

<b>Study program:</b> Integrated Academic Studies in Medicine
<b>Course title:</b> Tissues and Organ Transplantation
<b>Teacher:</b> Đorđe P. Gajdobranski, Slobodan P. Grebeldinger, Radoica R. Jokić, Miroslav Ž. Milankov, Zoran P. Milošević, Dragan D. Savić, Jan J. Varga, Petar B. Vuleković, Miroslav D. Ilić, Dejan Đ. Ivanov, Janko J. Pasternak, Aleksandar J. Redžek, Katarina A. Šarčev, Milan S. Stanković, Stamenko S. Šušak, Radovan Ž. Veljković, Jovo R. Bogdanović, Svetlana S. Bukarica, Dejan B. Đurić, Zoran D. Gojković, Mladen A. Jovanović, Ivan V. Levakov, Srđan S. Ninković, Mlađan B. Protić, Lazar U. Velicki, Ferenc F. Vicko, Saša S. Vojinov
<b>Course status:</b> elective
<b>ECTS Credits:</b> 3
<b>Condition:</b> -
<b>Course aim</b> The aim of this course is to provide students with knowledge in the field of transplant medicine.
<b>Expected outcome of the course:</b> Students acquire basic knowledge on legal, ethical and medico-legal issues, as well as general medical knowledge related to organ and tissue transplantation. Students acquire basic surgical skills and procedures related with tissue and organ transplantation.
<b>Course description</b> <i>Theoretical education</i> <ol style="list-style-type: none"> <li>1. Introduction to organ and tissue transplantation. Terminology.</li> <li>2. Tissues and organs for transplantation; basics of immunology and transfusion medicine.</li> <li>3. Legislation and ethical norms in transplant surgery.</li> <li>4. Organization of transplant networks. Transplant teams.</li> <li>5. Defining brain death, donor evaluation, organ and tissue harvesting and selection of the recipient.</li> <li>6. Application of drugs and medical equipment in transplantation.</li> <li>7. Stem cells. Bone marrow transplantation.</li> <li>8. Tissue transplantation: bone and vascular graft, skin, cornea, penis.</li> <li>9. Multiorgan procurement and preparation for organ transplant. Transport of tissues and organs.</li> <li>10. Liver transplantation.</li> <li>11. Kidney transplantation.</li> <li>12. Pancreas transplantation. Intestine transplantation.</li> <li>13. Heart and lung transplantation.</li> <li>14. Anaesthesia in transplant surgery; post transplant monitoring. Acute and chronic rejection.</li> <li>15. Long term monitoring of transplant patients.</li> </ol> <i>Practical education</i> <ol style="list-style-type: none"> <li>1. Basic terminology in organ and tissue transplantation. Models of transplant networks in the world;</li> <li>2. The role of media in the development of transplantation programs, interviews with donor's family, preparing the donor for living donor transplantation, preparation of the recipient;</li> <li>3. Donor - recipient registries, collecting and processing data. Evaluation and placing patients on waiting lists;</li> <li>4. Organization of transplant teams and permanent transplant services;</li> <li>5. Anatomy, immunology, histopathology of organs and tissues for transplantation;</li> <li>6. Harvesting and preparation of organs and tissues for transplantation; transportation;</li> <li>7. Principles and administration of immunosuppressive therapy;</li> <li>8. Technical aspects of stem cell transplantation;</li> <li>9. Surgical techniques in multiorgan explantation;</li> <li>10. Surgical techniques in liver transplantation, whole and split cadaveric liver transplant, interposition of inferior vena cava and Piggy back technique, living donor transplantation, monitoring, complications;</li> <li>11. Surgical techniques in renal transplantation, harvesting organs from living donors or cadaveric organs, implanting techniques, monitoring, complications;</li> <li>12. Surgical techniques in pancreas transplantation; explanting; derivation of pancreatic juice, monitoring, complications; Indications and techniques of intestine transplantation;</li> </ol>

13. Surgical techniques in heart and lung transplantation;
14. Technical aspects of bone and vascular grafts, skin, cornea and penis transplantation;
15. Anaesthesia, postoperative monitoring, the organization of long-term monitoring of transplant patients.

**Literature**

*Compulsory*

1. Busuttill RW, Klintmalm GB. Transplantation of the liver. Saunders, 2005.
2. Price D. Legal and ethical aspects of organ transplantation. [Cambridge University Press](#), 2000.

*Additional*

1. Chapman JR, Deierhoi M, Wight C. Organ and tissue donation for transplantation. Hodder Arnold Publishers, 1997.
2. Petechuk D. Organ transplantation (health and medical issues today). Greenwood, 2006.

**Number of active classes**

**Theoretical classes: 15**

**Practical classes: 30**

**Teaching methods**

**Student activity assessment (maximally 100 points)**

<b>Pre-exam activities</b>	<b>points</b>	<b>Final exam</b>	<b>points</b>
Lectures	20	Written	20
Practices	30	Oral	10
Colloquium	10	.....	
Essay	10		