MEDICAL UNIVERSITY OF PLOVDIV

MEDICAL FACULTY

PROGRAM

ORTHOPEDICS AND TRAUMATOLOGY

Accepted by Department Council with Protocol №3/11.07.2022г.

Approved by the Faculty Council with Protocol № 7/13.07.2022 г.

ORTHOPEDICS AND TRAUMATOLOGY

CURRICULUM

Discipline	Semester exam	Auditory employment				Non-audit employment loans	Total credits	Hours by year and semester
								IV/V year
ORTHOPEDICS AND TRAUMATOLOGY	VIII/IX	Total	Lectures	Exercises	Credits			VIII/IX
		90	30	60	3.0	1.5	4.5	30/60

Name of the discipline:
„ORTHOPEDICS AND TRAUMATOLOGY**”**

Type of discipline according to EDI:
Mandatory

Level of training:
Master's degree/**M/**

Forms of training: Lectures, exercises, self-training

Course of study: IV-th and V-th

Study duration: One semester /90 hours/

Hours:
30 hours of lectures, 60 hours of exercises

Teaching Aids:
Audio-visual equipment, a set of charted X-ray examinations, a set of specific instrumentation and sets for orthopedic-traumatic surgery, a set for pelvic surgery, Cryoablator;

Forms of assessment:
Test, oral examination

Forming the assessment:
Current control - oral examination at each practical session;
Final control - entrance test, written work, oral examination.

Aspects in forming the assessment:
Individual testing in exercise classes;
At least two control tests;
Independent performance of practical tasks and activities set by the teacher or the assistant leading the exercises;
Semester exam: When conducting the exams, the requirements for transparency and objectivity in the evaluation, as well as for non-admission of violations on the part of the students, are observed.

Form of examination: Written, oral.

State Examination: Part of the State Examination in Surgery.

Lead teacher:
Qualified teacher from the department Prof. Dr. Vladimir Stavrev, DMN

Department: Orthopedics and Traumatology

ANNOTATION

Modern orthopedics and traumatology, in its content and tasks, corresponds too little to the literal meaning of its name, composed of two Greek words - "upright" and "child". Its subject is primarily congenital, acquired and traumatic diseases of the musculoskeletal system, in which operative and bloodless surgical methods of treatment are used. Added to this are a large number of general, infectious, neoplastic, exchange and endocrine diseases, as well as those of the central nervous system, nerve pathways and others affecting the musculoskeletal system. In some of these diseases, orthopedic interventions are only a stage of the complex treatment with the participation of various specialists.

MAIN TASKS OF THE CURRICULUM
Theoretical knowledge: all nosological units included in the training course in orthopedics and traumatology.
Practical skills: all practical skills covered in the exercise program.

EXPECTED RESULTS

Learning objective methods of researching diseases of the musculoskeletal system;
Theoretical knowledge: anatomy, physiology, specific research methods, etiology and clinical picture of the main diseases in orthopedics and traumatology;
Practical skills: regarding the organization of admission, preparation for examination, treatment and discharge of a patient with orthopedics and traumatology;
Mastering the specific activities in the treatment and prevention of diseases of the musculoskeletal system;

➢ LECTURES - THESES

LECTURE No. 1 – 2 hours
Brief historical notes.
Dysplasia coxae congenita. Luxation coxae congenita. Coke is boiling.
Adolescent epiphysiolysis
LECTURE No. 2 – 2 hours
Congenital deformities and diseases of the upper limb. Rickets deformities.
Diseases of muscles, tendons and their insertions from overstrain.
Periarthritis of the shoulder joint.
LECTURE No. 3 – 2 hours
Foot deformities. MOVIE.
Damage intrapartum
LECTURE No. 4 – 2 hours.
Deformations and diseases of the spine.
Degenerative joint diseases
LECTURE No. 5 – 2 hours
Traumatic injuries of the ODA - General characteristics. Contusion. Distortion. Ruptures.
Fractures of the shoulder girdle /clavicle, scapula/ and the proximal end of the humerus
LECTURE No. 6 – 2 hours
Fractures of the humerus - middle and distal third.
Fractures of the forearm - upper and middle third
LECTURE No. 7 – 2 hours
Fractures of the radial bone in a typical location. Fractures of the wrist and fingers.
Soft tissue injuries of the hand.
Dislocations of the ODA. Luxatio humeri. Luxatio qubits
LECTURE No. 8 – 2 hours
Fractures of the spine.
LECTURE No. 9 – 2 hours
Luxation coxae traumatika. Luxatio vertebre. Luxatio pollicis.
Pelvic ring fractures
LECTURE No. 10 – 2 hours
Fractures of the femur - upper and middle third
Intra-articular fractures of the lower leg
LECTURE No. 11 – 2 hours
Fractures of the lower leg.
Ankle fractures of the lower leg
LECTURE No. 12 – 2 hours
Bone tumors
Soft tissue injuries of the knee joint
LECTURE No. 13 – 2 hours
Bone and joint tuberculosis
Aseptic necrosis
LECTURE No. 14 – 2 hours
Flaccid and spastic paralysis. Demo films
LECTURE No. 15 – 2 hours
Demonstration films - in the specialty

- **EXERCISES - THESIS**

EXERCISE No. 1 – 2 hours
Organization of orthopedic and traumatological care. Basic methods of treatment
o Examination of an orthopedic and traumatic patient
o Apparatus therapy - exercise therapy, orthopedic workshop, polyclinic

EXERCISE No. 2 – 2 hours
Luxatio cocce congenita
Coxa vara, valga, genu varum, valgum. Adolescent spiphysiolysis
o View
o Palpation of bones
o Soft tissue palpation according to clinical areas
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensation)
o Specific marks

EXERCISE No. 3 – 2 hours
Examination of an orthopedic and traumatological patient
o View
o Palpation of bones
o Soft tissue palpation according to clinical areas
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensation)
o Specific marks

EXERCISE #4 - 2 hours
Basic means of immobilization. Gypsum technique.

EXERCISE #5-2 hours
Apparatus therapy - exercise therapy, orthopedic workshop,

EXERCISE #6 - 2 hours
o Clinical examination in the shoulder area
o View
o Palpation of bones
o Soft tissue palpation according to clinical areas
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensation)
o Specific signs (stability of the long head of the biceps, condition of the rotator cuff, stability of the shoulder joint.
o Areas of projection pain

EXERCISE No. 7 – 2 hours
o Clinical examination of the elbow joint
o View
o Palpation of bones
o Traffic volume. Registration.
o Neurological examination

EXERCISE No. 8 – 2 hours
o Clinical examination of wrist and hand.
o View

o Palpation of the skin
o Palpation of bones
o Soft tissue palpation
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensation)
o Specific marks
o Areas of projection pain

EXERCISE No. 9 – 2 hours
Deformations of the spine - scoliosis, kyphosis, lordosis means for immobilization.
o Clinical examination of the cervical spine by departments
o View
o Palpation of bones
o Soft tissue palpation
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensation)
o Specific marks
o Areas of projection pain

EXERCISE No. 10 – 2 hours
Fractures of the spine.
o Clinical examination of the spine by department
o View
o Palpation of bones
o Soft tissue palpation
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensation)
o Specific marks
o Areas of projection pain

EXERCISE No. 11 – 2 hours
Pelvic fractures
o Clinical examination
o View
o Palpation of bones
o Soft tissue palpation
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensation)
o Specific marks
o Areas of projection pain

EXERCISE No. 12 – 2 hours
Polyclinic - lower limb injuries
o View
o Palpation of the skin
o Palpation of bones
o Soft tissue palpation
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensation)
o Specific marks
o Areas of projection pain

EXERCISE No. 13 – 2 hours
Fractures of the malleoli of the lower leg
o View
o Palpation of the skin
o Palpation of bones
o Soft tissue palpation
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensation)
o Specific marks
o Areas of projection pain

EXERCISE No. 14 – 2 hours
Fractures of the proximal femur
o View
o Palpation of bones
o Soft tissue palpation
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensation)
o Specific marks
o Areas of projection pain

EXERCISE No. 15 – 2 hours
Fractures of the femur, diaphysis, supracondylar fractures
o View
o Palpation of bones
o Soft tissue palpation
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensation)
o Specific marks
o Areas of projection pain

EXERCISE No. 16 – 2 hours
Intra-articular fractures of the knee joint
o View
o Palpation of bones
o Soft tissue palpation
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensation)
o Specific marks
o Areas of projection pain

EXERCISE No. 17 – 2 hours
Fractures of the lower leg
o View
o Palpation of bones
o Soft tissue palpation
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensation)

o Specific marks
o Areas of projection pain

EXERCISE No. 18 – 2 hours
Clinical examination of the hip joint and pelvis. /Fractures, congenital diseases/. A clinical examination of posture and gait
o View
o Palpation of bones
o Soft tissue palpation
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensation)
o Specific marks

EXERCISE No. 19 – 2 hours
Clinical examination of the knee joint.
o Clinical signs of joint stability
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensation)
o Specific marks
o Areas of projection pain

EXERCISE No. 20 – 2 hours
Clinical examination of the ankle and foot
o View
o Palpation of bones
o Soft tissue palpation
o Clinical signs of joint stability
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensation)
Specific marks

EXERCISE No. 21–2 hours
Polyclinic - damage to the lower limb. Diseases of the ODA from overstrain
o View
o Palpation of bones
o Soft tissue palpation
o Clinical signs of joint stability
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensation)

EXERCISE No. 22–2 hours
Foot deformities
o View
o Palpation of bones
o Soft tissue palpation
o Clinical signs of joint stability
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensation)

EXERCISE No. 23 – 2 hours
Dislocations of the musculoskeletal system

View
o Palpation of bones
o Soft tissue palpation
o Clinical signs of joint stability
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensitivity). Specific signs

EXERCISE No. 24–2 hours
Degenerative joint diseases
o View
o Palpation of bones
o Soft tissue palpation
o Clinical signs of joint stability
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensitivity). Specific signs

EXERCISE No. 25 – 2 hours
Aseptic necrosis
View
o Palpation of bones
o Soft tissue palpation
o Clinical signs of joint stability
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensitivity). Specific signs

EXERCISE No. 26 – 2 hours
Bone tumors
o View
o Palpation of bones
o Soft tissue palpation
o Clinical signs of joint stability
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensitivity). Specific signs

EXERCISE No. 27–2 hours
Rickets deformities
o View
o Palpation of bones
o Soft tissue palpation
o Clinical signs of joint stability
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensitivity). Specific signs

EXERCISE No. 28 – 2 hours
Flaccid and spastic paralysis
o View
o Palpation of bones
o Soft tissue palpation
o Clinical signs of joint stability
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensitivity). Specific signs

EXERCISE No. 29 – 2 hours
Congenital diseases intrapartum
o View
o Palpation of bones
o Soft tissue palpation
o Clinical signs of joint stability
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensitivity). Specific signs

EXERCISE No. 30 – 2 hours
Aseptic necrosis
o View
o Palpation of bones
o Soft tissue palpation
o Clinical signs of joint stability
o Traffic volume. Registration.
o Neurological examination (muscle strength, reflexes, sensitivity). Specific signs

LITERATURE:
Textbook on "Orthopaedics and Traumatology", authors: Prof. Dr. P. Stavrev, PhD; Assoc. Dr. Vl. Stavrev, MD, 2011.

CONSPECTUS FOR SEMESTRIAL EXAMINATION

1. Crooked neck
2. Obstetric paralysis
3. Congenital hip dysplasia
4. Congenital luxation of the hip joint in walking children
5. Coxa vara. Adolescent epiphysiolysis. Coxa valga.
6. Deformations and diseases of the knee joint /genu varum, genu valgum, chondromatosis, patellar chondrodystrophy, patellar luxation/
7. Rickets deformations
8. Pes equinovarus
9. Scoliosis. Kyphosis. Lordosis
10. Diseases of muscles and their insertions from overstrain
11. Diseases of the tendons and their sheaths from overstrain
12. Periarthritis of the shoulder joint
13. Carpal tunnel syndrome - methods of diagnosis and treatment
14. Pes planovalgus
15. Perthes disease
16. Aseptic necrosis
17. Osteochondritis dissecans of the knee joint
18. Bone tumors
19. Degenerative joint diseases/coxarthrosis and gonarthrosis/
20. Central paralysis. Flabby paralysis
21. Fractures - general
22. Pathological fractures
23. Fracture of the spine. Dislocation of the spine
24. Fracture of the pelvis
25. Pertrochanteric fractures

26. Fracture of the neck of the femur
27. Supracondylar fracture of the femur
28. Cap breakage
29. Inter-articular fractures of the knee joint
30. Fracture of the bodies of the pubic bones
31. Broken ankles
32. Fracture of the diaphysis of the femur
33. Fracture of the shoulder girdle
34. Fracture of the surgical neck of the humerus
35. Fracture of the supracondylar humerus
36. Fracture of the olecranon
37. Fracture of the axillary bones
38. Fracture of the radial bone in a typical location
39. Traumatic sprains of the hip joint
40. Dislocation of the shoulder joint
41. Dislocation of the elbow joint
42. Soft tissue injuries of the knee joint
43. Fractures of the carpal, metacarpal bones and phalanges

OUTLINE FOR THE STATE EXAMINATION - ONLY FOR THE DISCIPLINES IN WHICH THERE IS ONE.
Part of Synopsis for the State Examination in "Surgery"