

Semmelweis University, Faculty of Medicine - undivided, one-tier training in general medicine

Name of the host institution (and any contributing institution):

Sebészeti, Transzplantációs és Gasztroenterológiai Klinika

Name of subject in Hungarian: A szervtranszplantáció és határterületei

Name of subject in English: Organtransplantation: basic principles and special aspects

Name of subject in German: Organtransplantation und ihre Grenzgebiete

Credit value of the course: 2

Semester: 7th semester, 8th semester, 9th semester, 10th semester

(in which the subject is taught according to the curriculum)

Weekly hours	Lecture	Practice	Seminar
2.0	2.0	0.0	0.0

Semester hours	Lecture	Practice	Seminar
0.0	0.0	0.0	0.0

Type of course:

elective

Academic year:

2026/27

Language of instruction (for optional and elective subjects):

English

Course code:

AOSSBG1204_1A

(in the case of a new course, to be completed by the Dean's Office, following approval)

Course coordinator name: Dr. Szijártó Attila (Klinika Igazgató)

Course coordinator location of work, telephone availability: Department of Surgery, Transplantation and Gastroenterology -1082 Budapest, Üllői út 78., +36208259001

Course coordinator position: professor, head of department

Course coordinator Date and number of habilitation: 2015.06

Objectives of the course, and its place in the curriculum of the medical training program:

Nowadays, organ transplantation has developed into a complex branch of medicine in its own right - every medical doctor should be familiar with the basic concepts of it.

The course aims to familiarize the students with the essence of organ transplantation, concept of brain death (and the legal and medical regulations governing its determination), legal conditions for

organ removal, and ethical issues involved.

Transplantation can be considered an interdisciplinary science because it is essential to know the pathology, indications, and contraindications of the transplantation of a particular organ. In addition to the basic surgical techniques, immunological aspects, conditions of listing somebody on the transplantation waiting list, and international transplantation organizations will be addressed.

The course also aims to present the diagnostic and therapeutic possibilities of radiology. Particular emphasis will be given to delineating the follow-up of the transplanted patients and analyzing the most significant complications, infections, tumors, and metabolic diseases.

Format of the course (lectures, group work, practical lessons, etc.):

Lectures

Competencies acquired through completion of course:

With the completion of the course we expect that the participants acquire basic knowledge of transplantation, they know the indications and contra-indications of organ transplantation, and the basics of immunosuppression. The students should be able to recognize the most common complications and apply the diagnostic and therapeutic algorithms.

Course outcome (names and NEPTUN ID of related subjects):

Prerequisites for course registration and completion: (NEPTUN ID):

Completion of the 3rd academic year

The course is suggested for the students of the 4th and the 5th years.

In the case of multi-semester courses, position on the possibility of and conditions for concurrent registration:

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The number of students required to start the course (minimum, maximum), method of selecting participants:

Minimum number: 10 students

Maximum number: 50 students

**Detailed course syllabus (if the course can be divided into modules, please indicate):
(Theoretical and practical instruction must be broken down into hours (weeks), numbered separately; names of instructors and lecturers must be listed, indicating guest lecturers/instructors. It cannot be attached separately! For guest lecturers, attachment of CV is required in all cases!)**

Wee k	Topic	Lecturer
1	The history of organ transplantation, basic concepts of organ transplantation. Organ donation, organ removal, organ preservation, machine perfusion. DBD and DCD donors. Transplantation waiting lists, allocation of transplantable organs. Immunological aspects. Xenotransplantation.	Dr. Toronyi Éva
2	Identification of potential donors – quality assessment of donor programs. Legal regulations of organ removal in Hungary and Europe. The role of international organ transplantation organizations. Eurotransplant. Organ donation activity in Hungary and in Europe	Dr. Mihály Sándor
3	Definition and determination of brain death. ICU care of DBD donors. Preoperative and postoperative considerations in transplanted patients.	Dr. Anikó Smudla/ Dr. Szabolcs Tóth
4	Role and tasks of organ donation coordinators: identifying potential organ donors, managing the donation from brain death through organ removal, organizing the transport. National Organdonor Register. Eurotransplant Donordata.	Dr. Mihály Sándor
5	DBD organ donation: technical aspects. Storage and transport of organs. DCD, NRP	Dr. Hamar Mátyás
6	Kidney transplantation: Indication, surgical procedure, results. Living-donor kidney transplantation. Long-term outcomes of kidney transplantation. Immunosuppression. Complications.	Dr. Telkes Gábor
7	Pediatric kidney transplantation. Cross-over donation and ABO incompatible kidney transplantation. Follow-up after kidney transplantation: acute and chronic rejection, recurrence of the underlying disease, post-transplant diabetes, hyperlipidemia, arterial hypertension, osteoporosis.	Dr. Wagner László/Prof. Dr. Reusz György
8	Liver transplantation: Indications, surgical techniques, results. Machine perfusion. Oncological aspects of liver transplantation.	Dr. Huszty Gergely
9	Challenges of liver transplantation. Living-donor liver transplantation, split liver transplantation, pediatric liver transplantation.	Prof. Dr. Jörg Pollok
10	Heart transplantation: Indication, recipient selection, surgical techniques. Immunosuppression.	Prof. Dr. Hartyánszky István
11	Lung transplantation: Indication, recipient selection, surgical techniques. Immunosuppression	Prof. Dr. Rényi-Vámos Ferenc
12	Radiological aspects of transplantation. Diagnosis and therapy. Invasive radiological interventions.	Dr. Somogyi Dóra

13	Pancreatic and islet cell transplantation. Small intestine and multi-organ organ transplantation.	Dr. Piros László
14	Questions and answers related to organ donation, future possibilities to compensate for the lack of organs. How long do organs maintain viability in the state of brain death? Organizational questions and difficulties of organ transplantation - from organ removal to implantation. Exam. (Single-choice test)	Dr. Toronyi Éva

Other courses with overlapping topics (obligatory, optional, or elective courses) in interdisciplinary areas. To minimize overlaps, topics should be coordinated. NEPTUN ID(s) of courses (to be provided):

Requirements for attendance, options for making up missed sessions, and method of absence justification:

there is no attendance sheet on the lectures

Assessment methods during semester (number, topics, and dates of midterms and reports, method of inclusion in the course grade, opportunities for make-up and improvement of marks):

(number, topics, and dates of midterms and reports, method of inclusion in the course grade, opportunities for make-up and improvement of marks)

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Number and type of individual assignments to be completed, submission deadlines:

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Requirements for the successful completion of the course:

completing the exam in the end of semester

Type of assessment:

term grade

Exam requirements (list of topics, topics of the test exam, and the optional project topics accepted as an exam)

The material of the presentations/lectures.

Clear, specific minimum requirements for assessment. (The list of mandatory concepts,

parameters, diagrams, calculations, and practical skills required to obtain a passing grade, as well as the criteria for the completion and evaluation of project assignments accepted as an exam.) A link published on the department's website referring to the minimum requirements of the course.

Minimum 50% right answers for a passing grade

Method and type of grading (Share of theoretical and practical examinations in the overall evaluation. Inclusion of the results in the end-of-term assessment. Possibilities of and conditions for offered grades.): (Share of theoretical and practical examinations in the overall evaluation, Inclusion of the results in the end-of-term assessment, Possibilities of and conditions for offered grades)

Written single choice exam

Result of the written exam

Artificial intelligence systems used in the teaching of the subject and the manner of their application

Signature of habilitated instructor (course coordinator) announcing the course:

Signature of the director of the host institution:

Date of submission:
