

Teaching subject: Getting to know the tools and equipment of the operating room Teaching duration: 34 h

Prerequisites: none Venue: Faculty of Nursing and Midwifery

Target group: students of the 1st semester of operating room, degree: bachelor's degree

Number of units: 2 units

Unit type: Theoretical

Group of teachers: Mahbobeh Dostkami

General purpose: Familiarity with the types of specialized and advanced operating room devices and equipment that are used in specialized and super-specialized surgeries and how to maintain and use them.

Specific goals:

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

- 1- Classify surgical tools and distinguish their types from each other.
- 2- Classify and name surgical equipment including packs, surgical dressings, catheters and drains.
- 3- Name the types of sewing threads and needles according to their type and place of use.
- 4- Describe the structure and application of the devices used in different stitches and staplers.
- 5- Classify and explain different types of needles according to their use and structure.
- 6- Describe the auxiliary equipment used in the operating room (cautery, suction, etc.) in terms of how to prepare and use them.
- 7- Describe the special equipment used in various surgeries (such as endoscopes, etc.). Content and order of presentation:

(Titles and outlines of the content that must be taught in order to achieve the goals of the course. Includes: theoretical content, practical skills, etc.)

teaching method	Titles	عناوين	date	meeting
PowerPoint together with the movie	Mahbobeh Dostkami	Describe the history of the use of surgical tools by humans. Describe the main composition and structure of surgical instruments. Name the factors affecting the resistance and hardening of metal alloys used in the composition of	Monday 1.5-3.5	1

		<p>surgical instruments.</p> <p>Compare the types of coating in surgical instruments with each other.</p> <p>Name the best structural combination in making microsurgery tools Name the classification of surgical instruments based on function. Name the basic components of surgical instruments. Explain the control and inspection of surgical instruments.</p>		
PowerPoint together with the movie	Mahbobeh Dostkami	<p>Classify surgical tools based on their function and use. Classify and separate winners and separators based on shape and application.</p> <p>Explain the use of types of scalpel in surgery.</p> <p>Explain the use of types of cort in surgery. List the use of knives in surgery.</p> <p>Describe the use of scissors in surgery</p>	Monday 1.5-3.5	2

PowerPoint together with the movie	Mahbobeh Dostkami	Classify surgical tools based on their function and use. Explain the use of types of clamps in surgery.	Monday 1.5-3.5	3
PowerPoint together with the movie	Mahbobeh Dostkami	Classify surgical tools based on their function and use. Explain the use of retainers, dilators and probes in surgery	Monday 1.5-3.5	4
PowerPoint together with the movie	Mahbobeh Dostkami	Classify surgical tools based on their function and use. Explain the use of openers and retractors in surgery Explain the use of drill or perforator	Monday 1.5-3.5	5
PowerPoint together with the movie	Mahbobeh Dostkami	Continue to explain the use of openers and retractors in surgery	Monday 1.5-3.5	6
PowerPoint together with the movie	Mahbobeh Dostkami	Describe the application and types of automatic retractors	Excellent class	7
PowerPoint together with the movie	Mahbobeh Dostkami	Continue Describe the use of hooks, dilators, bogies, and speculums	Monday 1.5-3.5	8
PowerPoint together with the movie	Mahbobeh Dostkami	Describe the cutting tool and its use Explain the types of stapler and their use Explain the types	Monday 1.5-3.5	9

		<p>of suction and the use of each</p> <p>Explain the use of dish and bix and gallipot and versiver, etc</p> <p>Explain the use of an eyepiece, a plyometer, a taper, and a screwdriver</p>		
PowerPoint together with the movie	Mahbobeh Dostkami	<p>Explain the use of hemoclip applier and types of clips based on size Describe the use of the male shunt needle and Elic and the Tommy syringe Describe the maintenance and care of equipment Describe how to place items on the operating table Describe how to move equipment during surgery Describe how to collect items from the operating table Explain the cleaning of equipment with ultrasonic waves Describe how to control and check surgical instruments Explain how to lubricate surgical instruments Explain how to package and sterilize items for reuse Explain how to clean and sterilize electrical appliances Describe how to repair surgical instruments</p>	Excellent class	10

PowerPoint together with the movie	Mahbobeh Dostkami	Define endoscope and endoscopy. Name the types of endoscopes. Distinguish the types of endoscopes. Name the tools related to endoscopy of different body systems. Define laparoscopy State the advantages and disadvantages of laparoscopy.	Monday 1.5-3.5	11
PowerPoint together with the movie	Mahbobeh Dostkami	List the equipment and tools used in laparoscopy. Explain hemostasis methods in laparoscopy. Explain the use of the harmonic blade Explain endoscopy in the urinary system and its devices and equipment. Explain colposcope, esophagoscope, gastroscope, angioscope, etc Describe the risks of endoscopy, cases of absolute prohibition of laparoscopy and cases of	Excellent class	12

		relative prohibition of laparoscopy		
PowerPoint together with the movie	Mahbobeh Dostkami	<p>Explain the principles of working with Ligasure device</p> <p>Explain the principles of working with a suction device</p> <p>Principles of working with pulse lavage explain</p> <p>Basics of working with a vital signs monitor explain</p> <p>Explain the principles of working with sialytic lights and head light</p> <p>Principles of working with Pulse Oximeter explain</p> <p>Principles of working with ophthalmoscope and C-Arm and explain the anesthesia machine and defibrillator and the phyco and vitrectomy machine</p>	Monday 1.5-3.5	13
PowerPoint together with the movie	Mahbobeh Dostkami	<p>Principles of working with Stimulator and Warmer explain</p> <p>State the common features in all operation beds</p> <p>Examine and</p>	Excellent class	14

		explain the components of the bed Explain the use of the surgical equipment table and trolley, and the surgical table and stool in the operating room		
PowerPoint together with the movie	Mahbobeh Dostkami	Explain the use of sink scrub Describe the types of gases and bandages available in the operating room and their use Explain what mesh is and its use Explain the use of lasers Explain how to pack the roll and envelope of the pack Explain the types of dressings Explain the use and difference of different types of catheters and drains used in the operating room	Monday 1.5-3.5	15
PowerPoint together with the movie	Mahbobeh Dostkami	continue Explain the use and difference of different types of catheters and drains used in the operating room Explain the types of threads and their comparison and the uses of each Explain different suturing methods	Monday 1.5-3.5	16

Duties and assignments of the student:

1. Attending class on time.
2. Active participation in class discussions.

3. Presentation of assigned assignments with the opinion of the relevant professor of the course up to two marks

Student evaluation method:

Active participation in class discussions 10%

Doing and presenting assignments (articles, conferences, etc.) 10%

midterm exam 10%

Final exam 70%

Study sources:

1. Surgical Technology for the surgical technologist: A positive care approach/ Association of surgical technologists/ Cengage Learning; 4 edition/ ISBN: 9781111037567
2. Berry and Kohn's Operating Room Technique/ Nancymarie Phillips (Author) Mosby; 12 edition/ ISBN: 9780323073585
3. Alexander's surgical procedures/ Jane C. Rothrock PhD RN CNOR FAAN (Author), Sherri Alexander CST (Author) / Mosby; 1 edition/ ISBN: 9780323075558
4. Surgical Instrumentation: An Interactive Approach/ Renee Nemitz CST RN AAS (Author)/ Saunders; 2 edition/ ISBN: 978- 1455707195.
5. Differentiating Surgical Equipment and Supplies/ Collen Rutherford/ F.A.Davis Company; 1 SPI edition/ ISBN: 978-0803615724.
6. . Nancy Marie, Principles of working in the operating room (the first volume of the techniques of working in the operating room of Cohen and Berry) translated by Sadati Leila, Ehsan's collection and others, Jamia Nagar Publications, 2013
7. Sadati-Lila, Golchini-Ehsan, Getting to know the tools and equipment of the operating room (2nd edition) Jamia Nagar Publications. Tehran. 2012.
8. Fatima Qardashi, Roya Akbarzadeh. A comprehensive guide to surgical instruments and sets. Jamia Nagar Publications. 1390.