

**Faculty of Medicine University of Rijeka**  
**Course: UROLOGY**  
**Course Director: Assoc. Prof. Josip Španjol, MD, PhD**  
**Department: Department of Urology**  
**Study program: Integrated Undergraduate and Graduate University Study of Medicine in English**  
**Study year: 5<sup>th</sup>**  
**Academic year: 2021/2022**

## **SYLLABUS**

### **COURSE DESCRIPTION:**

**Urology** is a compulsory course on the 5th year of the Integrated Undergraduate and Graduate Study of Medicine in English. It consists of 15 hours of lectures, 5 hours of seminars and 22 hours of practicals, total of 42 hours (**2 ECTS credits**). The course is held at the Department of Urology, Clinical Hospital Center Rijeka

**Course objectives:** The goal of this course is to encounter students with basic knowledge and skill in the field of urology. Further goal is to introduce and train students to perform physical exam and take history of urologic patients, to put urinary catheter both in male and female, to know diagnostic and therapeutic algorithms for malignant urogenital tumors, to know diagnostic and therapeutic algorithms for patients with urolithiasis and urinary infections. Also, the aim of the course is to encounter students with methods and algorithms for early detection of malignant urogenital tumors, to know diagnostic and therapeutic algorithms for patients with urogenital trauma, to know basics of urogenital wounds and to know recognise emergency conditions in urology.

#### **Course content:**

Historical review of the development of urology, symptoms of urologic conditions, diagnostic methods in urology, diagnostic methods and treatment of patients with kidney cancer, bladder cancer, prostate cancer, retroperitoneal tumors, benign prostatic tumors, infections of the prostate, urolithiasis, emergency conditions in urology, sterility, erectile dysfunction, infections of the genitourinary tract, pathology of scrotum and penis, congenital anomalies of the urinary system. Also, the students will be introduced with different endoscopic methods and basics of kidney transplantation

On seminars topics are: early detection of prostate cancer, differential diagnosis of microhematuria, diagnosis and treatment of urinary tract infections, treatment of advanced bladder cancer, early detection and treatment of kidney cancer

On practicals students will perform or attend to next procedures: physical examination of urologic patient, urinary derivation (urinary catheter, percutaneous nephrostomy, ureteral stent) and attend to basic endourological and imaging methods in urology.

#### **Teaching:**

Classes are organized in the form of lectures, seminars and practicals. Practicals are supervised by urologist and the students are actively involved in practicals in accordance with epidemiological recommendations. Teaching staff will discuss with the students during practicals. By completing all teaching activities, the student must pass obligatory written test and final oral exam. By completing all teaching activities, including the final exam, the students will acquire 2 ECTS credits.

**Assigned reading:**

1. Fučkar Ž, Španjol J. Urologija I i II, Medicinski fakultet u Rijeci, 2013.
2. McAninch JW, Lue TF. Smith&Tanagho's General Urology. McGraw -Hill, 19<sup>th</sup> edition, New York; 2020.

**Optional/additional reading:**

1. Fučkar Ž. Povijest urologije na Sušaku, Digital Point, Rijeka 2006.
2. <http://www.uroweb.org/nc/professional-resources/guidelines/online/>
3. Fučkar Ž i dr. Sonografija urogenitalnog sustava I. i II. dio. Digital Point, Rijeka; 2001
4. Partin AW, Peters CA, Kavoussi LR, Dmochowski RR, Wein AJ. Campbell Walsh Wein Urology. Elsevier, 12<sup>th</sup> edition; 2020.

**Course teaching plan :**

**The list of lectures (with topics and descriptions):**

**L1 – Introduction to the course and historical review**

Learning outcomes:

Understanding to the aims, contents and requirements of the course.  
To know brief historical overview of the development of urology.

**L2 – The symptoms of urologic onditions**

Learning outcomes:

To describe main and the most frequent sympotms of different urologic conditions.  
To know and to recognize specific symptoms of urologic conditions.  
To know basics about distingush different symptoms between urologic conditions.

**L3 – Emergency conditions in urology**

Learning outcomes:

To describe and understand emergency conditions in urology.  
To know diagnostic and therapeutic algorithms in emergency conditions in urology.

**L4 – Pathology of scrotum and penis**

Learning outcomes:

To explain specific pathological conditions of the scrotum and penis.  
To know diagnostic and therapeutic methods in the diseases of the scrotum and penis.

**L5 – Male sterility and erectile dysfunction**

Learning outcomes:

To explain causative mechanisms of male sterility and erectile dysfunction.  
To know methods for diagnosis and treatment of male sterility and erectile dysfunction.

**L6 – Retroperitoneal tumors**

Learning outcomes:

To know basic algorithm for diagnosis, treatment and follow-uo of patients with retroperitoneal tumors.  
To recognise difference between malignant and benign retroperitoneal tumors.

### **L7 – Diagnostic methods in urology**

#### Learning outcomes:

To know basic diagnostic methods in urology.  
To explain difference between different diagnostic methods.

### **L8 - Endoscopy in urology**

#### Learning outcomes:

To explain frequently used endoscopic methods and procedures in urology.  
To understand implementation of different endoscopic procedures.

### **L9 – Benign prostatic tumors, infections of the prostate, prostate cancer**

#### Learning outcomes:

To recognise the most frequent benign tumor of the prostate (adenoma of the prostate – benign prostatic hyperplasia) and distinguish acute from chronic prostatitis.  
To understand treatment modalities of benign prostatic hyperplasia and prostatitis.  
To explain indications and contraindications for different treatment methods.  
To describe drug mechanisms for the treatment of benign prostatic hyperplasia.  
To explain pathogenesis and diagnostic methods for prostate cancer.  
To know treatment methods for prostate cancer.  
To know basic principles about follow-up of patients with prostate cancer.

### **L10 – Kidney tumors**

#### Learning outcomes:

To know basic algorithm for diagnosis, treatment and follow-up of patients with kidney tumor.  
To know difference between malignant and benign tumors.

### **P11 – Urinary bladder tumors**

#### Learning outcomes:

To know basic algorithm for diagnosis, treatment and follow-up of patients with urinary bladder tumor. To know difference between malignant and benign tumors.

### **L12 - Urolithiasis**

#### Learning outcomes:

To explain and to know and describe different types of urolithiasis.  
To explain and to know basic principles of algorithms for diagnosis and treatment of urolithiasis.

### **L13 – Congenital anomalies of the urinary system**

#### Learning outcomes:

To describe the most frequent anomalies of the urinary system and their treatment.

### **L14 – Basics of kidney transplantation**

#### Learning outcomes:

To know basic principles about donor allocation, tissue typing, techniques of kidney transplantation and follow-up of patients with kidney transplant.

### **L15 – Infections of genitourinary tract**

#### Learning outcomes:

To define acute and chronic infection of the genitourinary tract.  
To understand transmission of the infection.  
To understand basic algorithms about treatment of infections of the genitourinary tract.

## The list of seminars (with topics and description):

### **S1 – Diagnosis and treatment of urinary infections**

#### Learning outcomes:

To define acute and chronic infection of the genitourinary tract.

To understand transmission of the infection.

To understand basic algorithms about treatment of infections of the genitourinary tract

### **S2 – Early detection and treatment of kidney cancer**

#### Learning outcomes:

To explain pathogenesis and methods of early detection of kidney cancer.

To know methods for the treatment of kidney cancer.

To know basic principles of follow-up for patients with kidney cancer after curative treatment.

### **S3 – Treatment of advanced bladder cancer**

#### Learning outcomes:

To know basic principles of treatment for patients with advanced bladder cancer.

To know importance of multidisciplinary team for the treatment of the advanced bladder cancer.

### **S4 – Differential diagnosis of microhematuria**

#### Learning outcomes:

To know all conditions and diseases who possible lead to microhematuria.

To know basic algorithms for diagnostic assessment of microhematuria.

### **S5 – Early detection of prostate cancer**

#### Learning outcomes:

To understand the methods for early detection of prostate cancer.

## The list of practicals with description:

Practicals from course Urology are held at the Department of Urology, Clinical Hospital Center Rijeka with following topics:

### **V1-6 – Medical history and physical examination of urologic patient**

#### Learning outcomes:

To know how to take medical history and perform physical examination of urologic patient.

### **V7-9 – Urinary derivation (urinary catheter, percutaneous nephrostomy, ureteral stent)**

#### Learning outcomes:

To recognise the most frequent types of urinary derivations. To put urinary catheter in male and female.

### **V10-15 - Ultrasound and RTG in urology**

#### Learning outcomes:



<b>Correct answers</b>	<b>Credits</b>
70	<b>50</b>
69	<b>49</b>
68	<b>48</b>
67	<b>47</b>
66	<b>46</b>
65	<b>45</b>
64	<b>44</b>
63	<b>43</b>
62	<b>42</b>
61	<b>41</b>
60	<b>40</b>
59	<b>39</b>
58	<b>38</b>
57	<b>37</b>
56	<b>36</b>
55	<b>35</b>
53,54	<b>34</b>
51, 52	<b>33</b>
49, 50	<b>32</b>
47, 48	<b>31</b>
45, 46	<b>30</b>
43, 44	<b>29</b>
41, 42	<b>28</b>
39, 40	<b>27</b>
37, 38	<b>26</b>
<b>35, 36</b>	<b>25</b>
25 - 34	<b>10</b>
10 - 24	<b>5</b>
1 - 9	<b>0</b>

**Course attendance policy:**

**Every student has right to missing from the course up to 30% of total course activity:**

1. LECTURES – up to 5 hours;
2. SEMINARS – up to 2 hours;
3. PRACTICALS – up to 7 hours.

### **b) Final exam (maximum 50 credits)**

Final exam is oral and include students's knowledge of basic and specific competencies and knowledges with credits as follows:

- **Excellent knowledge** 50 credits,
- **Very good knowledge** 40 credits,
- **Good knowledge** 30 credits,
- **Sufficient knowledge** 25 credits,
- **Insufficient knowledge** 0 credits.

#### Who can approach to final exam:

Students which during course has **25 - 50 credits** approach to final exam. In final exam they can rich maximum of 50 credits.

#### Who can not approach to final exam:

Students **with only 0 do 24.9 credits during course or students which missing more than than 30% of course** can not approach to the final exam. That student is insufficient (1) F and could not approach to final exam, e.g. this student must repeat course on the following academic year.

II. The final assessment is sum of ECTS credits during course and on final exam:

#### **Final assessment**

A (90-100%, e.g. 90-100 credits)	EXCELLENT (5)
B (75-89.9%, e.g. 75-89 credits)	VERY GOOD (4)
C (60-74.9%, e.g. 60-74 credits)	GOOD (3)
D (50-59.9%, e.g. 50-59 credits)	SUFFICIENT (2)
F (<50 credits or not pass final exam)	INSUFFICIENT (1)

#### **Other remarks (related to the course) which are important for students:**

Course content and all information related to the course as well as exam dates can be found on the Merlin e-learning system and on the web pages of the Department of Urology.

All student inquiries, regarding the course and possible problems, remarks and inquiries are provided exclusively using the official e-mail addresses (@medri.uniri.hr) or via the Merlin e-learning system. It is possible to arrange consultations with the teaching staff during working hours.

# COURSE SCHEDULE

## (for academic year 2021/2022)

Date	Lectures (time and place)	Seminars (time and place)	Practicals (time and place)	Teacher
<b>05.10.2021.</b> (Tuesday)  <b>PAUSE</b> 11:15 – 11:45 h	<u><b>L1, L2, L3</b></u>  <b>09:00 – 09:45 h</b> <b>09:45 – 10:30 h</b> <b>10:30 – 11:15 h</b>  <b>Secretary</b> <b>Department of</b> <b>Urology</b>	<u><b>S1</b></u> <b>11:45 – 12:30 h</b>  <b>Secretary</b> <b>Department of</b> <b>Urology</b>	<u><b>P1, P2, P3</b></u> <b>12:30 – 13:15 h</b> <b>13:15 – 14:00 h</b> <b>14:00 – 14:45 h</b>  <b>Practicals by groups (list)</b>  <b>Department of Urology</b>	<b>LECTURES</b> <b>Španjol, Španjol, Španjol</b>  <b>SEMINAR</b> <b>Španjol</b>  <b>PRACTICALS</b> Ahel, Gršković, Krpina, Markić, Materljan, Oguić, Rahelić, Rubinić, Sotošek, Španjol, Trošelj, Vukelić
<b>07.10.2021.</b> (Thursday)  <b>PAUSE</b> 11:15 – 11:45 h	<u><b>L4, L5, L6</b></u>  <b>12:30 – 13:15 h</b> <b>13:15 – 14:00 h</b> <b>14:00 – 14:45 h</b>  <b>Secretary</b> <b>Department of</b> <b>Urology</b>	<u><b>S2</b></u> <b>11:45 – 12:30 h</b>  <b>Secretary</b> <b>Department of</b> <b>Urology</b>	<u><b>P4, P5, P6</b></u> <b>09:00 – 09:45 h</b> <b>09:45 – 10:30 h</b> <b>10:30 – 11:15 h</b>  <b>Practicals by groups (list)</b>  <b>Department of Urology</b>	<b>LECTURES</b> <b>Gršković, Gršković, Sotošek</b>  <b>SEMINAR</b> <b>Gršković</b>  <b>PRACTICALS</b> Ahel, Gršković, Krpina, Markić, Materljan, Oguić, Rahelić, Rubinić, Sotošek, Španjol, Trošelj, Vukelić
<b>12.10.2021.</b> (Tuesday)  <b>PAUSE</b> 11:15 – 11:45 h	<u><b>L7, L8, L9</b></u>  <b>12:30 – 13:15 h</b> <b>13:15 – 14:00 h</b> <b>14:00 – 14:45 h</b>  <b>Secretary</b> <b>Department of</b> <b>Urology</b>	<u><b>S3</b></u> <b>11:45 – 12:30 h</b>  <b>Secretary</b> <b>Department of</b> <b>Urology</b>	<u><b>P7, P8, P9</b></u> <b>09:00 – 09:45 h</b> <b>09:45 – 10:30 h</b> <b>10:30 – 11:15 h</b>  <b>Practicals by groups (list)</b>  <b>Department of Urology</b>	<b>LECTURES</b> <b>Španjol, Španjol, Španjol</b>  <b>SEMINAR</b> <b>Rahelić</b>  <b>PRACTICALS</b> Ahel, Gršković, Krpina, Markić, Materljan, Oguić, Rahelić, Rubinić, Sotošek, Španjol, Trošelj, Vukelić



<p><b>14.10.2021.</b> (Thursday)</p> <p><b>PAUSE</b> 11:15 – 11:45 h</p>	<p><u><b>L10, L11, L12</b></u></p> <p><b>12:30 – 13:15 h</b> <b>13:15 – 14:00 h</b> <b>14:00 – 14:45 h</b></p> <p><b>Secretary</b> <b>Department of</b> <b>Urology</b></p>	<p><u><b>S4</b></u></p> <p><b>11:45 – 12:30 h</b></p> <p><b>Secretary</b> <b>Department of</b> <b>Urology</b></p>	<p><u><b>P10, P11, P12</b></u></p> <p><b>09:00 – 09:45 h</b> <b>09:45 – 10:30 h</b> <b>10:30 – 11:15 h</b></p> <p><b>Practicals by groups (list)</b></p> <p><b>Department of Urology</b></p>	<p><b>LECTURES</b> <b>Oguić, Oguić, Španjol</b> <b>(Rahelić)</b></p> <p><b>SEMINAR</b> <b>Oguić</b></p> <p><b>PRACTICALS</b> Ahel, Gršković, Krpina, Markić, Materljan, Oguić, Rahelić, Rubinić, Sotošek, Španjol, Trošelj, Vukelić</p>
<p><b>19.10.2021.</b> (Tuesday)</p> <p><b>PAUSE</b> 11:15 – 11:45 h</p>	<p><u><b>L13, L14, L15</b></u></p> <p><b>12:30 – 13:15 h</b> <b>13:15 – 14:00 h</b> <b>14:00 – 14:45 h</b></p> <p><b>Secretary</b> <b>Department of</b> <b>Urology</b></p>	<p><u><b>S5</b></u></p> <p><b>11:45 – 12:30 h</b></p> <p><b>Secretary</b> <b>Department of</b> <b>Urology</b></p>	<p><u><b>P13, P14, P15</b></u></p> <p><b>09:00 – 09:45 h</b> <b>09:45 – 10:30 h</b> <b>10:30 – 11:15 h</b></p> <p><b>Practicals by groups (list)</b></p> <p><b>Department of Urology</b></p>	<p><b>LECTURES</b> <b>Markić, Markić, Ahel</b></p> <p><b>SEMINAR</b> <b>Ahel</b></p> <p><b>PRACTICALS</b> Ahel, Gršković, Krpina, Markić, Materljan, Oguić, Rahelić, Rubinić, Sotošek, Španjol, Trošelj, Vukelić</p>
<p><b>21.10.2021.</b> (Thursday)</p> <p><b>PAUSE</b> 11:15 – 11:45 h</p>			<p><u><b>P16, P17, P18</b></u></p> <p><b>09:00 – 09:45 h</b> <b>09:45 – 10:30 h</b> <b>10:30 – 11:15 h</b></p> <p><u><b>P19, P20, P21, P22</b></u></p> <p><b>11:45 – 12:30 h</b> <b>12:30 – 13:15 h</b> <b>13:15 – 14:00 h</b> <b>14:00 – 14:45 h</b></p> <p><b>Practicals by groups (list)</b></p> <p><b>Department of Urology</b></p>	<p><b>PRACTICALS</b> Ahel, Gršković, Krpina, Markić, Materljan, Oguić, Rahelić, Rubinić, Sotošek, Španjol, Trošelj, Vukelić</p>

## LIST OF LECTURES, SEMINARS AND PRACTICALS:

	<b>LECTURES (topics)</b>	<b>Teaching hours</b>	<b>Location</b>
L1	Introduction to the course and historical review	1	Secretary Department of Urology
L2	The symptoms of urologic conditions	1	Secretary Department of Urology
L3	Emergency conditions in urology	1	Secretary Department of Urology
L4	Pathology of scrotum and penis	1	Secretary Department of Urology
L5	Male sterility and erectile dysfunction	1	Secretary Department of Urology
L6	Retroperitoneal tumors	1	Secretary Department of Urology
L7	Diagnostic methods in urology	1	Secretary Department of Urology
L8	Endoscopy in urology	1	Secretary Department of Urology
L9	Benign prostatic tumors, infections of the prostate, prostate cancer	1	Secretary Department of Urology
L10	Kidney tumors	1	Secretary Department of Urology
L11	Urinary bladder tumors	1	Secretary Department of Urology
L12	Urolithiasis	1	Secretary Department of Urology
L13	Congenital anomalies of the urinary system	1	Secretary Department of Urology
L14	Basics of kidney transplantation	1	Secretary Department of Urology
L15	Infections of genitourinary tract	1	Secretary Department of Urology
	<b>Total hours of lectures</b>	<b>15</b>	

	<b>SEMINARS (topics)</b>	<b>Teaching hours</b>	<b>Location</b>
S1	Early detection of prostate cancer	1	Secretary Department of Urology
S2	Early detection and treatment of kidney cancer	1	Secretary Department of Urology
S3	Differential diagnosis of microhematuria	1	Secretary Department of Urology
S4	Treatment of advanced bladder cancer	1	Secretary Department of Urology
S5	Diagnosis and treatment of urinary infections	1	Secretary Department of Urology
	<b>Total hours of seminars</b>	<b>5</b>	

	<b>Practicals (topics)</b>	<b>Teaching hours</b>	<b>Location</b>
P1	Medical history and physical examination of urologic patient	1	Department of Urology
P2	Medical history and physical examination of urologic patient	1	Department of Urology
P3	Medical history and physical examination of urologic patient	1	Department of Urology

<b>P4</b>	Medical history and physical examination of urologic patient	1	Department of Urology
<b>P5</b>	Medical history and physical examination of urologic patient	1	Department of Urology
<b>P6</b>	Medical history and physical examination of urologic patient	1	Department of Urology
<b>P7</b>	Urinary derivation (urinary catheter, percutaneous nephrostomy, ureteral stent)	1	Department of Urology
<b>P8</b>	Urinary derivation (urinary catheter, percutaneous nephrostomy, ureteral stent)	1	Department of Urology
<b>P9</b>	Urinary derivation (urinary catheter, percutaneous nephrostomy, ureteral stent)	1	Department of Urology
<b>P10</b>	Ultrasound and RTG in urology	1	Department of Urology
<b>P11</b>	Ultrasound and RTG in urology	1	Department of Urology
<b>P12</b>	Ultrasound and RTG in urology	1	Department of Urology
<b>P13</b>	Ultrasound and RTG in urology	1	Department of Urology
<b>P14</b>	Ultrasound and RTG in urology	1	Department of Urology
<b>P15</b>	Ultrasound and RTG in urology	1	Department of Urology
<b>P16</b>	Endourology	1	Department of Urology
<b>P17</b>	Endourology	1	Department of Urology
<b>P18</b>	Endourology	1	Department of Urology
<b>P19</b>	Endourology	1	Department of Urology
<b>P20</b>	Endourology	1	Department of Urology
<b>P21</b>	Endourology	1	Department of Urology
<b>P22</b>	Endourology	1	Department of Urology
	<b>Total hours of practicals</b>	<b>22</b>	

	<b>Exam dates</b>
1	<b>27.10.2021.</b>
2	<b>24.02.2022.</b>
3	<b>07.07.2022.</b>
4	<b>02.09.2022.</b>
5	<b>16.09.2022.</b>