

Physiotherapy Program - English Translation

UNIVERSITY NORTH, UNIVERSITY CENTRE VARAŽDIN
DEPARTMENT OF PHYSIOTHERAPY

Undergraduate Study Program in Physiotherapy
(Bachelor Program) - English Course

FIRST YEAR

Anatomy with Histology

Course Coordinator: Nenad Kudelić, Alen Pajtak

Learning Outcomes:

- Name and recognize anatomical systems and structures.
 - Describe anatomical structures.
 - Define the topographic position of anatomical structures.
 - Differentiate the characteristics of anatomical structures.
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Physiology with Pathophysiology

Course Coordinator: Karlo Houra, Oliver Vasilj

Learning Outcomes:

- Recognize and differentiate physiological functions of a healthy organism by systems.
 - Observe the difference in organism functioning after physical activities.
 - Recognize and assess physiological reactions of the organism to fatigue, overtraining, and other altered physiological conditions.
 - Actively participate in assessing physiological functions of the organism and plan the application of devices for dosed physical exertion.
 - Observe fundamental pathological processes in the human body and recognize their connection with specific forms of pathology.
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Hygiene and Social Medicine

Course Coordinator: Marijana Neuberg, Tomislav Meštrović

Learning Outcomes:

- Explain definitions of health and health factors, and list and describe historical periods of social medicine and the main participants in that development.
 - Explain the difference between health needs and demands, and explain methods of assessment and procedure in evaluating the health status of the population.
 - Explain the healthcare system and financing models, recognize and explain the impact of environment on health.
 - List and describe typical situations in demographic development of the population and explain concepts of birth rate, mortality, natural population movement, infant mortality, and factors that determine them.
 - Define and explain components of demographic policy and explain the content and goals of work at different levels of healthcare, list healthcare institutions and healthcare workers, and differentiate healthcare workers from workers in healthcare.
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Fundamentals of Nursing

Course Coordinator: Jurica Veronek, Marija Arapović

Learning Outcomes:

- Describe the organization and principles of work in nursing.
 - Monitor vital signs in patients and recognize vital sign disorders.
 - Apply aseptic procedures in daily work.
 - Apply medication therapy.
 - Participate in teamwork.
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Psychological Development

Course Coordinator: Andreja Brajša-Žganec, Andreja Bogdan, Maja Kućar

Learning Outcomes:

- Describe and understand the characteristics of human psychological development throughout the entire lifespan.
 - Describe developmental norms and observe changes in physical, motor, cognitive, and social development, as well as personality development during the lifespan.
 - Develop sensitivity to different psychological needs of persons in different developmental periods.
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Introduction to Physiotherapy

Course Coordinator: Mateja Znika

Learning Outcomes:

- Define the concept of physiotherapy and analyze the historical development of physiotherapy.
 - Understand and describe the scope of work of physiotherapists.
 - Understand and describe the problems and need for applying physiotherapy.
 - Recognize and analyze types of physiotherapy organizational units and compare teamwork collaboration models.
 - Discuss the importance of introducing and respecting standards in the profession and research in physiotherapy.
 - Recognize activities related to health promotion and disease prevention at the level of individuals, families, and communities according to needs, together with various health and other professions.
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History of Physiotherapy

Course Coordinator: Miro Kovač

Learning Outcomes:

- Describe and understand the beginnings and historical development of physiotherapy.
 - Analyze and compare the development of physiotherapy in Croatia with the development of physiotherapy worldwide.
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The Role of Physiotherapy in Health Promotion and Disease Prevention

Course Coordinator: Vesna Hodić

Learning Outcomes:

- Explain the role of the physiotherapist in implementing health promotion and disease prevention.
 - Identify, analyze, and critically evaluate the relevance and importance of applying physiotherapy-based preventive processes, programs, and exercises in children, adults, and older adults.
 - Recognize the role of active engagement of physiotherapists in the development and preparation of preventive programs, as well as in educating the general population on the implementation and significance of health promotion and disease prevention in everyday life.
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An Interdisciplinary Approach in Health Protection and Improvement

Course Coordinator: Ivana Živoder, Marija Arapović

Learning Outcomes:

- Describe and explain health and disease, life and health phenomena, and factors that affect them.
 - List healthcare institutions and healthcare workers.
 - Explain primary, secondary, and tertiary organization of healthcare for the population - compare financing models.
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Health Psychology

Course Coordinator: Andreja Brajša-Žganec, Andreja Bogdan

Learning Outcomes:

- Evaluate the contemporary, comprehensive, biopsychosocial approach to health and disease.
 - Explain the influence of psychosocial factors on health and disease.
 - Recognize psychological reactions to physical illnesses.
 - Plan psychological preparation of patients for medical procedures.
 - Apply psychological knowledge and skills in health preservation, diagnostics, treatment, and rehabilitation.
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Principles of Geriatric Care

Course Coordinator: Marijana Neuberg, Irena Canjuga

Learning Outcomes:

- Describe and differentiate factors that affect the aging process and changes in the aging process.
 - Describe and discuss methods and procedures for assessing and monitoring changes in the aging process and old age.
 - Describe and discuss special problems of older persons and models of care for elderly people.
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Palliative Care in Modern Medicine

Course Coordinator: Valentina Novak, Duško Kardum

Learning Outcomes:

- Students will be able to know the general principles of palliative care, the main goals of providing palliative care.
 - Students will be able to clinically assess in patient care, know quality communication with patients and families, and teamwork in providing palliative care.
 - Students will be able to recognize candidates for palliative care, preparation and supervision of palliative patients, types and methods of procedures, therapeutic achievements, and possible complications in conducting necessary diagnostics and modern therapy in palliative patients.
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SECOND YEAR

Physiotherapy in Orthopedics

Course Coordinator: Vesna Hodić

Learning Outcomes:

- Differentiate the most common disorders of the muscular, skeletal, and tendinous systems.
 - Describe the etiology (traumatic, inflammatory, congenital, infectious, and tumorous) of the major groups of orthopedic disorders.
 - Perform an initial functional assessment of the locomotor system.
 - Develop or modify an individual rehabilitation protocol.
 - Identify the most common secondary conditions and complications affecting the neuromusculoskeletal system (e.g., swelling, paresis, healing complications, circulatory deficits, contractures, etc.) and appropriately consult or refer the patient to a specialized service or attending physician.
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Physiotherapy Skills I

Course Coordinator: Nikolina Zaplatić Degač

Learning Outcomes:

- Recognize and critically assess the usefulness of applying therapeutic exercises within the physiotherapy process.
- Apply and evaluate the effects of therapeutic exercises, functional training, and the use of aids.
- Apply aids, adaptive, protective, supportive means and equipment in the treatment process through movement.
- Recognize and critically assess the usefulness of applying manual therapy techniques including mobilizations and manipulations.
- Apply and evaluate the effects of manual therapy techniques aimed at reducing pain, increasing range of motion, and reducing functional limitations.

- Set specific goals achieved through the application of therapeutic exercises, manual therapy techniques, and functional training.
 - Demonstrate basic knowledge and skills of collaboration within a team.
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Clinical Medicine I

Course Coordinator: Željko Jeleč, Krešimir Martić

Learning Outcomes:

- Define fundamental principles of work in surgery and recognize and differentiate the basics of diagnostics in orthopedics, pathophysiological processes, and mechanisms of general disorders of the musculoskeletal system.
 - Name types of surgical procedures by nomenclature and regions, and recognize and describe complications of surgical operations.
 - Name and differentiate the clinical picture of general disorders, inflammatory diseases, degenerative and tumor diseases of the musculoskeletal system, congenital and acquired diseases of the musculoskeletal system by segments.
 - Recognize and describe injuries of the musculoskeletal system and recognize and differentiate treatment procedures for musculoskeletal system injuries and basic principles of treating acute and chronic conditions of sports injuries, and recognize and describe procedures for preventing injuries in sports.
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Clinical Medicine II

Course Coordinator: Diana Rudan, Duško Kardum

Learning Outcomes:

- Describe pathophysiological processes and mechanisms of disease onset and describe the clinical picture of cardiovascular system diseases.
 - Name, recognize, and describe diagnostic procedures and possibilities of conservative and surgical treatment of cardiovascular system diseases.
 - Describe pathophysiological processes and mechanisms of disease onset and describe the clinical picture of respiratory system diseases.
 - Name, recognize, and describe diagnostic procedures and possibilities of conservative and surgical treatment of respiratory system diseases.
 - Describe pathophysiological processes and mechanisms of rheumatic diseases and disorders, and name, recognize, and describe diagnostic procedures and treatment possibilities for rheumatic diseases and disorders.
 - Describe pathophysiological processes and mechanisms of female genital tract diseases and describe the physiology of pregnancy and childbirth and complications in pregnancy.
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Clinical Medicine III

Course Coordinator: Hrvoje Hećimović

Learning Outcomes:

- Describe the pathophysiology of neurological system diseases and motor system disorders.
 - Describe the clinical picture and diagnostic procedures in neurological diseases and treatment possibilities.
 - Describe concepts of mental health and illness.
 - Explain the concept of psychiatric care.
 - Name, recognize, and describe treatment possibilities for psychopathological disorders, organic disorders, addiction disorders, schizophrenic disorders, affective disorders, neurotic disorders, somatoform disorders, behavioral disorders, personality disorders.
 - Describe procedures for care and protection of healthy and sick children.
 - Name, recognize, and describe diagnostic procedures and treatment possibilities for childhood diseases and disorders.
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Communication Skills

Course Coordinator: Andreja Brajša-Žganec, Andreja Bogdan

Learning Outcomes:

- Recognize, compare, and analyze different forms of communication when working with clients and working in a professional team.
 - Differentiate successful and unsuccessful communication processes when working with clients and working in a professional team.
 - Assess the development of one's own communication skills and know how to adapt communication to the specifics of the interlocutor and situation.
 - Use basic communication skills in achieving goals of informational and therapeutic communication.
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Physiotherapy and Accelerated Postoperative Recovery

Course Coordinator: Nikica Daraboš

Learning Outcomes:

- Determine the importance of the need for accelerated patient recovery after surgery, ERAS protocols for patients during physiotherapy implementation.
- Plan and implement physiotherapy procedures in optimizing multidisciplinary healthcare within ERAS protocols for patients before and after surgery in specific

patient groups: orthopedic-traumatological, cardiovascular, neurological, pediatric, geriatric, oncological, etc.

- Monitor results and analyze the effects of physiotherapy within individual ERAS protocols before and after surgery for a specific patient group.
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Pediatric and Adult BLS and ALS

Course Coordinator: Nikola Bradić

Learning Outcomes:

- Apply different methods of opening and maintaining airways in adults and children.
 - Describe and explain life-threatening heart rhythm disorders on the monitor.
 - Apply external cardiac massage and ventilation of patients with cardiorespiratory arrest. Independently apply a manual defibrillator and determine appropriate energy in adults and children.
 - Calculate drug doses for resuscitation and defibrillation energy in the APLS procedure in children.
 - Demonstrate resuscitation procedures in specific patient groups - pregnant women, trauma, drowning.
 - Define the sequence of procedures during the resuscitation procedure.
 - Recognize basic symptoms and signs of cardiorespiratory arrest in adults.
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Physiotherapy I

Course Coordinator: Nikolina Zaplatić Degač, Snježana Benko Meštović

Learning Outcomes:

- Recognize and critically evaluate the specificities of different physiotherapy models for persons with cardiovascular and respiratory system disorders and diseases and tumor diseases.
 - Apply physiotherapy procedures in preventing the onset and treating diseases and disorders of the cardiovascular and respiratory systems and tumor diseases.
 - Assess and critically analyze the effects of the physiotherapy process for persons with cardiovascular and respiratory system disorders and diseases and tumor diseases.
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Neurorehabilitation

Course Coordinator: Hrvoje Hećimović

Learning Outcomes:

- Define anatomical and physiological processes of cognitive functions.

- Become familiar with the normal process of thinking and cognitive functions.
 - Become familiar with forms of behavioral disorders in chronic neurological diseases.
 - Become familiar with the basics of neurorehabilitation and modern diagnostics.
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Social Inclusion of People with Disabilities

Course Coordinator: Irena Canjuga

Learning Outcomes:

- Describe and understand techniques and specific interventions of a multidisciplinary approach in working with people with disabilities.
 - Differentiate and apply contemporary approaches in working with people with disabilities with the aim of raising quality of life and combating discrimination and stigma, as well as deinstitutionalization.
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Care for patients with Chronic Diseases

Course Coordinator: Valentina Novak

Learning Outcomes:

- explain the characteristics of chronic neurological, cardiac and pulmonary diseases
 - analyze differences in care for patients with chronic diseases and their family members
 - explain the segments of quality of life and the impact of chronic disease on the patient and family
 - design an approach to patient and family education
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THIRD YEAR

Physiotherapy in Rheumatology

Course Coordinator: Mateja Znika

Learning Outcomes:

- Recognize and differentiate normal human movement and normal function from pathological movement patterns by establishing a specific physiotherapy status of the patient.
 - Differentiate acutely from chronic conditions.
 - Know which form of physiotherapy can be applied in which case.
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Research Methods in Physiotherapy

Course Coordinator: Anica Hunjet, Goran Kozina

Learning Outcomes:

- Name all important elements of the research design, as well as the research report, and compare and recognize designs of different quality.
 - Understand the importance of conducting research in the field of physiotherapy, and plan and conduct simpler research.
 - Describe and apply basic statistical methods and procedures.
 - Name and use different statistical procedures and compare them regarding their advantages and disadvantages.
 - Recognize and describe data characteristics on individual measurement scales.
 - Enter, process, and interpret data in an appropriate computer program for statistical data processing.
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Physical Therapy in Bariatric Surgery

Course Coordinator: Alen Pajtak

Learning Outcomes:

- Describe and understand the basic problems of obesity and treatment models for obesity.
 - Describe and discuss one's role in physical therapy for obese patients.
 - Describe and discuss specific problems of bariatric surgical treatment, care, and nursing after bariatric surgery.
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Hippotherapy

Course Coordinator: Nikolina Zaplatić Degač

Learning Outcomes:

- Explain the role of the physiotherapist in conducting horse therapy.
 - Recognize and critically assess the usefulness of applying horse therapy.
 - Actively participate in the preparation and implementation of horse therapy.
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Fundamentals of Biofeedback Method

Course Coordinator: Ivana Živoder

Learning Outcomes:

- Understand and describe the development of the biofeedback method and its impact on health improvement, as well as the impact of stress on physiological reactions, and describe the application of the biofeedback method in solving difficulties caused by various stressors.
 - Describe measurement systems used in the biofeedback method (EMG, peripheral temperature, breathing, GSR, HRV, EEG) and their application in sports, education, medicine, etc.
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