

4. DESCRIPTION OF THE STUDY PROGRAMMES

4.4. DESCRIPTION OF THE STUDY PROGRAMME OF PHYSIOTHERAPY

ANATOMY

Semester: 1

Number of credits: 4

Course Coordinator: Elena Kairienė

Objectives:

- To define the structure of human tissue, organs and systems of organs.
- To set the position and planes of organs in the surface of a body.
- To compare age changes of an organism.
- To define the structure and planes of the skeletal, muscular systems and commissures.
- To indicate the functions of bones, muscles, commissures.

Contents:

- Skeleton system. Commissures. Muscular system.
- Nervous system.
- Sense organs.
- Internals.
- Heart and circulatory system.
- Lymphatic system.

Teaching methods:

- Lectures.
- Discussions.
- Presentation.
- Drawing.
- Self-study.

Course literature:

1. Anusevičienė, O., Cibas, P., Lilienė, L. (2002). *Žmogaus anatomija ir fiziologija*. Kaunas.
 2. Česnys, G. (2002). *Žmogaus osteologija*. Vilnius.
 3. Kairienė, E. (2007). *Žmogaus anatomija. Praktikumų sąsiuvinis*. Šiauliai.
 4. Stropus, R. et al. (2005). *Žmogaus anatomija*. Kaunas.
 5. Vestonas, T. (1997). *Anatomijos atlasas*. Vilnius.
 6. Tortora G.J., Grabovski, S.R. (1993). *Principles of Anatomy and Physiology*. New York.
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GENERAL PHYSIOTHERAPY

Semester: 1

Number of Credits:2

Course Coordinator: Laura Straubergaitė

4. DESCRIPTION OF THE STUDY PROGRAMMES

4.4. DESCRIPTION OF THE STUDY PROGRAMME OF PHYSIOTHERAPY

Objectives:

- To evaluate normal and dysfunctional motor development.
- To arrange group and individual procedures of physiotherapy.
- To apply different functional methods of investigation.
- To know the basic physiotherapy means, principals.

Contents:

- Morphofunctional changes in an organism effected by physical strain.
- Functional samples of physical strain.
- Functional state of the respiratory system.
- Investigation of the cardiovascular system and the assessment of physical efficiency.
- Stages of the development of motion control.
- Muscle tone and assessment.
- Principles of motor development.

Teaching methods:

- Lectures.
- Practicums.
- Pair work.
- Situation modelling.
- Discussion.
- Reflexion.

Course literature:

1. Hendall, F.P. et al. (1996). *Muscles Testing and Function*.
 2. Kriščiūnas, A. et al. (1998). *Reabilitacija*. Kaunas.
 3. Krutulytė, G. (2001). *Kineziterapija*. Kaunas.
 4. Mockevičienė, D. et al. (2005). *Motorinė raida: pirmieji gyvenimo metai*. Šiauliai.
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PHYSIOLOGY

Semester: 2

Number of Credits: 2

Course Coordinator: Elena Kairienė

Objectives:

- To explain physiological processes in cells, tissue, organs and the whole organism.
- To define the mechanism of organism functional regulation.
- To define the mechanisms of body position regulation.
- To describe the basic vital functions.

4. DESCRIPTION OF THE STUDY PROGRAMMES

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Contents:

- Main physiological concepts and laws.
- Physiology of muscles.
- Physiology of nervous system.
- Motor system.
- Physiology of sense organs.
- Heart and circulatory system.
- Respiration.
- Physiology of digestion.
- Thermoregulation.

Teaching methods:

- Lectures.
- Discussion.
- Presentation.
- Drawing.
- Self-study.

Course literature:

1. Anusevičienė, O.V., Cibas, P., Lilienė, L. (2002). *Žmogaus anatomija ir fiziologija*. Kaunas.
 2. Kairienė, E. (2006). *Žmogaus fiziologijos praktikumų užduotys*. Šiauliai.
 3. Ovejero, A.F., Negri, M. (1990). *Fiziologija: žmogus*. Kaunas.
 4. Tortora, C.J., Grabovski, S.R. (1993). *Principles of anatomy and physiology*. New York.
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BASICS OF REHABILITATION

Semester: 2

Number of Credits: 2

Course Coordinator: Laura Straubergaitė

Objectives:

- To know the methods of physical medicine and rehabilitation, the structure and functions of rehabilitation team.
- To apply the methods of treatment of physical medicine and rehabilitation, compensatory technology.
- To know regulating documents of physical medicine.
- To choose the methods of medical rehabilitation.

Contents:

- General rehabilitation.
- Principles and means of rehabilitation.

4. DESCRIPTION OF THE STUDY PROGRAMMES

4.4. DESCRIPTION OF THE STUDY PROGRAMME OF PHYSIOTHERAPY

- Planning and stages of rehabilitation.
- Team of physiotherapists.
- Kinds of rehabilitation.
- Physiotherapy.

Teaching methods:

- Lectures.
- Practicums.
- Individual work.
- Self-study.

Course literature:

1. Kriščiūnas, A. et al. (1996). *Reabilitacija*. Kaunas.
 2. Klimavičius, R. (1995). *Reabilitacijos strategija*. Vilnius.
 3. Krutulytė, G., Vatėnienė, K. (1998). *Fizinė medicina ir reabilitacija*. Vilnius.
 4. Irwin, S. (ed.). (1990). *Cardiopulmonary Physical Therapy*. Philadelphia.
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SCIENCE ABOUT MOTIONS

Semester: 2

Number of Credits: 4

Course Coordinator: Vaida Berneckė

Objectives:

- To know theoretical principles of motion control and biomechanics.
- To know the state and functions of structures.
- To evaluate the changes of biomechanics of motions of the head, superior and inferior extremities, the body.
- To apply theories of motion control.
- To explain the fulfilment of different motions at function disorders.

Contents:

- Vestibular system. The structure of skeleton. Functional characteristics of muscles.
- Kinesiology of articulations of superior extremities: kinesiology of arc of shoulders, joint of shoulder, joint of elbow, joint of carpus, joint of finger.
- Kinesiology of articulations of inferior extremities: kinesiology of joint of coxa, joint of tarsus, joints of fingers.
- Kinesiology of vertebra.
- Introduction, content, methods of biomechanics.

Teaching methods:

- Lectures.

4. DESCRIPTION OF THE STUDY PROGRAMMES

4.4. DESCRIPTION OF THE STUDY PROGRAMME OF PHYSIOTHERAPY

- Presentation.
- Discussion.
- Group work.
- Self-study.

Course literature:

1. Hamilton, N., Luttgens, K. (2007). *Kinesiology: Scientific Basis of Human Motion*. McGraw-Hill
 2. Poderys, J. (2004). *Kineziologijos pagrindai*. LKKA.
 3. Stropus, R. et al. (2007). *Žmogaus anatomija*. KMU.
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BASICS OF NURSING

Semester: 2

Number of credits: 2

Course Coordinators: Adolfina Liumienė, Emilija Tamašauskienė

Objectives:

- To define factors influencing vital activities.
- To assess basic health indicators of a patient.
- To choose methods of nursing according to the level of dependence/independence.
- To educate personal hygiene skills of a patient.

Contents:

- Concept of nursing.
- Needs and motivation.
- Models of nursing.
- Process of nursing.
- Problems of patients and their nursing.
- Personal hygiene. Problems of patients and their nursing.
- Respiration. Problems of patients and their nursing.
- Ways of medicine usage.

Teaching methods:

- Discussions.
- Case analysis.
- Individual work.
- Preparation of nursing plans.
- Self-study.

Course literature:

1. Daugirdienė, B. (2001). *Slaugos specialistų atliekamų procedūrų metodikos*. Vilnius.

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2. Hallbjorg, A. (1999). *Klinikinė slauga*. Kaunas.
 3. Kozier, B. (2000). *Fundamentals of Nursing: concepts, process and practice*.
 4. Roper, M., Logan, W. Tierney, A.J (1999). *Slaugos pagrindai*. Vilnius.
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PHYSIOTHERAPY METHODS

Semester: 3

Number of credits: 4

Course Coordinator: Laura Straubergaitė

Objectives:

- To know the methods of physiotherapy.
- To choose and apply the methods of physiotherapy according to physical and functional state of a patient.
- To know the normal and pathological functional state of an individual.

Contents:

- Theoretical principles of joint mobilisation.
- Techniques of joint mobilisation.
- General principles of Bobath methods.
- Basics of McKenzie methods.
- Brunnstrom methods.

Teaching methods:

- Lectures.
- Presentation.
- Individual work.
- Practicums.

Course literature:

1. Bly, M., Whiteside, A. (1999). *Facilitation Techniques*.
 2. Kalteuborn, F.N. (1992). *Mobilisation of the Extremity Joints*. Oslo.
 3. Krutulytė, G., Ščepaniak, R. (2003). *Kineziterapija*.
 4. Muckus, K. (2006). *Biomechanikos pagrindai*. Kaunas.
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FUNCTIONAL DIAGNOSTICS

Semester: 2

Number of credits: 4

Course Coordinator: Marija Lilija Židonienė

Objectives:

- To make a plan of patient examination.

4. DESCRIPTION OF THE STUDY PROGRAMMES

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- To evaluate physical and functional state of a patient, indicators of functional state and their irregularity.
- To record the data of physiotherapy examination.

Contents:

- Physical and functional state evaluation means and devices. Planning of examination and its performance, recording of data.
- Examination of amplitude of motor joints.
- Examination of muscle strength.
- Examination of coordination and balance.

Teaching methods:

- Lectures.
- Presentation.
- Discussion.
- Pair work.
- Self-study.

Course literature:

1. Krutulytė, G. (2001). *Kineziterapija*. Kaunas.
 2. Kriščiūnas, A. et al. (1998). *Reabilitacija*. Kaunas.
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CURATIVE EXERCISES

Semester: 2

Number of credits: 4

Course Coordinator: Vaida Berneckė

Objectives:

- To know the objectives of curative exercises and the possibilities to apply them.
- To combine the means of active and passive physiotherapy.
- To know the rules of the usage of different exercises.
- To choose suitable exercises according to the changes of the functional state of a patient.

Contents:

- Curative exercises, their significance, objectives and tasks. Terminology of exercises, their kinds, the basic principles of the usage.
- Exercises with Gymnic balls.
- Objectives and tasks of general exercises, the technology of their performance.
- Movement training.
- Exercise planning, testing of a patient, making a plan of physiotherapy means.

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Teaching methods:

- Lectures.
- Discussions.
- Case analysis.
- Solution of problematic situations.
- Individual work.
- Self-study.

Course literature:

1. Andersonas, B. (1996). *Raumenų tempimas*. Vilnius.
 2. Aušriūnienė, R., Petrikonis, K. (2000). *Kineziterapija su Gymnic kamuoliais*.
 3. Katinas, M., Mikutienė, L. (1996). *Gimnastikos mokymo metodikos pagrindai*. Vilnius.
 4. Whyte, G., Parries, M., Williams, C. (2005). *ABC of Sports and Exercise Medicine*.
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PHYSIOTHERAPY OF INTERNAL DISEASES

Semester: 3

Number of credits: 8

Course Coordinators: Vaida Berneckė

Objectives:

- To evaluate functional state of the patients, ill with the diseases of respiratory, cardiac, digestive, endocrine systems, metabolism or diseases of organs of motion.
- To analyse the data of examination.
- To determine the problem of a patient and to diagnose.
- To foresee active and passive physiotherapy means according to a particular case.
- To identify disorders of vital activities.

Contents:

- Diseases of respiratory organs.
- Diseases of cardiovascular system.
- Diseases of digestive system.
- Diseases of endocrine system.
- Diseases of vestibular system.
- Physiotherapy of the patients ill with respiratory, cardiovascular, digestive, endocrine, vestibular diseases.

Teaching methods:

- Lectures.
- Discussions.

4. DESCRIPTION OF THE STUDY PROGRAMMES

4.4. DESCRIPTION OF THE STUDY PROGRAMME OF PHYSIOTHERAPY

- Case analysis.
- Practicums.
- Individual work.
- Self-study.

Course literature:

1. Andziulis, A. et al. (1999). *Sergančių lėtinėmis nespecifinėmis plaučių ligomis funkcinės būklės nustatymas ir kineziterapija*. Kaunas.
 2. Herold, G. (1996). *Vidaus ligos*. Vilnius.
 3. Kriščiūnas, A. et al. (1996). *Reabilitacija*. Kaunas.
 4. Maier, K.F. (1999). *Širdies ir kraujagyslių ligos*. Vilnius.
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PHYSIOTHERAPY IN NEUROLOGICAL DISEASES

Semester: 4

Number of credits: 6

Course Coordinator: Marija Lilija Židonienė

Objectives:

- To determine the mobility, strength of muscles, senses, balance and imbalance of coordination of a neurological patient.
- To determine the problems of a neurological patient.
- To make a plan of physiotherapeutic means according to a particular situation.
- To make changes in a physiotherapy programme according to the state of a patient.
- To arrange rehabilitation process of neurological patients.
- To involve a patient and his family members in the physiotherapy programme.
- To consult a patient to work by his own.

Contents:

- Examination of a neurological patient. Making a plan of the treatment.
- Principles of application of Bobath, Frenkel methods.
- Disorders of CNS blood circulation.
- Traumata of CNS.
- Diseases of the systema nervosum periphericum.
- Parkinson's disease.

Teaching methods:

- Lectures.
- Observation.
- Practicums.
- Pair work.
- Presentation.

4. DESCRIPTION OF THE STUDY PROGRAMMES

4.4. DESCRIPTION OF THE STUDY PROGRAMME OF PHYSIOTHERAPY

- Individual work.
- Self-study.

Course literature:

1. Ambrozaitis, V. et al. (1997). *Reabilitacija ir sveikatą grąžinantis gydymas Palangos reabilitacijos ligoninėje*. Vilnius.
 2. Avižonienė, I., Barkauskas, E. et al. (1996). *Nervų ligos*. Vilnius.
 3. Kriščiūnas, A., Klimavičius, R. et al. *Reabilitacija*. Kaunas.
 4. White, H., Anderson, R. (1991). *Conservative care of low back pain*. Williams Wilkins.
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MESSAGE

Semester: 5

Number of credits: 4

Course Coordinator: Saulius Petrauskas

Objectives:

- To analyse physiological and emotional influence of massage.
- To evaluate the state, indications/contraindications of a patient/client setting massage.
- To apply methods of massage in cases of different disorders and disabilities.
- To coordinate massage with other means of rehabilitation.
- To know the principles of compatibility of different methods of treatment.
- To explain patients the importance of self-massage.

Contents:

- Influence of massage to a human body.
- Methods of classical massage.
- Rules of massage.
- Segment massage.
- Coordination of massage, means of physiotherapy and physical therapy.

Teaching methods:

- Lectures.
- Discussions.
- Pair work.

Course literature:

1. Andersonas, B. (1995). *Raumenų tempimas*. Vilnius.
2. Finkelšteinaitė, J. et al. (1998). *Masažas*. Vilnius.
3. Krutulytė, G. (1999). *Kineziterapija*. Kaunas.
4. Zorys, A., Raistenskis, J. (1994). *Praktinė akupunktūra*. Kaunas.

4. DESCRIPTION OF THE STUDY PROGRAMMES

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PHYSIOTHERAPY IN PAEDIATRICS

Semester: 5

Number of credits: 8

Course Coordinator: Daiva Mockevičienė

Objectives:

- To choose the methods of examination according to the age, physical and functional capability of a child.
- To evaluate the development of child motorics.
- To identify the problems of motorics of a patient.
- To coordinate physiotherapy with different methods of medical rehabilitation.
- To apply means of physiotherapy.

Contents:

- Early age rehabilitation. Physical development of a child.
- Functions of a physiotherapist in team-work.
- Examination of a physiotherapeutic patient.
- CNS infections, clinics, physiotherapy means and methods.
- Combination of physiotherapy means with massage, orthopaedic compensation technology, ergo therapy.

Teaching methods:

- Lectures.
- Discussions.
- Case analysis.
- Situation analysis.
- Reflexions.
- Self-study.

Course literature:

1. Bielinytė V., Bieliakaitė (2003). *Mažų vaikų raidos vertinimo galimybės*. Vilnius.
 2. Gedminaitė, N. (1998). *Pagrindinės psichologo darbo kryptys ankstyvosios reabilitacijos tarnyboje*. Vilnius.
 3. Mockevičienė, D. et al. (2005). *Motorinė raida: pirmieji gyvenimo metai*. Šiauliai.
 4. Petrulytė, J. et al. (1998). *Indikacijos vaikų nukreipimui į ankstyvosios reabilitacijos tarnybas*. Vilnius.
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