

Medicinski fakultet u Rijeci

**IZVEDBENI NASTAVNI PLAN
2025/2026**

Za kolegij

**Practical Application of Ultrasound in Surgery and
Urology**

Studij:	Medical Studies in English (R) (izborni) Sveučilišni integrirani prijediplomski i diplomski studij
Katedra:	Katedra za urologiju
Nositelj kolegija:	prof. dr. sc. Španjol Josip, dr. med.
Godina studija:	5
ECTS:	1.5
Stimulativni ECTS:	0 (0.00%)
Strani jezik:	Mogućnost izvođenja na stranom jeziku

Podaci o kolegiju:

The goal of this course is to encounter students with basic knowledge and skill in the field of abdominal ultrasonography. Further goal is to introduce and train students how to prepare a patient for an ultrasound examination, how to recognize normal ultrasound anatomy of intra-abdominal organs, how to apply ultrasound as a method of detecting kidney, liver, bladder and testicular tumors, and how to apply ultrasound FAST protocol in the diagnosis of abdominal trauma. And also the use of interventional ultrasound and indications for applying ultrasound as a diagnostic and interventional method.

Popis obvezne ispitne literature:

Fučkar Ž. i suradnici, Sonografija urogenitalnog sustava I. i II. dio, Digital Point, Rijeka, 2001.

Popis dopunske literature:

Rumock C, Wilson S. - Diagnostic Ultrasound, Mosby, London, 2002.

Nastavni plan:

Seminari popis (s naslovima i pojašnjenjem):

Introduction to the course

Understanding to the aims, contents and requirements of the course.

Historical review of ultrasound

To know the brief historical development and application of ultrasound in medicine.

Thoracic ultrasound

To know the basics of thoracic ultrasound and the FASTER protocol.

Ultrasound-guided percutaneous tracheostomy

To know the basics of tracheostomy placement using ultrasound.

Retroperitoneal ultrasound

To know the basics of ultrasound imaging of the retroperitoneum.

Evaluation of bladder pathology by transabdominal ultrasound

To know the basics of bladder pathology in transabdominal ultrasound.

Evaluation of prostate and seminal vesicle pathology by ultrasound

To know the ultrasound anatomy of the prostate and seminal vesicles and the most common pathological presentations.

Evaluation of scrotal and penile pathology by ultrasound

To know the basic ultrasound pathology of the testicles and genitals.

Ultrasound in urological emergency

To know how to use ultrasound in the diagnosis and treatment of urgent urological conditions.

The place of interventional ultrasound in urology

To know what are the indications for certain methods of interventional ultrasound and how to use them.

To know how to prepare patients for certain methods of interventional ultrasound.

To know the "true cut" biopsy algorithm under ultrasound control.

To know the algorithm for introducing a drain under ultrasound control.

Liver and gallbladder / biliary ultrasound

To know how to place the patient in the appropriate position for examination.

To know how to show and recognize the normal ultrasound anatomy of the liver and the gallbladder.

Sonography of the pancreas and spleen

To know how to place the patient in the appropriate position for examination.

To know how to show and recognize the normal ultrasound anatomy of the pancreas and the spleen.

Renal transplant ultrasound

To know the ultrasound diagnostics of a transplanted kidney.

The role of ultrasound in vascular pathology by ultrasound I

To know the basic ultrasound imaging of the large abdominal blood vessels.

The role of ultrasound in vascular pathology by ultrasound II

To know the most common pathology of the large abdominal blood vessels.

Focus Assessment sonography

To know how to place the patient in the appropriate position for examination.

To know typical anatomical sites for assessing the presence of free fluid in the abdomen, phrenicocostal sinuses, and pericardial cavity.

To know how to recognize free fluid in the abdomen and phrenicocostal sinuses.

Interventional abdominal ultrasound

To know the basics of the interventional ultrasound.

Kidney ultrasound

To know how to place the patient in the appropriate position for examination.

To know how to show and recognize the normal ultrasound anatomy of the kidney.

Ultrasound imaging of the adrenal glands

To know the basics of the adrenal ultrasound.

Musculoskeletal ultrasound

To know how to use ultrasound in the treatment and diagnosis of pathological conditions of the locomotor system.

Point-of-care (PoCUS) ultrasound in primary care

To know how to use ultrasound in primary care.

Exam

Written test.

Obveze studenata:

Regular attendance of classes.

Be prepared for seminars.

Taking a written exam.

Ispit (način polaganja ispita, opis pisanog/usmenog/praktičnog dijela ispita, način bodovanja, kriterij ocjenjivanja):

Ostale napomene (vezane uz kolegij) važne za studente:

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SATNICA IZVOĐENJA NASTAVE 2025/2026

Practical Application of Ultrasound in Surgery and Urology

Seminari
(mjesto i vrijeme / grupa)
19.01.2026
Introduction to the course: • Katedra za urologiju (17:00 - 20:45) [402] ◦ PAUSU Historical review of ultrasound: • Katedra za urologiju (17:00 - 20:45) [402] ◦ PAUSU Thoracic ultrasound: • Katedra za urologiju (17:00 - 20:45) [402] ◦ PAUSU Ultrasound-guided percutaneous tracheostomy: • Katedra za urologiju (17:00 - 20:45) [402] ◦ PAUSU Retroperitoneal ultrasound: • Katedra za urologiju (17:00 - 20:45) [402] ◦ PAUSU
nasl. izv. prof. dr. sc. Gršković Antun, dr. med. [402]
20.01.2026
Evaluation of bladder pathology by transabdominal ultrasound: • Katedra za urologiju (16:00 - 19:45) [173] ◦ PAUSU Evaluation of prostate and seminal vesicle pathology by ultrasound: • Katedra za urologiju (16:00 - 19:45) [173] ◦ PAUSU Evaluation of scrotal and penile pathology by ultrasound: • Katedra za urologiju (16:00 - 19:45) [173] ◦ PAUSU Ultrasound in urological emergency: • Katedra za urologiju (16:00 - 19:45) [173] ◦ PAUSU The place of interventional ultrasound in urology: • Katedra za urologiju (16:00 - 19:45) [173] ◦ PAUSU
prof. dr. sc. Španjol Josip, dr. med. [173]
21.01.2026
Liver and gallbladder / biliary ultrasound: • Katedra za urologiju (15:00 - 18:45) [173] ◦ PAUSU Sonography of the pancreas and spleen: • Katedra za urologiju (15:00 - 18:45) [173] ◦ PAUSU Renal transplant ultrasound: • Katedra za urologiju (15:00 - 18:45) [173] ◦ PAUSU

prof. dr. sc. Španjol Josip, dr. med. ^[173]
22.01.2026
The role of ultrasound in vascular pathology by ultrasound I: • Katedra za urologiju (15:00 - 18:45) ^[400] ◦ PAUSU The role of ultrasound in vascular pathology by ultrasound II: • Katedra za urologiju (15:00 - 18:45) ^[400] ◦ PAUSU Focus Assessment sonography: • Katedra za urologiju (15:00 - 18:45) ^[400] ◦ PAUSU Interventional abdominal ultrasound: • Katedra za urologiju (15:00 - 18:45) ^[400] ◦ PAUSU
prof. dr. sc. Markić Dean, dr. med. ^[400]
23.01.2026
Kidney ultrasound: • Katedra za urologiju (15:00 - 18:45) ^[173] ◦ PAUSU Ultrasound imaging of the adrenal glands: • Katedra za urologiju (15:00 - 18:45) ^[173] ◦ PAUSU Musculoskeletal ultrasound: • Katedra za urologiju (15:00 - 18:45) ^[173] ◦ PAUSU Point-of-care (PoCUS) ultrasound in primary care: • Katedra za urologiju (15:00 - 18:45) ^[173] ◦ PAUSU Exam: • Katedra za urologiju (15:00 - 18:45) ^[173] ◦ PAUSU
prof. dr. sc. Španjol Josip, dr. med. ^[173]

Popis predavanja, seminara i vježbi:

SEMINARI (TEMA)	Broj sati	Mjesto održavanja
Introduction to the course	1	Katedra za urologiju
Historical review of ultrasound	1	Katedra za urologiju
Thoracic ultrasound	1	Katedra za urologiju
Ultrasound-guided percutaneous tracheostomy	1	Katedra za urologiju
Retroperitoneal ultrasound	1	Katedra za urologiju
Evaluation of bladder pathology by transabdominal ultrasound	1	Katedra za urologiju
Evaluation of prostate and seminal vesicle pathology by ultrasound	1	Katedra za urologiju
Evaluation of scrotal and penile pathology by ultrasound	1	Katedra za urologiju
Ultrasound in urological emergency	1	Katedra za urologiju
The place of interventional ultrasound in urology	1	Katedra za urologiju
Liver and gallbladder / biliary ultrasound	2	Katedra za urologiju

Sonography of the pancreas and spleen	1	Katedra za urologiju
Renal transplant ultrasound	2	Katedra za urologiju
The role of ultrasound in vascular pathology by ultrasound I	1	Katedra za urologiju
The role of ultrasound in vascular pathology by ultrasound II	1	Katedra za urologiju
Focus Assessment sonography	1	Katedra za urologiju
Interventional abdominal ultrasound	2	Katedra za urologiju
Kidney ultrasound	1	Katedra za urologiju
Ultrasound imaging of the adrenal glands	1	Katedra za urologiju
Musculoskeletal ultrasound	1	Katedra za urologiju
Point-of-care (PoCUS) ultrasound in primary care	1	Katedra za urologiju
Exam	1	Katedra za urologiju

ISPITNI TERMINI (završni ispit):
