

Teaching subject: Orthopedic surgery technology Teaching period:

Prerequisite: all theoretical and practical courses of the course,

place of implementation: Faculty of Nursing and Midwifery

Target group: operating room students, Bachelor's degree

Number of units: 1.5 unit type: theory

Group of teachers: Fatemeh Rezaei kahkhaei

General purpose:

In this course, the student will get to know the concepts of surgical technology in the field of orthopedics by using the correct scientific principles.

Specific goals:

After the end of the course, the student should be able to:

- 1- Explain the anatomy of bones, the functions and functions of the musculoskeletal system.
- 2- Name the equipment used in orthopedic surgery
3. Explain the types of fracture based on the type, extent and line of the fracture.
- 4- Explain the physiology of fracture repair.
- 5- Explain in detail the types of fracture treatment in adults and children in the upper and lower limbs.
- 6- Define external fixation and internal fixation and name the indications for using external and internal fixation.
- 7- Compare the types of plates used in orthopedic surgery.
- 8- To explain the types of humerus, elbow, forearm, and wrist fractures and related treatment measures.
- 9- Explain the types of hip and femur bone fractures and the treatment measures related to it, and explain the types of tibia, fibula and ankle bone fractures and the treatment measures related to it.
- 10- Describe the surgical technique of Intramedullary Nailing in femur and tibial fractures
- 11- Explain the difference between total arthroplasty and hemiarthroplasty in each joint.
- 12- Name the types of prostheses in joint replacement in orthopedic surgery. Describe the symptoms of tendon rupture

Student evaluation method:

According to the rules and assignments of the workbook

According to the rules of the folder:

Specific evaluation, knowledge of materials/documentation, general evaluation of the instructor, scientific conference, learning experiences, written exam

Study sources:

1-Surgical technology for the surgical technologist, a positive care approach,

2-. Alexander's in surgery, 12th edition. 2011

3-Berry & Kohn's Operating Room Technique, publisher Mosby, Thirteenth Edition ·2017

4. Surgical technology for surgical technologists, 2018 volume 6, orthopedic surgery

5.QRS surgical technologies

Content and order of presentation:

The meeting	teacher	titles	days	method executors
1	Fatemeh Rezaei Kokhaei	Familiarity with the function and functions of the musculoskeletal system, familiarity with the types of bones, cartilages, ligaments, joints	Wednesdays	PowerPoint- educational video and surgery photo
2	Fatemeh Rezaei Kokhaei	Getting to know the technology, tools and equipment in orthopedics, getting to know how to work with the C-arm and tourniquet device	Wednesdays	PowerPoint- educational video and surgery photo
3	Fatemeh Rezaei Kokhaei	Familiarity with different forms of fracture	Wednesdays	PowerPoint- modern cafe teaching method

4	Fatemeh Rezaei Kokhaei	Getting to know how bone is repaired and the factors involved in it	Wednesdays	Online/offline
5	Fatemeh Rezaei Kokhaei	Familiarity with different forms of body cast and splinting	Wednesdays	PowerPoint-educational video and surgery photo
6	Fatemeh Rezaei Kokhaei	Familiarity with types of external fixators and their indications - Familiarity with types of internal fixators and their indications	Wednesdays	Online/offline
7	Fatemeh Rezaei Kokhaei	Getting to know the types of screws and plates in orthopedics	Wednesdays	PowerPoint-educational video and surgery photo
8	Fatemeh Rezaei Kokhaei	Familiarity with types of upper limb fractures	Wednesdays	Online/offline
9	Fatemeh Rezaei Kokhaei	Getting to know the types of lower limb fractures	Wednesdays	PowerPoint-educational video and surgery photo
10	Fatemeh Rezaei Kokhaei	Familiarity with Intramedullary Nailing in femur and tibia fractures, their indications and care	Wednesdays	PowerPoint-educational video and surgery photo
11	Fatemeh Rezaei Kokhaei	Familiarity with types of joint replacement implants of upper and lower limbs and their comparison - Familiarity with hip arthroplasty and its care	Wednesdays	PowerPoint-educational video and surgery photo
12	Fatemeh Rezaei Kokhaei	Familiarity with types of orthopedic grafts and tendon repair methods	Wednesdays	PowerPoint-educational

				video and surgery photo
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