14 ECTS credits.

Term 3:

1. International Public Health - 15 ECTS credits;
2. Practice in physiotherapy - 60 ECTS credits;
3. Thesis - 15 ECTS credits.

Master’s degrees can be obtained in 3 educational institutions: Oslo Metropolitan University, Western Norway Colleges and University of Bergen (manual therapy).

Entry requirements: bachelor's degree in physiotherapy or an equivalent degree in physiotherapy (average score of at least C).

Full-time study takes 2 years, part-time study - 4 years.

Upon admission to the Master's degree applicants choose one of three specializations: pediatrics, gerontology, musculoskeletal injuries and diseases.

The programme includes 120 ECTS credits. In full-time education, the first year of study consists of four compulsory and one elective course.

Indicative program (Oslo Metropolitan University):

1. Basic knowledge and skills in physiotherapy - 20 ECTS credits;
2. Theory of Science and Ethics - 20 ECTS credits;
3. Quantitative research method - 10 ECTS credits;
4. Qualitative research method - 20 ECTS credits;
5. Interaction as a basis for the rehabilitation of motor disorders- 10 ECTS credits;
6. Pain, assessment methods and impact methods- 10 ECTS credits.

In full-time education four mandatory and one optional course are studied within two years. The next two years are used to write a master's thesis - 30 ECTS credits.

1.3. Finland

Bachelor's degree is available in 15 polytechnic institutes: Arcada University of Applied Sciences, JAMK University of Applied Sciences, Lahti University of Applied Sciences, Lapland University of Applied Sciences, Laurea University of Applied Sciences, Metropolia University of Applied Sciences, Mikkeli University of Applied Sciences, Oulu University of Applied Sciences, North Karelia University of Applied Sciences, Saimaa University of Applied Sciences, Satakunta University of Applied Sciences, Savonia University of Applied Sciences, Seinäjoki University of Applied Sciences, Tampere University of Applied Sciences, Turku University of Applied Sciences.

Entry requirements: high school education or a bachelor's degree, a higher education degree and a course of study abroad (for example, International undergraduate or a European undergraduate degree).

There are different forms of education: full-time, part-time and distance learning form. Full-time study takes 3, 5 years.

The programme includes 210 ECTS credits.

The physiotherapists training curriculum is based on the recommendations and descriptions of competences, and descriptions of the Finnish Universities of Applied Sciences (ARENE), the Ministry of Education and Culture (OKM University of Applied Sciences for Health) and the European Network of Physiotherapy in Higher Education (ENPHE).

The programs of different universities differ from each other, but they have main components: basic subjects make up 10-30 ECTS credits and are studied in the first year of study. Special disciplines cover 90 ECTS credits and are studied in the second and third years of study, each block is provided practice of a total of 30-85ECTS credits. The third and fourth year is used to write a thesis- 15-30 ECTS credits, and study subjects focused on the implementation of projects - 5-30 ECTS credits. In addition, the program provides for studying common subjects up to 30 ECTS credits and language learning up to 10 ECTS credits.

Master's degrees can be obtained only at the JAMK University of Applied Sciences, Faculty of Sports Sciences.

Entry requirements: a bachelor's degree in physiotherapy or another specialty in the field of rehabilitation and sports (physical therapist, foot therapist, osteopath, assistant, naprapath-doctor, physical education physician, occupational therapist, rehabilitation consultant or social technology engineer) or a similar degree. Persons who have received one of the above specialties and a university degree can also apply for training.

Full-time study takes 2 years.

The Master's programme includes 120 ECTS credits and 33 ECTS credits of additional classes designed to provide the necessary training skills.

Additional graduate programs with a previous polytechnic or equivalent degree are defined in the curriculum. For undergraduate or postgraduate students, the need and content of additional studies are determined separately in the Hops manual.

Additional classes in physiotherapy (33 - 34 ECTS credits):

1. Health Expertise, Part I (1 ECTS credits);
2. Evidence-based health care (2 ECTS credits);
3. Biological basis of health (3-4 ECTS credits);
4. Methods to assess the effectiveness in Health Sciences (3 ECTS credits);
5. Critical assessment of research information, Part I (4 ECTS credits);
6. Basics of Epidemiology (3 ECTS credits);
7. Communication and language learning (2 ECTS credits);
8. Research Methodology of the Faculty of Sports Sciences (15 ECTS credits);
9. Introduction to Research (3 ECTS credits);
10. Data collection methods and the basis of scientific writing (2 ECTS credits);
11. Basics of qualitative research methods (5 ECTS credits);
12. Basics of quantitative research methods (5 ECTS credits).

Volume master’s degree after additional studies is 120 ECTS credits and includes in-depth physical therapy classes, in-depth methodological studies and optional disciplines. The optional course must be at least 45 ECTS credits.

Basic physiotherapy program (118 - 120 ECTS credits):

1. Leading physiotherapy studies (72 - 74 ECTS credits);
2. Additional advanced physiotherapy studies (3 ECTS credits);

3. Expertise in physiotherapy (3 ECTS credits);
4. Research in the field of physiotherapy control (4 credits ECTS);
5. Examination training (6 credits ECTS);
6. The scientific basis and use of physical therapy (4 credits ECTS);
7. Critical assessment of research information, Part II (2 credits ECTS);
8. Loading tests in physiotherapy (2 credits ECTS);
9. Rehabilitation Research (2 credits ECTS);
10. Physiotherapeutic Research Laboratory: Biomechanical and Loading Physiology (4 ECTS credits);
11. Master's seminar (5 ECTS credits);
12. Graduate Thesis (30 ECTS credits);
13. Deepening the Research Ethics (2 ECTS credits);
14. In-depth study of the methodology (5 - 7 ECTS credits).

Optional disciplines:

1. Quantitative Advanced Research Methods (5 - 7 ECTS credits);
2. Deepening quantitative research methods (3 - 5 ECTS credits);
3. Course TILP350 SPSS (2 ECTS credits);
4. Qualitative advanced research methods (7 ECTS credits);
5. Deepening qualitative research methods, Part I (3 ECTS credits);
6. Deepening qualitative research methods, Part II (4 ECTS credits);
7. Other general studies (1 ECTS credit);
8. General Studies (1 ECTS credit);
9. Health Expertise, Part II (1 ECTS credit).

1.4. Sweden

Undergraduate education is available at universities in Vasteras, Gothenburg, Lund, Lulea, Stockholm, Umeå, Linköping and Uppsala.

Entry requirements: secondary education with a certain level of academic achievement in certain subjects.

Part-time study takes 3 years.

The programme includes 120 ECTS credits and consists of six terms with 30 ECTS credits each, consisting of both theoretical, practical and operational placement. The last term contains an essay of 15 ECTS credits.

The physiotherapist program provides the following degrees:

- Physiotherapy degree (undergraduate degree in physiotherapy);
- Bachelor's degree in physiotherapy as the main subject (Bachelor's degree in Medical Sciences in the field of physiotherapy).

A bachelor's degree is achieved after a student has completed the requirements of 180 ECTS credits with a certain specialization decided by each college, of which at least 90 higher education credits with a gradual in-depth study the core area for education. Therefore, the programs are quite different, but they have basic components: in the first year are studied basic disciplines in the amount of 30-45 ECTS credits, special disciplines not less than 90 ECTS credits, internships 22-25 ECTS credits, theses 15 ECTS credits. General subjects are not studied. The program may include free courses at other departments or at Universities or other Colleges within or outside of Sweden, provided that they are considered adequate in accordance with the purposes of education. Free courses are sought out in an open competition with other students.

Master’s degrees can be obtained at universities in Vasteras, Gothenburg, Lund, Lulea, Stockholm, Umeå, Linköping and Uppsala.

Entry requirements: bachelor's degree in physiotherapy not less than 180 credits of higher education, of which at least 15 ECTS credits of scientific work or the equivalent to a foreign degree.

The Master's programme includes 60 ECTS credits; the master’s degree includes 120 ECTS credits.

The first 30 credits of higher education are mainly theoretical high-level basic courses. The following 30 credits consist of independent work. The remaining courses consist of a theoretical base course, 15 higher education credits and optional courses, 45 ECTS credits.Gradual development in this area is mainly based on measurements of knowledge in the field of research preparation and the complexity of the subject, therefore the order of inclusion of courses in the master's program is

determined in consultations between the student and responsible person for the course or consultant on the curriculum.After the first 60 credits, a student can complete his studies and apply for one degree. Education is mainly focused on problems, which means an active search of knowledge, critical thinking and personal problem solving.To obtain a master's degree a student must complete an independent project (graduation project) within the framework of the requirements of the course, which includes at least 30 credits of higher education in the main field of study. Independent work may include at least 30 ECTS credits, but not less than 15 ECTS credits; if the student has already completed independent work at a high level of at least 15 higher education credits in the main field of study or equivalent foreign education. Students who follow the educational program are guaranteed a place in the basic courses provided within the program. The curriculum specifies the qualification requirements applicable to each course. Free courses from other universities may be included in the degree. Free courses are sought out in an open competition.

1.4. Austria

Austrian university diplomas are recognized in most countries of the world. It has been established that a specific feature of the higher education system of Austrian universities is that students are given complete autonomy.They independently form their training schedule; choose the necessary disciplines, teachers, subjects of scientific works and examiners. The duration of undergraduate programs is not fixed. The program, designed for 3 years, but the student can learn within 4-4.5 years, and it will not be considered an academic debt. However, the student can get expelled for academic failure, especially for popular specialties, which are claimed by a significant number of applicants.

Master's programs in Austria are designed for those who are planning to improve their knowledge in a particular specialty. Academic programs of this type exist in all universities and in most of the higher specialized schools. The duration of master's programs is 2 years (4 semesters, 120 ECTS credits).

The winter semester at universities, as a rule, begins on October 1, and the summer - on March 1. Bachelor's programs for studies at institutes (colleges), higher

specialized schools and universities in Austria are designed for six semesters. Bachelor training is completed by scientific work defense and passing an exams, on the results of which graduates are awarded a bachelor's degree and issued a corresponding diploma.

As a result of the analysis of the educational system of Austria, it was established that 8 out of 56 higher educational institutions provide training in the field of physiotherapy: FH Joanneum University of Applied Sciences, St. Pölten University of Applied Sciences, University of Applied Sciences (FH Campus Wien),Danube University Krems, Private University for Health Sciences, Medical Informatics and Technology, Health University of Applied Sciences Tyrol, University of Applied Sciences for Health Professions Upper Austria, Medical University of Graz.

Consider some aspects of the professional bachelor training in the field of physical rehabilitation at various universities in Austria.For example, FH Joanneum University of Applied Sciencesis one of the leading universities in Austria, which has about 3,800 students and more than 180 full-time teachers.The University offers training in economic, technical and medical specialties on the platform of three campuses - in Graz, Kapfenberg and Bad Gleichenberg in the federal states of Styria. University offers 45 undergraduate programs, including the Bachelor of Science, and 25 master's degree programs. The curriculum for undergraduate students of physical therapy is designed for three years (six semesters), which is 180 ECTS credits.

Today, students from more than 36 countries study at the FH Joanneum University of Applied Sciences that confirms the high reputation of higher education in Austria.

At St. Pölten University of Applied Sciences, 15 educational programs are offered for 2100 students, including health care (physical therapy). St. Pölten University supports cooperation with about 100 partner universities, so students have the opportunity to spend one academic semester or take internships abroad. The curriculum for undergraduate students of physical therapy is also designed for three years (six semesters), which is 180 ECTS credits. Technical and methodological skills, social-communicative and research skills allows to apply the knowledge of

physical therapy in preclinical and clinical practice or teaching activity in conjunction with knowledge of psychology, pedagogy, didactics, sociology, etc.

After graduating, bachelors of physical therapy master the ethical norms of professional behavior. The obtained research skills allow to carry out the scientific justification of professional actions for realization of the latest scientific results and their interpretation in the process of treatment and rehabilitation. For this, bachelors of physical therapy use modern diagnostic and analysis tools (video shooting, electromyography, ultrasound, etc.).The clinical fields in which the physiotherapist works after graduating from a higher education establishment are: occupational medicine, orthopedics, traumatology, internal diseases, pulmonology, cardiology, pediatrics, sports medicine, neurology, urology, proctology, obstetrics, gynecology, geriatrics, oncology, etc.).

Bachelors of physical therapy have opportunity to work in health care institutions, rehabilitation centers and clinics, sports facilities, old people's and/with disabilities home; engage in private practice or continue their studies in the master's program in the field of medicine. Consider the training of masters in physical rehabilitation at the University of Applied Sciences (FH Campus Wien), founded in 2001 in Vienna (Austria). FH Campus Wien prepares masters in an interdisciplinary master's degree program based on a bachelor's degree in applied science in physiotherapy; with the qualification "Master of Science in Physical Therapy" (MScPT).

The interdisciplinary master’s program consists of three stages of study that allow the future master to strengthen their professional knowledge and expand their technical and managerial skills. The curriculum is designed for two years (120 ECTS credits).At the first stage, future masters study general modules on education management and health care, research organization, clinical expertise. The second stage is aimed at consolidating managerial qualities, clinical experience, defining the subjects of scientific work and expanding medical knowledge. The third stage contains additional disciplines of professional education and writing a master's thesis.

Forms of training in the preparation of future masters in physical therapy include lectures, discussions, seminars and workshops, group, individual and

independent works. In the educational process, teachers actively apply case analysis, presentations, role play, interactive discussions, interviewing, video training, etc. The main assessment methods are discussion of results, testing, oral and written exams, written work, active collaboration, group work presentation, assessment of homework, interpretation of results, etc.

Danube University Krems offers a master's program of musculoskeletal physical therapy. The curriculum is designed for two years, which of 180 ECTS credits, with the MSc Certificate of musculoskeletal physical therapy.

Consequently, based on the analysis of curricula, it can be argued that the number of training courses for bachelor's degree of physical therapy in higher education institutions of Austrian during the semester is an average of 14 subjects. Disciplines of social and humanitarian training make up 20%, disciplines of basic and general economic training - 30%, and disciplines of professional and practical training - 50%.The internship of future bachelors in physical therapy lasts from 1290 to 1410 hours and can be held every semester, starting from the II-III semesters, or more compactly on the final course.

The term of master's program in Austria in the physical therapy is four semesters. An analysis of the curriculum has made it possible to find out that the number of training courses for the Master of Physical Therapy in Austria is on average 10 subjects per semester. Disciplines of preclinical training make up 15% of the total number of hours, disciplines of research training – 16, 5%, disciplines of professional and practical training - 60%. The internship (clinical training) of future MSc in physical therapy lasts 330 hours.

The interdisciplinary graduate has the opportunity to occupy leadership positions, develop and implement concepts of innovation in the field of health. Physical therapy masters after graduating from HEIs of Austria may conduct standardized health promotion and prevention procedures, plan physiotherapy activities and hold positions in medical institutions (hospitals, clinics, rehabilitation centers, sanatoriums), carry out research, consulting, management, teaching activities (colleges, universities), etc.

1.5. Netherlands

The higher education system in the universities of the Netherlands from 2002-2003 is based on a three-cycle degree system, which involves obtaining a bachelor's degree, a master's degree, and a doctorate (PhD).

The study found that the training of specialists (bachelor and / or masters) in physical therapy in the Netherlands is carried out by such higher educational institutions as Avans University of Applied Sciences (Avans Hogeschool), Faculty of Physical Therapy; Fontys University of Applied Sciences; Hanze University of Applied Sciences; Leiden University, Faculty of Physical Therapy; Rotterdam University of Applied Sciences; University of Amsterdam; Radboud University Nijmegen, Faculty of Physical Therapy; Utrecht University, Faculty of Health Care; Saxion University of Applied Sciences; THIM: University of Applied Sciences for Physiotherapy.

For more detailed information on the training system of physical therapists in the Netherlands, we paid attention to the THIM: University of Applied Sciences for Physiotherapy, which was founded in 1974 as the International Academy of Physical Therapy. From the standpoint of the present University of Applied Sciences for Physiotherapy is a modern educational institution with several affiliates in the Netherlands and Switzerland.

In the Netherlands, the training of physiotherapists is concentrated in Nieuwegein, which is located not far from Utrecht. In Switzerland, University College Physiotherapy "Thim van der Laan" is located in the village Landquart, which since 1990 has trained physiotherapists. In addition, THIM: University of Applied Sciences for Physiotherapy offers students studying in Germany under the program of a Bachelor's degree in VWO level.

The Physical Therapy Bachelor's Curriculum at THIM: University of Applied Sciences for Physiotherapy contains 240 credits and is designed for four years of study with the corresponding three stages (educational, basic and transitional).

Under the program, students study twelve academic disciplines. Students take the educational and basic stages in the first and second years of study, each stage contains 60 ECTS credits. The programs of these stages contain, respectively, five

disciplines each, for studying which is given seven weeks. Each academic discipline ends with an examination week, during which written tests for verifying conceptual knowledge and practical tests for checking professional skills are taken. The transitional phase includes 120 ECTS credits and involves internship for one year (40 weeks).This stage involves the study of two new topics, a repetition of ten previously studied, as well as work with scientific literature. The final control of the transitional stage is carried out using the knowledge test (HOK), the skills test (VDH), assessment of the presentation and thesis defense.

The normative disciplines of the curriculum are from 120 to 150 credits, while elective disciplines from 30 to 60 credits.

Based on a curriculum analysis, the discipline "Healthy Lifestyle" provides the use of individual and a group programs for learning the basis of a healthy lifestyle with the involvement of physical exercises and other recreational facilities. The discipline "Physical rehabilitation in orthopaedic and neurological diseases" involves mastering the means and principles of practical physiotherapy aimed at diagnosing, functional treatment and rehabilitation of orthopaedic and neurological disorders. The discipline "Sport Performance" introduces the basics of recovery the physical performance of athletes after sports injuries and other orthopaedic disorders. The discipline "Physical rehabilitation on various diseases" actualizes the role of the physiotherapist in the process of diagnosis and rehabilitation of patients with cardiovascular diseases and oncology, as well as in geriatrics and rheumatology.The discipline "Correction of the musculoskeletal system" includes the study of methods of manual therapy and diagnosis of the musculoskeletal system, mastering the means of sports physiotherapy and rehabilitation. The discipline "Ability to solve unordinary tasks" carries out the preparation of students for internships and the search of the actual subjects of scientific research. The discipline "Neurorehabilitation" involves mastering the methods of diagnosis and rehabilitation of patients with neurological diseases of the central nervous system (stroke, Parkinson's disease, etc.).The discipline "Psychosomatic Physical Rehabilitation" is aimed at increasing the level of knowledge of the physiotherapist about psychosocial factors and psychopathology. In the process of mastering the "Introduction to Manual Therapy", future physicians

gain knowledge in the field of diagnostics and rehabilitation, learn practical skills of manual therapy and communication skills. The obtained knowledge on discipline "Physical rehabilitation in pediatrics" provides an opportunity for future specialists to carry out rehabilitation of children with problems of the musculoskeletal system. This course deepens the knowledge and forms practical skills in the field of prevention, diagnosis and rehabilitation in childhood. In addition, the graduate has the opportunity to expand his competence in areas such as pediatrics, pedagogy, psychomotor development and physical rehabilitation of children.

On the first and second years of study there is a training internship of 32 hours. Students have the opportunity to undergo training practice at various bases. In the third year, the student receives a permanent internship, the practice consists of two periods of twenty weeks. The correspondence students are trained 32 hours a week and students of day-time departments have part-time and undergo an internship 20 hours a week. At the request of students, the university provides internship opportunities abroad. At the end of the internship, a specially trained expert checks the professional skills of future physical therapists.

The transitional phase consists of applied studies, in which students repeat and in-depth study the disciplines learned during the 1st and 2ndyears of study. In addition, within the framework of the "Integration of Education", there are scheduled two additional courses that are not mandatory and provide for the discussion and mastering of individual specialized courses recognized by the Royal Dutch Society for Physical Therapy (KNGF): sports physiotherapy, neurorehabilitation, psychosomatic physiotherapy, manual therapy, physiotherapy in pediatrics.

An entry requirement to the Masters of the University of the Netherlands is a bachelor's degree in physical therapy. Master's studies last 18 months (90 credits), after the successful completion of which the graduate is awarded the Master of Science in Physical Therapy (MScPT). The Master's program differs from the Bachelor's degree in a higher intellectual level and, according to the European Qualifications Framework (EQF), has the seventh level of education.

The main principle of this educational program is to combine work (part-time) with training and research. This approach improves the efficiency and

purposefulness of masters' training. The objective of this program is to master the knowledge and skills that correspond to the master's level qualification. The Master's program has three areas of study: Physical Therapy, Science and Innovation in the CanMEDS (The Canadian Medical Education Directives for Specialists).

In the Netherlands, the Master's program corresponds to international standards and allows to masters from the second semester to choose a place of study in another country, for example in Switzerland, and carry out scientific research there, organize medical care and other issues.. The Master's program includes visits to healthcare facilities and familiarity with innovative technologies. This approach helps to develop the necessary competencies that meet the requirements of the Royal Dutch Society for Physical Therapy (KNGF). These include: performing of various types of professional activities to ensure the physiotherapy process, interacting with others, cooperation with experts, sharing knowledge and scientific practice, providing social and professional assistance, and management of professional services.

In most Dutch universities, teachers actively use interactive learning environment, where they discuss scientific issues, demonstrate practical skills, conduct interactive classes and exercise control with students. Master's teachers hold various workshops, publish textbooks (especially virtual ones), organize discussions on the website, conduct training seminars, webinars (including practical demonstrations), web conferences, presentations, and organize sightseeing tours. In addition, representatives of universities actively communicate on the pages of Facebook, Twitter and LinkedIn.

1.6. Portugal

In Portugal, the training of specialists in this specialty lasts four years and includes 2,945 hours, of which: theoretical training - 860 hours, practical - 515 hours; clinical - 570 hours; seminars - 20 hours; internships - 980 hours. The training of masters in physical therapy lasts three semesters with the introduction into specialization of the following areas of work: cardiorespiratory, social, orthopedic, manual, sports, neurological rehabilitation.

1.7. United Kingdom

Bachelor's degree is offered by 40 universities. The bachelor's degree consists of: ordinary and honored degree. To obtain a diploma of an ordinary degree, a large number of disciplines are studied, for a bachelor's degree with honors, a limited number of subjects are studied deeply (as a rule, one main and two or three auxiliary).

In addition, the curriculum of bachelor training in physiotherapy covers four levels:

Level 4 – Certificate. A student who does not meet the requirements for the moving to Level 5, is eligible for a Certificate of Higher Education of the successful achievement of Level 4 (120 ECTS credits);

Level 5 – Intermediate.A student who does not meet the requirements for the moving to Level 6, is eligible for a Certificate of Higher Education of the successful achievement of Level 4 (120 ECTS credits), or Diploma of Higher Education of successful achievement of level 5 (120 ECTS credits);

Level 6 – Honours. The student must reach an intermediate or acceptable intermediate level with a score of 240 ECTS credits and meet the requirements in accordance with the Program Evaluation Rules;

Level 7 – Masters. Students who reach an intermediate or acceptable intermediate level with a score of 360 ECTS credits and fulfilled all requirements for obtaining a bachelor’s honored degree, in accordance with the Program Evaluation Rules, has the rights to receive a bachelor of science degree with honours in Physiotherapy.

Entry requirements: secondary education with a certain level of success and individual interview. In addition, there are non-academic conditions: certain individual qualities, which are confirmed by two recommendations (scientific and personal);a satisfactory state of health; certificate of good conduct.

Part-time education takes 3 years (in Scotland - 4).

Programs are developed by each university on their own, therefore they differ in the variable part. In the process of studying the curriculum content of Brunel, Manchester, Birmingham, West England and Brighton Universities, it was found that the bachelor’s program in physiotherapy is designed for 360 ECTS credits of

compulsory disciplines and the same number of electives; 30 ECTS credits are allocated for writing qualifying work.

In particular, the curriculum for a bachelor's degree in Physiotherapy at the University of Birmingham covers a study material that is studied over three years.

Year 1:

1. Basics of Physiology and Pathology for Practice - 20 ECTS credits;
2. Functional Anatomy and Movement - 20 ECTS credits;
3. Physical Activity and Exercise - 20 ECTS credits;
4. Professional Workplace Practice - 20 ECTS credits;
5. Psychosocial basis of patient-oriented care- 20 ECTS credits;
6. Therapeutic Practice - 20 ECTS credits.

Year 2:

1. Maintaining a patient with Cardiorespiratory problems - 20 ECTS credits;
2. Musculoskeletal reasoning and practice - 20 ECTS credits;
3. Neurological rehabilitation - 20 ECTS credits;
4. Comprehensive Studies - 20 ECTS credits;
5. Sociology in practice - 20 ECTS credits;
6. Research in practice - 20 ECTS credits.

Year 3:

1. Comprehensive care - 20 ECTS credits;
2. Professional and service development - 20 credits ECTS;
3. Wider perspectives in practice - 20 credits ECTS;
4. Practice - 20 credits ECTS;
5. Project - 40 credits ECTS.

Master’s Education is offered in 24 universities.

Entry requirements: bachelor's degree.

Part-time education takes 2 years.

The programme includes 180 ECTS credits, of which 60 ECTS credits – writing qualifying work. Credits consist of compulsory and elective disciplines that are part of each program. Some universities offer both academic and practical-oriented programs (Postgraduate Certificate and Postgraduate Diploma). PgCertis

issued after 1 year of training (general requirements 120 ECTS credits, minimum – 90 ECTS credits). PgDip is issued after 2 years of study (the course includes 240 ECTS credits, minimum – 90 ECTS credits). For example, Postgraduate Diploma in Sport Physiotherapy and Postgraduate Diploma Neuromusculoskeletal Physiotherapy in Cardiff University; PgCert Physiotherapy in Women's Health and PgCert Sport Physiotherapy in University of Bradford. Practical-oriented programs are a basic course for the master's level. From the PgCert you can go to the PgDip, and then to the master's program. To move from level to level, the student must additionally pass exams in disciplines that the low-level program did not have. Programs are developed by each university on their own, therefore, significantly different. To move from level to level, you must additionally take exams from those disciplines that did not have a lower level program. The programs are developed by each university in a real way, therefore they differ considerably.

As an example, the syllabus for a Ph.D. in Physiotherapy at Sheffield Hallam University is provided:

Year 1:

Obligatory modules

1. Clinical justification for Physiotherapy - 30 credits ECTS;
2. Exercise Prescription and Health Promotion - 15 ECTS credits;
3. Introduction to professional practice - 15 ECTS credits;
4. Studies for practice (lessons) - 15 ECTS credits.

Year 2:

Obligatory modules

1. Advanced clinical considerations in physiotherapy - 30 ECTS credits;
2. Advanced integrated case management - 15 ECTS credits;
3. Thesis - 45 ECTS credits.

Elective modules:

1. Training and teaching concepts (distance learning) - 15 ECTS credits;
2. Outstanding scientists - 15 ECTS credits;
3. Individual training module - 15 ECTS credits;

4. Therapeutic treatment of neuromuscular pain (distance learning) - 15 ECTS credits.

Specialization in the field of physiotherapy includes neurology, orthopedics, traumatology, cardiopulmonary disorder, women's health and sports rehabilitation. Graduates receive a Bachelor of Science degree and a Master of Science degree in one of the specialization areas, for example, a BSc in Physiotherapy by Situated Learning, BSc in Physiotherapy by Flexible Learning, MSc in Advanced Physiotherapy, MSc in Continuing Professional Development Physiotherapy, MSc in Neuromusculoskeletal Physiotherapy, MSc in Sport Physiotherapy, MSc in Musculoskeletal Physiotherapy, etc. The main difference between these programs is the presence of a significant number of specialized disciplines, that allow to obtain additional necessary knowledge in the field of future professional activities.

CHAPTER2

ANALYSIS OF EDUCATIONAL PROGRAMS AND CURRICULUM FOR PHYSICAL THERAPY IN CENTRAL EUROPE AND BALTIC COUNTRIES

2.1. Poland

In Poland, the training of specialists in this category has two degrees (cycles) (I and II) and is carried out in higher educational institutions of physical culture or medical profile. Currently, bachelor's studies in the field "physical therapist" in Poland are carried out for 3-4 years from 180 to 240 ECTS credits. At the Academy of Physical Education in Krakow, students study 3 years (180 ECTS credits), and at the Gdansk Medical University - 4 years (240ECTS credits).

It should be noted that the training of specialists in physical therapy in Poland is carried out - in 8 universities of medical profile and in 1 medical college. In addition, the College of Physiotherapy in Wroclaw is the first private university in Poland, which trains physiotherapists (since 2009).

Entry requirements: a person with a high school certificate may be admitted to the first cycle program. In the case of people who have completed high school abroad, recognition of the certificate obtained is required, confirming the right (of the holder) to receive a higher education.

Equal to the Polish Certificate of Full General Secondary Education, without the obligation to carry out the recognition, are:

a) IB diplomas issued by the International Baccalaureate in Geneva, Switzerland;
b) EB diplomas (European Baccalaureate) issued by the European Schools in accordance with the Convention of 21 June 1994defining the Statute of the European Schools.

A person with the first cycle degree (bachelor's degree) is allowed to enter the second stage of study.

The structure of training and the form of training: the first and second cycle of study – full-time education.

Professional and educational goals of education: a graduate of the first degree (cycle) of research in the field of physical therapy receives education and training, in accordance with the requirements of health care, to work with the patient in the field of physical therapy.

Knowledge of skills and abilities:

- the formation, support and restoration of work capacity and ability of work of people of different ages, lost or reduced as a result of various diseases or injuries;
- impeccable physiotherapy;
- adaptation of their activities for rehabilitation within the framework of the activities of multidisciplinary teams;
- monitoring the effectiveness of the physiotherapeutic process;
- conduct research of the second cycle.

A graduate of the second degree program (cycle) receives education and professional training, in accordance with the requirements of health care, for independent work with the patient in the field of physical therapy and the right to receive specialization in the field of physical therapy. Has the knowledge and skills necessary to conduct research in the field of functional diagnostics, planning and monitoring the effectiveness of the process of medical rehabilitation, conducting research and participation in research groups, managing the therapeutic team, organizing and managing institutions that carry out physiotherapy, training in the field of basic physiotherapy procedures and teaching professional subjects.

Semester chart of the first cycle of study
Direction: Physical Therapy
Year 1, Term 1, full-time education of the 1st cycle

№	Title	Number of hours per semester	Total hours	ECTS	Form of control (Zo or E)

		L	Pr.			
1.	Functional Anatomy (Part 1)	15	30	45	3	Zo
2.	Biophysics	15	15	30	2	Zo
3.	Medical biology	15	30	45	3	E
4.	Ecology	15	15	30	2	Zo
5.	Ethics	15	15	30	2	Zo
6.	General physiotherapy		15	15	1	Zo
7.	The history of rehabilitation		15	15	1	Zo
8.	Foreign Language		45	45	3	Zo
9.	Methodology of movement training	15	30	45	2	Zo
10.	Qualified first aid	15	15	30	2	Zo
11.	Psychology	15	30	45	2	E
12.	Sociology	15	15	30	2	E
13.	Information Technology		15	15	1	Zo
14.	The subject of physical activity		30	30	1	Zo
15	Practice: Clinical		50	50	3	Zo
	Total	135	365	500	30	

L-lectures, Pr.-practical, Zo-credit, E-exam

Year 1, Term 2, full-time education of the 1st cycle

№	Title	Number of hours per semester		Total hours	ECTS	Form of control (Zo or E)
		L	Pr.			
1.	Functional Anatomy (Part 2)	15	30	45	3	E
2.	X-ray anatomy		15	15	1	Zo
3.	Biochemistry	15	30	45	3	E
4.	Physiotherapy (Part 1)	15	45	60	2	Zo
5.	Foreign Language		30	30	2	E
6.	Therapeutic massage (Part 1)	15	45	60	2	Zo
7.	General Pedagogy, Andragogy	30	15	45	2	Zo
8.	Kinesiotherapy (Part 1)	30	60	90	4	E
9.	The subject of physical activity		30	30	1	Zo
10.	Theoretical disciplines		30	30	2	Zo
11.	Practice in Physiotherapy department		100	100	4	Zo
12.	Practice in Kinesiotherapy department		100	100	4	Zo
	Total	120	530	650	30	

L-lectures, Pr.-practical, Zo-credit, E-exam

Year 2, Term 3, full-time education of the 1st cycle

№	Title	Number of hours per semester		Total hours	ECTS	Form of control (Zo or E)
		L	Pr.			
1.	Biomechanics	15	30	45	3	E
2.	Physiology (Part 1)	15	45	60	4	Zo
3.	Physiotherapy (Part 2)		45	45	4	E
4.	Foreign Language		45	45	1	Zo
5.	Kinesiotherapy (Part 2)	15	45	60	5	Zo
6.	Methodology of movement training	15	15	30	1	Zo
7.	Therapeutic massage (Part 2)	15	45	60	5	Zo
8.	Education	15	15	30	1	Zo
9.	Optional disciplines		2 x30	60	2	Zo
10.	Practice in Physiotherapy department		60	60	2	Zo
11.	Practice in Kinesiotherapy department		60	60	2	Zo
	Total	90	465	555	30	

L-lectures, Pr.-practical, Zo-credit, E-exam

Year 2, Term 4, full-time education of the 1st cycle

№	Title	Number of hours per semester		Total hours	ECTS	Form of control (Zo or E)
		L	Pr.			
1.	Physiology (Part 2)	15	45	60	3	E
2.	Foreign Language		45	45	1	Zo
3.	Kinesiotherapy (Part 3)	15	30	45	4	E
4.	Methodology of movement training		30	30	1	Zo
5.	Therapeutic massage (Part 3)		30	30	2	E
6.	Biological regeneration	15	30	45	2	Zo
7.	General pathology	15	15	30	1	E
8.	Fundamentals of Clinical Physiotherapy in Orthopedics, Traumatology and Rheumatology	15	30	45	3	Zo
9.	Fundamentals of Clinical Physiotherapy in Neurology and Neurosurgery	15	15	30	2	Zo
10.	Fundamentals of Clinical Physiotherapy in Pediatrics	15	15	30	2	Zo

	and Pediatric Neurology					
11.	Optional disciplines		3 x30	90	3	Zo
12.	Practice in Physiotherapy department		100	100	3	Zo
13.	Practice in Kinesiotherapy department		100	100	3	Zo
	Разом	105	575	680	30	

L-lectures, Pr.-practical, Zo-credit, E-exam

Year 3, Term 5, full-time education of the 1st cycle

№	Title	Number of hours per semester		Total hours	ECTS	Form of control (Zo or E)
		L	Pr.			
1.	Foreign Language		30	30	3	E
2.	Kinesiology	15	45	60	3	E
3.	Methodology of teaching physical education		30	30	1	Zo
4.	Fundamentals of Clinical Physiotherapy in Cardiology and Pulmonology	15	15	30	2	Zo
5.	Fundamentals of Clinical Physiotherapy in Surgery, Gynecology and Obstetrics	15	15	30	2	Zo
6.	Fundamentals of clinical physiotherapy in geriatrics and psychiatry	15	15	30	2	Zo
7.	Clinical physiotherapy for dysfunctions of the musculoskeletal system: orthopedics and rheumatology	15	45	60	3	E
8.	Clinical physiotherapy for age-related disorders of the organs of movement	15	45	60	3	E
9.	Manual therapy	15	30	45	3	Zo
10.	Optional disciplines		2 x30	60	2	Zo
11.	Clinical physiotherapy practice		170	170	6	Zo
	Total	105	500	605	30	

L-lectures, Pr.-practical, Zo-credit, E-exam

Year 3, Term 6, full-time education of the 1st cycle

№	Title	Number of hours	Total hours	ECTS	Form of control

		per semester				(Zo or E)
		L	Pr.			
1.	Clinical physiotherapy for dysfunctions of the musculoskeletal system: Traumatology	15	30	45	2	E
2.	Clinical physiotherapy for dysfunctions of the musculoskeletal system: Neurology and Neurosurgery	15	45	60	3	E
3.	Clinical physiotherapy in other specialties: Cardiology and Pulmonology	15	45	60	3	E
4.	Clinical physiotherapy in other specialties: Geriatrics and Psychiatry	15	45	60	3	E
5.	Clinical physiotherapy in other specialties: Surgery, Gynecology and Obstetrics	15	30	45	1	Zo
6.	Clinical physiotherapy in other specialties: Oncology and Palliative medicine	15	30	45	1	Zo
7.	Optional disciplines		2 x30	60	2	Zo
8.	Clinical physiotherapy practice		150	150	5	Zo
9.	Psychomotor Activity		30	30	1	Zo
10.	Orthopedic equipment	15	15	30	1	Zo
11.	Graduation exam				10	E
	Total	105	480	585	32	

L-lectures, Pr.-practical, Zo-credit, E-exam

2.2. Czech Republic

Bachelor's degree in the specialty "Physical Therapist" in the Czech Republic is provided for 3 years with 180 ECTS credits and Master’s for 2-4 years with 120-240 ECTS credits. Specialists are trained in six universities of medical profile.

The main purpose of the training program is:

- to acquire knowledge of modern scientific physiotherapy and manage their practical application;
- to acquire a psychotherapeutic way of communication between the members of the medical team and the patient;

- to understand the basic diagnostic and therapeutic principles of an integrated approach to physiotherapy;
- to learn the principles of good relations between a health worker and a patient, to master the basics of medical ethics;
- to learn the basics of teamwork;
- to lay the foundation for further education in the form of a master's degree in physiotherapy.

Organization and structure of training. Training is designed for three years, the culmination of which is the preparation of the bachelor thesis, thesis defense and passing the final exam of the bachelor.

Semester chart of the first cycle of study
Direction: Physical Therapy
Year 1, Term 1, full-time education of the 1st cycle

Code	Title	Form of control	Number of credits	ECTS / Total hours	Role
17PBFAOK	Anatomy and General Kinesiology	Z, ZK	5	2 + 2	Obligatory discipline
17BOZP	Labor protection and safety equipment, fire protection and first aid	Z	0	1 + 0	Obligatory discipline
17PBFBLG	Biology	Z, ZK	4	1 + 0	Obligatory discipline
17PBFBB	Biomechanics and biomaterials	Z, ZK	4	2 + 2	Obligatory discipline
17PBFMMT	Massage and soft tissue techniques	KZ	2	0 + 3	Obligatory discipline
17PBFRPP	Rehabilitation Propedeutics	KZ	7	1 + 1	Obligatory discipline
17PBFZLCH	Fundamentals of Medical Chemistry and Biochemistry	Z, ZK	7	1 + 1	Obligatory discipline
17PBFZOT	Fundamentals of Professional Terminology	KZ	1	2 + 0	Obligatory discipline
17PBFZTV1	Health, Physical Education (Part 1)	Z	1	0 + 2	Obligatory discipline

Year 1, Term 2, full-time education of the 1st cycle

Code	Title	Form of control	Number of credits	ECTS / Total hours	Role
17PBFAOKS	Anatomy and Special Kinesiology	Z, ZK	4	2 + 2	Obligatory discipline
17PBFBLT	Balneotherapy	Z, ZK	2	2 + 0	Obligatory discipline
17PBFFLM	Physiotherapeutic methods	Z, ZK	2	1 + 2	Obligatory discipline
17PBFFZN	Physiology and fundamentals of neurology	Z, ZK	3	2 + 2	Obligatory discipline
17PBFF1VP	Physiotherapy (Part 1) - Examination procedures	Z	2	1 + 4	Obligatory discipline
17PBFLTV	Healing Fitness	KZ	1	0 + 2	Obligatory discipline
17PBFOAR1	Professional practice in the outpatient rehabilitation department	KZ	4	120 h	Obligatory discipline
17PBFOPR1	Professional practice in the clinical rehabilitation department	KZ	4	120 h	Obligatory discipline
17PBFORU1	Professional practice in a rehabilitation institute	KZ	4	120 h	Obligatory discipline
17PBFPPO	First aid	KZ	2	1 + 1	Obligatory discipline
17PBFSPA1	Sports (Part 1)	Z	1		Obligatory discipline
17PBFZTV2	Health, Physical Education (Part 2)	Z	1	0 + 2	Obligatory discipline

Year 2, Term 3, full-time education of the 1st cycle

Code	Title	Form of control	Number of credits	ECTS / Total hours	Role
17PBFEVF	Ethics in physiotherapy	KZ	2	2 + 0	Obligatory discipline
17PBFF2TP	Physiotherapy (Part 2) - Methods, therapeutic procedures and	Z, ZK	3	2 + 4	Obligatory discipline

	concepts				
17PBFHAE	Hygiene and epidemiology	KZ	2	1 + 0	Obligatory discipline
17PBFISZ	Health Information Systems	Z, ZK	3	2 + 2	Obligatory discipline
17PBFNRFA	Neurophysiology	Z, ZK	3	1 + 1	Obligatory discipline
17PBFOTP	Orthopedics and Traumatology of the musculoskeletal system	Z, ZK	3	2 + 1	Obligatory discipline
17PBFPAS	Physical activity and sport for the disabled	Z	3	1 + 0	Obligatory discipline
17PBFVLG1	Internal Medicine and Geriatrics (Part 1)	Z	3	2 + 2	Obligatory discipline
17PBFZFA	Fundamentals of Pharmacology	KZ	2	1 + 0	Obligatory discipline
17PBFZPF	Fundamentals of pathological physiology	Z, ZK	3	1 + 1	Obligatory discipline
17PBFZPA	Fundamentals of Pathology	Z, ZK	3	2 + 0	Obligatory discipline

Year 2, Term 4, full-time education of the 1st cycle

Code	Title	Form of control	Number of credits	ECTS / Total hours	Role
17PBFEGT	Ergotherapy and ergonomics	KZ	2	1 + 1	Obligatory discipline
17PBFMAZ	Management and administration in health care	KZ	1	1 + 0	Obligatory discipline
17PBFNEUA	Neurology	Z, ZK	2	2 + 1	Obligatory discipline
17PBFOAR2	Professional practice in the outpatient rehabilitation department (Part 2)	KZ	5	200 h	Obligatory discipline
17PBFOPR2	Professional practice in a rehab medical institution (Part 2)	KZ	3	120 h	Obligatory discipline
17PBFORU2	Professional experience in a rehab medical institution (Part 2)	KZ	4	160 h	Obligatory discipline

17PBFPAO	Prosthetics and orthopedics	Z, ZK	3	1 + 1	Obligatory discipline
17PBFSBP	Graduation Workshop	Z	1	0 + 0,5	Obligatory discipline
17PBFSPA2	Sports (Part 2)	Z	1		Obligatory discipline
17PBFVLG2	Internal Medicine and Geriatrics (Part 2)	Z, ZK	3	2 + 1	Obligatory discipline
17PBFVVK	Kinesiology	Z, ZK	2	2 + 0	Obligatory discipline
17PBFZPS	Basics of pedagogy and special pedagogy	Z, ZK	1	1 + 1	Obligatory discipline
17PBFZPP	Fundamentals of Psychiatry and Psychotherapy	Z, ZK	2	2 + 1	Obligatory discipline

Year 3, Term 5, full-time education of the 1st cycle

Code	Title	Form of control	Number of credits	ECTS / Total hours	Role
17PBFFPE	Physiotherapy in Pediatrics	Z, ZK	4	2 + 2	Obligatory discipline
17PBFGYP	Gynecology and Obstetrics	KZ	2	1 + 0	Obligatory discipline
17PBFMVP	Research Methodology	Z	2	1 + 1	Obligatory discipline
17PBFOPR3	Professional practice in a rehab medical institution (Part 3)	KZ	10	240 h	Obligatory discipline
17PBFSPR	Social and labor rehabilitation	Z, ZK	3	1 + 2	Obligatory discipline
17PBFSPA3	Sports (Part 3)	Z	1		Obligatory discipline
17PBFZRM1	Fundamentals of Reflexology and Manual Methods – The Bobath concept	Z	3	40 h	Obligatory discipline
17PBFZSI	Fundamentals of Statistics and Informatics	Z, ZK	3	1 + 2	Obligatory discipline
17PBFZLN	Health Legislation	Z, ZK	2	2 + 0	Obligatory discipline

Year 3, Term 6, full-time education of the 1st cycle

Code	Title	Form of control	Number of credits	ECTS / Total hours	Role
17PBFOAR3	Professional practice in the outpatient rehabilitation department (Part 3)	KZ	12	240 h	Obligatory discipline
17PBFORU3	Professional practice in a rehab medical institution (Part 3)	KZ	10	160 h	Obligatory discipline
17PBFZRM2	Fundamentals of Reflexology and Manual Methods – The Bobath concept (Part 2)	ZK	4	25 h	Obligatory discipline
17PBFZBP	Writing a graduation project	Z	4	2 тижні	

The Master's program consists of two years of study, that is, four semesters. Each semester includes 6 subjects (5 obligatory and 1 obligatory elective), that is, a total of 30 credits per semester. In total, the student must receive 120 credits for the entire course, including master's work. Charles University provides a master's program of 4 years of study with the inclusion in the training program a high level theoretical knowledge for the management of units of hospitals, specialized departments, etc.

2.3. Slovenia

Bachelor's studies in "Physical Therapist" in Slovenia are carried out for 3 years with a program content of 180 ECTS credits and master’s programme for 2 years with a 120 ECTS credits. After 3 years, graduates receive a diploma - "Certified Physiotherapist".

The Bachelor's program of the first level lasts 3 years (6 semesters) and includes 180 ECTS credits. The undergraduate program contains a curriculum of compulsory subjects that provides basic knowledge; electives ones are introduced in the fourth semester of study. The sixth semester contains only practical classes in the amount of 5 ECTS and writing a thesis in the range of 15 ECTS. Optional subjects

are rated at 5 ECTS. The student can choose as specialized additional subjects, and proposed other additional subjects.

Students provide training on:

1. 28 compulsory subjects (120 ECTS credits);
2. 4 free elective subjects (40 ECTS);
3. Workshop (5 ECTS credits);
4. Thesis (15 ECTS credits).

The Master's curriculum in Health Sciences has 4 areas:

1. Physiotherapy;
2. Integral Health Sciences;
3. Public Health;
4. Health.

The Master's program lasts 2 years and includes 120 ECTS credits. After graduating from the magistracy, graduates receive a diploma - "Master of Health Sciences".

The Master’s curriculum in Health Sciences is developed in an innovative way, with the combination of compulsory subjects and optional subjects in one direction in the first and second year of study.

Master's Courses

First Year, Term 1:

1. Research, research methods and statistics - 10 ECTS credits;
2. Ethical approaches and communicative skills in health -10 ECTS credits;
3. Public Health - 5 ECTS credits;
4. Quality and Health - 5 ECTS credits.

First Year, Term 2:

1. Healthcare legislation with an emphasis on patients' rights - 5 ECTS credits;
2. Preventive methods in Health Care - 10 ECTS credits;
3. Mental Health - 10 ECTS credits;
4. Health demography - 5 ECTS credits.

Second Year, Term 3:

1. Writing of scientific works and qualitative research methods in health care - 10 ECTS credits;
2. Obligatory subject of the chosen direction 1 - 5 ECTS credits;
3. Obligatory subject of the chosen direction 2 - 5 ECTS credits;
4. Additional subject 1 - 5 ECTS credits;
5. Optional course 2 - 5 ECTS credits.

Second Year, Term 4:

1. Additional subject 2 - 5 ECTS credits;
2. Master's Thesis - 25 ECTS credits.

SMER PHYSIOTHERAPY - compulsory subjects:

1. Rehabilitation - 9 ECTS credits;
2. Manual medicine and manual therapy - 5 ECTS credits.

SMER Health Care - compulsory subjects:

1. Education healthy lifestyle - 5 ECTS credits;
2. Modern theories of treating patients in terms of patient care - 5 ECTS credits.

PUBLIC HEALTH - compulsory subjects:

1. Healthy lifestyle education - 5 ECTS credits;
2. Epidemiology in health care - 5 ECTS credits.

INTEGRATED PUBLIC HEALTH - compulsory subjects:

1. Forms of Integrative and Complementary Medicine - 5 ECTS credits;
2. Scientific approach in integration medical sciences - 5 ECTS credits.

SELECTED SUBJECTS FOR ALL DIRECTIONS:

1. Stress in health and observation - 5 ECTS credits;
2. Modern approaches in the field of gerontological care - 5 ECTS credits;
3. Management of health care systems and processes - 5 ECTS credits;
4. Body - mind medicine - 5 ECTS credits;
5. Rehabilitation - 5 ECTS credits;
6. Healthy lifestyle education - 5 ECTS credits;
7. Quality and Health - 5 ECTS credits;
8. Scientific approach in integrative health science - 5 ECTS credits;
9. Selected sections of functional human anatomy - 5 ECTS credits;

10.Integrated oncology - 5 ECTS credits.

2.4. Bulgaria

Bulgaria is one of the countries in Europe, which has 4 years of higher education in the field of Kinesitherapy. Subjects studied at universities accredited by the NEAA with the highest rating "very good". Education has 3 degrees - Bachelor, Master and Doctor.

The Bachelor's program includes 4 years of study - eight full-time semesters with 240 credits for obtaining a bachelor's degree in kinesitherapy, where applicants can be trained both after graduating from secondary education and with the diploma of a junior specialist in the field of medicine. Preparation for the "Kinesitherapy" is based on the educational program developed by universities, including basic subjects, special, elective, elective courses, specialized / clinical / training courses /, development of course work, development of the thesis (optional).

The Master's programs includes 1 year of full-time study with 60 credits. They provide the opportunity to deep knowledge, based on modern achievements of theory and practice. It is also possible to increase their skills in certain areas of kinesitherapy and practice the profession at a higher professional level. The training includes basic, special, elective modules, clinical practice, preparation and defense of the master's thesis.

Master's compulsory subjects

First Year, Term 1:

1. Applied Physics - 4 ECTS credits;
2. Anatomy of motion, kinesiology (Part 1) - 5 ECTS credits;
3. Neurophysiology of movement - 4 ECTS credits;
4. Spiroergometry, Isokinetic dynamometry, Kinesiology, Electromyography – 6 ECTS credits;
5. Scientific research and non-parametric statistical methods - 5 ECTS credits.

First Year, Term 2:

1. Anatomy of motion, kinesiology (Part 2) - 4 ECTS credits;
2. Bioenergetics of physical activity - 3 ECTS credits;

3. Physical activity, health, morbidity and ergotherapy - 5 ECTS credits.

2.5. Latvia

Latvia is one of the countries in Europe that has a two-phase (undergraduate and postgraduate) higher education in the field of Kinesitherapy. Specialists in this field are trained in 2 universities: Riga Stradins University and the Latvian Academy of Sport Education.

At the Riga Stradins University specialists are trained in the direction of Health Care.

The bachelor's study program is accredited till 05/08/2023.

Degree awarded: A Bachelor's Degree in Health Care.

Language: English

Credit Points / ECTS: 160/240.

The curriculum aims to provide a comprehensive process of research and research capabilities: convenient and well-equipped classrooms and laboratories, IT infrastructure, a modern library that provides direct access to global databases and a modern Center for Medical Education Technologies.

Full-time education: lectures, practical classes, seminars, discussions and independent work (group and individual projects and presentations of research projects). RSU has introduced a modern e-learning platform that constantly offers new learning opportunities.

The main part of the curriculum consists of practical classes designed to acquire professional competencies. The practical part is implemented through work in small groups, which provides an individual approach to all students. If necessary, individual consultations are provided, as well as students' and recommendations and suggestions are taken into account. Students can use physiotherapy rooms for self-directed practical training.

1st Academic Year

Students master the basic disciplines of medicine - anatomy, physiology, biology and microbiology, as well as special subjects - the basics of physiotherapy,

sports education, biomechanics, first aid, medical terminology in foreign languages, philosophy and ethics, research methods, biometrics, economics and business basics.

2nd Academic Year

Students receive the basics of clinical disciplines - pathological physiology, propedeutics of internal diseases, clinical pharmacology, clinical care, internal diseases, general surgery and medical technology. Special disciplines include the main courses of physical therapy - ergonomics, physical medicine, massage, sports education, assessment of functional capacity, general and communicative psychology, environmental protection, public health, etc.

3rd Academic Year

Students master clinical disciplines - neurology, orthopaedics, pediatrics, infectious diseases. Special disciplines include physiotherapy in orthopaedics, internal diseases and geriatrics, neurology and pediatrics, general rehabilitation, basic research methodology, sports medicine, health promotion and prevention in physiotherapy.

4th Academic Year

Students undergo clinical internships and are preparing to write a bachelor's thesis. The purpose of clinical internship is to strengthen the knowledge acquired during the training, develop and improve practical skills of working with patients of different age groups and pathologies in preventing or reducing functional disorders and acquiring competence in the selected profession, corresponding to professional regulations of training of physiotherapists.

Each student must undergo an internship in 5 different fields, which allows them to strengthen their knowledge in working with children, adults and the elderly people with various diseases: orthopedic, neurological, cardiovascular, pulmonary and surgical, and work with post-traumatic patients.

Students can also choose to practice in another EU member as part of the ERASMUS + mobility program. This allows students to meet with their future colleagues from all over Europe while studying. For example:

- Children's Clinical University hospital;
- Traumatology and Orthopaedics Hospital;

- Riga 2nd Hospital;
- National Rehabilitation Centre "Vaivari";
- "Mēs esam līdzās" children's rehabilitation center;
- Rehabilitation Centers "Baltezers", "Sanare";
- "Jaunkemeri" Health and Rehabilitation Center;
- Riga Health Center.

Methods of training:

At the initial stage of the educational process, the main attention is paid to studying the basic disciplines of medicine, but students also begin to study professional disciplines already in the 1st semester, and this will increase proportionally in the 2nd and 3rd years of study.

In addition, students take general and elective courses and undergo a 26-week internship at the 4th academic year. Internship is one of the most important parts of the curriculum, followed by work and the thesis defense. For professional qualifications, students must pass a state exam.

The training program meets the requirements of the Decree of the Cabinet of Ministers of the Republic of Latvia No. 522 "On the state standard of the second level of professional higher education" and other applicable laws and regulations. The content of the curriculum has been improved on the basis of the recommendations of professional associations (WCPT, WCPT ER, LFA) and ENPHE (European Network of Physiotherapy in Higher Education).

The 1st cycle of study (undergraduate programme)

Code	Title	Educational department	ECTS
MK_061	Anatomy	Department of Morphology	6 / 9
REK_075	Assessment and classification of the functional limitations	Department of Rehabilitation	2 / 3

PMUPK_010	Basics of Psychotherapy	Department of Psychosomatic Medicine and Psychotherapy	2 / 3
FLK_014	Basics of Pharmacology	Department of Pharmacology	2 / 3
VPUPK_116	Basics of Psychology	Department of Health Psychology and Pedagogy	2 / 3
BUMK_026	Biology and Genetics	Department of Biology and Microbiology	2 / 3
FK_002	Biomechanics	Department of Physics	1 / 1.5
SUUK_032	Equipment for cardio-fitness and strength training	Department of Sports and Nutrition	2 / 3
KPUMTK_010	Civil and environmental defense, first aid		2 / 3
REK_085	Clinical Physical Medicine	Department of Rehabilitation	1 / 1.5
REK_087	Clinical placement	Department of Rehabilitation	19 / 28.5
LUSDK_052	Cultural and Religious Diversity	Department of Social Welfare and Social Services	2 / 3

IUDK_002	Dermatovenereology	Department of Infectology and Dermatology	1 / 1.5
REK_024	Development and thesis defense	Department of Rehabilitation	10 / 15
SVUEK_046	Fundamentals of Economics for Business	Department of Public Health and Epidemiology	2 / 3
AURK_003	Emergency aid (Part 2)	Department of Anesthesiology and Intensive Care	1 / 1.5
VC_039	English in rehabilitation	Language Center	2 / 3
AUVMK_035	Ecology and basics of civil protection	Department of Professional and Environmental Medicine	1 / 1.5
REK_046	Ergonomics, coursework	Department of Rehabilitation	4 / 6
SUUK_018	Different methods of fitness	Department of Sports and Nutrition	2 / 3
REK_194	Functional evaluation and treatment in Physiotherapy (Part 1)	Department of Rehabilitation	5 / 7.5
REK_195	Functional evaluation and treatment in	Department of Rehabilitation	5 / 7.5

	Physiotherapy (Part 2)		
REK_034	General Physical Medicine	Department of Rehabilitation	2 / 3
REK_032	General rehabilitation	Department of Rehabilitation	3 / 6
KK_007	General surgery	Department of Surgery	1 / 1.5
VC_041	German in rehabilitation	Language Center	2 / 3
REK_078	Group work for functional professionals	Department of Rehabilitation	2 / 3
REK_029	Health and Prevention in Physiotherapy	Department of Rehabilitation	2 / 3
MVI_002	History of medicine	Institute of Medical History	1 / 1.5
REK_079	Hydrotherapy	Department of Rehabilitation	1 / 1.5
IUDK_004	Infectious diseases and tuberculosis	Department of Infectology and Dermatology	1 / 1.5
ISK_193	Internal Diseases	Department of Internal Diseases	2 / 3

ISK_017	Propedeutics of internal diseases	Department of Internal Diseases	1 / 1.5
REK_083	Kinesiology	Department of Rehabilitation	3 / 4.5
SVUEK_077	Legal aspects of professional activity	Department of Public Health and Epidemiology	1 / 1.5
REK_104	Massage	Department of Rehabilitation	2 / 3
RAK_002	Medical technology (radiation diagnostics)	Department of Radiology	1 / 1.5
VC_007	Medical terminology in Latin and Greek	Language Center	1 / 1.5
REK_129	Methods of research (Part 1)	Department of Rehabilitation	2 / 3
REK_130	Methods of research (Part 1)	Department of Rehabilitation	2 / 3
REK_112	Control of motor activity	Department of Rehabilitation	3 / 4.5
NUNK_014	Neurology and Neurosurgery	Department of Neurology and Neurosurgery	2 / 3
SUUK_049	Nordic walking	Department of Sports and Nutrition	2 / 3

SUUK_102	Food Education	Department of Sports and Nutrition	2 / 3
SUUK_004	Obesity and its treatment	Department of Sports and Nutrition	2 / 3
ORTK_003	Orthopedics	Department of Orthopedics	2 / 3
PEK_035	Pediatrics	Department of Pediatrics	1 / 1.5
PAK_038	Pathological physiology	Department of Pathology	2 / 3
VPUPK_088	Pedagogy	Department of Health Psychology and Pedagogy	2 / 3
VPUPK_168	Pedagogy in Health Care	Department of Health Psychology and Pedagogy	2 / 3
VPUPK_169	Personality and Health	Department of Health Psychology and Pedagogy	2 / 3
LUSDK_211	Philosophy and Ethics	Department of Social Welfare and Social Services	2 / 3
CFUBK_050	Physiology	Department of Human Physiology and Biochemistry	4 / 6

REK_057	Physiotherapy in Gynecology and Obstetrics	Department of Rehabilitation	1 / 1.5
REK_060	Physiotherapy in internal medicine and geriatrics	Department of Rehabilitation	4 / 6
REK_062	Physiotherapy in Neurology; Coursework	Department of Rehabilitation	8 / 12
REK_063	Physiotherapy in Orthopedics: Coursework	Department of Rehabilitation	5 / 7.5
REK_064	Physiotherapy in Pediatrics	Department of Rehabilitation	2 / 3
SUUK_128	Pilates	Department of Sports and Nutrition	2 / 3
VPUPK_175	Professional communication	Department of Health Psychology and Pedagogy	1 / 1.5
PUNK_006	Psychiatry and Mental Health	Department of Psychiatry and Narcology	2 / 3
REK_011	Health Care	Department of Rehabilitation	1 / 1.5
VC_040	Russian in rehabilitation	Language Center	2 / 3

VPUPK_166	Self-efficacy and self-regulation	Department of Health Psychology and Pedagogy	2 / 3
SUUK_156	Sports for Health (Part 1)	Department of Sports and Nutrition	6 / 9
SUUK_084	Sports and Games	Department of Sports and Nutrition	2 / 3
REK_168	Sports Medicine	Department of Rehabilitation	2 / 3
REK_023	State Exam	Department of Rehabilitation	2 / 3
LUSDK_016	Violence, psychosocial factors	Department of Social Welfare and Social Services	2 / 3
DUGK_010	Women's Health	Department of Obstetrics and Gynecology	1 / 1.5

The master’s study program is accredited till 05/08/2023.

Degree awarded: A Master’s Degree in Health Care.

Language: English

Credit Points / ECTS: 80/120.

The first year of study includes training courses on health care and rehabilitation, as well as the role of an effective multidisciplinary team in providing rehabilitation services. Students gain knowledge about different approaches to assessing needs, opportunities and risks at different levels - the patient, his / her family, caretakers; rehabilitation group; organizations; States - and develop the most

appropriate medical rehabilitation services. Students gain knowledge of compiling critical and systematic reports for the practical application of scientific evidence and the study of decision-making methods to facilitate better recovery of their future patients.

During the second academic year, students evaluate various assessment methods used in rehabilitation, as well as master and test different research methods that are important in the work and master's thesis defense.

The 2st cycle of study (master's program)

Code	Title	Educational department	ETCS
VVDG_018	Fundamentals of Financial Management	Health Care Management Training Group	4 / 6
KPUMTK_010	Civil and environmental defense, first aid		2 / 3
VPUPK_244	Development and adaptation of questionnaires in scientific work	Department of Health, Psychology and Pedagogy	2 / 3
REK_101	Development and thesis defense	Department of Rehabilitation	20 / 30
REK_189	Effective medical	Department of	6 / 9

	rehabilitation programs	Rehabilitation	
REK_164	Environment and assistive technologies in rehabilitation	Department of Rehabilitation	2 / 3
VPUPK_142	Healthy Behavior	Department of Health, Psychology and Pedagogy	2 / 3
VVDG_006	Design of Health Care System	Health Care Management Training Group	2 / 3
REK_192	Human Resource Management	Department of Rehabilitation	2 / 3
VPUPK_268	Human Resource Management	Department of Health, Psychology and Pedagogy	2 / 3
LUSDK_201	Integrated Health and Social Service Management	Department of Social Work	2 / 3
VVDG_024	Legal aspects of Health Care management	Health Care Management Training Group	2 / 3
REK_161	Multidisciplinary rehabilitation team	Department of Rehabilitation	2 / 3
PIC_001	Pedagogy	Center for improving the quality of education	2 / 3

REK_154	Planning and management of rehabilitation training programs	Department of Rehabilitation	2 / 3
REK_160	Design Management	Department of Rehabilitation	2 / 3
SVUEK_082	Public Health	Department of Public Health and Epidemiology	2 / 3
SVUEK_112	Public health and Epidemiology	Department of Public Health and Epidemiology	2 / 3
VVDG_020	Quality assurance and improvement of the health care system	Health Care Management Training Group	2 / 3
REK_208	Methods of research in rehabilitation (Part 1)	Department of Rehabilitation	6 / 9
REK_209	Methods of research in rehabilitation (Part 2)	Department of Rehabilitation	2 / 3
REK_163	Evidence-based rehabilitation	Department of Rehabilitation	6 / 9
VPUPK_166	Self-efficacy and self-regulation	Department of Health, Psychology and Pedagogy	2 / 3

REK_190	is updated	Department of Rehabilitation	2 / 3
REK_191	is updated	Department of Rehabilitation	6 / 9
REK_193	is updated	Department of Rehabilitation	4 / 6
REK_025	Transfer and application of new knowledge in rehabilitation	Department of Rehabilitation	2 / 3
REK_198	Assessment of working capacity and prevention of disability	Department of Rehabilitation	2 / 3

The Latvian Academy of Sport Education

The name of the bachelor's program is "Professional Bachelor's program in Physiotherapy". Code: 42722.

Obtained professional qualification: physiotherapist;

Degree awarded: Professional Bachelor Degree in Physiotherapy;

The study program is accredited till 16/06/2019;

Forms of training: full-time / part-time education;

Duration: full-time 4 years (8 semesters), part-time training 4.5 years (9 semesters); (240 ECTS credits).

Entry Requirements:

- CE (Certificate) in Latvian language (level A-E);
- CE (Certificate) in Foreign language (English, French, German, Russian) (Level A-E);
- CE (Certificate) Biology (Level A-E).

The objectives of the program are to provide relevant professional research in the field of rehabilitation that meets the economic and social needs of Latvia, contributing to the training of qualified and professional physiotherapy specialists in accordance with the Decree of the Cabinet of Ministers of Latvia No. 522 "On the state standard of the second level of professional higher education".

The program task:

- to introduce professional and practically applied research on physiotherapy that promotes democratic values and personal development in accordance with the professional standards of a physiotherapist;
- to provide in-depth knowledge of physiotherapy, to develop independent learning skills that prepare students for innovation, research and professional pedagogical work in physiotherapy;
- to promote the competitiveness of young specialists in the current socio-economic conditions in the local and international labor market;
- to increase the readiness of graduates to obtain the qualifications of a physiotherapist by continuing their education in the master's program.

Final exams:

- Practical exam;
- Theoretical exam;
- Undergraduate work.

Characteristics of the curriculum: a professional master's program.

Direction of preparation: Health Care;

Title: "Health Care Specialist in Sports"; Code: 42722;

Duration: full-time 2 years (4 semesters), 120 ECTS credits;

Language: English (for foreign students);

Entry Requirements: bachelor's degree and physical therapist qualifications.

The objectives of the program are:

- to provide the economic, cultural and social needs of the country with appropriate professional interdisciplinary research in the field of health and sports science;

- to provide in the medical and sports science a theoretical basis based on relevant professional standards, practically applicable professional research in the work of a sports physiotherapist or specialist in adaptive physical activity in rehabilitation.

The main objectives of the program are:

- to train specialists with the fifth level of professional qualifications in the field of health and sports, as well as to increase their competitiveness during changes in socio-economic conditions and in the international labor market;
- to implement in the field of health and sports science the deepening of knowledge (including independent learning skills), in order to promote the development of democratic values, develop a personality and provide an opportunity to develop new or improve existing systems, products and technologies and prepare for creative scientific and pedagogical activity in this areas;
- to promote the readiness of those who have received the qualifications of a sports physiotherapist or a specialist in adaptive physical activity, to realize their professional qualifications by continuing their studies in doctoral and other lifelong learning programs.

The main sub-tasks of the curriculum are:

- to provide a theoretical knowledge base in the fundamental, medical and clinical fundamental disciplines of sports physiotherapy;
- to provide an opportunity to acquire professional knowledge, skills and attitudes in the field of health care in sports physiotherapy in the relevant subject area, to train competent specialists who are able to adequately understand and effectively solve professional and research tasks, successfully cooperating with other specialists in the field of patient care, participate in multi-disciplinary and interdisciplinary team work;
- to deepen the understanding of world development trends in the field of health care and sports physiotherapy by promoting the acquisition of the latest achievements in the chosen specialization;

- to develop and improve professional knowledge, skills and attitudes to clients / patients' research in the field of sports and assessment, as well as means of realization a sports physiotherapy process in accordance with the chosen specialization and professional sphere;
- to improve knowledge and skills in scientific research, to develop the ability to develop and implement research projects in specialization, critically evaluate and represent them;
- to expand students' knowledge of modern theories and practices regarding the functioning of the disorders and universal application of adaptive physical exertion;
- to promote critical analysis and understanding of the universal application of adaptive physical activity;
- to demonstrate different points of view in research and holistic assessment methods in the field of health care;
- to acquire skills in the development and implementation of adaptive programs of physical activity in an inclusive environment;
- to teach creative and adapted to changing circumstances professionals who are able to adapt to different situations and perform various duties related to adaptive physical activity in the healthcare sector;
- to develop the ability to critically evaluate and monitor the progress of the implementation of the APA program (adaptive physical activity) using personal and professional development;

The main tasks of the curriculum to be implemented:

- the introduction of training courses based on a scientifically based master training program;
- the connection of the study with the requirements of the labor market and the trends of the European Union in the field of health care and physiotherapy in sport, and in the dynamics of development of adaptive physical activity;
- creation of conditions for obtaining professional qualification of medical and physical-fitness workers, prerequisites and competencies for its implementation in the multilateral practice of sports physiotherapy;

- development of the material and technical base, improving the possibilities of student scientific and practical work;
- creating opportunities for students to acquire practical skills in sports physiotherapy, organizing opportunities for professional qualifications in Latvian state sports topics, sports federations, sports clubs, rehabilitation centers, recreational tourism, as well as sports entertainment centers;

Expected results of the training program:

- the learning outcomes are defined in such way that they are in line with both the Framework for Qualifications of the European Higher Education Area (The Bologna Process) and the European Qualifications Framework for Lifelong Learning (EQF). Entrenched researches are an integral part of research work and the development of independent knowledge and conclusions;
- providing high professional and ethical practice, a sports physiotherapist will be able to promote safe physical activity for athletes of all ages, provide counseling, rehabilitation services and training to prevent injure, restore optimal performance, and improve athletic performance;
- the acquired professional qualification of a sports physiotherapist with a professional master's degree in sports physiotherapy gives the right to work in practical preventive, rehabilitation and active sports physiotherapy positions;
- the LASE Master’s program "Healthcare Specialist in Sport" provides in-depth knowledge and understanding of medical care, sports science, sports medicine, sports psychology, and physiotherapy in the field of sports. The main part of the sports physiotherapy program consists mainly of sports sciences, theoretical and practical skills in sports physiotherapy, evaluation of therapeutic intervention and the effects of side effects, the development of relevant and scientifically based concepts. The main part of the program of training specialists in adaptive physical activity consists of theoretical and practical skills of physiotherapy, physical education and kinesiology.

"Healthcare Specialist in Sport" qualification for training in APA

Subjects	LCP (local control programme)	ECTS credits
Training courses that provide learning the latest achievements in theory and practice		
Dynamic anatomy	2	3
Basic principles of functional limitations	2	3
Clinical diagnosis in APA	1	1,5
Comprehensive rehabilitation in APA	6	9
Manual Therapy in Sport	2	3
Control of Motor Activity	1	1,5
Neurophysiology	1	1,5
Evaluation methods in rehabilitation	2	3
APA in Gerontology	1	1,5
Equipment / technology in APA	1	1,5
APA in Education	1	1,5
Pharmacology and Doping Control in Sport	2	3
Physiology and nutrition hygiene	1	1,5
Movements Physiology	2	3
Adaptive Sport	2	3
Theory and practice of APA	2	3
Psychological aspects of APA	1	1,5
Task of sports science (theory and practice)	4	6
Medical care for athletes with disabilities	1	1,5
Sports Biomechanics	1	1,5
Training courses in research, creative and project work, management		

Health Care Management in Sports	1	1,5
Scientific vocabulary of a foreign language in Health Care in Sports	2	3
Scientific research in the field of Health Care in Sports, the structure of scientific research	2	3
Educational courses in Pedagogy and Psychology		
Health Psychology	1	1,5
Sociology	1	1,5
Internship outside the HES		
Internship in professional qualification - 1	7	10,5
Internship in professional qualification - 2	7	10,5
Master's state exam, part of which is the development and master's work defense		
Research - development of master's work	8	12
Research work - 1	1	1,5
Research work - 2	1	1,5
State exams	4	6
State exams, including writing and master's work defense	9	13,5
Total	80	120

2.6. Lithuania

Lithuania also holds a two-phase (bachelor and master) higher education in the field of Kinesitherapy. Training of specialists in this field is carried out in the Lithuanian Sports University (LSU) at the Faculty of Sport Biomedicine.

Bachelor’s program.

Language: English B2 level or IELTS 6.0 / TOEFL 5.50;

ECTS: 240 credits;

Beginning of training: 15 of September;

Forms of training: full-time education;

Duration: 4 years;

Entry Requirements: Diploma of secondary education;

Diploma: Bachelor of Rehab, Physiotherapist.

The goal of the program is to train highly qualified physiotherapists at the university level on the basis of the latest fundamental and applied interdisciplinary

sciences and modern technological advances. Graduates will be ethically responsible, creative and entrepreneurial, professionally providing modern research and development services in physiotherapy, including testing and evaluating the patient's clinical condition, the need for physiotherapy and diagnostics, planning, implementation and evaluation the effectiveness of physiotherapy procedures.

Competences:

- have a structure of clinical thinking based on the knowledge of biomedical sciences;
- collect, analyze and critically interpret the subjective and objective information associated with the patient (client);
- plan and conduct a physiotherapeutic assessment based on a clinical hypothesis;
- determine a physiotherapeutic diagnosis and the need for physical therapy based on the information gathered, assessment analysis and critical interpretation;
- the study and interpretation of central nervous, sensory and reflex injuries at motor control for various types of patients based on current research and reliable methods;
- the study and interpretation of violations of cognitive functions of different types of patients based on current research and reliable methods;
- the study and interpretation of indicators of the functional state and disorders of the cardiovascular system for various types of patients based on current research;
- research and interpretations of disorders of the functional state of skeletal muscles, bones, ligaments and tendons in various types of patients based on current research and reliable methods.

Features: the program is designed in accordance with the requirements of the World Confederation for Physical Therapy (WCPT), which defines the profession and competencies of a physical therapist. The program includes course units that are not included in physical therapy programs at other Lithuanian universities. The

program offers 54 types of clinical practice in Lithuania and abroad, where internship training is led by specially trained clinical instructors.

Careers' opportunities: graduates will be able to continue postgraduate study in one direction of study (Master's program in Physiotherapy) or other related training programs aimed at obtaining a Master's degree. Graduates will have wide opportunities for employment at all levels of health care facilities (first, second, third), as well as in nursing, well-being and education.

Curriculum

Year	1		2		3		4	
Term	1	2	3	4	5	6	7	8
ECTS credits	30	30	30	30	30	30	30	30
Number of modules	4	4	4	4	4	4	4	4
1. Introduction to Sports Science	10							
2. Anatomy	10							
3. Biochemistry and nutrition	5							
4. Individual sport disciplines	5							
5. Academic Communication and Lithuanian Standards		10						
6. Health Policy and Basics of Rehabilitation		5						
7. Basics of Physiotherapy		10						
8. Sports Games		5						
9. Physiology of sport and exercises			10					
10. Motor control and training			10					
11. Genetics, Immunology and Pathophysiology			5					
12. Technologies of physical activity (yoga, fitness, Pilates)			5					
13. Sports medicine, first aid				5				
14. Internal Diseases and Physiotherapy of Geriatric Patients				5				
15. Applied Kinesiology				10				
16. Internship 1				10				
17. Physiotherapy in Orthopedics and trauma treatment					10			
18. Physiotherapy of patients with gynecological,					1			

obstetric pathology and childhood diseases					0			
19. Therapeutic massage and physiotherapy					10			
20. Electives						5		
21. Fundamentals of Pharmacology						5		
22. Modern Neuro-Rehabilitation						10		
23. Internship 2						10		
24. Psychology and Pedagogy (general and special)							5	
25. Electives							5	
26. Internship 3							10	
27. Research Methodology							10	
28. Internship 4								10
29. Thesis								20

Master's program.

Faculty: Sport Biomedicine;

Language: English B2 level or IELTS 6.0 / TOEFL 5.50;

ECTS: 120 credits;

Beginning of training: 15 of September;

Forms of training: full-time education;

Duration: 2 years;

Entry Requirements: higher education, bachelor of rehabilitation / physiotherapy, qualification of a physiotherapist;

Diploma: Master of Rehab, Physiotherapist.

Goals: the program is based on international research technologies and equipment, aimed at developing hypotheses, initiating and implementing biomedical research, developing local and international projects, monitoring physiotherapists, working in private practice and continuing their postgraduate education.

Competences:

- scientific and technical knowledge and change management;
- leadership and change management;

- lifelong learning and personalization;
- formation of conclusions;
- project management and organization;
- management and entrepreneurship.

Careers' opportunities: graduates will be able to work in the field of health and education, and in the future to receive a Ph.D. degree in Biomedicine.

Curriculum

Basic disciplines – 30 credits

Specialized disciplines – 90 credits

Total – 120 credits

Term	1	2	3	4	
ECTS credits	30	30	30	30	120
Number of disciplines	3	3	1	1	
Basic disciplines					
Modern rehabilitation technologies	10				
Innovations and differential diagnostics in physiotherapy	10				
Chronic non-infectious diseases and clinical pharmacology	10				
Methodology and statistics in biomedical research		10			
Neuroscience		10			
Organizational innovation and research projects		10			
Term	1	2	3	4	
ECTS credits	30	30	30	30	120
Number of disciplines	3	3	1	1	8
Specialized disciplines			30		
Sports Physiotherapy					
Neurology and telerehabilitation					
Master's work				30	
Specialized disciplines					
Sports Physiotherapy					
Organizational, managerial and pedagogical psychology			10		
Skeletal muscles and motor control			10		
Sports Medicine			10		
Neurology and telerehabilitation					
Advanced technology in neuro-muscular physiotherapy			10		
Telerehabilitation, robotics and virtual reality			10		
Brain and stress			10		

USED SOURCES

1. https://www.ug.dk/uddannelser/professionsbacheloruddannelser/socialogsundhedsuddannelser/fysioterapeut
2. https://www.ug.dk/uddannelser/bachelorogkandidatuddannelser/kandidatuddannelser/sundhedsvidenskabeligekandidatuddannelser/fysioterapi
3. https://www.fysio.dk/kurser--uddannelse/karriere-og-uddannelse/grunduddannelsen

4. https://www.retsinformation.dk/forms/r0710.aspx?id=180536
5. https://www.smh.aau.dk/digitalAssets/68/68381_81530_bilag-3a-sund_nyeuddannelser.pdf
6. https://www.sdu.dk/da/Uddannelse/Kandidat/Fysioterapi
7. https://utdanning.no/studiebeskrivelse/fysioterapi
8. https://utdanning.no/yrker/beskrivelse/fysioterapeut
9. https://fysio.no/Bli-fysioterapeut/Norske-utdanningssteder
10. https://www.oslomet.no/studier/hv/fysioterapi
11. https://www.uib.no/en/education
12. https://www.ntnu.no/studier
13. https://bjorkneshoyskole.no/?gclid=Cj0KCQiAheXiBRD-ARIsAODSpWOSkqP5eLwLivnF9aKjDrpSCIQgFAviUkwLX7sxDHe44ncAmHElPGkaAuDYEALw_wcB
14. https://www.jyu.fi/fi/hakijalle/koulutustarjonta/fysioterapian-maisteriohjelma-terveystieteiden-maisteri-2-v-1
15. www.arcada.fi
16. www.jamk.fi
17. www.lamk.fi
18. www.lapinamk.fi
19. www.laurea.fi
20. www.metropolia.fi
21. www.mamk.fi
22. www.oamk.fi
23. www.karelia.fi
24. www.saimia.fi
25. www.samk.fi
26. www.savonia.fi
27. www.seamk.fi
28. www.tamk.fi
29. www.turkuamk.fi
30. https://www.umu.se/utbildning/utbildningsplan/vysjg/

31. http://www.uu.se/utbildning/utbildningar/selma/program/?pKod=MFT1Y
32. https://utbildning.gu.se/program/program_detalj/?programid=V1FYP
33. https://www.student.med.lu.se/stod-redskap/terminstider-kursplaner/fysioterapeutprogrammet
34. https://www.umu.se/utbildning/program/masterprogram-i-fysioterapi/
35. https://www.med.lu.se/master_medicinsk_vetenskap/mer_information_om_programmet
36. https://www.student.liu.se/program/mgfy2/fristaende-kurser/masterprogram-i-sjukgymnastik?l=sv
37. https://neurophys.gu.se/sektioner/halsa-och-rehabilitering/utbildning/magister-master/arbetsterapi-fysioterapi-avancerad-niva
38. http://www.uu.se/utbildning/utbildningar/selma/program/?pKod=MFH2M
39. St. Pölten Fachhochschule [Elektronische Ressource]. URL: https://www.fhstp.ac.at/de
40. Private Universität für Gesundheitswissenschaften, Medizinische Informatik und Technik [Elektronische Ressource]. URL: http://www.studieren.at/hochschulen-oesterreich/umit-private-universitaet
41. FH Joanneum, Fachhochschule [Elektronische Ressource]. URL: https://www.fh-joanneum.at/?lan=en
42. FH Gesundheitsberufe OÖ GmbH [Elektronische Ressource]. URL: http://www.fh-gesundheitsberufe.at/
43. FH Campus Wien [Electronic resource]. URL: https://www.fh-campuswien.ac.at/
44. Donau-Universität Krems [Elektronische Ressource]. URL: http://www.donau-uni.ac.at/de/index.php
45. FH Gesundheit Tirol [Elektronische Ressource]. URL: http://www.studieren.at/hochschulen-oesterreich/fh-gesundheit
46. Die Med Uni Graz [Elektronische Ressource]. URL: http://www.medunigraz.at/

47. Chan Sharon and Clough Angela. A critical evaluation of evidence-based practice of physiotherapy in musculoskeletal medicine // International Musculoskeletal Medicine. 2010. Vol. 32. Issue 4. P. 163-166.

48. Avans Hogeschool, Opleiding Fysiotherapie [Electronic resource]. URL: http://www.avans.nl/opleidingen/opleidingzoeker/fysiotherapie-breda-voltijd-bachelor/introductie.

49. Bithell C. Entry-level physiotherapy education in the United Kingdom: governance and curriculum // Physical Therapy Reviews. 2007. Vol. 12. № 2. June. P. 145-155.

50. Hanzehogeschool Groningen, Academievoor Gezondheidsstudies [Electronic resource]. URL: https://www.hanze.nl/nld/onderwijs/gezondheid/academie-voor-gezondheidsstudies

51. Hogeschool Leiden, Afdeling Fysiotherapie [Electronic resource]. URL: https://www.hsleiden.nl/fysiotherapie.

52. Hogeschool Rotterdam [Electronic resource]. URL: https://4en5mei.exposure.co/bommen-op-rotterdam-twee-perspectieven-n-verhaal/ (дата звернення: 17.02.2014).

53. Hogeschoolvan Amsterdam [Electronic resource]. URL: http://www.hva.nl/ (дата звернення: 17.02.2014).

54. Hogeschoolvan Arnhemen Nijmegen, Opleiding Fysiotherapie [Electronic resource]. URL: http://www.han.nl/opleidingen/bachelor/fysiotherapie/vt/

55. Hogeschool Utrecht, Faculty of Health Care, Dptof Physiotherapy [Electronic resource]. URL: http://columbiaphysicaltherapy.org/

56. https://www.healthcareers.nhs.uk/career-planning/course-finder?field_leading_to_a_career_in_tid=196&field_qualification_type_tid=64&field_study_mode_tid=57&field_region_tid=All&field_provider_name_tid=All&temp=All

57. https://www.birmingham.ac.uk/undergraduate/courses/sportex/physiotherapy.aspx

58. http://www.tees.ac.uk/prospectus/ug/UG_course.cfm?courseid=147&fos=9&fossub=25

59. https://www.lsbu.ac.uk/courses/course-finder/physiotherapy-integrated-masters

60. http://www4.rgu.ac.uk/coursedb/disp_course_info.cfm?courseref=0581

61. http://about.brighton.ac.uk/sohp/prospective/physiotherapy/

62. http://about.brighton.ac.uk/sohp/prospective/physiotherapy/

63. https://www.brighton.ac.uk/courses/study/physiotherapy-pre-registration-msc-pgdip.aspx

64. https://www.southampton.ac.uk/healthsciences/postgraduate/taught_courses/msc_physiotherapy.page#%3Cfont_style%3D%22vertical-align%3A_inherit%3B%22%3E%3Cfont_style%3D%22vertical-align%3A_inherit%3B%22%3E%D0%BC%D0%BE%D0%B4%D1%83%D0%BB%D0%B8%3C%2Ffont%3E%3C%2Ffont%3E

65. https://www.shu.ac.uk/courses/physiotherapy/msc-physiotherapy-preregistration/full-time

66. http://lspa.lv/eng/index.php?option=com_content&view=section&layout=blog&id=22&Itemid=2

67. https://www.lsu.lt/en/studies/study-programmes/undergraduate-bachelors-degree-studies/

68. https://www.rsu.lv/en/undergraduate-programmes

69. https://matarka.hu/f_leiras.php?fsz=720

70. http://www.gyogytornaszok.hu/index.php?page=folyoirat

71. http://www.etszk.u-szeged.hu/

72. http://www.med.u-szeged.hu/karunkrol/szte-egeszsegtudomanyi/szte-egeszsegtudomanyi?folderID=24377&folderID=24377&objectParentFolderId=24377

73. http://www.u-szeged.hu/egyetemi-elet/egeszsegtudomanyi-141110/egeszsegtudomanyi

74. https://www.felvi.hu/

75. https://www.google.com/search?biw=1304&bih=697&ei=s9qQXLipNsuP6QTF6Jkg&q=nk.unideb.hu+apolas&oq=nk.unideb.hu+apolas&gs_l=psy-ab.3...11436.17990..20959...0.0..0.186.867.3j4.....0....1..gws-wiz.....35i304i39j33i160.VraZBw4iPAo

76. https://nk.unideb.hu/
77. https://mot.hu/kepzes/apolas-es-betegellatas-gyogytornasz-szakirany-ana
78. https://www.almamater.si/
79. http://www.fzj.si/blog/2017/05/04/nova-karierna-priloznost-na-fzab-studij-fizioterapije/
80. http://www.picbon.us/tag/%C5%A1tudij
81. http://www.fizioterapevtika.si/
82. http://www.webometrics.info/en/detalles/fizioterapevtika.si
83. https://www.fzab.si/
84. https://www.4icu.org/reviews/universities-urls/17390.shtm
85. http://www.fdmz.hr/index.php/home/novosti/1495-upisi-diplomski-2018
86. https://www.facebook.com/SSZFULJ/posts/httpwww2zfuni-ljsisistikiimate-vpra%C5%A1anje-pripombo-predlog-ali-namig-ki-bi-ga-%C5%BEel/384356591595969/
87. https://www.fzsri.uniri.hr/en/faculty/administrative-and-support-services.html
88. http://smotra.uniri.hr/
89. https://bg-bg.facebook.com/163941417038626/posts/httpwwwnsabg/291708654199665/
90. http://www.nsa.bg/
91. http://www.bgapt.org/home/content/html/main.htm
92. https://www.wcpt.org/node/27120
93. http://www.mu-pleven.bg/index.php/bg/
94. http://mu-pleven.bg/index.php?option=com_content&view=category&id=133&Itemid=324&lang=bg
95. http://www.matura.bg/uni/?typeID=uni&uID=4&ID=-1&sID=131
96. http://www.swu.bg/academic-activities/academic-programmes/bachelor-programmes/public-health/kinezitherapy.aspx
97. http://www.studyinpoland.pl/ru/index.php/component/jumi/university?scholid=88

98. https://eurostudy.cz/vuzy/karlov-universitet/
99. http://www.med.muni.cz/
100. https://www.lf.upol.cz/
101. https://lf.osu.cz/