

**UNDERGRADUATE  
STUDIES  
IN  
*PHYSIOTHERAPY***

**PROFESSIONAL STANDARDS  
OF A BACHELOR IN  
PHYSIOTHERAPY**

**SUBJECT: Physiotherapy**

Educational level: **Bachelor**

Professional qualification: **Physiotherapist**

The educational aim of the program in Kinesitherapy is to train highly qualified professionals, competent to perform functional diagnostics, preventive, therapeutic and rehabilitation activities by applying motor activity in all ages and professional groups, including health education, promotion of healthy lifestyle and sports. The education course provides acquiring of skills in the following fields:

- **Basic** – communication skills, foreign language and computing knowledge, ability to effectively estimate the patients' functional capacity based on the clinical way of thinking, using of informational technologies, ability to work in a team and to continuously improve one's professional skills.
- **Knowledge in fundamental sciences** – biological, physical, humanitarian and clinical.
- **Special professional skills** – performing of functional examination and evaluation, safe and effective application of the physiotherapeutic theory and methods for different pathological conditions, developing and application of a complete physiotherapeutic program and results registration, performance of physiotherapeutic procedures assigned by a specialist doctor.
- **Knowledge of current situation** – health system, ethical, moral and legal regulations, the part of the other professionals included in the multidisciplinary team and physiotherapy.

The **curriculum** has been developed according to the Unified national requirements for acquiring of university education in Physiotherapy and the "bachelor" educational level, the Bologna Declaration and the European Credit, Transfer and Accumulation System (ECTS). The education course includes obligatory, optional and facultative disciplines.

The obligatory sciences are united in the following modules:

- Fundamental humanitarian sciences, physical education and sports – they form knowledge and skills of students to make a full social contact with patients, to analyze and use specialized information, to professionally improve and mentally influence by studying of Medical Psychology and Medical Pedagogic, Theory and Methods of Physical Education, Computing, Analysis and Modelling of Motions, Basics of the Research Work with Medical Statistics, Physical Activity and Sports Related to Human Health, Adapted Physical Activity for Disabled People.
- Fundamental medical – biological sciences – they provide the theoretical basis of the specialized training. This module includes the following: Anatomy, Biophysics, Biochemistry, Physiology, Hygiene, Disastrous Situations Management, and Latin with Medical Terminology.
- Clinical sciences – they provide knowledge for the basic pathological processes and conditions regarding the physiotherapeutic intervention: Pathology, Orthopedics and Traumatology, Internal Diseases, Pediatric Diseases, Neurological and Psychic Diseases.
- Special sciences – they integrate the knowledge for structural – functional disorders with the entire therapeutic access and the special application of the physiotherapeutic methods for different diseases in particular. These include Biomechanics and Kinesiology, Pathological Biomechanics and Pathological Kinesiology, Basics of Physiotherapy, Devices and Methods, Patient Care, Social Medicine, Medical Ethics and Health Legislation,

Functional and Visual Diagnostics of the Muscular – Skeletal System, Pharmacology, Physiotherapy in Orthopedics and Traumatology with Orthotics and Prosthetics, Physiotherapy in Internal Diseases, Physiotherapy in Neurological and Psychic Diseases, Physiotherapy in Surgery, Obstetrics and Gynecology, Physiotherapy in Pediatrics, Physiotherapy in Geriatrics, Physiotherapy and Rehabilitation, Massage.

**The optional and facultative sciences** provide the opportunity to acquire specific knowledge and skills depending on the students' interests.

**The Practical Skills are trained through:**

- Clinical practice – 420 hours (from the 3<sup>rd</sup> until the 7<sup>th</sup> term).
- Summer Clinical Practice – 240 hours (4 weeks after the 4<sup>th</sup> and 6<sup>th</sup> term).
- Clinical Probation Practice – 450 hours (15 weeks during the 8<sup>th</sup> term).

**Graduation alternatives:**

- 1.1. Clinical Practical State Examination;
- 1.2. Theoretical State Examination;
- 2.1. Clinical Practical State Examination;
- 2.1. Bachelor Thesis.

**Career prospects:**

The specialists with professional qualification “physiotherapist” and education degree “bachelor” can perform prevention, therapy and rehabilitation in state and private hospitals, rehabilitation centers, sanatoriums, climatic schools, hotels, health resorts, fitness centers, sports dispensaries, professional health centers, professional and amateur sport clubs, schools' sport bases and centers.

**CURRICULUM OF  
PHYSIOTHERAPY**

**First Year**

<b>Code</b>	<b>First term</b>	<b>ECTS</b>	<b>Code</b>	<b>Second term</b>	<b>ECTS</b>
0158	Human Anatomy 1	6	1124	Human Anatomy 2	6
0272	Biophysics	3	1127	Physiology 1	5
0161	Biochemistry	5	0282	Biomechanics and Kinesiology	5
1123	Medical Psychology and Medical Pedagogic	5	1126	Bases of Physiotherapy, Means and Methods 1	5
0284	Basic Gymnastics	5	1041	Information Systems for Analysis and Modelling of the Movements	4
0283	Latin with Medical Terminology	2	1107	Track-and-field Athletics	1
<b>Elective courses (students elect a course)</b>			<b>Elective courses (students elect a course)</b>		
1981	English 1	4	1630	English 2	4
1624	German 1	4	1744	German 2	4
1625	French 1	4	1746	French 2	4
1627	Russian 1	4	1747	Russian 2	4
<b>Total for the term:</b>		<b>30</b>	<b>Total for the term:</b>		<b>30</b>
1474	<b>Facultative course</b> Foreign Language	2	1754	<b>Facultative course</b> Foreign Language	2

**Second Year**

<b>Code</b>	<b>Third term</b>	<b>ECTS</b>	<b>Code</b>	<b>Fourth term</b>	<b>ECTS</b>
3960	Physiology 2	6	3968	Pathology	4
3961	Pathobiomechanics and Pathokinesiology	5	3969	Orthopedics and Traumatology	4
3962	Bases of Physiotherapy, Means and Methods 2	3	3970	Physiotherapy in Orthopedics and Traumatology with Orthotics and Prosthetics 1	6
3963	Functional and Visual Diagnostics of the Muscular Skeletal System	5	3971	Massage 2	2
3964	Massage 1	4	3972	Basics of Research with Medical Statistics	2
3965	Theory and Methodology of Physical Education	3	3987	Hygiene	2
3966	Clinical Practice 1	3	3974	Clinical Practice 2	5
3967	Basketball	1	3975	Volleyball	1
			3976	Summer Clinical Practice 1 (4 weeks)	4
<b>Total for the term:</b>		<b>30</b>	<b>Total for the term:</b>		<b>30</b>
??	<b>Facultative course</b> Foreign Language	2	??	<b>Facultative course</b> Foreign Language	2

## Third Year

<b>Code</b>	<b>Fifth term</b>	<b>ECTS</b>	<b>Code</b>	<b>Sixth term</b>	<b>ECTS</b>
3977	Physiotherapy in Orthopedics and Traumatology with Orthotics and Prosthetics 2	6	3984	Physical Therapy and Rehabilitation	5
3978	Internal Diseases	4	3985	Neurology and Mental Disorders	4
3979	Physiotherapy of Internal Diseases	9	3986	Physiotherapy in Nervous and Mental Diseases 1	4
3980	Surgery, Obstetrics and Gynecology	2	3973	Adapted Physical Activity and Sports for People with Disabilities	2
3981	Physiotherapy in Surgery, Obstetrics and Gynecology	4	3988	Pharmacology	2
3982	Clinical Practice 3	5	3989	Clinical Practice 4	5
			3990	Disastrous Situations Management	1
			3991	Swimming	1
			3992	Optional Course 1	2
			3993	Summer Clinical Practice 2 (4 weeks)	4
<b>Total for the term:</b>		<b>30</b>	<b>Total for the term:</b>		<b>30</b>
3983	Table Tennis	1			
	<b>Facultative course</b>			<b>Facultative course</b>	
??	(list enclosed)	1	??	(list enclosed)	1

## Fourth year

<b>Code</b>	<b>Seventh term</b>	<b>ECTS</b>	<b>Code</b>	<b>Eight term</b>	<b>ECTS</b>
3994	Physiotherapy in Nervous and Mental Diseases 2	6	0011	Clinical Undergraduate Fieldwork	20
3995	Pediatrics	2			
3996	Physiotherapy in Pediatrics	4			
3997	Physiotherapy in Geriatrics	3			
3998	Sports Medicine	5	0013	<b>Options for Graduation</b> Clinical Practical State Examination	5
3999	Sociology, Social Medicine, Medical Ethics and Health Legislation	2	0014	Theoretical State Examination	5
0007	Clinical Practice 5		0013	Clinical State Examination	5
0008	Optional Course 2		0013	Clinical Practical State Examination	5
			0713	Bachelor Thesis	
<b>Total for the term:</b>		<b>30</b>	<b>Total for the term:</b>		<b>30</b>
0010	Aerobics and Calanetics	1			
	<b>Facultative course</b>			<b>Facultative course</b>	
??	(list enclosed)	1	??	(list enclosed)	1
<b>Total for the training course: 240 ECTS credits</b>					

**0158 Human Anatomy 1****ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Emilian Aleksiev Ivanov, PhD, Dept. of Kinesitherapy,

tel.: 821993

Sr. Assist. Prof. Ivanichka Atanasova Serbesova, Dept. of Kinesitherapy,

tel.: 821993

**Abstract:**

Anatomy teaching to students from the Department of Kinesitherapy aims to acquaint students with basic knowledge about the structure of human body. The teaching has functional aspect and clinical tendency. The program covers all parts of modern anatomy in order to provide profound knowledge about anatomical structures. According to the qualitative characteristics of the specialty, anatomy teaching part I comprise knowledge about structure and biomechanics of the human skeletal system.

**Course content:**

Osteology - shape, growth and development of bones. Bones of skull, spine, pelvis, upper and lower limb.

Bone connections - joints. Myology: type of muscles and biomechanics of head, cervix, back, abdomen, upper and lower limbs.

**Teaching and assessment:**

The subject of lectures makes it possible to introduce both theoretical matter and visual presentation with multimedia, posters, preparations and anatomical models. The students have to be prepared for practical sessions because they have to pass preliminary examination. The practical sessions are conducted on anatomical models, computer programs and poster tables. During the term 3 tests are carried out assessed by point system. The maximum points that student can get from lectures, sessions and tests are 180. Minimal points necessary are 150. The discipline assessment is formed after passed examination with written part not less than 50%.

**0272 Biophysics****ECTS credits:** 3**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Todorka Stefanova Zhekova, MSc, PhD, Dept. of Kinesitherapy,

tel.: 821 993, E-mail: dora@ru.acad.bg

Pr. Assist. Prof. Boryana Ilieva Todorova, Dept. of Kinesitherapy,

tel.: 821 993, E-mail: boriltod@abv.bg

**Abstract:**

The purpose of the course is to present the basic physical and physicochemical phenomena in biological objects and the human body in particular, as well as the biophysical methods of examination of living organisms. Those phenomena are studied as the basis of physiological processes. Prerequisite knowledge in mathematics, general physics, chemistry, biology and anatomy from the secondary school is necessary. On the other hand biophysics serves as the basis for learning other disciplines – physiology, biochemistry, and biomechanics.

**Course content:**

Introduction. Basics of biothermodynamics: first and second principles of thermodynamics, thermodynamical potentials, thermodynamics of biological objects, energetical processes in human body. Biological membranes - structure and physical properties. Passive and active transport. Bioelectric potentials – mechanism of appearance in model systems. Rest and action biopotentials. Photobiological processes. Effect of light on organism. Biophysics of receptors. Biological aspects of radiophysics.

**Teaching and assessment:**

Lectures get the students acquainted with the theory of the studied knowledge as this process is accompanied by a lot of examples and models that have been derived from their speciality. Each laboratory exercise begins with entry control and finishes with a protocol. There is a control work on the themes of the exercises. The course thesis has to be finished up to the end of the term. Entry control, protocols, control work, course thesis and the presence in the course of biophysics are estimated with points – 100 point system. To meet the minimal requirements, a student should have at least 40 points and a well done course thesis and protocols, as well to have implemented the requirements for presence. Students have to pass a written exam on certain issues that have been discussed in the course of biophysics – 80 points. The final mark is formed on the basis of the total number of points.

**0161 Biochemistry****ECTS credits:** 5**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Diana Georgieva Ivanova, PhD, Dept. of Kinesitherapy,

tel.: 821 993

Pr. Assist. Prof. Kristina Petrova Zaharieva, Dept. of Kinesitherapy,

tel.: 821 993

**Abstract:**

The main aim of the course is to provide knowledge about the biochemical foundations of the processes in human organism. Main objectives are clarifying the general biochemical concepts and the link between metabolism and biophysical processes; acquiring basic knowledge for the other biological and medical courses; developing personal skills and competences necessary for the profession. Attention is focused on proteins, nucleic acids, vitamins, enzymes and hormones. Basics aspects of bioenergetics, metabolism and its regulation, the role of the liver and kidneys are described. Biochemistry of food and nutrition, blood, muscle contraction, fatigue and recreation are studied.

**Course content:**

Structural organization of living organisms. Proteins and nucleic acids. Basic biophysical and physical concepts related to biochemical phenomena. Enzymes – general properties, enzyme reactions kinetics. Bioenergetics – metabolic fuels and biological oxidation. Biochemical foundations of nutrition – food and energy needs. Water and minerals. Metabolism of carbohydrates, lipids, nucleic acids and proteins. Regulation of metabolism. Biochemistry of blood – blood components and their roles. The role of liver as a basic biochemical laboratory. Biochemistry of kidneys. Biochemistry of muscles – protein components and biochemistry of muscle contraction.

**Teaching and assessment:**

Theoretical foundations of biochemistry are taught through lectures using appropriate examples. Teaching is practically oriented regarding the needs of the specialty. Students are instructed for safety measures during labs. At the beginning the experiments are discussed stressing on dangerous issues that need special attention. Continuous assessment is carried out during lectures and labs. Students receive 3 points for attending each lab and 2 points for a correct report. They are obliged to accumulate at least 50 points. Final assessment is based on a written exam and oral discussion on two questions from the synopsis.

**1123 Medical Psychology and Medical Pedagogic****ECTS credits:** 5**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Violeta Yordanova Vaneva, MA, PhD, Dept. of Pedagogic, Psychology and History,

tel.: 841 609, ext. 208, E-mail: vilivaneva@abv.bg

Sr. Assist. Prof. Despina Prodanova Georgieva, Dept. of Kinesitherapy,

tel.: 821 993

**Abstract:**

The goal of teaching the subject is to make students familiar with the modern state of medical psychology, its methodological basis and basic directions: neuropsychology, pathopsychology, psychological basis of the psychotherapy, psychological problems of psychosomatic relations, psychoprofilactics, and psychohygiene. Special attention is devoted to anomalies in different processes, principles and methods of medical-psychological researches and the practical character of the work of the medical psychologist.

**Course content:**

The following themes are included: pathopsychology and psychopathology; principles of pathopsychological research; basic anomalies of the psychic activity in the persons with mental health problems; person and illness; clinical types of treatment the disease; somatopsychology; psychological basis of psychotherapy; individual and group pathogenical psychotherapy rational, behavioral psychotherapy; Somatogenic, psychogenic, yatrogenic; problems in the process of teaching; causes; clinical tasks and clinical thinking; didactic tests – demands, construction of tests, quality.

**Teaching and assessment:**

Lectures are carried out mostly frontally, with illustrations and descriptions of the different diseases of the psychic, using different interactive methods and skills.

**0283 Latin with Medical Terminology****ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assist. Prof. Maya Stefanova Stoyanova, MSc, Dept. of Public Law,

tel.: 845 281

**Abstract:**

The aim of teaching Latin to students in Kinesitherapy is to introduce the essential knowledge, which is most necessary for correct usage of medical and scientific terminology. Learning Latin facilitates students in mastering the medical disciplines as far as correct understanding of the meaning of words used as special terms is concerned. Latin grammar is studied in brief in the context of selected Latin texts, phrases and sentences put in order of methodological sequence. Relying on the acquired minimum of grammar and lexicology knowledge at the end of the course students should be able to read and translate longer Latin texts with the help of a dictionary, master medical scientific vocabulary and improve their language culture by learning Latin phrases and sentences.

**Course content:**

The Alphabet. Pronunciation. Parts of speech. Verb – conjugation. Noun. Adjective. Pronoun. Numerals. Declension. Word-formation. Medicines and abbreviations.

**Teaching and assessment:**

Teaching methods are specified in compliance with the Kinesitherapy program. Lessons are carried out in small groups of students enabling personal performance of each one. Practicing Latin grammar introduced through text examples containing original Latin medical terminology, learning famous phrases and sentences and taking written and oral examination students gain the knowledge needed to use medical and scientific terminology precisely and correctly. At the end of the first week of the term the students are given an obligatory theme of a report which should be completed till the end of the term.

**0284 Basic Gymnastics****ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**

Department of Physical Education and Sportss

Faculty of Natural Science and Education

**Lecturers:**

Prof. Antoaneta Ivanova Momchilova, MA, PhD, DSc, Dept. of Kinesitherapy,

Cell Phone: 0887 325 671, E-mail: amom@abv.bg

Sr. Assist. Prof. Vihren Petrov Peichev, MS, Dept. of Physical Education and Sports,

tel.: 888 652, 831 759

**Abstract:**

Basic gymnastics as a type of activity with its variety of movements contributes to extending the motor ability and increasing the physical capability level. It contributes to gaining strong health and increasing the organism's power of resistance of those who attend it. The subject aims at acquainting students with the whole range of basic gymnastic exercises and it provides students with methodological instructions and pedagogical directions to perform and apply them. Future kinesitherapists are provided with opportunities to apply the exercises with and without gymnastics equipment in a concrete situation in methodical succession.

**Course content:**

Basic gymnastics for a harmonic physical and motional development. Characteristic features, aims and objective of basic gymnastics. Basic gymnastics instruments. General and special physical training. Physical exercises terminology. Methods of teaching the basic gymnastics instruments. Line exercises – methodical instructions. Basic movements. Methodical instructions and requirements for teaching the general developing exercises with and without gymnastics tools.

**Teaching and assessment:**

Knowledge on basic problems is acquired during the lecture and practical lessons. Students gain theoretical and practical tuition by discussing, by binding together the new knowledge and motional experience with the knowledge and motional experience already acquired and by abundant illustrating materials. It also includes an elaboration of a course assignment. The procedure is a continuous assessment. It is formed as an arithmetical mean of the theoretical and practical assessment during the term and the mark on the course assignment. If the student gets a poor mark either in theory or practice, final grade is poor. The supplementary examination is conducted depending on whether the poor mark is on practice or theory.



## 1981 English 1

**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Law

**Lecturers:**

Sr. Assist. Prof. Rumyana Yosifova Koleva, Dept. of Foreign Languages,

tel.: 888 803, E-mail: rkoleva@ecs.ru.acad.bg;

Sr. Assist. Prof. Liliyana Ivanova Slavyanova, Dept. of Foreign Languages,

tel.: 888 803, E-mail: Islavianova@ecs.ru.acad.bg

**Abstract:**

The overall aim of the two foreign language modules is to give students new knowledge of the foreign language and basic grammatical categories. It also aims at further developing communicative competence in the field of both general and specific foreign language. Students are acquainted with the everyday language of communication between the kinesiologist and patient and the procedure of prescribing adequate treatment. Reading skills needed to handle medical texts are also developed.

**Course context:**

Introductions. Professions. My home and town. On the telephone. Traveling. Leisure time. Healthy life and food. At the doctor's. First medical aid. The job of the kinesiologist. History of medicine. The health system in the UK and Bulgaria. Applying for a job and writing a CV; job interviews; Medical forms.

**Teaching and assessment:**

To acquire the necessary language knowledge and develop skills in using the language as a means of communication a wide range of books, authentic texts and audio – recordings are used. The teaching process involves various oral and written exercises and activities. Students are acquainted with effective strategies of learning in accordance with the principles of modern foreign language teaching. Continuous control is based on two written tests and students' oral participation during classes. Each student has to work on a course assignment given by the teacher and present it at the end of each term. The language knowledge and skills acquired are of great significance to the final mark which is the result of written tests, continuous assessment, oral participation and successful course assignment.

## 1624 German 1

**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Law

**Lecturers:**

Sr. Assist. Prof. Sergey Vasilev Bartenev, Dept. of Foreign Languages,

tel.: 888 824, E-mail: sbartenev@ru.acad.bg

**Abstract:**

The overall aim of the two foreign language modules is to give students new knowledge of the foreign language and basic grammatical categories. It also aims at further developing communicative competence in the field of both general and specific foreign language. Students are acquainted with the everyday language of communication between the kinesiologist and patient and the procedure of prescribing adequate treatment. Reading skills needed to handle medical texts are also developed.

**Course context:**

Introductions. Professions. My home and town. On the telephone. Traveling. Leisure time. Healthy life and food. At the doctor's. First medical aid. The job of the kinesiologist. History of medicine. The health system in the UK and Bulgaria. Applying for a job and writing a CV; job interviews; Medical forms.

**Teaching and assessment:**

To acquire the necessary language knowledge and develop skills in using the language as a means of communication a wide range of books, authentic texts and audio – recordings are used. The teaching process involves various oral and written exercises and activities. Students are acquainted with effective strategies of learning in accordance with the principles of modern foreign language teaching. Continuous control is based on two written tests and students' oral participation during classes. Each student has to work on a course assignment given by the teacher and present it at the end of each term. The language knowledge and skills acquired are of great significance to the final mark which is the result of written tests, continuous assessment, oral participation and successful course assignment.

## 1625 French 1

**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Law

**Lecturers:**

Sr. Assist. Prof. Rumyana Ivanova Milanova, Dept. of Foreign Languages,

E-mail: rmivanova@ecs.ru.acad.bg

**Abstract:**

The overall aim of the two foreign language modules is to give students new knowledge of the foreign language and basic grammatical categories. It also aims at further developing communicative competence in the field of both general and specific foreign language. Students are acquainted with the everyday language of communication between the kinesi therapist and patient and the procedure of prescribing adequate treatment. Reading skills needed to handle medical texts are also developed.

**Course context:**

Introductions. Professions. My home and town. On the telephone. Traveling. Leisure time. Healthy life and food. At the doctor's. First medical aid. The job of the kinesi therapist. History of medicine. The health system in the UK and Bulgaria. Applying for a job and writing a CV; job interviews; Medical forms.

**Teaching and assessment:**

To acquire the necessary language knowledge and develop skills in using the language as a means of communication a wide range of books, authentic texts and audio – recordings are used. The teaching process involves various oral and written exercises and activities. Students are acquainted with effective strategies of learning in accordance with the principles of modern foreign language teaching. Continuous control is based on two written tests and students' oral participation during classes. Each student has to work on a course assignment given by the teacher and present it at the end of each term. The language knowledge and skills acquired are of great significance to the final mark which is the result of written tests, continuous assessment, oral participation and successful course assignment.

## 1627 Russian 1

**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Law

**Lecturers:**

Sr. Assist. Prof. Iliyana Gancheva Benina, Dept. of Foreign Languages,

tel.: 888 815, E-mail: lbenina@ecs.ru.acad.bg

**Abstract:**

The overall aim of the two foreign language modules is to give students new knowledge of the foreign language and basic grammatical categories. It also aims at further developing communicative competence in the field of both general and specific foreign language. Students are acquainted with the everyday language of communication between the kinesi therapist and patient and the procedure of prescribing adequate treatment. Reading skills needed to handle medical texts are also developed.

**Course context:**

Introductions. Professions. My home and town. On the telephone. Traveling. Leisure time. Healthy life and food. At the doctor's. First medical aid. The job of the kinesi therapist. History of medicine. The health system in the UK and Bulgaria. Applying for a job and writing a CV; job interviews; Medical forms.

**Teaching and assessment:**

To acquire the necessary language knowledge and develop skills in using the language as a means of communication a wide range of books, authentic texts and audio – recordings are used. The teaching process involves various oral and written exercises and activities. Students are acquainted with effective strategies of learning in accordance with the principles of modern foreign language teaching. Continuous control is based on two written tests and students' oral participation during classes. Each student has to work on a course assignment given by the teacher and present it at the end of each term. The language knowledge and skills acquired are of great significance to the final mark which is the result of written tests, continuous assessment, oral participation and successful course assignment.

**1124 Human Anatomy 2****ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Emilian Aleksiev Ivanov, MSc, PhD, Dept. of Kinesitherapy,

tel.: 821 993

Sr. Assist. Prof. Edvart Tavit Lebikyan, Dept. of Kinesitherapy,

tel.: 821 993

**Abstract:**

The subject aims to acquaint students with basic knowledge about the structure of human body. It covers parts of anatomy out of the skeletal system. The teaching has functional aspect and clinical tendency.

**Course content:**

According to qualitative characteristics of the spatiality, anatomy teaching covers knowledge about structure of nervous system, cardiovascular system and all internal organs in the human body. The last part covers topographical anatomy, which present human body as anatomic regions and layers and makes clear spatial dependence between anatomic objects.

**Teaching and assessment:**

The subject of lectures makes it possible for students to get informed about the structure of organs and systems in theoretical and visual presented aspect and analogy of structure and function. Lectures and practical sessions are supported with multimedia presentations, slides, posters, anatomical models and preparations. Students have to be prepared and take part in practical sessions, conducted with computer programs and on anatomical models, preparations and dissection material. During the term 3 tests are carried out assessed by point system. Maximal number of points that student can get from lectures, sessions and tests, is 180. Minimal points necessary are 150. The discipline assessment is formed after passed examination with written part not less than 50%.

**1127 Physiology 1****ECTS credits:** 5**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Antonia Koleva Kastelova, PhD, Dept. of Kinesitherapy,

tel.: 821993, E-mail: akastelova@sopharma.bg

Sr. Assist. Prof. Penka Angelova Vasileva, Dept. of Kinesitherapy,

tel.: 821993

**Abstract:**

Physiology gives fundamental knowledge of the core of the processes in the human body and their normal limits, as well as the changes resulting from physical activity and diseases. Mechanisms of membrane potentials and functions of the thoracic and abdominal organs are studied mainly in this part of the course. Students need prerequisite knowledge of the anatomical structure of these organs and the biochemical basics of living processes.

**Course content:**

Objectives and methods of physiology. Transport across the cell membrane. Membrane potentials. Body liquids. Homeostasis. Blood and lymph. Functions of the cardio-vascular system. Digestive functions. Breathing.

**Teaching and assessment:**

The theoretical presentation is clarified using audiovisual equipment. During practices students have the opportunity to study physiological processes experimentally making conclusions and summaries. Regarding their future professional career attention is focused on the response of cardio-vascular system to physical exercise. The course assignment consists of preparing three self-chosen tasks the list offered to them. Progressive learning during the term is controlled by current discussions and testing. One written test is scheduled during the term. Students are required to attend lectures and practices. They are obliged to accumulate at least 120 points (the maximum is 240) from practices, written test, course assignment and its defence. Final examination is written (120 min duration). Final grade is formed 80% by final examination 20% by practicals. If the grade of the final examination is poor, the final grade is poor.

**0282 Biomechanics and Kinesiology****ECTS credits:** 5**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Nikolay Emilov Popov, PhD, Dept. of Kinesitherapy,

tel.: 821993

Assist. Prof. Boryana Ilieva Todorova, Dept. of Kinesitherapy,

tel.: 821993

**Abstract:**

Biomechanics and kinesiology is a basic discipline in the training of kinesitherapists. The goal of the education is that students get familiar with movements of the human locomotors system from a mechanical point of view and that they are able to explain its characteristics resulting from the specific structure and function of the musculoskeletal system. Students need to have knowledge in Anatomy (part I) and secondary school mechanics. It serves as a prerequisite for studying pathobiomechanics and pathokinesiology, functional diagnostics and kinesitherapy in different conditions – orthopaedics and traumatology, neurology.

**Course content:**

Biomechanics and kinesiology – definition, basic concepts. Mechanical loading of the musculoskeletal system. Human movements' kinetics. Gravity center. Balance. Anatomic levers. Kinetic chains. Human movements' kinematics. Movement types. Biomechanics of joints. Biomechanics of the skeletal muscles. Kinematics and kinetics of the shoulder, elbow, wrist and hand, spine and thorax, hip and pelvis, knee, ankle and foot. Range of joint motion. Postural control.

**Teaching and assessment:**

During the lectures students are given theoretical knowledge. The course thesis has to be finished up to the end of the term. Entry control, protocols, course thesis and the presence in the course of Biomechanics and Kinesiology are estimated with points – 100 point system. To meet the minimal requirements, a student should have at least 40 points and a well done course thesis and protocols, as well to have implemented the requirements for presence. Students have to pass an oral exam on certain issues that have been discussed in the course of Biomechanics and Kinesiology – 210 points. The final mark is formed on the basis of the total number of points.

**1126 Bases of Physiotherapy, Means and Methods 1****ECTS credits:** 5**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assist. Prof. Stefan Nedkov Yanev, PhD, Dept. of Kinesitherapy,

tel.: 821993, E-mail: jane6\_bg@yahoo.com

Sr. Assist. Prof. Stefka Pavlova Mindova, MSc, Dept. of Kinesitherapy,

tel.: 821993

**Abstract:**

The aim of the course is to provide basic information about physiotherapy (PT) and its scientific foundations as an interdisciplinary area of the human knowledge and practice. The detailed study and mastering of different kind of physical exercises as a basic mean of physiotherapy, their potentialities/ benefits and different approaches in their application in the prevention, treatment and rehabilitation, is an important basis for up-building in the following years of PT studies of specialized knowledge, skills and professional attitudes of students for treatment of patients with different health problems.

**Course content:**

Introduction to physiotherapy (PT) – determination, nature, subject, object, contemporary terminology, relations to other sciences/ professions. Place and role of PT in the medical and comprehensive rehabilitation. Scientific basis of PT. Mechanisms of the therapeutic effects of PT means and methods. Therapeutic exercise training. PT means – classifications. Dosage of physical loading in PT. Movement regimen of the patient. Periods and stages in PT. General methodological requirements and principles. Forms of PT. PT program. Management of PT services, facilities and documentation.

**Teaching and assessment:**

The course of lectures introduces students to the theoretical bases of PT. Interactive methods of teaching/ learning and continuous assessment are used. Practical studies are organised in small groups (10-12 students) in suitably equipped teaching rooms. They are directed toward practical study, gaining skills, terminological description/ sketching of physical exercises as a basic mean of PT, as well as the most important methodological requirements in applying them in PT sessions and programs aiming prevention, treatment and rehabilitation. The final grade is based on examination results, including practical and theoretical part and taking in account continuing assessment marks.

**1630 English2****ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Law

**Lecturers:**

Sr. Assist. Prof. Lilyana Ivanova Slavyanova, Dept. of Foreign Languages,

tel.: 888 803, E-mail: lslavianova@ecs.ru.acad.bg

**Abstract:**

The overall aim of the two foreign language modules is to give students new knowledge of the foreign language and basic grammatical categories. It also aims at further developing communicative competence in the field of both general and specific foreign language. Students are acquainted with the everyday language of communication between the kinesiologist and patient and the procedure of prescribing adequate treatment. Reading skills needed to handle medical texts are also developed.

**Course content:**

Introductions. Professions. My home and town. On the telephone. Travelling. Leisure time. Healthy life and food. At the doctor's. First medical aid. The job of the kinesiologist. History of medicine. The health system in the UK and Bulgaria. Applying for a job and writing a CV; job interviews; Medical forms.

**Teaching and assessment:**

To acquire the necessary language knowledge and develop skills in using the language as a means of communication a wide range of books, authentic texts and audio – recordings are used. The teaching process involves various oral and written exercises and activities. Students are acquainted with effective strategies of learning in accordance with the principles of modern foreign language teaching. Continuous control is based on two written tests and students' oral participation during classes. Each student has to work on a course assignment given by the teacher and present it at the end of each term. The language knowledge and skills acquired are of great significance to the final mark which is the result of written tests, continuous assessment, oral participation and successful course assignment.

**1744 German 2****ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Law

**Lecturers:**

Sr. Assist. Prof. Sergey Vasilev Bartenev, Dept. of Foreign Languages;

tel.: 888 824, E-mail: sbartenev@ru.acad.bg

**Abstract:**

The overall aim of the two foreign language modules is to give students new knowledge of the foreign language and basic grammatical categories. It also aims at further developing communicative competence in the field of both general and specific foreign language. Students are acquainted with the everyday language of communication between the kinesiologist and patient and the procedure of prescribing adequate treatment. Reading skills needed to handle medical texts are also developed.

**Course content:**

Introductions. Professions. My home and town. On the telephone. Travelling. Leisure time. Healthy life and food. At the doctor's. First medical aid. The job of the kinesiologist. History of medicine. The health system in the UK and Bulgaria. Applying for a job and writing a CV; job interviews; Medical forms.

**Teaching and assessment:**

To acquire the necessary language knowledge and develop skills in using the language as a means of communication a wide range of books, authentic texts and audio – recordings are used. The teaching process involves various oral and written exercises and activities. Students are acquainted with effective strategies of learning in accordance with the principles of modern foreign language teaching. Continuous control is based on two written tests and students' oral participation during classes. Each student has to work on a course assignment given by the teacher and present it at the end of each term. The language knowledge and skills acquired are of great significance to the final mark which is the result of written tests, continuous assessment, oral participation and successful course assignment.

## 1746 French 2

**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Law

**Lecturers:**

Sr. Assist. Prof. Rumyana Ivanova Milanova, Dept. of Foreign Languages,

E-mail: rmivanova@ecs.ru.acad.bg

**Abstract:**

The overall aim of the two foreign language modules is to give students new knowledge of the foreign language and basic grammatical categories. It also aims at further developing communicative competence in the field of both general and specific foreign language. Students are acquainted with the everyday language of communication between the kinesiologist and patient and the procedure of prescribing adequate treatment. Reading skills needed to handle medical texts are also developed.

**Course content:**

Introductions. Professions. My home and town. On the telephone. Travelling. Leisure time. Healthy life and food. At the doctor's. First medical aid. The job of the kinesiologist. History of medicine. The health system in the UK and Bulgaria. Applying for a job and writing a CV; job interviews; Medical forms.

**Teaching and assessment:**

To acquire the necessary language knowledge and develop skills in using the language as a means of communication a wide range of books, authentic texts and audio – recordings are used. The teaching process involves various oral and written exercises and activities. Students are acquainted with effective strategies of learning in accordance with the principles of modern foreign language teaching. Continuous control is based on two written tests and students' oral participation during classes. Each student has to work on a course assignment given by the teacher and present it at the end of each term. The language knowledge and skills acquired are of great significance to the final mark which is the result of written tests, continuous assessment, oral participation and successful course assignment.

## 1747 Russian 2

**ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**

Department of Foreign Languages

Faculty of Law

**Lecturers:**

Sr. Assist. Prof. Iliyana Gancheva Benina, Dept. of Foreign Languages,

tel.: 888 815, E-mail: lbenina@ecs.ru.acad.bg

**Abstract:**

The overall aim of the two foreign language modules is to give students new knowledge of the foreign language and basic grammatical categories. It also aims at further developing communicative competence in the field of both general and specific foreign language. Students are acquainted with the everyday language of communication between the kinesiologist and patient and the procedure of prescribing adequate treatment. Reading skills needed to handle medical texts are also developed.

**Course content:**

Introductions. Professions. My home and town. On the telephone. Travelling. Leisure time. Healthy life and food. At the doctor's. First medical aid. The job of the kinesiologist. History of medicine. The health system in the UK and Bulgaria. Applying for a job and writing a CV; job interviews; Medical forms.

**Teaching and assessment:**

To acquire the necessary language knowledge and develop skills in using the language as a means of communication a wide range of books, authentic texts and audio – recordings are used. The teaching process involves various oral and written exercises and activities. Students are acquainted with effective strategies of learning in accordance with the principles of modern foreign language teaching. Continuous control is based on two written tests and students' oral participation during classes. Each student has to work on a course assignment given by the teacher and present it at the end of each term. The language knowledge and skills acquired are of great significance to the final mark which is the result of written tests, continuous assessment, oral participation and successful course assignment.

**1041 Information Systems for Analysis and Modeling of the Movements****ECTS credits:** 4**Assessment:** continuous assessment**Department involved:**Department of Informatics and Information Technologies  
Faculty of Natural Science and Education**Lecturers:**Sr. Assist. Prof. Stoyan Donchev Chernev, MEng, PhD, Dept. of Informatics and Information Technologies,  
tel.: 888 470, E-mail: stenly@ami.ru.acad.bg**Abstract:**

The discipline is lectured to the students majoring in Kinesitherapy. The purpose of the lectures is to familiarize the students with the computer as a technical device as well as with the software products facilitating the everyday work of the specialists in a variety of areas. Approaches to the modeling of human movements are discussed through the use of computer animation. The purpose of the workshops is that the students gain knowledge and skills when working with up-to-date software products for word processing, electronic spreadsheets and graphic systems.

**Course content:**

Characteristics of computer generations. Computer classification. Central processor, operating memory, hard drive data storage. Input-output devices. External memory - magnetic tapes and discs, optical discs. Local and global computer networks. Internet. Operation systems - functions and problems. Operation environments with friendly graphic interface - Windows. Application programs – systems for text, electronic tables and graphic applications.

**Teaching and assessment:**

Lectures are held one hour per week. Workshops are for practical applications of what has been learned during lectures as well as for the students to get familiar with the software and gain individual skills in using the applications. Students need to get familiar with the products prior to holding workshops. At the end of the term, students are expected to prepare a course work. The course ends with final exam. The final grade of the course consists of the student's workshop grade, the grade of both: the course work and its presentation as well as the grade from the final exam.

**1107 Track-and-field Athletics****ECTS credits:** 1**Assessment:** exam**Department involved:**Department of Physical Education and Sports  
Faculty of Natural Science and Education**Lecturers:**Sr. Assist. Prof. Milena Petrova Grigorova, Dept. of Physical Education and Sports,  
tel.: 888 757**Abstract:**

Track-and field athletics comprises a wide range of disciplines that have the greatest influence on the human body. Practice sessions engage students in activities that develop the respiratory, the cardio-vascular and the nervous system. No less important is the impact on the locomotory system and the development of physical skills. Alongside with the development of their practical skills, students acquire theoretical knowledge how to use various athletics disciplines in their future work as kinesitherapists.

**Course content:**

Students study heel-and-toe walk, race (dash, medium and long distance run), hurdle races, jumps and throwing.

**Teaching and assessment:**

Student groups do not exceed 10-12 people. The aim of instruction is for students to learn to monitor the volume of physical pressure. Practice sessions are designed to enable the students to get acquainted with a range of 450-500 exercises, which they can use in their future work. The final grade comprises assessment of the practical skills of the students to conduct athletics sessions and written testing of their theoretical knowledge.

**3960 Physiology 2****ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Antonia Koleva Kastelova, MD, PhD, Dept. of Kinesitherapy,

tel.: 821 993, E-mail: akastelova@sopharma.bg

Sr. Assist. Prof. Penka Angelova Vasileva, Dept. of Kinesitherapy,

tel.: 821 993

**Abstract:**

In the second part of the physiology course students get acquainted with metabolism and energy transfer, excretory functions, nervous and endocrine regulation of body functions. The presented material is harmonized thematically and in time with learning anatomical structures and the biochemical basics of the processes in human organism. Physiology builds up the foundations for learning the possibilities of active influence on body functions in the desired direction by means of clinical and physiotherapeutic methods.

**Course content:**

Metabolism and energy transfer. Body temperature regulation. Water-electrolyte and acid-basis equilibrium. Endocrine functions. Reproductive functions. Functioning of the nervous system.

**Teaching and assessment:**

The theoretical knowledge acquired through lectures is repeated experimentally during practicals. Students develop skills for working out recommended daily menus, evaluating water-electrolyte equilibrium, examination of the senses. The course assignment consists of individual preparation of recommended daily menus. It is assessed maximum with 120 points. Progressive learning is controlled by current discussions and testing. One written test and one seminar are scheduled during the term. Students are required to attend lectures and practicals. They are obliged to accumulate at least 150 points (the maximum is 300) from practicals, written test, seminar and course assignment. Final examination is written (120 min duration). Final grade is formed 80% by final examination 20% by practicals. If the grade of the final examination is poor, the final grade is poor.

**3961 Pathobiomechanics and Pathokinesiology****ECTS credits:** 5**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Nikolay Popov, MSc, PhD, Dept. of Kinesitherapy,

tel.: 821 993

Sr. Assist. Prof. Petya Andreeva Parashkevova, MSc, Dept. of Kinesitherapy,

tel.: 821 993

**Abstract:**

Pathological biomechanics and kinesiology make up a specific study course during which the students get acquainted with morbid disorders of the human movements and postures that have resulted from pathological changes of the musculoskeletal system, as well as of the central and peripheral nervous system. They get acquainted with the most frequent pathological conditions that are object of rehabilitation and physiotherapy. In order to gain a very good understanding of the information, sufficient knowledge in kinesiology and biomechanics is needed. The mastering of the discipline is a necessary prerequisite for the precise estimation of the neurological and orthopaedic status of the patient and the preparation of an effective physiotherapy program.

**Course content:**

Compensatory and substitute movements. Essence of pathokinesiology. Pathological impairments of muscles and joints – causes for their origin. Stages of recovery. Pathokinesiological changes of the spine, upper and lower extremities. Pathological gaits.

**Teaching and assessment:**

The studied topics are presented through lectures and practical classes. Practical training needs to be carried out and illustrated in a physiotherapy room. Continuous assessment is carried out by oral and written examinations. Students are obliged to participate in at least 50 % of theoretical studies and 90 % of practice in order to get term acknowledgment. Final assessment for the term is based on an oral examination.



**3962 Bases of Physiotherapy, Means and Methods 2****ECTS credits:** 3**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assist. Prof. Stefan Nedkov Yanev, PhD, Dept. of Kinesitherapy,

tel.: 821 993, E-mail: jane6\_bg@yahoo.com

Sr. Assist. Prof. Stefka Pavlova Mindova, Dept. of Kinesitherapy,

tel.: 821 993

**Abstract:**

The aim of the course is to provide basic information about physiotherapy (PT) and its scientific foundations as an interdisciplinary area of the human knowledge and practice. The detailed study and mastering of different kind of physical exercises as a basic mean of physiotherapy, their potentialities/benefits and different approaches in their application in the prevention, treatment and rehabilitation, is an important basis for up-building in the following years of PT studies of special knowledge, skills and professional attitudes of students for treatment of patients with different health problems.

**Course content:**

The movement and physical activity as a biological necessity. The integrative role of movement regulation mechanisms. The influence of different exercise on different body organs and systems. ROM Exercise. Suspension Therapy. Sub-aquatic Gymnastics. Resistance Exercise. Stretching. Extension Therapy. Peripheral Joint Mobilisation. Breathing Gymnastics. Lung Drainage. Principles of aerobic exercise in prevention and treatment of diseases. Exercise with assistive devices. Gait and ADL reeducation. PT program – examination and assessment of the patient; PT diagnosis; rehabilitation potential; aim, purposes, means, methods of PT. PT session. Re-examination and re-evaluation of the patient.

**Teaching and assessment:**

The teaching/learning process is going through lectures, practical studies and supervised extramural work. Appropriate examples of practice are demonstrated. Practical studies are organised in small groups (10-12 students) in suitably equipped teaching rooms. They are directed toward practical study, gaining skills, terminological description/ sketching of physical exercises as a basic mean of PT, as well as the most important methodological requirements in applying them in PT sessions and programs aiming prevention, treatment and rehabilitation. The final course assessment is based on examination results, including practical and theoretical part and taking in account continuing assessment and course assignment marks.

**3963 Functional and Visual Diagnostics of the Muscular Skeletal System****ECTS credits:** 5**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Penka Petrova Barakova, MSc, PhD, Dept. of Kinesitherapy,

tel.: 821 993

Assist. Prof. Ivelina Stefanova Stoyanova-Raeva, MD, Dept. of Kinesitherapy,

tel.: 821 993

**Abstract:**

The purpose of the course unit is to get students acquainted with some standard assessments of the functional ability of the musculoskeletal system, such as goniometry, anthropometry, somatoscopy, and some functional tests. Knowledge of anatomy, kinesiology and pathologic kinesiology is used as a foundation for learning manual muscle testing as a tool for functional assessment of the musculoskeletal system. Students gain knowledge of basic pathological units and typical findings when using different radiological methods for exploration – X-rays, vessels testing, ultrasound, ECG etc.

**Course content:**

Manual muscle testing – evaluation of the muscle strength, rules for testing, testing of the movements of different parts of the human body. Somatoscopy and anthropometry. X-ray diagnostics. ECG and EEG, CAT-scanning and Magnetic Resonance Imaging. Contrast vessels testing, Doppler diagnostics, ultrasound testing, scintigraphy.

**Teaching and assessment:**

Lectures are supported with simultaneous demonstration of the presented topic on a volunteer student or with proper X-ray images. During visual diagnostics sessions a wide variety of graphic material is presented. At practical sessions students are trained in muscle testing, anthropometry and somatoscopy working in couples. Data acquired by different apparatus methods is analyzed. Continuous assessment is carried out through tests and a written assignment. Students are required to attend at least 50% of the lectures and 90% of the practicals. Final assessment is based on oral examination and the written assignment.

**3964 Massage 1****ECTS credits:** 4**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assist. Prof. Stefan Nedkov Yanev, PhD, Dept. of Kinesitherapy,

tel.: 821 993, E-mail: jane6\_bg@yahoo.com

Assist. Prof. Radoslava Deleva Miteva-Georgieva, MSc, Dept. of Kinesitherapy,

tel.: 821 993

**Abstract:**

The aim of the module is to teach students of theory and practice of the classic and sports massage. It represents the most significant part of the passive physiotherapy methods. Physiotherapist should know about massage prescription, physiological effects of the different types of massage on the human body and systems; acquire necessary skills for therapeutic massage in different cases; be able to perform techniques of passive manipulations and apply them in the needed range of motion. Physiotherapists should master specific methods of the sports massage and be able to apply them on sportsmen for different purposes.

**Course content:**

Classification of massage. Massage techniques and physiological effects .Requirements to the masseur and the massage room. Massage on separate parts of the body. Sports massage relevant to different types of sports. Massage for developing different qualities: strength, endurance, speed, flexibility, coordination.

**Teaching and assessment:**

Lectures are accompanied by practical demonstrations of massage methods and different manual techniques. Those are trained during practical sessions for which students should be theoretically prepared. Continuous assessment is by oral and written examinations. By students exact presence of lectures and exercises. Students are obliged to participate in at least 50 % for theoretical lectures and 90 % for practice to have right of term acknowledgment. The exam is held in two stages – practical and theoretical.

**3965 Theory and Methodology of Physical Education****ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**

Department of Physical Education and Sports

Faculty of Natural Science and Education

**Lecturers:**

Prof. Antoaneta Ivanova Momchilova, MA, PhD, DSc, Dept. of Kinesitherapy,

Cell Phone: 0887 325 671, E-mail: amom@abv.bg

**Abstract:**

Lectures acquaint students with the underlying theoretical and methodological principles of physical education which serve as a basis for their development as experts in their future jobs. Students gain knowledge about significant issues in physical education, its subject, tasks and contents. Underlying principles, methods, systems of physical education and links to other parts of education are examined. The essence of physical skills and basic terminology are also discussed. Focus is on common integration trends in different stages of physical education and the relationship between physical education and the rest of the components in the integrated educational process. Students are provided with guidelines for planning and assessment of physical education.

**Course content:**

Essence, subject and contents of the theory behind physical education (PE). Basic concepts in PE. General classification of the means in PE. Improving man's dynamic potential. Motor habits and physical skills. Didactic principles. Syllabus contents in all stages of the educational system. Activities in PE. Methodology of organisation. Diagnostics of the physical ability.

**Teaching and assessment:**

Lectures and seminars provide knowledge about main issues in the theory of physical education. They comply with the contemporary requirements for efficient teaching. Visual aids are widely used.

**3966 Clinical Practice 1****ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Pr. Assist. Prof. Edvart Tavit Lebikyan, Dept. of Kinesitherapy,

tel.: 821 993

Pr. Assist. Prof. Kristina Petrova Zaharieva, Dept. of Kinesitherapy,

tel.: 821 993

**Abstract:**

The discipline provides practical training orientated towards taking care of patients and aims to equip kinesitherapy students with sufficient amounts of professional skills and responsibility in a real hospital context.

**Course content:**

Temperature. Breathing. Heart rate. Blood pressure. Blood groups. Asepsis and antisepsis. Sterilization and disinfection. In-ward infections. Medicines and their application. General principles of injections. Types and general principles of application of antibiotics. Allergic shock – causes and treatment. Desmurgy. Types of bandages, general principles, bandages of upper and lower extremities, head and neck, thorax and abdomen. Respiratory and heart reanimation. First aid in intoxications, snakes, insects and dogs bites.

**Teaching and assessment:**

Clinical practice follows the organization of therapy process in the relevant ward. It starts with organizing the group for practicing by giving out group and individual tasks. The topic is studied by demonstration, students' performing under control of the tutor. At the end of the session the final results are analyzed and the next topic is announced. Continuous assessment is carried out at every session by examining the practical skills of students. Students receive certification with 90% presence of exercises. The final mark is formed during the last week of the term. The continuous assessment is formed on the basis of the oral discussion and the practical exam.

**3967 Basketball****ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**

Department of Physical Education and Sports

Faculty of Natural Science and Education

**Lecturers:**

Sr. Assist. Prof. Iskra Stefanova Ilieva, MSc, Dept. of Physical Education and Sports,

tel.: 841 609, ext. 223, E-mail: is\_ilieva@abv.bg

**Abstract:**

The aim of this subject is to familiarise students with the basic skills and rules of the game. In addition special drills are used to stimulate the physical development of the students as well as to improve their dexterity, quickness and precision and to enhance their team spirit and sports ethic.

**Course content:**

Instruction in basketball involves basic techniques - catching, throwing, dribbling and shooting at the net. Students gain knowledge about the basic rules of the game and how to organise and conduct competitions. Application of some exercises and methods of instruction in their future careers is also examined.

**Teaching and assessment:**

Groups comprise 8 to 12 students. This facilitates acquisition of skills and gaining of knowledge and enables the instructor to control and assess the students' work more efficiently. Visual aids and demonstrations are used in teaching. Practical skills are continuously assessed. The ending procedure is a current mark assessment. It is formed as an arithmetical mean of the theoretical and practical assessment during the term.

**3968 Pathology****ECTS credits:** 4**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Lyuben Dimitrov Hristov, PhD, Dept. of Kinesitherapy,

tel.: 821993

Pr. Assist. Prof. Metodi Stoyanov Balutsov, PhD, Dept. of Kinesitherapy,

tel.: 821993, E-mail: drbalutsov@abv.bg

**Abstract:**

The aim of the course is to provide students with basic theoretical knowledge in the field of medicine about the structural essence of diseases, and to develop general medical competence. During the course in Pathology basic pathological processes and mechanisms of pathological changes of organs and systems in different diseases are studied. Preliminary knowledge in human anatomy and physiology are requested. The acquired knowledge forms the basis for studying of clinical courses and special kinesitherapy methods for recreation.

**Course content:**

Subject, objectives and basic methods of Pathological Anatomy. Morphology of the basic pathological processes. Pathological Anatomy of the neo-plastic diseases. Pathological Anatomy of the cardio-circulatory system. Pathological Anatomy of the bone and joint diseases. Pathological Anatomy of respiratory system. Pathological Anatomy of neuromuscular diseases. Pathological Anatomy of immune system. Subject, objectives and methods of Pathological Physiology. General etiology and pathogenesis of diseases. Stages of the disease. Body reactivity. Disturbances of the peripheral blood-flow and microcirculation. Metabolic disturbances. Inflammation. Fever. Disturbances of the cardio-circulatory system. Disturbances of the digestive system. Disturbances of the kidney and urinary, endocrine and nervous systems.

**Teaching and assessment:**

Students are theoretically introduced to the subject. Lectures are supported by different visual presentations. Continuous assessment during the term goes through written tests and oral discussions. 100% of the lectures should be attended and the final mark is formed according the formula:  $(20.X + 80.Y): 100$ , where "X" is the mark from the test, and "Y" is the mark from the oral exam on two questions, chosen at random.

**3969 Orthopedics and Traumatology****ECTS credits:** 4**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Pencho Kosev Penchev, MD, PhD, MD, Dept. of Kinesitherapy,

tel.: 821 993

**Abstract:**

Traumatology of the musculoskeletal system aims at introducing students to different kind of traumas of body parts and extremities, their clinical characteristics, treatment and functional rehabilitation. Students should acquire detailed knowledge on the mechanisms of traumas, pathological anatomy and methods for anatomical and functional recovering. In the part of "Orthopedic Diseases" students are introduced to the congenital abnormalities of the musculoskeletal apparatus, developmental and other diseases and deformities.

**Course content:**

Musculoskeletal traumas. Fractures – types, mechanism. Osseo-tissue recovering. Basic principles and treatment methods in traumatology. Complicated fractures. Traumas of upper and lower extremities. Vertebral traumas. Cranial and brain traumas, Chest traumas. Peripheral nerves traumatism. Essential methods of treatment in orthopedics. Congenital abnormalities of upper and lower extremity. Developmental abnormalities. Musculoskeletal diseases due to neural disturbances. Aseptic necrosis. Degenerative joint diseases. Rheumatoid joint diseases.

**Teaching and assessment:**

During the course of lectures students are introduced theoretically to the clinical characteristics of the most frequent traumas and the diversity of treatment methods, and with the classification of orthopedic diseases as well. Lectures are supported by multimedia presentations, X-ray pictures etc. Practical training is organised in clinical settings with demonstrations of thematic patients. The final course assessment is based on the results of examination on two questions chosen at random from the field of orthopedics and traumatology.

**3970 Physiotherapy in Orthopedics and Traumatology with Orthotics and Prosthetics 1****ECTS credits:** 5**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Penka Petrova Barakova, PhD, Dept. of Kinesitherapy,

tel.: 821 993, E-mail: mrsbarakova@abv.bg

Sr. Assist. Prof. Petya Andreeva Parashkevova, Dept. of Kinesitherapy,

tel.: 821 993, E-mail: petia75@gbg.bg

**Abstract:**

The aim of the course is to introduce students to the characteristics of the contemporary traumatism, pathological physiology of traumas and principles of the primary treatment of fractures. Additionally, students should be made familiar with the general aims, objects, principles and methods of applying physiotherapy in disorders of the musculoskeletal apparatus.

**Course content:**

Characteristics of the contemporary traumatism. Pathological physiology of traumas: osseo-tissue regeneration and pathology of fracture healing. Classification of fractures and principles of primary treatment. Physiotherapy of impairments of the Spine and Pelvic Girdle. Physiotherapy of upper and lower extremity fractures. Physiotherapy of upper and lower extremity amputations.

**Teaching and assessment:**

Lectures offer opportunity for students to get theoretically acquainted with the physiotherapy measures applied for the main groups of orthopedic and traumatic diseases. Lectures are supported by multimedia presentations, X-ray images as well as with demonstrations of specialised physiotherapy techniques and approaches, physiotherapy programs and therapeutic gymnastics examples. During the practical studies students apply academic knowledge on therapeutic exercise in different stages of recovering. At the end of the term a course assignment paper is presented, developed on a previously chosen topic. Final exam is carried out on two questions from the studied field, chosen at random.

**3971 Massage 2****ECTS credits:** 2**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assist. Prof. Radoslava Deleva Miteva-Georgieva, MSc, Dept. of Kinesitherapy,

tel.: 821993

**Abstract:**

The purpose of the training is to let students learn the theory and practice of the classic and sports massage. It represents the most significant part of the passive kinesitherapeutic methods. The kinesitherapist has to know when the massage should or shouldn't be performed; they should know the physiological effects of the different types of massage on the human organism, apply them properly and competently enough for the different illnesses, be able to perform the technique of passive exercises and apply them in the needed range of motion. The classic massage has more and more applications and is closely integrated with medical rehabilitation.

**Course content:**

Classification of the massage. Technique and physiological effects of the different massage types (connective-tissue, muscular, segmental and periostal). Acupressure. Massage for developing different qualities: strength, endurance, speed, agility, coordination.

**Teaching and assessment:**

The lectures are accompanied by a practical demonstration of the massaging methods, types and the different manual techniques. Those are trained during the practical sessions for which the students should be theoretically competent. Current control is realized by means of oral and written examining. Students are expected to attend all lectures and exercises. Students' attendance at 50 % of lectures and 90 % of exercises is required. The continuous assessment is formed on the basis of the oral examination and the practical exam.

**Basics of Research with Medical Statistics****ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education.

**Lecturers:**

Assoc. Prof. Velizar Todorov Pavlov, MSc, PhD, Dept. of Numerical Analysis and Statistics,

tel.: 888 466, E-mail: vpavlov@ru.acad.bg

Pr. Assist. Prof. Violetka Atanasova Kostova, MSc, Dept. of Numerical Analysis and Statistics,

tel.: 888 466, E-mail: vkostova@ru.acad.bg

**Abstract:**

The discipline aims to provide students with skills in processing data obtained from experiments in the field of medicine, which require the use of:

- Mathematical apparatus of the probability theory;
- Mathematical statistics methods for experimental data processing.

**Course content:**

The course includes elements from: probability theory, mathematical statistics, regression and correlation analysis.

**Teaching and assessment:**

The training process is organized in lectures and practical classes. During lectures theoretical issues are presented and illustrated with appropriate exemplary problems derived from the medical practice. During seminars students solve problems connected with the practice and requiring application of the mathematical apparatus of the probability theory, as well as mathematical statistics. Each student is required to prepare an individual course assignment. The final course mark is formed on the basis of the following formula:

Final grade = 3/4 the grade on the both tests + 1/4 the grade on course assignment.

**3987 Hygiene****ECTS credits:** 2**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Dencho Stoikov Tsonevsky, MSc, PhD, Dept. of Kinesitherapy,

tel.: 821 993

**Abstract:**

The aim of the course is to acquaint students with the main environmental factors determining social health – natural environment and the unnatural (artificial) environment and the basic spheres of society, determining social factors. The course contributes to developing knowledge about the antropogenous pollution of the biosphere and its influence on health, hygienic standards and requirements toward drinking water and the water in physiotherapy pools, health institutions, industrial enterprises, kindergartens, requirements for healthful nutrition and prevention of diseases as a result of unhealthy nutrition.

**Course content:**

Characteristics and focus of preventive medicine. Hygienic and ecological problems of antropogenous pollutions, air, open water basins and soil pollutions. Hygienic requirements to drinking water. Hygiene of inhabited settlements and premises. Sanitary and hygienic requirements to therapy, rehabilitation and prophylactic institutions. Nutrition. Food intoxication of bacterial and nonbacterial origin. Medical provision for the growing children. Occupational medicine.

**Teaching and assessment:**

The presented topics enable the students to get acquainted with the basic hygienic problems. Audiovisual instruments for presentation, diagrams, tables, pictures and parts of the lectures are used in the teaching process. Each part of the course is followed by evaluation of the level of acquired knowledge by completing test tasks. The course task includes developing a healthy nutrition program consisting of main principles of healthy nutrition, risk factors for socially significant diseases and biological significance of the basic nutritious substances. Not more than three absences without valid reason are allowed during the term. Final assessment is based on written and oral examination.

**3974 Clinical Practice 2****ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Sr. Assist. Prof. Petya Andreeva Parashkevova, MSc, Dept. of Kinesitherapy,

tel.: 821 993, E-mail: petia75@gbg.bg

**Abstract:**

The module aims at getting students acquainted with the practical application of the methods for assessment of the functional ability of the movement system and clarification of the patient's rehabilitation potential. They perform practically goniometry, santimetry, manual muscle testing, measuring blood pressure and heart rate, registering data in the relevant forms. The module aims as well at training students in creating physiotherapy programs after specifying aims and tasks of the treatment program and the suitable for its achievement means and methods. Depending on the specific patients, students prepare therapeutic exercise programs and supervise their proper execution.

**Course content:**

Basic principles of the physiotherapy in orthopedic disorders and traumas: Physiotherapy for fractures and dislocations of the upper and lower extremity, the spine and pelvis; Physiotherapy for amputations of the upper and lower extremity.

**Teaching and assessment:**

The Clinical Practice is held at the Regional Hospital of Rouse. Individually or in groups of two or three students, different clinical cases are assigned. The students interview patients, take a brief history and status, and perform the necessary measurements and tests. Based on the results received, physiotherapy programs are prepared and they are discussed with the students group in the presence of the academic and clinical teacher. At the end of the practice a complex evaluation is made of the each student achievements.

During the clinical practice written tests are used to assess theoretical knowledge of students. The continuous assessment is formed on the basis of the oral discussions, written tests and the observations made during the management of patients. The Educational Clinical Practice II is recognised as successful after active participation of students and presentation of an essay.

**3975 Volleyball****ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**

Department of Physical Education and Sports

Faculty of Natural Science and Education

**Lecturers:**

Sr. Assist. Prof. Mima Trifonova Voikova, Dept. of Physical Education and Sports,

tel.: 888 757, 888 652

**Abstract:**

This subject provides general overview of the game. It develops basic skills and techniques in volleyball and familiarises students with methods and ways of achieving them. The methodology of using elements from volleyball as a means of rehabilitation is also examined. The aim of this subject is to develop skills for practical work with patients. A set of suitable exercises typical of volleyball in rehabilitation therapy is provided.

**Course content:**

Theory - physiological and technical characteristics of volleyball. Characteristics of the game. Basic concepts. Classification of the game's techniques. Rules. Peculiarities of practice. Limits to the use of volleyball in remedial sports.

**Teaching and assessment:**

Students are presented with the theoretical basis of the essence, the features and the concepts in volleyball. They practice stands and movements without a ball, as well as passing the ball with both hands from above and from below and upper front services and sample strokes. The ending procedure is a current mark assessment. It is formed as an arithmetical mean of the theoretical and practical assessment during the term.

**3976 Summer Clinical Practice 1****ECTS credits:** 4**Assessment:** colloquium**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Sr. Assist. Prof. Petya Andreeva Parashkevova, MSc, Dept. of Kinesitherapy,

tel.: 821993, E-mail: petia75@gbg.bg

**Abstract:**

The module aims at transferring theoretical knowledge in supervised practical application of methods of assessment of functional ability of musculoskeletal system and the rehabilitation potential of patients by doing goniometry, centimetry, manual muscle testing, RR and HR measuring, data registration in relevant forms. Summer supervised clinical practice gives opportunity to students in creating physiotherapy programs after specifying aims and objectives of the treatment program and the suitable for its achievement means and methods. Students are personally responsible for patients' management controlling the exact and right execution of the physiotherapy sessions.

**Module content:**

Basic principles of the physiotherapy in orthopedic disorders and diseases are practically applied: Physiotherapy for fractures and dislocations of the upper and lower extremity, the spine and pelvis.

**Teaching and assessment:**

Summer supervised clinical practice/ stage after the second year is covering the following clinical areas: Orthopedics and Traumatology. It consists of supervised practice of students within a team of health professionals in the respected clinical areas, and an academic physiotherapy teacher as well. Students interview patients, take a brief history and status, and perform the necessary measurements and tests. Based on the results received, physiotherapy programs are prepared by students and presented officially for assessment by the academic/clinical teacher.

**3977 Physiotherapy in Orthopedics and Traumatology with Orthotics and Prosthetics 2****ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Penka Petrova Barakova, MSc, PhD, Dept. of Kinesitherapy,

tel.: 821 993, E-mail: mrsbarakova@abv.bg

Sr. Assist. Prof. Petya Andreeva Parashkevova, Dept. of Kinesitherapy,

tel.: 821 993, E-mail: petia75@gbg.bg

**Abstract:**

The part of Orthopedic Diseases aims at introducing students to the physiotherapy problems, methods and means in the management of different diseases of the musculoskeletal system as congenital developmental abnormalities of lower and upper extremity. Special attention is paid to the training of students in the field of physiotherapy with children and adolescents: spine deformities, chest deformities, splayfoot etc. Inflammatory and degenerative joint diseases are discussed during the course of study.

**Course content:**

Congenital abnormalities of the upper and lower extremities. Spine deformities. Physiotherapy of joint diseases. Physiotherapy of degenerative spine diseases. Physiotherapy of degenerative diseases of bigger joints.

**Teaching and assessment:**

Thematic lectures present opportunities for students to become theoretically acquainted with the classification of orthopedic diseases and specialised physiotherapy methods in their management. Lectures are supported by multimedia presentations, X-ray pictures; and by practical demonstrations of physiotherapy techniques, approaches, programs, therapeutic gymnastics examples. During the practical sessions students transferred theoretical knowledge in practical experience of therapeutic gymnastics in different stages of recovering. For a successful ending of the term students are required to present a course assignment paper on a previously given topic. The final exam includes two questions chosen at random from the area covered by the course of studies.



**3978 Internal Diseases****ECTS credits:** 4**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Lyuben Dimitrov Christov, MSc, PhD, Dept. of Kinesitherapy,

tel.: 821 993

**Abstract:**

The discipline introduces to students internal diseases, causes for their appearance, the most important symptoms, the treatment and mainly the recovery principles. The course content includes general part for particular human body systems and a special one – for the most frequent internal diseases. Special attention is paid to cardiovascular, respiratory, digestive and urogenital systems, as well as to rheumatic and metabolic diseases, where the kinesitherapy has the most effective application. Sufficient knowledge in the anatomy, physiology and pathophysiology of these systems, as well as the basic means and methods of PT treatment are required.

**Course content:**

Internal diseases: main principles and treatment methods, indications and contra-indications. Socially significant diseases. Respiratory diseases. Cardiovascular diseases. Functional tests and methods for examination of the cardiovascular and the respiratory system. Digestive and urogenital diseases. Main metabolic and endocrine diseases. Rheumatic and degenerative joint diseases. Metabolic syndrome.

**Teaching and assessment:**

The lectures introduce theoretically the main internal diseases and their functional treatment. During the clinical practice, students become acquainted with the most frequent diseases. They learn to make anamnesis and observe the progress and treatment of internal diseases. The final procedure is a theoretical examination.

**Weekly classes:** 3lec+0sem+0labs+1ps**Type of exam:** written**3979 Physiotherapy of Internal Diseases****ECTS credits:** 9**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Penka Petrova Barakova, MSc, PhD, Dept. of Kinesitherapy,

tel.: 821 993, E-mail: mrsbarakova@abv.bg

Sr. Assist. Prof. Stefka Pavlova Mindova, Dept. of Kinesitherapy,

tel.: 821 993, E-mail: stef\_mind@abv.bg

**Abstract:**

The subject introduces students to the internal diseases, their etiology, main symptoms, methods of examination and assessment of the patient, principles of management; and on this basis – to the specialised physiotherapy methods applied to their management and rehabilitation. The studied matter includes a general part about aims of physiotherapy in a specific body system; and a Special Physiotherapy part concerning Physiotherapy of the more frequent internal diseases where physiotherapy has a most important and effective impact. It is necessary for students to be well acquainted with the anatomy of body systems, their physiology and pathologic physiology; as well as the basic physiotherapy means and methods. Indications and contraindications for physiotherapy and the capacity of patients for physical efforts, prevention of complications and disability and compensatory measures for maintenance and restoration of physical capacity, are some of the most important topics during the course of teaching.

**Course content:**

Physiotherapy of internal diseases – aim, subjects, forms of application, basic principles and methods, indications and contraindications, physical activity regimes. Functional tests and methods for assessment of cardiorespiratory system. Physiotherapy of the respiratory system diseases. Physiotherapy of the cardio-circulatory system diseases. Physiotherapy of the digestive system, liver and gallbladder diseases. Physiotherapy of kidney diseases. Physiotherapy of joint diseases (rheumatoid, degenerative).

**Teaching and assessment:**

Lectures are supported by image diagnostics examples, ECG examples, and clinical data of patients with internal diseases. Examples of physiotherapy programs for a given clinical cases are presented as well, aimed to support practical studies. Continuous assessment is based on discussions, practical studies, and course assignments on specified topics from internal diseases. The final assessment includes theoretical exam and presentation of physiotherapy programs for internal disease patients.

**Weekly classes:** 4lec+0sem+0labs+4ps+ca**Type of exam:** written, oral and practical

**3980 Surgery, Obstetrics and Gynecology****ECTS credits:** 2**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Dimitar Asenov Abrashev, MD, PhD, Dept. of Kinesitherapy,

tel.: 821 993

**Abstract:**

The discipline is compulsory in the physiotherapy education. The course aims to introduce to students the main surgical, obstetrical and gynaecological diseases, and to develop knowledge and skills in the diagnostics and treatment of these conditions. Preliminary knowledge in anatomy, physiology, and pathology is needed. The expected outcomes are applying of the gained knowledge and skills in surgery, obstetrics and gynaecology for effective physiotherapy treatment and prevention.

**Course content:**

Introduction in Surgery. Antiseptics and asepsis. Preoperative and postoperative period. Surgical infections. Varicose veins. Thrombophlebitis. Chronic arterial insufficiency of the extremities. Surgical disorders of the main organs and systems in the human body – neck, organs in the thoracic and abdominal cavity, abdominal wall, urological and vascular diseases. Anatomy of genitals. Fetus growth and alternations in mother's organism during pregnancy. Child delivery. Obstetrical operations. Phlogistic and oncologic conditions of the female genitals.

**Teaching and assessment:**

During the lectures the main surgical, obstetrical and gynecological methods of surgery are presented theoretically, illustrated with multimedia, image diagnostics and X-rays. Continuous assessment is realized through discussions during the teaching, tests and written individual assignments. 80% attendance at the lectures is required. The final grade is based on an oral theoretical examination on two questions from the questionnaire. Test results and individual assignments are taken into consideration.

**3981 Physiotherapy in Surgery, Obstetrics and Gynecology****ECTS credits:** 4**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Nezabravka Nikolaeva Gencheva, PhD, Dept. of Kinesitherapy,

tel.: 821 993

Sr. Assist. Prof. Petya Andreeva Parashkevova, Dept. of Kinesitherapy,

tel.: 821 993, E-mail: petia75@gbg.bg

**Abstract:**

The course is compulsory in the physiotherapy education, because physiotherapy interventions are widely applied in the prevention and treatment of surgical, obstetrical and gynecological diseases. Students get acquainted with the main aims, objectives, principles and methods of applying the physiotherapeutic procedures in these conditions. The students learn the principles of developing of physiotherapeutic programs for diseases of the blood vessels, neck, thoracic wall, abdominal wall and the organs in the thoracic and abdominal cavity, urological, obstetrical and gynecological diseases.

**Course content:**

Characteristics of physiotherapy in surgical conditions. Physiotherapy for vascular diseases. Physiotherapy for surgical diseases of the neck, mammary gland, lungs, esophagus, stomach and duodenum. Physiotherapy after hernia surgery, liver and gall-bladder, large intestine, after emergency abdominal surgery. Physiotherapy in surgical conditions of the urogenital system. Principles of physiotherapy application in obstetrics and gynecology.

**Teaching and assessment:**

During the lectures the main surgical, obstetrical and gynecological methods of surgery are presented theoretically, illustrated with multimedia presentation. The aim of the training is to develop skills for applying of physiotherapeutic interventions in the prevention and treatment of surgical, obstetrical and gynecological illnesses. The practicals are carried out in the surgical, obstetrical and gynecological departments of Rousse Hospital. The continuous assessment is realized through discussions during the teaching and written examination. 80% attendance at the lectures and 90% attendance at the practicals are required. The grading is based on a theoretical examination on two questions, test results and a written assignment. The individual paper presents a physiotherapeutic program for a specific surgical, obstetrical or gynecological disease, chosen from the student.

**3982 Clinical Practice 3****ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Sr. Assist. Prof. Stefka Pavlova Mindova, MSc, Dept. of Kinesitherapy,

tel.: 821993, E-mail: stef\_mind@abv.bg

Assist. Prof. Ivelina Stefanova Stoyanova-Raeva, MSc, Dept. of Kinesitherapy,

tel.: 821993, E-mail: ivelinastefanova\_rs@abv.bg

**Abstract:**

The discipline aims to get the students acquainted with the types of treatment and rehabilitation, and practical application of physiotherapy methods to orthopaedic and internal diseases. Applying preciously acquired knowledge in orthopaedy, internal diseases, MMT, goniometry, fundamentals of kinesiology and physiotherapy, students learn to make anamnesis and status, and to perform measuring and tests as needed in the concrete clinical case. Based on the obtained results students develop skills in determining each patient's rehabilitation potential and developing a physiotherapy program.

**Course content:**

Physiotherapy in congenital hip joint dislocations, foot deformities, scoliosis, torticollis, babys' brachial plexus paralysis, total arthroplasty, shoulder joint periartthritis. Physiotherapy for inflammatory and degenerative joint diseases. Gait abnormalities and methods to identify them. Physiotherapy for bronchial asthma, chronic obstructive pulmonary disease and pulmonary tuberculosis. Physiotherapy for chronicle cardiovascular insufficiency and arterial hypertension.

**Teaching and assessment:**

Practical classes are carried out at specialized clinical education placements. Students get acquainted with the specific disorder, make anamnesis and status, perform functional examination and measuring, develop a physiotherapy intervention program and conduct treatment supervised by the teacher. At the end of the sessions raised issues are discussed. The continuous assessment is formed on the basis of an oral examination, written tests and teachers' observation during the term, as well as a course assignment, which aims to develop skills for working with scientific medical literature, interpreting gathered data from the examination and developing physiotherapy programs.

**3983 Table Tennis****ECTS credits:** 1**Assessment:** colloquium**Department involved:**

Department of Physical Education and Sports

Faculty of Natural Science and Education

**Lecturers:**

Assist. Prof. Ilian Yordanov Ilchev, Dept. of Physical Education and Sports,

tel.: 888 757, 888 652

**Abstract:**

This subject aims at acquainting the students with the basic techniques and skills of the game and its rules. Various drills are conducted to improve the general physical development of the students and their quick response, precision and agility in particular.

**Course content:**

The training in table tennis involves acquisition of basic techniques and skills such as: holding the bat, basic stand, service and strike back, attack and defense, basic rules of the game as well as organization of competitions.

**Teaching and assessment:**

Groups comprise 8 to 12 students which facilitates learning. Oral explanations precede the instructor's demonstrations and after that students practice under the supervision of the instructor. One test is administered during the term and at the end oral and practical testing takes place.

**3984 Physical Therapy and Rehabilitation****ECTS credits:** 5**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Ivet Borisova Koleva, MSc, PhD, Dept. of Kinesitherapy,

tel.: 821993

Assist. Prof. Ivelina Stefanova Stoyanova-Raeva, MSc, Dept. of Kinesitherapy,

tel.: 821993

**Abstract:**

The aim of the discipline is to develop students' clear view of the nature and physiological influence of physical factors, doses, indications and contraindications for their application. Within the framework of the course they get acquainted with the application of galvanic current, diadynamic current, interferential current, amplitude modulated current of Yasnogorodski, ultrashort and high-frequency current, D'Arsonval current. Also the treatment by ultrasound, aerosols, usual and crio-electrophoresis, LASER rays, etc. are studied. Particular attention is paid to the use of electrostimulation of denervated and not denervated muscles.

**Course content:**

Main principles of the effect of physical factors. Electrotherapy – low frequency, middle frequency, high frequency current. Magnetotherapy. Ultrasound therapy. Light therapy. LASER therapy. Inhalation therapy. Electrodiagnostics. Electrostimulation.

**Teaching and assessment:**

Course content is explained theoretically through lectures, which are illustrated with diagrams, schemes, drawings and demonstration of some portable appliances. A detailed description of physiotherapy appliances is presented. Doses, indications and contraindications for concrete physiotherapy factors are explained. Physical factors for diseases and traumas of the locomotor system are described in details. Practical sessions are carried out in the physical rehabilitation ward of the Hospital of Rousse. Students have the opportunity to observe and develop skills in applying different physical modalities. The exam is based on a written test and oral discussion on two questions from the questionnaire.

**3985 Neurology and Mental Disorders****ECTS credits:** 4**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:** Assoc. Prof. Stoyan Panov Bozhinov, PhD, MD, Dept. of Kinesitherapy,

tel.: 821993

**Abstract:**

The aim of the course is to introduce students to the descriptive and functional anatomy of nervous system, the symptoms and syndromes of neurological injuries, the principles of topical diagnosis, and the medical methods, supporting and verifying the diagnosis of neurological disorders. The special part acquaints students with the clinic and therapy of neurological disorders, classified according to etiopathogenetic principles. Previous knowledge in anatomy and physiology of the nervous system is necessary. Practical exercises focus attention on traumas and disorders of the central and peripheral nervous system, where physiotherapy methods and means are most widely applied. The discipline forms and develops the basis of clinical reasoning as a logical foundation for developing and conducting the rehabilitation plan for a particular patient.

**Course content:**

General concepts of anatomy and physiology of the nervous system. Peripheral nervous system. Central nervous system – brain and spinal cord, conductive systems. Movement and coordination. Main symptoms and syndromes in their disorders. Sensuousness. Clinical topic syndromes. Laboratorial methods for diagnostics of neurological disorders. Inflammatory and vascular disorders of the nervous system. Tumors and traumas of the nervous system. Systemic dystrophic disease of the nervous and muscular systems. Central and peripheral nervous system disorders. Epilepsy. Functional disorders of the nervous system.

**Teaching and assessment:**

The lectures aim to present the theoretical foundations of the functional treatment of different neurological disorders. During practice students observe and try out methods of neurological examination with patients. Theoretical preparation on the topic is requested. Continuous assessment is carried out through discussions, inquiries and clinical cases. Regular attendance of lectures and minimum 90% attendance of exercises are required. Final grade is based on a written and oral examination on two questions from the questionnaire.

**3986 Physiotherapy in Nervous and Mental Diseases 1****ECTS credits:** 4**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Lyudmila Yordanova Venova, PhD MSc, Dept. of Kinesitherapy,

tel.: 821 993, E-mail: lvenova@netbg.com

Assist. Prof. Stefan Nedkov Yanev, PhD, Dept. of Kinesitherapy,

tel.: 821 993, E-mail: jane6\_bg@yahoo.com

**Abstract:**

The course introduces to Physiotherapy in Nervous and Mental Diseases in the context of current developments in clinical neurology and neurophysiology on which steps to develop modern ideas of neurological rehabilitation and prevention of complications from Hipokinetic Syndrome. It is focussed on importance of teamwork in the stage of hospital treatment (early rehabilitation) and the leading role of physiotherapist in the outpatient stage (late rehabilitation) for the most serious nerve diseases of social importance. Special knowledge is upgraded upon basic medical, biological and clinical modules.

**Course content:**

Introduction to Physiotherapy in Nervous and Mental Diseases. Hipokinetic Syndrome. Abnormalities in muscle tone and motor activity in Central and Peripheral Nervous System lesions. Methods of functional assessment of patients with nervous system lesions. Physiotherapy in peripheral nerves diseases and injuries. Extension therapy.

**Teaching and Assessment:**

Continuous guidance and assessment of students is done through discussions, evaluation of clinical documentation, functional examination and treatment sessions with patients, course assignment. The aim of the course assignment is to develop skills for analysis of research publications, preparation and presentation of critical abstract. Attendance and active participation in lectures and practical classes, development and submission in time of clinical documentation and written assignments, are required. The final mark is based on the outcome of written examination, course assignment, ongoing discussion and evaluation of clinical work and documentation.

**3973 Adapted Physical Activity and Sports for People with Disabilities****ECTS credits:** 3**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Lyudmila Yordanova Venova, PhD, Dept. of Kinesitherapy,

tel.: 821 993, E-mail: lvenova@netbg.com

**Abstract:**

The course introduces students to the field of Adapted Physical Activity and Sport as a mean of Psychomotor Rehabilitation and social integration of people with disabilities. Educational content describes Adapted Physical Activity based on the principles of Adaptation Theory and the model Person-Action-Environment; International Classification of Functioning, Disability and Health; Humanistic Philosophy; contemporary Sociology and Ecology. The aim of education is to equip students with professional attitudes and present opportunities for use of appropriate adapted physical activity and sport for people with various disabilities from different age groups, to further specialization and career in this field.

**Course content:**

Introduction and Bases of Adapted Physical Activity. Adapted Physical Education – nature, goals, organisation, personnel, planning. Inclusion and Adapted Physical Activity/ Adapted Physical Education. Recreational and elite sports for persons with disabilities. Adapted Physical Activity and Sports in rehabilitation. Adapted Physical Activity and Sports in chronic diseases and permanent damage leading to disability. Features of Adapted Physical Activity in early and advanced age. Adapted Physical Activity and Sports – management, social inclusion and integration, legislation.

**Teaching and Assessment:**

Training consists of lectures and self-study. Continuous guidance and assessment of students is done through discussions and treatment sessions with patients, course assignment. The aim of the course assignment is to develop skills for analysis of research publications, preparation and presentation of critical abstract. Attendance and active participation in lectures, development and on time submission of written assignments are required. The final mark is based on the outcome of written examination, course assignment and ongoing discussion.

**3988 Pharmacology****ECTS credits:** 2**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Antoniya Koleva Kastelova, MD, PhD, Dept. of Kinesitherapy,

tel.821993, E-mail: akastelova@sopharma.bg

**Abstract:**

The lectures focus on issues from general and special pharmacology. Special attention is paid to pharmacological drugs for treatment of most common disorders of locomotory, cardiovascular, respiratory and digestive systems, as well as novelty in antibiotic therapy. This enables the physiotherapy students to integrate their knowledge on the effect of basic medicinal groups with pathophysiological and clinical knowledge from previously studied medical disciplines – internal diseases, surgery, pediatrics, neurology. This knowledge will enable the physiotherapists to react adequately to the particular pharmacotherapeutic program of the patient, prescribed by the physician.

**Course content:**

Subject and methods of pharmacology. Experimental and clinical pharmacology. Medicine and medicinal form, sources of pharmacological drugs. Pharmacokinetics and pharmacodynamics. Pharmacology of vegetative nervous system. Local anesthetics. Histamine and antihistamine drugs. Pharmacology of the central nervous system – sedative and soporific drugs, acute methanol poisoning, psycholeptics and psychanaleptics, anticonvulsants and neurotransmitters. Narcotic and antipyretic analgesics. Antibiotics and other antibacterial drugs. Hormonal drugs. Medicinal forms, influencing mineral homeostasis of the bones. Pharmacology of the respiratory, digestive, immune systems and cardiovascular system.

**Teaching and assessment:**

The lectures are illustrated by visual presentation of diagrams and names of pharmacological products. The students participate in discussions on the main issues during lectures. At least 75% attendance at lectures is required. The examination consists of a written answer on two questions from the questionnaire. Sufficient time is provided for answering the questions.

**3988 Clinical Practice 4****ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Sr. Assist. Prof. Stefka Pavlova Mindova, MSc, Dept. of Kinesitherapy,

tel.: 821 993, E-mail: stef\_mind@abv.bg

Assist. Prof. Ivelina Stefanova Stoyanova-Raeva, MSc, Dept. of Kinesitherapy,

tel.: 821 993, E-mail: ivelinastefanova\_rs@abv.bg

**Abstract:**

The discipline aims to acquaint students with the typical characteristics and specific physiotherapy methodology in neurological disorders. Students master skills in assessing of the neurological status and the relevant physiotherapy treatment methods. The clinical and functional recovery of the patients is followed up and changes in the treatment plan are made when necessary. Knowledge in anatomy of the nervous system, general and special neurology, kinesiology and physiotherapy is applied in developing the physiotherapy programs.

**Course content:**

Physiotherapy for central and peripheral motor neurons disorders - kinesiological analysis of contractures and gait, physiotherapeutic methods for functional assessment of peripheral and central paralyzes. Physiotherapy for lumbar and sacral radiculitis; impairments of the lower limb nerves; discal hernia at different levels of the spinal cord. Physiotherapy in cervical and brachial radiculitis, plexitis, birth paralysis and impairments of the upper limb nerves. Physiotherapy for nervus facialis neuritis, polyneuritis, and poliomyelitis. Physiotherapy for vascular diseases. Physiotherapy after surgery interventions in the thoracic and abdominal cavity. Physiotherapy of burns and wounds.

**Teaching and assessment:**

The clinical practice is carried out at the different departments. Students work individually with patients with different clinical conditions. On the basis of the results, they develop physiotherapy programs, which are discussed by the whole group. Continuous assessment is carried out through oral discussions and written tests. Regular attendance of practices and presentation of the course assignment are required. The final grade is based on an oral examination, written tests and observation during the practical training.

**3990 Disastrous Situations Management****ECTS credits:** 1**Assessment:** colloquium**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Stoyan Nikolov Madzharov, PhD, Dept. of Industrial Management,

tel.: 888 495, E-mail: snm@ecs.ru.acad.bg

**Abstract:**

The content of the course provides knowledge about society organization for overcoming the consequences of disasters. The aim of the course is to introduce modern approaches, activities and measures for providing protection of the population, the property and the environment throughout crises and disasters. Students are supported to develop professional and civil culture for protection in extraordinary events.

**Course content:**

Global problems of the development – interaction society-environment and extraordinary events. The disasters – essence, classifications, general characteristics. Organization of the society for overcoming the disasters. Planning for extraordinary events – essence and steps of the planning process. Management and logistics of emergency situations. Risk reduction, life and property protection, providing of resources for radiation, toxic and other specific disasters.

**Teaching and assessment:**

Education is provided by lectures using various instruments for clear presentation: schemes, models, videotapes. The final assessment is preliminary written exam over preconcerted questionnaire.

**Weekly classes:** 2lec+0sem+0labs+0ps**Type of exam:** written**3991 Swimming****ECTS credits:** 1**Assessment:** continuous assessment**Department involved:**

Department of Physical Education and Sports

Faculty of Natural Science and Education

**Lecturers:** Sr. Assist. Prof. Plamen Stoyanov Stanchev, Dept. of Physical Education and Sports,

tel.: 888 652

**Abstract:**

In water human bodies are under the impact of the elevating power, the hydrostatic pressure and the resistance of water. All these features of the environment make swimming especially suitable for people of different ages and even for people with disabilities whose condition prevents them from practicing other sports. Students following the degree course in Kinesitherapy develop skills in swimming and acquire knowledge about the place of swimming within the general framework of physical culture and its application in their future job.

**Course content:**

The swimming syllabus comprises: general and theoretical knowledge about swimming; getting used to water and mastering the elevating power; studying breathing and the basic swimming position; studying the technique of the following style breast-stroke and their application in therapy.

**Teaching and assessment:**

Student groups consist of 15 students, which is a necessary prerequisite for efficient teaching. The technique of movements is mastered in the following order: outside the swimming pool, inside the pool holding on at the edge, using a movable prop in water, without a prop and at the final stage - coordination. The ending procedure is a current mark assessment. It is formed as an arithmetical mean of the theoretical and practical assessment during the term.

**Weekly classes:** 0lec+0sem+0labs+1ps**Type of exam:** practical

**3992 Homeopathic and Phytotherapy****ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Antonia Koleva Kastelova, MD, PhD, Dept. of Kinesitherapy,

tel.: 821993, E-mail: akastelova@sopharma.bg

**Abstract:**

Homeopathy is an officially recognized therapeutic method that is taught and applied in many countries – it is efficient, non-aggressive, non-toxic, and financially inexpensive. In fact, it requires sound theoretical knowledge, certain psychological training and individual approach to the patient. In their professional practice medical workers, including physiotherapists may be sought for consultation or opinion, they may have to use homeopathy for treatment, and, therefore, they must have the necessary knowledge for therapeutic application of the method.

**Course content:**

The program of lectures provides introduction to the three basic principles in homeopathy – the principle of likeness, the principle of dilution and infinitely small doses, and the principle of “dynamization” of medicines. Various subjects of discussion are included: concepts and terms related to the overall homeopathic theory and practice: treatment for the sensitive type, types of constitutions (diatheses), chronic pathological mode of reaction, terrain, modalities as an important part of the clinical characteristics of homeopathic drugs, principles of prescribing homeopathic products in acute and chronic pathology, etc. Some homeopathic medical products and monoproducts with effects on different cases of pathology of the locomotor system are studied: decalcification, fractures, rheumatoid, neuralgic and muscle pains, growth disorders, arthrosis, luxations, hematomas, lymphostasis, arteriitis, paralysis, etc.

**Teaching and assessment:**

Students participate in discussions on the main issues during lectures. The examination is oral. Each student has to draw a card containing two questions from the synopsis. Adequate time is provided to prepare and present answers.

**3993 Summer Clinical Practice 2****ECTS credits:** 4**Assessment:** colloquium**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Sr. Assist. Prof. Stefka Pavlova Mindova, MSc, Dept. of Kinesitherapy,

tel.: 821993, E-mail: stef\_mind@abv.bg

Assist. Prof. Ivelina Stefanova Stoyanova-Raeva, MSc, Dept. of Kinesitherapy,

tel.: 821993, E-mail: ivelinastefanova\_rs@abv.bg

**Abstract:**

The summer clinical practice aims to provide opportunities for practical application of the theoretical knowledge and to expand their practical preparation. Students work individually with patients. They take a short anamnesis and status, perform measurements and tests, and control the correct execution of the physiotherapeutic procedures under the supervision of an expert. According to the aim of the physiotherapy different means and methods are used, and then described in detail in the physiotherapy programs.

**Course content:**

Main principles of physiotherapy in orthopedic and traumatic disorders. Physiotherapy in internal diseases. Physiotherapy in surgical, obstetrical and gynecological diseases. Physiotherapy in neurological and mental disorders.

**Teaching and assessment:**

The summer clinical practice 2 is of 4 weeks duration. It is carried out in fieldwork placements in the following clinical fields – orthopedics and traumatology, physical medicine and rehabilitation, internal diseases neurology and psychiatry. Students work under the supervision of a team of health professional at the clinical placement and a teacher in physiotherapy. They take anamnesis and status, perform the necessary measurements and tests and develop physiotherapeutic programs based on the results. Certification is received from the responsible teacher after fulfilling the requirements and presenting of the physiotherapeutic programs.



**3994 Physiotherapy in Nervous and Mental Diseases 2****ECTS credits:** 6**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Lyudmila Yordanova Venova, PhD, MSc, Dept. of Kinesitherapy,

tel.: 821993, E-mail: lvenova@netbg.com

Assist. Prof. Stefan Nedkov Yanev, PhD, Dept. of Kinesitherapy,

tel.: 821993, E-mail: jane6\_bg@yahoo.com

**Abstract:**

The course continues the students' training in Physiotherapy in Nervous and Mental Diseases in the context of current developments in clinical neurology and neurophysiology on which steps to develop modern ideas of neurological rehabilitation and prevention of complications from Hipokinetic Syndrome. It is focussed on importance of teamwork in the stage of hospital treatment (early rehabilitation) and the leading role of physiotherapist in the outpatient stage (late rehabilitation) for the most serious nerve diseases of social importance. Special knowledge is upgraded upon basic medical, biological and clinical modules.

**Course content:**

Physiotherapy in the comprehensive treatment and rehabilitation after Stroke. Physiotherapy in Inflammatory, Hereditary and Degenerative Diseases of the Central Nervous System. Physiotherapy after Brain and Spinal Cord Injuries, Cerebral Palsy, Neurosis and Psychosis. Psychomotor Physiotherapy.

**Teaching and Assessment:**

Training consists of lectures, clinical education&practice and self-study. The course of lectures is supported by contemporary audiovisual equipment. Continuous guidance and assessment of students is done through discussions, evaluation of clinical documentation, functional examination and treatment sessions with patients, course assignment. The course assignment includes examination, assessment and conclusion on the physiotherapy diagnosis and rehabilitation capacity of the patient, development and implementation of a physiotherapy program, current examination and assessment, preparation and submission of necessary documentation, reporting and discussing clinical cases in front of the students' group. Attendance and active participation in lectures and practical classes, development and submission in time of clinical documentation and written assignments, are required. The final mark is based on the outcome of written examination, course assignment, ongoing discussion and evaluation of clinical work and documentation.

**3995 Pediatrics****ECTS credits:** 2**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Violeta Mihova Yotova, PhD, MD, Dept. of Kinesitherapy,

tel.: 821993

**Abstract:**

The lectures in pediatrics aim to present essential morphologic and functional characteristics of the child development from intrauterine and neonatal period till the end of puberty and adolescence. The pathology of all ages with accent on pathophysiologic mechanisms and contemporary therapeutic and prophylactic methods is followed. The place and potential of physiotherapy in child's age, focused on prevention of the physical and psychical retardation of sick children, as well as achieving the maximum of their normal development, education and professional orientation, is stressed.

**Course content:**

Pediatrics – subject, main therapy trends. Anatomic and physiologic characteristics of the child development in different age periods. Characteristics of heredity and congenital diseases. Diseases of the newborn and prematurely born babies. Early intervention for children with problems in breathing and neurological development. Puberty – characteristics of the psychical and physic development. Diseases of the respiratory, cardio-vascular, digestive, urinary, nervous and musculoskeletal system in child and juvenile ages. Diseases of the blood and haemopoetic organs. Metabolic diseases. Immunity and immunodeficiency conditions. Congenital virus infections.

**Teaching and assessment:**

The lectures are presented in an easily accessible way with audio-visual illustrations and possibility for summarizing of essential parts. Active participation of students through solving case studies and discussions on issues of particular interest is stimulated. Continuous assessment is carried out through discussions in the process of education. Minimum 50% attendance of lectures is required. The final grade is based on a written theoretical examination and oral discussion.

**3996 Physiotherapy in Pediatrics****ECTS credits:** 4**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Penka Petrova Barakova, MSc, PhD, Dept. of Kinesitherapy,

tel.: 821993, E-mail: mrsbarakova@abv.bg

Assist. Prof. Radoslava Deleva Miteva-Georgieva, MSc Dept. of Kinesitherapy,

tel.: 821993,

**Abstract:**

The discipline is basic for physiotherapy students, because most of their work in specialized health units is with children and adolescents with different pathology. The educational methodology includes studying of the main principles, methods and means of physiotherapy in pediatrics. Characteristics of the child development during puberty, as well as the impact of physiotherapy on different organs and systems in child and juvenile age, is described. Students get acquainted with the main tasks, principles, indications and contraindications when working with toddlers, children and adolescents.

**Course content:**

Characteristics of the child development in different age periods. Developmental deviations. Physiotherapy for respiratory diseases (chronic bronchitis, bronchial asthma), diseases of the cardio-vascular system (congenital valvular disease, acute rheumatic fever, juvenile hypertonia), of the nervous system (cerebral palsy, brachial plexus birth injury) and of the locomotor system (spine and chest deformities, pes planus). Physiotherapy in obesity.

**Teaching and assessment:**

The lectures are presented in an interactive form, accompanied by demonstrations of special techniques and exercises. Physiotherapy programs and complexes for therapeutic gymnastics for some rare diseases are presented. During practicals the students put into practice the acquired knowledge and therapeutic complexes for disorders in child and juvenile age. Under the teacher's supervision they developed and implement in practice physiotherapy programs. The continuous assessment is conducted through discussion. Minimum 50% attendance at lectures and 90% at practicals is required. The final grade is based on a written theoretical examination on two questions from the field of study. Quality of the course assignment is taken into consideration.

**3997 Physiotherapy in Geriatrics****ECTS credits:** 3**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Lyudmila Yordanova Venova, MSc, PhD, Dept. of Kinesitherapy,

tel.: 821993, E-mail: lvenova@netbg.com

**Abstract:**

The subject is particularly relevant to the demographic and epidemiological characteristics and global trends of increasing population of elderly. The importance of proper and adequate motor activity in prevention of premature aging and diseases in elderly as well as physiotherapy in prevention, treatment and comprehensive rehabilitation of the most common illness syndroms, diseases and disabilities in elderly, are explained. The aim of education is to equip students with professional attitudes, knowledge and skills to use appropriate means and methods of Physiotherapy with patients in advanced and old age.

**Course content:**

The course of lectures covers: Introduction to Gerontology and Geriatrics. Aging as a biological process, Aging and Physical Activity. Physiotherapy in Geriatrics – main areas: Characteristics of Physiotherapy of geriatric patients with different diseases. Physiotherapy of Osteoporosis, Incontinence, Senile Psychoses and Neuroses.

**Teaching and Assessment:**

Training consists of lectures and self-study. The course of lectures is supported by contemporary audiovisual equipment. Continuous guidance and assessment of students is done through discussions and course assignment. The aim of the course assignment is to develop skills for analysis of research publications, preparation and presentation of physiotherapy program for different diseases in old age. The final mark is based on the course assignment, outcome of ongoing discussion and written examination.

**0007 Clinical Practice 5****ECTS credits:** 5**Assessment:** continuous assessment**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Sr. Assist. Prof. Petya Andreeva Parashkevova, MSc, Dept. of Kinesitherapy,

tel.: 821993, E -mail: Petia75@gbg.bg

Assist. Prof. Radoslava Deleva Miteva-Georgieva, MSc, Dept. of Kinesitherapy,

tel.: 821993

**Abstract:**

The discipline aims to introduce the inflammatory and traumatic injuries of the nervous system, the methods of their diagnostics, treatment and rehabilitation. The students make anamnesis, assess neurological status and perform measuring and tests as appropriate for establishing of functional deficits. They develop physiotherapy programs and apply in practice active and passive exercises with patients under supervision of the teacher. The patient's clinical recovery is followed and when necessary make changes in the treatment plan.

**Course content:**

Physiotherapy in encephalitis and multiple sclerosis. Physiotherapy in cerebro-vascular incidents. Physiotherapy in spinal cord and brain tumors. Physiotherapy in traumatic brain injuries and spinal cord injuries. Physiotherapy in cerebral palsy and progressive muscle dystrophy. Physiotherapy in paraplegia и quadriplegia. Physiotherapy in functional disorders of the CNS and VNS.

**Teaching and assessment:**

Fieldwork starts with discussion of the nosological unit. After that students work with patients with the same disease by developing, discussing and applying physiotherapy programs. At the end each student reports about his cases and his own evaluation about the patient's recovery. The continuous assessment is carried out through discussions and written tests. Regular attendance at fieldwork is required, as well as presentation of the course assignment on a particular patient. The continuous assessment is formed on the base of an oral examination, the course assignment and observation during practice.

**0010 Aerobics and Calanetics****ECTS credits:** 1**Assessment:** colloquium**Department involved:**

Department of Physical Education and Sportss

Faculty of Natural Science and Education

**Lecturers:** Sr. Assist. Prof. Milena Petrova Grigorova, Dept. of Physical Education and Sports,

tel.: 888 757, 888 652

**Abstract:**

Aerobics and calanetics are perfect means to achieve physical development, health and beauty. The exercises stimulate the activity of the cardio-vascular, the nervous, the respiratory and the locomotory system. They improve the tone of the muscles, enhance the muscle strength, develop the agility, improve the equilibrium stability and help people concentrate. All these features account for their exceptional place in physiotherapy.

**Course content:**

The following exercises are used in aerobics and calanetics classes: 1. General impact exercises. 2. Local impact exercises. 3. Exercises that focus on the development of the physical skills. 4. Exercises that influence the pose of the body and the gait. 5. Exercises with weights. 6. Stretching exercises. 7. Respiratory exercises. 8. Relaxation exercises. 9. Elements from folk dancing, jazz ballet, etc.

**Teaching and assessment:**

Student groups comprise 10-11 people. This facilitates control and learning. The sets of exercises are accompanied by music. Students stand in a chessboard order and face the demonstrator. Towards the end of the term students take it in turns to play the demonstrator. They get their grade at a preliminary exam comprising oral and practical testing.

**3998 Sports Medicine****ECTS credits:** 5**Assessment:** exam**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Prof. Maria Vasileva Toteva, DSc, MD, Dept. of Kinesitherapy,

tel.: 821993

Assist. Prof. Padoslava Deleva Miteva-Georgieva, MSc, Dept. of Kinesitherapy,

tel.: 821993

**Abstract:**

Sports medicine is a domain of the medical science and practice, developed on the borders between medical and non medical sciences. It aims to evaluate, control, protect and enhance health, physical development, functional state and sports capacity of persons, actively occupied with physical exercise and sports.

**Course content:**

Subject, objectives and organization of sports medicine. Sports and medical insurance at sports competitions. Physical development and physical capacity of human beings. Basis of functional diagnostics. Clinical and functional examination of the nervous, respiratory and cardio-vascular system. Sports traumatology. Injuries and diseases of the muscles, tendons and bones. Acute and chronic overload during sports. Doping and doping control. Sports and medical problems of preschool and school age children, adults and elderly, actively engaged in sports. Sports and medical problems of mass sport.

**Teaching and assessment:**

Teaching is conducted through lectures and practicals, applying up to date interactive methods. Presented topics provide opportunity for theoretical and practical introduction to the specific changes in persons, actively engaged in sports, to clinical and functional examinations, to most frequent traumas and the variety of treatment methods, as well as to sports medicine standards. Practical include demonstration of methods, tests and assessments and developing of a diagnostic and therapeutic plan. Continuous control is carried out through discussions and tests. At least 50% attendance at lectures and 90% at exercises is required. The final grade is formed on the basis of a theoretical examination.

**3999 Sociology, Social Medicine, Medical Ethics and Health Legislation****ECTS credits:** 2**Assessment:** continuous assessment**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assoc. Prof. Stoyanka Tsvetkova Popova, PhD, MD, Dept. of Kinesitherapy,

tel.: 821993

**Abstract:**

Sociology reveals the essence, structure and significance of sociological knowledge for the development of medical theory and practice, the evaluation of the interpersonal relationship and the relationship between health professional and patients, assessment of risk behaviour, as well as the positive and negative influence of social factors on individual and community health. The ethics of medical professionals – their attitude towards the patient and his social and personal state, towards medical science, the state and the community, are described. The topics on health legislation include specific regulations of the activities of different health service departments, their rights and responsibilities.

**Course content:**

Purpose and objectives of sociology. Sociological system and sociological structure of society. Personality as a specific sociological system. Needs of the individual. Public opinion - nature and stages of development. Social medicine – health and illness, public health and basic indicators, socially significant diseases, family health, health promotion. Medical ethics – principles and rules, relationships, rights and responsibilities of medical professionals and patients; moral aspects of the beginning of life. Social health legislation – laws and regulations, basic health law, legislation and regulations for outpatient and inpatient services.

**Teaching and assessment:**

The lectures provide the use of audio-visual methods of education through projection of slides, including charts, tables, pictures and basic texts. Current knowledge evaluation is conducted through interviews in the course of teaching. At least 50 percent attendance of lectures and timely submission of the course assignment are required. The final grade is based on a written and oral exam and the course assignment.

**0008 Specialized Physiotherapy Methods****ECTS credits:** 3**Assessment:** continuous assessment**Department involved:**

Department of Kinesitherapy

Faculty of Natural Sciences and Education

**Lecturers:**

Assoc. Prof. Lyudmila Yordanova Venova, PhD; MSc, Dept. of Kinesitherapy,

tel.: 821993, E-mail: lvenova@netbg.com

**Abstract:**

The course meets the basic concept of modern university education, providing a combination of basic training through wide range of obligatory modules in the curriculum, set by the professional field and state requirements, and opportunities to meet the individual interests of students through a set of optional modules. Students will be acquainted with the philosophy and techniques of world-recognised specialised physiotherapy methods with proven clinical efficacy in different conditions. The aim for student is to acquire professional attitudes and see opportunities to use appropriate specialized physiotherapy methods on people with different health disorders and disability from different age groups to further specialisation in this field.

**Core content:**

Specialised PT methods – types according to the philosophy of therapeutic approach. Proprioceptive Neoromuscular Facilitation (PNF). Bobath Method (NDT). Method of McKenzie - nature, history, principles, techniques. Psychomotor Physiotherapy – nature, application. Methods based on learning and teaching approaches. Other specialised PT methods.

**Teaching and Assessment:**

The training includes lectures, practical studies, controlled self-study. The lecture course uses modern audiovisual equipment. Monitoring is through oral interviews and observations during the practical studies. The final assessment is the outcome of ongoing discussion and written and practical exam.

**Weekly classes:** 1lec+0sem+0labs+1ps**Type of exam:** oral and written/practical**0011 Undergraduate Clinical Fieldwork****ECTS credits:**20**Assessment:** colloquium**Department involved:**

Department of Kinesitherapy

Faculty of Natural Science and Education

**Lecturers:**

Assist. Prof. Ivelina Stefanova Stoyanova-Raeva, MSc, Dept. of Kinesitherapy,

tel.: 821 993, E-mail: ivelinastefanova\_rs@abv.bg

Sr. Assist. Prof. Stefka Pavlova Mindova, MSc, Dept. of Kinesitherapy,

tel.: 821 993, E-mail: stef\_mind@abv.bg

**Abstract:**

The undergraduate clinic fieldwork enables students to apply in practice the theoretical knowledge and supplements their practical training. It is enclosed as obligatory in the States requirements for the Bachelor degree in Physiotherapy in order to prepare graduates for successful practice in multidisciplinary teams, as well as individual practitioners in all areas and levels of health.

**Course content:**

Undergraduate clinical fieldwork is conducted in following clinic areas:

- Ortopaedics and traumatology – 3 weeks;
- Physiotherapy and rehabilitation – 3 weeks;
- Internal diseases (cardiology and pulmonary diseases) – 3 weeks;
- Neurology – 3 weeks;
- Surgery, obstetrics and gynecology – 3 weeks.

**Teaching and assessment:**

Undergraduate clinical internship lasts 15 weeks (total 450 hours) in the listed clinical areas. Traineeship represents the work of students under the supervision of a team of health professionals in the clinical areas and an assistant professor in physiotherapy. Students describe in brief history and status, assess the rehabilitation potential of the patient, perform kinesiological and pathokinesiological analysis, identify physiotherapy diagnosis, set goal and objectives, prepare and conduct physiotherapy program, conduct reevaluation of the patient and provide recommendations for exercise regime and secondary prophylaxis after discharge, train relatives if necessary, participate in the organization and documentation of rehabilitation activities. Students are assessed currently by the fieldwork supervisors and teachers through regular contacts about discussing patients and review of documentation. For fieldwork certification students are obliged to present and report physiotherapy programs. The signature of the head of the department is required.

**0013 Clinical Practical State Examination****ECTS credits:** 5**Assessment:** state examination**Department involved:**

Department of Kinesitherapy

Faculty of Natural Sciences and Education

**Supervisors:**

All physiotherapy lecturers.

**Abstract:**

The clinical practical state examination provides opportunities to undergraduates to demonstrate in real context gained knowledge, skills for practice and professional competences, necessary for entry level of a practicing physiotherapist.

**Course content:**

Each undergraduate works individually with a patient describing brief history and status, performing necessary assessments and evaluation, kinesiologic and pathokinesiologic analysis, identifying the physiotherapy diagnosis and the rehabilitation potential of the patient, setting the goal, objectives and the content of the physiotherapy programme, and conducting a physiotherapy intervention.

**Teaching and assessment:**

The clinical practical state examination is conducted in a healthcare institution in front of the State Board of Examiners, which consists of at least three habilitated lecturers.

**Weekly classes:** 0lec+0sem+0labs+0ps**Type of exam:** practical**0014 Theoretical State Examination****ECTS credits:** 5**Assessment:** state examination**Department involved:**

Department of Kinesitherapy

Faculty of Natural Sciences and Education

**Supervisors:**

All physiotherapy lecturers.

**Abstract:**

The theoretical state examination provides opportunities to undergraduates to demonstrate theoretical knowledge acquired during education, integrating understanding in fundamental, clinical and special disciplines.

**Course content:**

The examination questionnaire contains topics, concerning the basic physiotherapy means and methods, as well as physiotherapy in all clinical domains.

**Teaching and assessment:**

The theoretical state examination is conducted in front of the State Board of Examiners, which consists of at least three habilitated lecturers.

**Weekly classes:** 0lec+0sem+0labs+0ps**Type of exam:** written, oral

**0713 Bachelor Thesis in Physiotherapy****ECTS credits:** 10**Assessment:** defence**Department involved:**

Department of Kinesitherapy

Faculty of Natural Sciences and Education

**Supervisors:**

Lecturers and experts in the professional field.

**Abstract:**

The main aim of the bachelor thesis is that students develop skills to design, implement and evaluate a research project on an applied scientific problem in the area of physiotherapy. Graduates have the opportunity to apply in a creative and critical manner previously acquired theoretical knowledge, practical skills and attitudes for achieving the goals and objectives of the bachelor thesis and to present their research successfully to the State Board of Examiners.

**Course content:**

Defining the topic and the research supervisor. Determining the general structure of the bachelor thesis. Literature review. Designing and implementing of the research. Analysis and discussion of the results, conclusion and recommendations. Developing of the bachelor thesis. Guidelines for the defense.

**Teaching and assessment:**

The bachelor thesis is an assignment, developed by the student independently under the supervision of a teacher on a confirmed by the department topic. The supervisor supports the student in all stages of the development and defense of the thesis. Students present and defend their Bachelor Thesis in front of the State Board of Examiners, which consists of at least three habilitated lecturers, as well as experts in the professional field.

**Weekly classes:** 0lec+0sem+0labs+0ps**Type of exam:** oral