

**Department of Operative Techniques and Surgical Research  
Faculty of Medicine**

Subject: **BASIC SURGICAL TECHNIQUES**  
Year, semester: **2025/2026. academic year, 1<sup>st</sup> semester, 1-14<sup>th</sup> week**  
Classes-semester: **1<sup>st</sup> semester: Gr. 1-6., 2<sup>nd</sup> semester: Gr. 7-11**  
Credit points: **3**  
Number of lessons  

- lecture: **14 hours**
- seminar: **5 hours**
- practice: **23 hours**

1st week (8-12 September)

Lecture: Surgical deontology. Terminology for surgery. Surgical armamentarium..

Seminar: Administration. Cutting, hemostatic, grasping-retracting, special and suturing instruments. Clips and staplers. Order of the instrumental trays and tables.

2nd week (15-19 September)

Lecture: Surgical suture materials. Suturing and knotting techniques.

Seminar: Knotting techniques on different knotting pads. Conventional hand suturing techniques (interrupted, continuous sutures on gauze model). Special knotting and suturing techniques on surgical training model.

3rd week (22-26 September)

Lecture: Surgical hemostasis. Venous cutdown technique. Basics of electrosurgery.

Practice: Ligation of vessels on gauze model. Vein preparation, cannulation on phantom model, preparation of infusion set. Wound closure with different suture techniques on surgical training model.

4th week (29 September – 3 October)

Lecture: Asepsis, antisepsis. Operating room environment. Preparation for operation personnel. Hand and arm disinfection (Scrubbing). Gowning. Gloving. Isolation. Sterilization techniques.

Practice: Scrubbing, gowning and gloving. Wound closure with different suturing techniques on biopreparate model.

5th week (6-10 October)

Lecture: Tracheostomy, conicotomy.

Practice: Written test I. Conicotomy on phantom model.

Scrubbing. Practising wound closure with different suture techniques on biopreparate model.

6th week (13-17 October)

Lecture: Injection techniques. Blood sampling methods.

Practice: Blood sampling, i.m. and i.v. injections on phantom models. (for Groups 1,3,5,6 extra operating room practice)

7th week (20-22 October, 23-24 October are education-free days)

Lecture: Laparotomy.

Practice: Laparotomy on surgical training models.

Scrubbing. Wound closure with different suturing techniques on biopreparate model.

8th week (27-31 October)

Lecture: Basic principles of intestinal surgery.

Practice: Scrubbing. End-to-end one layer intestinal anastomosis on small bowel biopreparate model.

9th week (3-7 November)

Lecture: Surgery of the parenchymal organs.

Practice: Scrubbing. Parenchymal stitches on spleen biopreparate model.

Practising of end-to-end one layer intestinal anastomosis on small bowel biopreparate model.

10th week (10-14 November)

Lecture: Basic principles of vascular surgery.

Practice: Scrubbing. Vascular suturing techniques on aorta bioprepate model.

11th week (17-21 November)

Lecture: Bioplasts and tissue adhesives. Drains, punctures (thoracal, abdominal).

Practice: Blood sampling, i.m. and i.v. injections, vein preparation, cannulation on phantom models.

12th week (24-28 November)

Lecture: Types of wounds. Principles of wound care. Catheters. Basic principles of catheterization.

Seminar: Written test II. Different types of wound dressings and catheters.

Practice: Catheterization of the urinary bladder on phantom model.

13th week (1-5 December)

Lecture: Insights into the basics of microsurgery, laparoscopic surgery and advanced technology.

Practice: Scrubbing. Practising wound closure with different suturing techniques on bioprepate model.

14th week (8-12 December)

Lecture: Repeat all practices. Preparation for the practical exam.

Practice: Practical exam.

### **Compulsory reading:**

Lecture slides in pdf and supplementary materials (e-learning folder of the course)

Mikó I., Furka I.: Basic Surgical Techniques, Faculty of Medicine. 4th enlarged edition. Debrecen University Press, 2019.

ISBN: 978-963-490-118-1

### **Recommended readings:**

McLatchie G.R., Leaper D.J.: Oxford Handbook of Operative Surgery. Oxford University Press, 1996. ISBN: 0-19-262097-5.

Myint F.: Kirk's Basic Surgical Techniques. 7th edition. Elsevier Health Sciences, 2018. ISBN: 9780702073229.

### **Requirements**

Prerequisite: Anatomy, histology and embryology II, Medical Physiology I

The lectures and seminars/practices are built on each other. Consequently, it is difficult to make-up missed classes. The make-up of the seminars/practices from the 1<sup>st</sup> to the 4<sup>th</sup> is obligatory. Compensation for missed seminars should be paid according to the Rules and Regulation of the Faculty of Medicine, University of Debrecen. If the student is absent from more than 2 seminars/practices in a semester (without any acceptable reason), the Department may refuse the signature. Attending the lectures 1-5 are highly recommended.

There will be two written tests during the semester (6<sup>th</sup> and 12<sup>th</sup> weeks).

A list of topics is announced on our webpage: <https://surgres.unideb.hu>

At the end of the semester the student is required to take the end of semester exam (ESE), which consists of a practical and an oral part.