

Transplantology

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| 1. **Imprint** | |
| **Academic Year** | 2025/2026 |
| **Department** | Faculty of Medicine |
| **Field of study** | Medicine |
| **Main scientific discipline** | Medical sciences |
| **Study ProfileGeneral academic** | General academic |
| **Level of studies** | Uniform MSc |
| **Form of studies** | Full time studies |
| **Type of module / courseObligatory** | Obligatory |
| **Form of verification of learning outcomes** | Completion |
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| **Head of Educational Unit / Heads of Educational Units** | Professor Magdalena Durlik |
| **Course coordinator** | MD PhD Agnieszka Furmańczyk-Zawiska e-nail: [agnieszka.furmanczyk-zawiska@wum.edu.pl](mailto:agnieszka.furmanczyk-zawiska@wum.edu.pl); phone: 607 228 768 |
| **Person responsible for syllabus** | MD PhD Agnieszka Furmańczyk-Zawiska |
| **Teachers** | Magdalena Durlik, profesor, MD, PhD  Teresa Bączkowska, MD, PhD  Joanna Pazik, MD, PhD  Dominika Dęborska-Materkowska, MD, PhD  Ewa Nowacka-Cieciura, MD, PhD  Jolanta Gozdowska, MD, PhD  Agnieszka Furmańczyk-Zawiska, MD, PhD  Maciej Kosieradzki, professor, MD, PhD  Beata Łągiewska, MD, PhD  Wojciech Lisik, professor, MD, PhD  Marek Pacholczyk, MD, PhD  Robert Świder, MD |

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| 1. **basic information** | | | | |
| **Year and semester  of studies** | V year, IX and X semester | | **Number of ECTS credits** | 2.00 |
| **forms of classes** | | **Number  of hours** | **ECTS credits calculation** | |
| **Contacting hours with academic teacher** | |
| Lecture (L) | | 6 | 0.2 | |
| Seminar (S) | | 19 | 1.0 | |
| Classes (C) | | 15 | 0.8 | |
| e-learning (e-L) | |  |  | |
| Practical classes (PC) | |  |  | |
| Work placement (WP) | |  |  | |
| **Unassisted student’s work** | | | | |
| Preparation for classes and completions | |  |  | |

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| 1. **Course objectives** | |
| O1 | Legal issues in transplantology. Indications for solid organ transplantation |
| O2 | Basics of transplantation immunology, tissue typing and recipient selection, rules of immunosuppressive treatment. |
| O3 | Common post-transplant complications- pathogenesis, clinical presentation, differential and treatment |

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| Standards of learning – Detailed description of effects of learning | |
| **Code and number of the effect of learning in accordance with standards of learning** | **Effects in the field of:** *(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)* |
| **Knowledge – Graduate\* knows and understands:** | |
| C.W25 | transplantation immunology, principles of selecting the donor and recipient of organ and stem cells transplants |
| C.W39 | most important side effects of medicines, including those resulting from their interaction; |
| E.W7 p. 1,3,4,5 | reasons, symptoms, diagnostic and treatment procedures of the most frequent internal diseases and their complications in adult patients:   1. circulatory system diseases, including coronary heart disease, heart defects, endocardium disease, cardiomyopathy, pericardium diseases, cardiac failure (acute and chronic), artery and vein diseases, hypertension: essential and secondary, pulmonary hypertension,   3) digestive system diseases, including oral cavity, oesophagus, stomach and duodenum, intestine, pancreas, liver, bile duct and gall bladder diseases,  4)     endocrine system diseases, including hypothalamus and pituitary gland, thyroid, parathyroid glands, the cortex and medulla of adrenal glands, ovaries, testicles disease, as well as neuroendocrine tumours, polyendocrine syndromes, different types of diabetes and metabolic syndrome: hypoglycaemia, obesity, dyslipidaemia,  5)     renal and urinary tract diseases, including acute and chronic renal failure, glomerulus and interstitial renal diseases, renal cysts, nephrolithiasis, urinary system infections, urinary system cancers, including bladder tumour and kidney cancer, |
| F.W14 | The basics of interventional transplantation, indications for the transplantation of irreversibly damaged organs and tissues and related procedures |
| F.W15 | principles of suspecting and recognising the brain death |
| G.W9 | legal regulations concerning transplantations, artificial reproduction, abortion, aesthetic procedures, palliative treatment and mental diseases; |
| **Skills– Graduate\* is able to:** | |
| D.U4 | develop a trust-based relationship during the whole diagnostic and treatment process; |
| D.U15 | observe patient’s rights; |
| E.U1 | collect medical history from adult patients; |
| E.U3 | conduct a complete and targeted physical examination in adults; |
| E.U7 | evaluate the general condition, the state of consciousness and awareness of a patient; |
| E.U12 | perform the differential diagnosis of the most common diseases in adults and children; |
| E.U14 | recognise immediate threats to life; |
| E.U16 | plan diagnostic, therapeutic and preventive treatment; |
| E.U17 | analyse the side effects of particular medicines and interactions between them; |
| E.U20 | qualify patients for home and hospital treatment; |
| E.U24 | interpret laboratory test results with the identification of reasons for deviation; |
| E.U32 | plan specialist consultations; |
| E.U38 | keep a patient’s medical records |
| F.U1 | assist in a typical surgery, prepare the surgical field and use local anaesthetics at the operated area; |
| F.U2 | use the basic surgical tools; |
| F.U3 | observe the rules of asepsis and antisepsis; |
| F.U12 | monitor perioperative care with the aid of basic vital signs; |

*\* In appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019 „graduate”, not student is mentioned.*

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| 1. **Additional effects of learning** *(non-compulsory)* | |
| **Number of effects of learning** | **Effects in the fields of:** |
| **Knowledge – Graduate knows and understands:** | |
| K1 | D.W6 The importance of verbal and non-verbal communication in the process of communicating with the patient and the concept of trust in the interaction with the patient |
| K2 | Types of transplants and immune mechanisms of allograft rejection |
| **Skills– Graduate is able to:** | |
| S1 | E.U29 p. 1 Perform basic medical procedures including: body temperature measurement (superficial and deep), pulse measurement, non-invasive pressure measurement |
| **Social Competencies – Graduate is ready for:** | |
| SC1 | Acts for the patient’s sake as his priority |
| SC2 | Able to establish and maintain a deep and respectful contact with the patient. |

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| 1. **Classes** | | |
| **Form of class** | **Class contents** | **Effects of Learning** |
| Lectures | L1. Organization of organ procurement and sharing in Poland.  L2 Surgical complications in transplant recipients  L3. Transplantation of heart, transplantation of lungs.  L4. Regenerative medicine.  L5. Transplant tolerance.  L6. Current problems of transplantology. | F.W15, G.W9.  F.W14  F.W14  C.W25, E.W22  F.W15, G.W9, C.W25  E.W22 |
| Seminars  Clinical classes | S1. Organ procurement, evaluation and selection of donors. Organ preservation.  S2. Qualification to kidney transplantation*.*  S3. Qualification to liver transplantation.  S4-5. Liver transplantation- surgical techniques and surgical complications.  S6-7 Cardiological, metabolic and hematological complications after solid organ transplantation.  S8. Malignancies in solid organ recipients.  S9-10. Principles of immunosuppressive therapy in organ transplantation.  S11-12. Transplant rejection and ther pathologies evolving in solid organ transplants.  S13. Transplantation from living donor.  S14-15 Infectious complications after solid organ transplantation.  S16. Transplantation of pancreas and pancreatic islets.  S17. Post-transplant management of liver transplant recipients.  S18-19. Post-transplant management of kidney transplant recipients.  C1-12 – clinical rounds, individual cases analysis in the department  C13 – passive participation in transplanted organ biopsy  C14-15 – passive/active participation in out-patients consultations | F.W15, G.W9.  E.W7.  E.W7.  F.W14  E.W7  E.W7  C.W39  C.W25, E.W22  F.W14, G.W9  E.W7. E.W22  E.W7, E.W22  E.W7, E.W22  E.U1, E.U3, E.U7, E.U14,  E.U16, E.U17, E.U32, E.U20, E.U38, D.U15 |

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| 1. **Literature** |
| **Obligatory** |
| Handbook of kidney Transplantation By Gabriel M. Danovitch, Lippincott Williams& Wilkins 2017 |
| **Supplementary** |
| Textbook of Organ Transplantation Set, Wiley-Blackwell 2014 Allan D Kirk, Stuart J. Knechtle, Christian P. Larsen et al. |

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| Verifying the effect of learning | | |
| **Code of the course effect of learning** | **Ways of verifying the effect of learning** | **Completion criterion** |
| E.U1, E.U3, E.U7  E.U12, E.U14  E.U16, E.U17  E.U20  B.W21, B.W24, EW1, E.W7, D.U15, C.U17, E.U17 | Continuous assessment during the course of the classes, presence and active participation in the clinical rounds. Based on sick leave one day absenteeism is allowed, the remaining ones must be worked off with another group.  Fifteen questions MCQ test | 9 points – 2.0 (failed)  10 points – 3.0 (satisfactory)  11 points – 3.5 (rather good)  12 points – 4.0 (good)  13 points – 4.5 (more than good)  14-15 points – 5.0 (very good) |

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| 1. **Additional information** |
| 1. Duration of the transplantology course: 1 week (from Monday to Friday). 2. Realization of the program will be based on seminars presenting the current state of knowledge in specific subject and practical classes in clinical wards and out-patients clinics 3. Classes start at 8.00. 4. During the course no absences will be excused. 5. Students are expected to have their own lab coat, stethoscope, student’s ID, shoes. 6. The students participate in classes (seminars and practice) only with the group. Possible group chance is allowed in exceptional, justified situations and requires individual approval. 7. If a student has two or more absences must make up for absences with another group. Only then can take the test with another group. 8. All student information is provided on an ongoing basis on the Clinic's website |

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**ATTENTION**

The final 10 minutes of the last class in the block/semester/year should be allocated to students’ Survey of Evaluation of Classes and Academic Teachers.