# Tbilisi State Medical University
## Direction of Clinical Sciences
## Department of Medical Rehabilitation and Sports Medicine

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| **Day 1 –<br>4 contact hours** | |
| Practical class<br>(4 hours) | Goal and objectives of medical rehabilitation. Classification. Main tasks of a rehabilitation physician.<br>Physical, psychological and social/professional rehabilitation. Indications and contraindications.<br>Methods of physical rehabilitation: kinesitherapy (exercise therapy, massage, traction, mechanotherapy,), physiotherapy (physical modalities), kurortology (resort treatment)**,** balneotherapy (spa treatment), acupuncture, manual therapy, occupational therapy, ride therapy.<br>Characterization of kinesitherapy as of the functional therapy method. Forms and tools of kinesitherapy. Indications and contraindications. Kinesitherapy during various movement regimens of the patient. Methods of controlling and demonstrating effectiveness of kinesitherapy.<br>Main principals of physical exercise. Curative effects of physical exercise on the human body. Physiologic curve and its importance for grading of intensity of therapeutic exercises.<br>Curative massage and its types. Indications and contraindications. Massage methods and their characterization. Influence of massage on different parts and physiological systems of the body.<br>Mechanotherapy.. Indications and contraindications.<br>Manual therapy. Principles, indications and contraindications.<br>Acupuncture. Principles, indications and contraindications.<br>Occupational therapy. Main principles. Forms and contents.<br>Use of various methods of physical rehabilitation in children. |
| **Day 2 –<br>4 contact hours** | |
| Practical class<br>(4 hours) | Medical Rehabilitation of patients with cardiovascular diseases: coronary heart disease (angina pectoris, myocardial infarction), hypertension, hypotension, valvular heart disease, rehabilitation after cardiac surgery.<br>Medical rehabilitation of children with cardiovascular diseases (valvular heart disease, complications of rheumatic fever, post cardiac surgery rehabilitation).<br>Functional tests of cardiovascular system. Exercise tolerance tests (stationary bicycle, treadmill, step test).<br>Drug therapy, kinesitherapy, psychological rehabilitation of patients with cardiovascular disorders. Indications and contraindications. |

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| **Day 3 –<br>4 contact hours** | |
| Practical class<br>(4 hours) | Medical rehabilitation of patients with respiratory diseases: pneumonia, pleuritis, bronchial asthma, chronic obstructive pulmonary disease, bronchiectasis, pneumosclerosis.<br>Functional tests of respiratory system. Spirometry .<br>Medical rehabilitation of patients with cerebrovascular disorders.<br>Medical rehabilitation of patients with diseases of peripheral nervous system.<br>Medical Rehabilitation of patients with traumatic injuries of brain and spinal cord.<br>Medical rehabilitation of children with respiratory and neural diseases (pneumonia, bronchitis, bronchial asthma, cerebral palsy, polio consequences).<br>Drug therapy, kinesitherapy, psychological rehabilitation of patients with respiratory and neurological disorders. Indications and contraindications. |
| **Day 4 –<br>4 contact hours** | |
| Practical class<br>(4 hours) | Medical rehabilitation of patients with musculoskeletal disorders: spinal deformities (scoliosis, kyphosis, lordosis), flatfoot (pes planus), arthritis, osteoarthrosis (osteoarthritis), spinal osteochondrosis (degenerative disk disease), chronic back pain, rehabilitation after joint and spinal surgery.<br>Rehabilitation of patients after traumatic injuries of various body parts.<br>Rehabilitation of children with musculoskeletal disorders (spinal and thoracic deformities, flatfoot).<br>Drug therapy, kinesitherapy, psychological rehabilitation of patients with above-mentioned disorders. Indications and contraindications. |
| **Day 5 –<br>4 contact hours** | |
| Practical class<br>(4 hours) | Medical rehabilitation of patients with gastrointestinal disorders: gastritis, peptic ulcer, irritated bowel syndrome, biliary dysfunction, splanchnoptosis.<br>Medical rehabilitation of patients with metabolic disorders: diabetes mellitus, obesity.<br>Medical rehabilitation during pregnancy and in post-partum period. Fetal malpositions. Narrow pelvis. Pregnancy and valvular disease. Post Cesarean section period.<br>Medical rehabilitation of patients with gynecologic disorders: infertility, menopause, uterine prolapse and deviation, salpingitis, oophoritis, post gynecological surgery period.<br>Medical rehabilitation of patients with genitourinary disorders: chronic renal disease, kidney stones.<br>Medical rehabilitation of children with gastrointestinal, metabolic and genitourinary disorders.<br>Drug therapy, kinesitherapy, psychological rehabilitation of patients with above-mentioned disorders. Indications and contraindications. |

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| **Day 6 –<br>4 contact hours** | |
| Intermediate evaluation<br>(4 contact hours) | Oral presentation in medical rehabilitation. Presentation and review of written essay. |
| **Day 7 –<br>4 contact hours** | |
| Practical class<br>(4 hours) | Fundamentals of sports morphology and physiology. Influence of athletic training on the human body.<br>Medical control of athletes. Methods of assessment of physical development of athletes (anthropometry) and various estimates (indexes and standards). Athletes' hygienic regimen. Athletes' nutrition |
| **Day 8 –<br>4 contact hours** | |
| Practical class<br>(4 hours) | Methods of functional investigation of athletes' cardiovascular system (Martine-Kushelevski test, Svanishvili test, Harvard step test). Types of response of cardiovascular system towards physical exertion.<br>Assessment of athlete's physical working capacity by sub-maximal exertion test $PWC_{170}$. Conduction and evaluation of test results. |
| **Day 9 –<br>4 contact hours** | |
| Practical class<br>(4 hours) | Athlete's overexertion, overstrain, overtraining. Their causes.<br>Sudden death in sport.<br>Sports trauma. Traumatic injuries characteristic for various types of sport.<br>Peculiarities of sports medicine in children. Children's sports trauma.<br>Doping in sport. |
| **Day 10 –<br>4 contact hours** | |
| Intermediate evaluation<br>(4 hours) | Oral questioning in sports medicine. |

Final examination: 80 multiple-choice questions.

**Study course assessment system** (indicators):

A credit can be awarded only after the attainment of learning outcomes, envisaged by the syllabus, which shall be reflected in one of the positive grades envisaged by following paragraph:

The Grading system shall allow:

a) for five positive grades:

(A) Excellent –91% and over of maximum grade;
(B) Very good –81-90% of maximum grade;
(C) Good – 71-80% of maximum grade;
(D) Satisfactory – 61-70% of maximum grade;
(E) Acceptable –51–60% of maximum grade;

b) two types of negative grades:

(FX) Fail – 41-50% of maximum grade, meaning that a student requires some more work before passing and is given a chance to sit an additional examination after independent work;

(F) Fail – 40% and less of maximum grade, meaning that the work of a student is not acceptable and he/she has to study the subject again. `

Maximum grades for a study course shall be 100.

Evaluaton is based on:

Attendance – 5 points (The student is assessed 10 times, 0.5 points - each seminar/ practical class)
Academic activity – 32 points (4 x 8)
Interim (mid-term) evaluations – 20 points (10 x 2)
Written essay (powerpoint slideshow) – 3 points
Final written exam (test) with multiple-choice questions – 40 points

Total – 100%