Appendix number 1.5 to The Rector UR Resolution No. 12/2019

SYLLABUS

concerning the cycle of education 2022-2028

(date range)

1.1. BASIC INFORMATION CONCERNING THIS SUBJECT / MODULE

Subject / Module	**Orthopedics and traumatology of the musculoskeletal system**
Course code / module *	**OT/F**
Faculty of (name of the leading direction)	**Medical College of Rzeszów University**
Department Name	**Medical College of Rzeszów University**
Field of study	**medical direction**
Level of education	**uniform master's studies**
Profile	**practical**
Form of study	**stationary / extramural**
Year and semester	**year V, semester X**
Type of course	**obligatory**
Coordinator	**Prof. S Snela**
First and Last Name of the Teacher	

* - According to the resolutions of the Faculty of Medicine

1.2. Forms of classes, number of hours and ECTS

Lecture	Exercise	Conversation	Laboratory	Seminar	ZP	Practical	Self-learning	**Number of points ECTS**
15	30	-	-	15	-	-	15	**3**

1.3. The form of class activities

☒classes are in the traditional form

☐classes are implemented using methods and techniques of distance learning

1.4. Examination Forms / module (**exam**, credit with grade or credit without grade)

2. REQUIREMENTS

Knowledge of the anatomy of the musculoskeletal system

3. OBJECTIVES, OUTCOMES, AND PROGRAM CONTENT USED IN TEACHING METHODS

3.1. Objectives of this course/module

C1	Acquisition of knowledge concerning individual disease entities in the field of orthopedics and traumatology of the motor system.
C2	Mastering the basics of orthopedic examination and symptomatology of musculoskeletal diseases and the basics of diagnostic and treatment of orthopedic and traumatic patients.
C3	Mastering resistive procedures.

3.2 OUTCOMES FOR THE COURSE / MODULE (TO BE COMPLETED BY THE COORDINATOR)

EK (the effect of education)	The content of the learning effect defined for the subject (module)	Reference to directional effects (KEK)
EK_01	knows and understands the causes, symptoms, principles of diagnosis and therapeutic treatment in relation to the most common diseases requiring surgical intervention, taking into account the distinctiveness of childhood, including in particular: a) acute and chronic diseases of the abdominal cavity, b) chest diseases, c) diseases of limbs and head, d) bone fractures and organ injuries;	F.W1.
EK_02	knows the rules of qualifications and performance as well as the most common complications of basic surgical procedures and in-situ diagnostic and therapeutic procedures;	F.W3.
EK_03	knows the principles of perioperative safety, patient preparation for surgery, general and local anesthesia and controlled sedation;	F.W4.
EK_04	knows post-operative treatment with analgesic therapy and postoperative monitoring;	F.W5.
EK_05	knows the problems of contemporary image research, in particular: a) radiological symptomatology of basic diseases, b) instrumental methods and imaging techniques used for therapeutic procedures, c) indications, contraindications and preparation of patients for particular types of imaging examinations and contraindications to the use of contrast agents;	F.W10.
EK_06	assists with a typical surgery, prepares an operating field and anesthetizes the localized area;	F.U1.
EK_07	uses basic surgical instruments;	F.U2.
EK_08	applies to the principles of aseptic and antisepsis;	F.U3.

EK_09	supplies a simple wound, assumes and changes a sterile surgical dressing;	F.U4.
EK_10	involves peripheral puncture;	F.U5.
EK_11	evaluates the result of a radiological examination of the most common types of fractures, especially long bone fractures;	F.U7.
EK_12	performs temporary immobilization of the limb, selects the type of immobilization necessary for use in typical clinical situations and controls the correctness of blood supply to the limb after the insertion of the immobilizing dressing;	F.U8.
EK_13	supplies external bleeding;	F.U9.
EK_14	performs basic resuscitation procedures with the use of an automatic external defibrillator and other rescue operations and provides first aid;	F.U10.
EK_15	works in accordance with the current algorithm of advanced resuscitation activities;	F.U11.
EK_16	it works properly in the case of injuries (assumes a dressing or immobilization, supplies and sutures a wound);	E.U36.
EK_17	he is guided by the good of the patient, placing them in the first place	K.02.

3.3 CONTENT CURRICULUM (filled by the coordinator)

A. Lectures

Course contents
Organizational and introductory classes. Familiarizing students with issues, pass criteria.
Inflammation of the knee and hip joint - clinical picture, diagnostics, treatment
Damage to the extensor tendons of the hand - clinical picture, diagnostics, treatment
Hand surgery. Microsurgery - different techniques, therapeutic possibilities and results.
Elbow dislocations - clinical picture, diagnostics, treatment
Basic rules for lengthening the limbs
Damage to the shoulder and clavicular joint - clinical picture, diagnostics, treatment
Dyskinesia of the shoulder blade
Traumatic spinal injuries (without and with core damage). First aid, transport supplies. Diagnosis and clinical picture. Limits and possibilities of surgical treatment. Rehabilitation.

B. **Exercises**

Course contents
Organizational and introductory classes. Familiarizing students with issues, pass criteria.
Osteoporosis - epidemiology, etiology, diagnostics, treatment.
Damage to the flexor tendons of the wrist - causes, diagnosis and treatment.
Nerve compression syndromes, carpal tunnel syndrome - causes, diagnosis, treatment.
Dupuytren's contracture, Chordae tendinitis in the first rectifier compartment - De Quervain's disease, Wrist Intersection Syndrome, Damage to the scaphoid bone - causes, diagnosis, treatment.
Fracture of the distal radius bone - the mechanism of injury, diagnosis, treatment
Inflammation of the medial and lateral epicondyle of the humerus - causes, diagnosis and treatment
Damage to the ulnar nerve around the elbow - causes, diagnosis, treatment
Post-traumatic stiffness of the elbow (heterotrophic ossification of the elbow area) - classification, diagnosis, treatment
Examination of the shoulder
Complex of subdermal insufficiency - causes, diagnosis and treatment
Inflammation of the rotator cuff tendons, damage to the rotator cuff - the cause, diagnosis, treatment
Shoulder joint instability - causes, types, diagnosis, treatment
Shoulder frozen - causes, diagnosis, treatment
Diseases of the tendon of the head of the long biceps muscle - causes, diagnosis, treatment

C. Seminars

Course contents
Organizational and introductory classes. Familiarizing students with issues, pass criteria.
Examination of a patient suffering from osteoarticular injuries. Definition of fractures, sprains and dislocations. Clinical symptoms. Restraint rules for limbs. Single, multiple injuries. Multi-site and multi-organ injuries

Diagnostic imaging and its importance in the diagnosis and treatment of musculoskeletal disorders. Radiological examination, computed tomography, magnetic resonance imaging, ultrasound examination, scintigraphy, arthrography.
Open and closed tissue injuries. Injuries to the lower limb. Etiology, epidemiology, clinical symptoms. General principles of treatment.
Sterile bone necrosis. Legg-Calve-Perthes disease. Youthful exfoliation of the femoral head. Klippel-Feil disease. Sprengel's disease. Congenital hip dysplasia - epidemiology, etiology, clinical symptoms, diagnosis. The importance of ultrasound in the diagnosis of the disease.
Early and late complications of musculoskeletal injuries. Characterization of bone-joint system damage in children and the elderly
Inflammation of bones and joints. Orthopedic problems in people with cerebral palsy. Complications of bone union. Slow and delayed union. Pseudomonas. Open fractures and complications of bone union
Modern methods of treatment of osteoarticular system defects. Stable osteosynthesis. Treatment of fracture disease. Orthotics - types and general rules of use. Rehabilitation - an integral part of the treatment of a traumatic patient.
Segregation of post-traumatic patients.
Restraint rules for limbs. desmurgy
Putting on and removing plaster dressings
Evaluation of radiographs of the osteoarticular system
Principles of setting fractures and dislocations.
Methods of conservative treatment of dynamic injuries and static stabilizers

3.4 TEACHING METHODS

Lecture: multimedia presentation.

Exercises: case analysis

Seminar: multimedia presentation

Student's own work: work with a book

4 METHODS AND EVALUATION CRITERIA

4.1 Methods of verification of learning outcomes

Symbol of effect	Methods of assessment of learning outcomes (Eg.: tests, oral exams, written exams, project reports, observations during classes)	Form of classes
EK_01 EK_02 EK_03		Lecture

EK_04 EK_05		
EK_06 EK_07 EK_08 EK_09 EK_10 EK_11 EK_12 EK_ 13 EK_14 EK_15 EK_16 EK_17		Exercises
EK_01 EK_02 EK_03 EK_04 EK_05		Seminar

4.2 Conditions for completing the course (evaluation criteria)

Exercises, seminars:

1. full participation and activity in the exercises

2. written partial credits

Range of ratings: 2.0 - 5.0

Lectures:

1. test pass and open questions:

A: Questions in the field of messages to remember;

B: Questions in the field of speech to understand;

C: Solving a typical written task;

D: Solving an atypical writing task;

- for insufficient solution of tasks only from areas A and B = grade 2.0

- for solving tasks only from areas A and B, the possibility of obtaining max. rating 3.0

- for solving tasks from the area A + B + C, the possibility of obtaining max. evaluation 4.0

- for the solution of tasks in the area A + B + C + D, the possibility of obtaining a rating of 5.0

Knowledge assessment:

Written test

5.0 - has knowledge of the education content at the level of 93% -100%

4.5 - has knowledge of the content of education at the level of 85% -92%

4.0 - has knowledge of the content of education at the level of 77% -84%

3.5 - has knowledge of the content of education at the level of 69% -76%

3.0 - has knowledge of the content of education at the level of 60% -68%

2.0 - has knowledge of the educational content below 60%

Skill assessment

5.0 - the student actively participates in the classes, is well prepared, knows the rules of qualifications and performance very well and the most common complications of the basic surgical procedures and the in-view diagnostic and therapeutic procedures, correctly interprets the radiological examination

4.5 - the student actively participates in classes, knows the rules of qualifications and performance as well as the most common complications of basic surgical procedures and in-situ diagnostic and therapeutic procedures, correctly interprets the radiological examination

4.0 - the student actively participates in classes, is improved, knows the rules of qualifications and performance as well as the most common complications of basic surgical procedures and in-situ diagnostic and therapeutic procedures, correctly interprets the radiological examination

3.5 - the student participates in classes, his scope of preparation does not allow for a comprehensive presentation of the discussed problem, he knows the rules of qualification and performance and the most common complications of basic surgical procedures and in-situ diagnostic and therapeutic procedures, he interprets the radiological examination

3.0 - the student participates in classes, knows the rules of qualification and exercise and the most frequent complications of basic surgical procedures and in-situ diagnostic and therapeutic procedures, he interprets the radiological examination, often making mistakes, is often corrected

2.0 - the student passively participates in the classes, the statements are incorrect in substance, do not know the rules of qualifications and performance as well as the most frequent complications of the basic surgical procedures and the in-use diagnostic and therapeutic procedures, incorrectly interprets the radiological examination

5. Total student workload required to achieve the desired result in hours and ECTS credits

Activity	Hours / student work
Hours of classes according to plan with the teacher	60
Preparation for classes	5
Participation in the consultations	2
The time to write a paper / essay	1
Preparation for tests	10
Participation in colloquia	-
Other (e-learning)	-
SUM OF HOURS	**78**

TOTAL NUMBER OF ECTS	**3**

6. TRAINING PRACTICES IN THE SUBJECT / MODUL

Number of hours	-
Rules and forms of apprenticeship	-

6. LITERATURE

READING:

1. Ortopedia i traumatologia; Gaździk T.
2. Bolesny krzyż; Dziak A.
3. Bóle szyi, głowy i barków; Dziak A.
4. Ortopedia i rehabilitacja; Dega W.
5. Testy kliniczne w badaniu kości, stawów i mięśni, Buckup K.
6. Artroskopia stawu biodrowego, Książka z płytą DVD, Jon K. Sekiya, Marc R. Safran, Anil S. Ranawat, Michael Leunig, red. wyd. pol. Tadeusz Gaździk Elsevier Urban & Partner, 2013,
7. 100 rozpoznań - urazy (z serii Pocket Radiologist Top 100 diagnoses)Robert A. Novelline, James T. Rhea, Thomas Ptak, Faranak Sadri-Tafazoli, Andrew B. Small Medipage, 2007

Additional literature:

8. ABC postępowania w urazach Peter Driscoll, David Skinner, Richard Earlam, red. wyd. pol. Juliusz Jakubaszko Górnicki Wydawnictwo Medyczne, 2010
9. Alloplastyka stawu biodrowego Lawrence D. Dorr, red. wyd. pol. Wojciech Marczyński Elsevier Urban & Partner, 2009
10. Artroskopia Mark D. Miller, A. Bobby Chhabra, Marc R. Safran, red. wyd. pol. Tadeusz Gaździk Elsevier Urban & Partner, 2012
11. Artroskopia stawu biodrowego (e-book)M.R. Safran, A.S. Ranawat, J.K. Sekiya, M. Leunig Elsevier Urban & Partner, 2013
12. Atlas anatomii ortopedycznej Nettera Jon C. Thompson, Frank H. Netter, red. wyd. Artur Dziak Elsevier Urban & Partner, 2007,
13. Atlas zabiegów stawowych w osteopatii kończyn Serge Tixa, Bernard Ebenegger,Wydawnictwo Lekarskie PZWL, 2004

Acceptance Unit Manager or authorized person