REQUIREMENTS

Semmelweis University, Faculty of Medicine
Name of the Gestor Institution (and possible intermediate institutions):
2nd Department of Pediatrics

Name of the subject in Hungarian: Gyermekgyógyászat

In English[1]: Pediatrics

In German[1]:

Credits:8

Total number of hours: 112 **lectures:** 28 hours **practical lessons:** 56 hours **seminars:** 28 hours

Type of subject: **compulsory** **optional** **elective**

Academic year: 2022/2023

Course code[2]: AOKGY2758_1M

Course director: Prof. Dr. Gábor Kovács

Place of work, telephone contact: +36 1 215 1380

Position: professor, director of clinical unit

Date and number of habilitation:02.06.2009, Number: 279.

Course description:

The main purpose of the fifth-year infant and pediatric teaching block is to present the most typical clinical symptoms and the most common diseases, as well as to introduce the characteristics of the specialty, to acquire practical knowledge, and learn about the daily routine.

Place of instruction (address of lecture hall, seminar room, etc.):

Semmelweis University 2nd Department of Paediatrics, 1094 Budapest, Tűzoltó u. 7-9.

Competences acquired by completion of the subject:

Infant and pediatric medicine is a specialty concentrating on special problems and diseases of a large population. Our aim is to provide newly graduated doctors with advanced theoretical and practical knowledge in the field of infant and pediatric medicine by the end of their studies.

Prerequisite(s) of the course:

Internal Medicine I., Laboratory Medicine, Medical Imaging

Student headcount conditions for starting the course (minimum, maximum), method of selecting students:

After registration in the Neptun system, groups of up to 25 people per five-week turnover.

How to apply for the course:

In the Neptun system

Detailed course description[3]:

The course is taught in blocks. During a 5-week block, students attend theoretical and practical sessions at the Department, for 14 days. The examination will take place in the last week.
Students do bedside sessions in small groups. During the course, students acquire basic skills in pediatric patient examination, consult issues of care, differential diagnosis and therapeutic options of the specific patients with their trainer. During training sessions, included in the practical course, a specialist presents relevant issues of the topic.
The aim of these consultations is to discuss specific topics with a practice-oriented approach, in small groups.
Pediatric aspects of emergency care will be a priority.

The daily schedule includes lectures, case presentations, consultations and bedside sessions.

Example of a 4-day week:

Monday	Tuesday	Thursday	Friday
Lecture 1	Lecture 2	Lecture 3	Lecture 4
Break	Break	Break	Break
Bedside session 1	Bedside session 2	Bedside session 3	Bedside session 4
Lunch break	Lunch break	Lunch break	Lunch break
Training session 1	Training session 2	Training session 3	Training session 4
Break	Break	Break	Break
Consultation 1	Consultation 4	Consultation 7	Consultation 10
Consultation 2	Consultation 5	Consultation 8	Consultation 11
Consultation 3	Consultation 6	Consultation 9	Consultation 12

Topics of lectures:

- Introduction to infant and pediatric medicine
- Pediatric gastroenterology and hepatology
- Pediatric pulmonology
- Pediatric nephrology
- Pediatric Surgery, Pediatric Traumatology
- Pediatric endocrinology
- Pediatric neurology
- Pediatric emergency medicine
- Pediatrics in family medicine
- Pediatric psychiatry
- Infectology
- Neonatal disorders
- Pediatric cardiology
- Pediatric dermatology
- Immunology
- Genetics
- Metabolic Diseases

Training session topics:

- Pediatric practice on ward
  - General Condition Assessment, ABC Principles
  - Pediatric history, vaccination
  - Physiological parameters in childhood
  - Examination of skin and lymph nodes
  - Pharyngeal and ear examination
  - Pulmonary examination, physical methods in differential diagnosis
  - Cardiac and circulatory examination, signs of congenital heart disease
  - Abdominal examination; physical examination of the kidneys, the liver and the spleen
  - Examination of genitalia, assessment of sexual maturity
  - Assessment of somatic and psychomotor maturity
  - Screening for acute disorders of the nervous system
  - Examination of fontanelles
  - Some special aspects of newborn and infant examination, elementary reflexes
- Foreign body removal from the airways, basic pediatric emergency skills (Skills Lab)
- Child and Infant Basic Resuscitation (Skills Lab)
- Training session in Rheumatology
- Training session in neurology
- Training session in hematology
- Training session in endocrinology
- Training session in cardiology
- Training session: communication with children and parents
- Training session in gastroenterology
- Training session in oncology
- Training session in surgery
- Training session in neonatology (1st Department of Pediatrics)

Consultations

- Acute Surgical Disorders
- Conditions with acute tachydyspnoea, differential diagnosis, care
- Anemia - differential diagnosis
- Medical history
- Diabetic ketoacidosis
- Symptomology of gastrointestinal diseases
- Unconscious patient - differential diagnosis
- Upper respiratory tract diseases in childhood
- Physical examination
- Fluid therapy
- Seizure management, differential diagnosis, febrile seizures
- Interpretation of common skin manifestations (symptoms with rash and pyrexia, allergic conditions)
- Medication, calculations, interpretation of laboratory findings (blood, urine, CSF tests)
- Hormonal disorders – congenital adrenal hyperplasia
- Icterus in infancy and childhood
- Acute and chronic inflammatory disorders of joints and bones
- Imaging examinations and their indications
- Chronic pulmonary diseases - asthma, cystic fibrosis, bronchopulmonary dysplasia
- Chronic kidney diseases
- Leukocytosis - differential diagnosis

- Chest pain in childhood - differential diagnosis
- Meningitis and encephalitis
- Poisonings
- Nephrological malformations
- Lymph node enlargement - differential diagnosis
- Pneumonia in infants and children
- Emergency Examination (ABCDE)
- Judgment of somatic development in childhood
- Feeding methods
- Thrombocytopenia and coagulopathy (case presentation)
- Disturbance of consciousness, differential diagnostics and management of increased intracranial pressure, other acute conditions
- Blood gas findings analysis
- Interpretation of vital parameters

Instructors:
Dr. Laura Almási, dr. Noémi Andrási, dr. Krisztina Bakó, dr. Rita Bánusz, dr. Nikolett Jusztina Beniczky, dr. Gábor Benyó, dr. Rita Bertalan, dr. Edit Ágota Brückner, dr. Zsófia Ágnes Buday, dr. Bence Bukovszky, dr. Tamás Bűdi, dr. Bence Bukovszky, dr. Tamás Constantin, dr. Monika Csóka, dr. Noémi Csoszánszki, dr. Julianna Dálnoky, dr. Sarolta Dobner, dr. Bálint Egyed, dr. Dániel Erdélyi, Prof. Dr. György Fekete, dr. Luca Felkai, dr. Gabriella Filiczki, dr. Zsófia Gács, dr. Miklós Garami, dr. Ádám Goschler, dr. Katalin Hegedűs, dr. Márta Hegyi, dr. Klára Horváth, dr. Zsuzsanna Horváth,dr. Éva Hosszú, dr. Mária Hudák, dr. Zoltán Jenővári, dr. Anita Petra Juhász, dr. Orsolya Juhász, dr. Márta Kelemen, dr. Viktória Kemény, dr. Dóra Koch, dr. Olivér Koós, dr. Árpád Kovács, professor dr. Gábor Kovács, dr. Janka Kovács, dr. Lilla Lengvári, dr. Anna Lengyel, dr. Janka Liptovszky, dr. Zoltán Liptai, dr. Katalin Mudra, dr. Judit Müller, dr. Farzanehm Naghizadeh dr. Ágnes Németh, dr. Annamária Pálinkás, dr. Borbála Pásztor, dr. Anna Petró, dr. Diána Getyko-Giczi, dr. Éva Pinti, dr. Andrea Ponyi, dr. Tamás Benedek Prokopp, dr. Márta Szilvia Ranyák, dr. Dorottya Repkényi, dr. Imre Rényi, dr. Ágnes Sallai, dr. Katalin Somogyi Délia, dr. Zita Sükösd, dr. Márton Szabados, Prof. Dr. András Szabó, dr. Léna Szabó, dr. Sándor O. Szabó Gábor Zsombor Szarvas, dr. Renáta Széchenyi, dr. Fanni Szumutku, dr. Erika Tomsits, dr. Franciska Torma, dr. Réka Vadas, dr. Ildikó Vanco, dr. Edit Varga, dr. István Varga Martin, dr. Ábel Velkey, dr. Zsuzsanna Vojnisek

Guest instructors:
1st Department of Pediatrics, Semmelweis University:
Dr. Krisztina Ildikó Ábrahám, dr. Zsuzsanna Antal, Prof. Dr. András Arató, dr. Géza Bokodi, dr. Ferenc Ádám Brandt, dr. Áron Cseh, dr. Antal Tivadar Dezsőfi, dr. Viktor Ernő Farkas, dr. Viktor Márk Farkas, dr. Anett Fekete, dr. Zita Éva Halász, dr. Erzsébet Horváth, dr. Erzsébet Hrapka, dr. Attila György Kálmán, dr. Krisztina Kalocsai, dr. Kata Kelen, dr. Judit Mária Kincs, dr. Imre Kiss, dr. Lajos Kovács, dr. Anna Körner, dr. Dóra Krikovszky, dr. Péter Krivácsy, dr. Csaba Lódi, dr. Szendile Lóth, dr. Andrea Luczay, dr. Anikó Malik, dr. Bea Pászthy, dr. Margit Pataki, Prof. Dr. György Reusz, dr. Péter Gergely Sallay, dr. István Seri, Prof. Dr. Attila József Szabó, dr. Miklós Szabó, dr. Kálmán Tory, dr. Péter Tóth-Heyn, dr. Andrea Tölgyesi, professor Dr. Tivadar Tulassay, dr. Nikoletta Ágnes Várnai, dr. Barbara Vatai, Prof. Dr. Tibor Verebély, dr. Péter Vörös, dr. Petra Zsidegh

Semmelweis University Department of Dermatology and Sexual Pathology:
Prof. dr. Sarolta Kárpáti

Péterfy Hospital Clinic and Trauma Centre and Manninger Jenő National Institute of Traumatology:
Dr. Tamás Kassai

Pediatric family medicine:
Dr. Hajna Erlaky, dr. Tamás Kálovics, dr. Etelka Korausz, dr. Dániel Tordas

Interdisciplinary subjects (both compulsory and optional). Possible overlaps in the syllabus:

Some topics in the lectures may overlap with internal medicine, but will mainly focus on its specific pediatric aspects.

Specific coursework required for successful completion of the subject[4]:

None.

Requirements for participation in classes and possibility to make up for absence:

A stethoscope is mandatory for practical sessions, without a stethoscope, a lesson is not considered to have been completed. Students log their participation in the course on an individual attendance sheet. Participation is confirmed by the instructor. Regarding absences, the relevant provisions of the Study and Examination Regulations shall apply.
It will be possible to make up for absences in a manner agreed with the trainers (by participating in the same practice of another group, in the supplementary sessions organized on Wednesdays, during on-call, during the exam week of the block or in the weeks designated for this purpose).

The course and its instructors will be evaluated by the students through an online system during the course, via the link provided during the course. Active participation of the students in feedback is appreciated in order to improve the quality of education.

Assessment of the acquired skills during the academic term[5]:

In order to register student progress, in weeks 2 and 4, a written assessment will take place.
Furthermore, because the training sessions are conducted in an interactive manner, the instructor can continuously assess student preparedness and test how they use information available to them.

Requirements for completion of the course (signature):

The condition for course validation (obtaining the signature) at the end of the semester and the condition for registration for the theoretical exam are to participate in the lectures and practical lessons as described in the requirements.

Type of exam:

Colloquium, which is made up of practical and oral assessment.

Examination requirements[6]:

- **Practical examination:** bedside patient examination, where students demonstrate skills of practical pediatric patient care.

- **Oral examination:** assessment of students' theoretical knowledge in the following topics.

Topics of the oral examination:

1. Definitions of key concepts in perinatology on mortality data, gestation period and birth.
2. First-time care for a newborn, the Apgar score.
3. Physiological growth, anthropometric characteristics - development from newborn to preschool age.
4. Feeding a healthy baby and child, feeding premature babies, energy needs. The growth of a healthy baby.
5. Neonatal and genetic screening tests, prevention.
6. Chromosomal disorders

7. Neonatal respiratory adaptation disorders and lung diseases.
8. Infections in newborn babies.
9. Neonatal jaundice.
10. Complications of premature birth (BPD, ROP, NEC, IVH).
11. Sudden infant death (SIDS), infant mortality, demographic data.
12. Neonatal and childhood resuscitation.
13. Meconium ileus, intestinal atresias, pylorus stenosis, diaphragm hernia.
14. Ileus, intussusception, volvulus, incarcerated hernia, appendicitis.
15. Constipation. Congenital aganglionic megacolon (Hirschsprung disease)
16. Testicular torsion (TT) and ovarian torsion (OT) Undescended Testicles (Cryptorchidism).
17. Pediatric diseases with coagulation disorder.
18. Symptoms of anemia, diagnostic examinations.
19. Leukemia.
20. Prevention of infectious diseases, vaccinations.
21. Sepsis symptoms, emergency actions of the first hours.
22. Diseases caused by herpes viruses.
23. Morbilli (measles), rubella, scarlatina (scarlet fever).
24. Systemic autoimmune diseases.
25. Allergic disorders in infancy and childhood. Atopy.
26. Diseases of the ear.
27. Rhinitis, adenoiditis, tonsillitis, bronchitis.
28. Types of pneumonia. Major age-related pathogens.
29. Cystic fibrosis.
30. Obstructive bronchitis, bronchial asthma, subglottic laryngitis.
31. Warning signs of diseases affecting the central nervous system, diagnostic tests. Lumbar puncture.
32. Inflammatory diseases of the nervous system.
33. Facial nerve paralysis.
34. Childhood cramps, febrile cramps.
35. Diabetes mellitus. Treatment of diabetic ketoacidosis.
36. Congenital adrenal hyperplasia.
37. Diseases of the thyroid gland.
38. Endocrine disorders of calcium and phosphate metabolism. Rachitis (rickets).
39. Growth disorders (short and tall stature).
40. Sexual maturation disorders.
41. Henoch-Schonlein purpura.
42. Kawasaki disease. Multisystem inflammatory syndrome in children (MISC).
43. Urinary tract infections (localization, course, treatment, complications).
44. Congenital abnormalities of the kidneys and urinary tract.
45. Glomerular kidney diseases.
46. Nephrotic syndrome.
47. Cyanotic congenital heart disease.
48. Acyanotic heart disease.
49. Conditions leading to malabsorption. Coeliac disease.
50. Pediatric cholestatic liver disease.
51. Diseases causing hepatitis.
52. The most common infections causing diarrhea.
53. Inflammatory bowel diseases: ulcerative colitis, Crohn's disease.
54. Warning signs of abdominal disorders.
55. Enuresis nocturna. Polyuria and polydipsia.
56. Edema.

57. Acid-base balance and treatment of its disorders.
58. Fever, antipyretic therapy.

Method of grading[7]:

The final grade is established by taking into account student performance both at the practical assessment and at the theoretical examination. The two exams are weighed as 50-50%. When the average is indecisive, the final grade will be the oral exam grade.
Student performance is evaluated in five grades: excellent (5), good (4), satisfactory (3), pass (2), fail (1). Completion is subject to obtaining at least satisfactory (2) grades in both exams.

Students whose performance is 91% or above in the 2nd and 4th week assessment will be credited with an extra 'excellent' grade (5), which will be accounted for in the final grade.

How to register for the exam:
Through Neptun.

Options for retaking the exam:
According to the Study and Exam Regulations.

Suggested course readings:
Tivadar Tulassay (ed.): Klinikai gyermekgyógyászat (Medicina, 2018.) (Hungarian)

Signature of the habilitated instructor in charge of the course: Dr. Gábor Kovács

Signature of the Director of the Gestor Institute: Dr. Gábor Kovács

Date of registration:
2022.05.31.

OKB opinion:

Note from the Dean's Office:

Dean's signature:

[1] To be provided only if the subject is also published in the language concerned.
[2] (In case of a new subject, this cell is filled in by the Dean's Office, after approval)
[3] The topics for theoretical and practical lessons shall be given for each week, numbered separately, with the names of the lecturers and instructors, indicating guest lecturers as well. To be provided here, not attached separately.
[4] E.g. fieldwork, medical analysis, survey, etc.
[5] E.g. topics and dates of homework assignments, reports, tests, etc., options for supplementation and correction.
[6] For theoretical exams, please include the list of examination topics, for practical exams, the contents and method of the assessment.
[7] Weighing the theoretical and practical examination results. Weighing test results taken during the course.