University of Pécs
Medical School

GENERAL MEDICINE
Major

STUDY PROGRAM
2016/2017

Subjects of the
Clinical module
(obligatory subjects and
criterion requirements)
### UP MS General Medicine major – subjects of the Clinical module - Course descriptions – academic year of 2016/2017

#### 7th semester
- **OK-BOR** - Dermatology 3
- **OK-FUL** - Otolaryngology 1
- **OK-GT3** - Pharmacology 3 1
- **OK-HAE** - Internal Medicine: Haematology 1
- **OK-KBK** - Clinical Biochemistry 1
- **OK-KRA** - Clinical Radiology 1
- **OK-REP** - Public Health 5 (Detailed Epidemiology) 1
- **OAR-VTA** - Basics of Bloodtransfusion 1

#### 8th semester
- **OK-KAR** - Internal Medicine: Cardiology 1
- **OK-KIR** - Internal Medicine: Clinical Immunology - Rheumatology 1
- **OK-MUF** - Public Health 6 (Occupational Hygiene and Occupational Medicine) 1
- **OK-ONK** - Oncology 1
- **OK-ORM** - Oral Medicine 1
- **OK-ORT** - Orthopaedics 1
- **OK-ROL** - Urology 1
- **OK-SE1** - Surgery 1 1
- **OK-TRA** - Traumatology 1
- **OAR-SEB** - Summer Practice in Surgery 1

#### 9th semester
- **OK-DAN** - Internal Medicine: Diabetes - Angiology 1
- **OK-GAS** - Internal Medicine: Gastroenterology 1
- **OK-GY1** - Paediatrics 1 1
- **OK-IGU** - Forensic Medicine 1
- **OK-NE1** - Neurology 1 1
- **OK-PS1** - Psychiatry 1 1
- **OK-SE2** - Surgery 2 1
- **OK-ST1** - Obstetrics and Gynaecology 1 1
- **OK-SZE** - Ophthalmology 1

#### 10th semester
- **OK-AIT** - Anaesthesia and Intensive Care 1
- **OK-CSA** - Family Medicine 1
- **OK-EAB** - Internal Medicine: Endocrinology and Metabolic Diseases 1
- **OK-GY2** - Paediatrics 2 1
- **OK-INF** - Internal Medicine: Clinical Infectology 1
- **OK-NE2** - Neurology 2 1
- **OK-NHA** - Internal Medicine: Nephrology, Hypertension 1
- **OK-OGF** - Medical Genetics 1
- **OK-PS2** - Psychiatry 2 1
- **OK-PUA** - Internal Medicine: Pulmonology 1
- **OK-ST2** - Obstetrics and Gynaecology 2 4
OAK-BOR  Dermatology

Course director:  
DR. ROLLAND PÉTER GYULAI, professor
Department of Dermatology and Venereology

4  credit  •  semester exam  •  Clinical module  •  autumn semester  •  recommended semester: 7

Number of hours/semester:  
28 lectures + 28 practices + 0 seminars = total of 56 hours

Course headcount limitations (min.-max.):  
5 – 140

Prerequisites:  
OAAIMM completed + OAPBPR completed + OAPGT2 completed

Topic

Aim of the subject:
The purpose of the education in Dermatology is to get the students acquainted with the clinical and epidemic features of dermatological and venereal diseases in the general medical practice, moreover their pathomechanisms and therapeutic possibilities.
The students pick up a reliable and necessary knowledge on the treatment of the most common dermatological disorders throughout the patient examinations and interventions/procedures under the auspices of practical education.

Postulates:
Dermatology is taught for a semester in the 4th year at the Medical School. Two hours of theoretical and two hours of practical education are provided each week. Participation in the lectures is facultative. Participation in the practical education is obligatory. Maximum six hours of absence from the practical education are allowed to have the semester accepted by the Department of Dermatology.

Conditions for acceptance of the semester

Examination:
At the end of the semester of Dermatology education the students are obliged to take a semester examination. The examination is divided into two parts: patient examination and theoretical examination in the oral test.

Mid-term exams

Making up for missed classes

Attending the practices is obligatory. If someone misses a practice for any reason, he/she is asked to attend the practice in question given to another group.

Acceptance of the semester: if not more than 1/3 of the obligatory clinical practices is missed.

Reading material

-  Obligatory literature
-  Literature developed by the Department
-  Notes
-  Recommended literature


Lectures

1  Introduction. The anatomy and physiology of the skin.  
Dr. Gyulai Rolland Péter

2  Types of skin lesions.  
Dr. Gyulai Rolland Péter

3  Basic immune-pathologic reactions.  
Dr. Gyulai Rolland Péter

4  Allergic skin diseases and urticaria.  
Dr. Gyulai Rolland Péter

5  Vasculitis and purpura.  
Dr. Kinyó Ágnes

6  Drug eruptions.  
Dr. Kinyó Ágnes

7  Dermatitis. Eczema.  
Dr. Kinyó Ágnes

8  Atopic dermatitis.  
Dr. Kinyó Ágnes
<table>
<thead>
<tr>
<th>Course</th>
<th>Topic</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Autoimmune skin disease I. LE, dermatomyositis, scleroderma.</td>
<td>Dr. Kinyó Ágnes</td>
</tr>
<tr>
<td>10</td>
<td>Autoimmune skin diseases II. Vesiculo-bullous autoimmune skin diseases.</td>
<td>Dr. Kinyó Ágnes</td>
</tr>
<tr>
<td>11</td>
<td>Sexually transmitted diseases I. Syphilis and gonorrhea</td>
<td>Dr. Gyulai Rolland Péter</td>
</tr>
<tr>
<td>12</td>
<td>Sexually transmitted diseases II. NGU, HPV and HIV</td>
<td>Dr. Gyulai Rolland Péter</td>
</tr>
<tr>
<td>13</td>
<td>Bacterial diseases and TBC</td>
<td>Dr. Szepes Éva</td>
</tr>
<tr>
<td>14</td>
<td>Fungal diseases with cutaneous involvement</td>
<td>Dr. Szepes Éva</td>
</tr>
<tr>
<td>15</td>
<td>Viral, parasitic and Borrelia diseases with cutaneous involvement</td>
<td>Dr. Gyulai Rolland Péter</td>
</tr>
<tr>
<td>16</td>
<td>Seborrhic dermatoses. Acne, rosacea, perioral dermatitis.</td>
<td>Dr. Gyulai Rolland Péter</td>
</tr>
<tr>
<td>17</td>
<td>Oncodermatology I. Disorders of the cutaneous melanocytes I. Benign tumors.</td>
<td>Dr. Lengyel Zsuzsanna</td>
</tr>
<tr>
<td>18</td>
<td>Oncodermatology I. Disorders of the cutaneous melanocytes II. Malignant melanoma.</td>
<td>Dr. Lengyel Zsuzsanna</td>
</tr>
<tr>
<td>19</td>
<td>Basal cell carcinoma, squamous cell carcinoma.</td>
<td>Dr. Lengyel Zsuzsanna</td>
</tr>
<tr>
<td>20</td>
<td>Paraneoplastic skin lesions. Epithelial precancerous lesions, in situ carcinomas</td>
<td>Dr. Lengyel Zsuzsanna</td>
</tr>
<tr>
<td>21</td>
<td>Psoriasis and other papulosquamous diseases.</td>
<td>Dr. Gyulai Rolland Péter</td>
</tr>
<tr>
<td>22</td>
<td>Photodermatoses and phototherapy.</td>
<td>Dr. Gyulai Rolland Péter</td>
</tr>
<tr>
<td>23</td>
<td>Cutaneous T cell lymphomas, Kaposi sarcoma.</td>
<td>Dr. Gyulai Rolland Péter</td>
</tr>
<tr>
<td>24</td>
<td>Disorders of mucocutaneous integument. Disorders of the hair and nails</td>
<td>Dr. Moezzi Mehdi</td>
</tr>
<tr>
<td>25</td>
<td>Leg ulcer.</td>
<td>Dr. Kádár Zsolt</td>
</tr>
<tr>
<td>26</td>
<td>Skin surgery. Thermally injured skin.</td>
<td>Dr. Kádár Zsolt</td>
</tr>
<tr>
<td>27</td>
<td>The skin in systemic diseases. Diabetes, PCT.</td>
<td>Dr. Lengyel Zsuzsanna</td>
</tr>
<tr>
<td>28</td>
<td>Topical therapy in dermatology</td>
<td>Dr. Lengyel Zsuzsanna</td>
</tr>
</tbody>
</table>

**Practices**

<table>
<thead>
<tr>
<th>Practice</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Patient examination</td>
</tr>
<tr>
<td>2</td>
<td>Patient examination</td>
</tr>
<tr>
<td>3</td>
<td>Dermatological history</td>
</tr>
<tr>
<td>4</td>
<td>Dermatological history</td>
</tr>
<tr>
<td>5</td>
<td>Bacterial skin infection</td>
</tr>
<tr>
<td>6</td>
<td>Bacterial skin infection</td>
</tr>
<tr>
<td>7</td>
<td>Viral skin infection</td>
</tr>
<tr>
<td>8</td>
<td>Viral skin infection</td>
</tr>
<tr>
<td>9</td>
<td>Fungal skin infection</td>
</tr>
<tr>
<td>10</td>
<td>Fungal skin infection</td>
</tr>
<tr>
<td>11</td>
<td>Examination of STD patient</td>
</tr>
<tr>
<td>12</td>
<td>Examination of STD patient</td>
</tr>
<tr>
<td>13</td>
<td>Tests in allergic disorders</td>
</tr>
<tr>
<td>14</td>
<td>Tests in allergic disorders</td>
</tr>
<tr>
<td>15</td>
<td>Investigations in auto-immune diseases</td>
</tr>
<tr>
<td>16</td>
<td>Examinations of skin ageing</td>
</tr>
<tr>
<td>17</td>
<td>Examinations of skin ageing</td>
</tr>
</tbody>
</table>
18 Sampling in fungal infections
19 Drug eruptions treatment
20 Psoriasis and it`s variant
21 Phototherapy
22 Venous leg ulcers
23 Venous leg ulcers
24 Topical skin therapy
25 Topical skin therapy
26 Essential systemic therapy in dermatology
27 Essential systemic therapy in dermatology
28 Care of atopic patients

Seminars

Exam topics/questions

A. Basic topics

1. Psoriasis
2. Pyoderma
3. Basal cell carcinoma and squamous cell carcinoma
4. Atopic dermatitis
5. Leg ulcer
6. Skin diseases caused by human papilloma virus (HPV)
7. Herpes simplex virus (HSV) infections of the skin
8. Skin diseases caused by varicella zoster virus
9. Autoimmune bullous skin diseases
10. Lupus erythematosus and its variants
11. Scleroderma and its variants
12. Malignant melanoma
13. Fungal diseases of the skin and its appendages
14. Drug allergy
15. Urticaria
16. Scabies, pediculosis
17. Pigmented nevi
18. Vasculitides
19. Contact dermatitis
20. Pre-cancerous lesions and intraepidermal carcinoma
21. Cutaneous and mucosal manifestations and treatment of syphilis
22. Diagnosis and treatment of gonorrhoea
23. Acne and it`s treatment
24. Local therapy in dermatology

B. topics

1. The structure of the skin and its function
2. Alopecias
3. Dermatomyositis
4. Thermal (heat and cold) injury of the skin
5. Symptoms, diagnosis and treatment of non-gonorrhoeic urethritis
6. Clinical forms and treatment of Kaposi`s sarcoma
7. Lichen planus
8. Clinical outcome and symptoms of AIDS
9. Benign tumours of the skin
10. Paraneoplastic skin disorders
11. Rosacea, rhinophyma
12. Tuberculosis of the skin and its treatment
13. Photodermatoses and phototherapy
14. Lyme Borreliosis
15. Types of allergic skin reactions
16. Cutaneous manifestation of diabetes mellitus
17. Primary skin lesions, basics of dermatohistopathology
18. Secondary skin lesions, basics of dermatohistopathology
19. Cutaneous T-cell lymphomas

Participants
Dr. Gyulai Rolland Péter (GYRVAO.PTE), Dr. Kinyó Ágnes (KIAVACO.PTE), Dr. Lengyel Zsuzsanna (LEZFAAO.PTE), Dr. Moezzi Mehdi (MOMSAAP.PTE), Dr. Rózsa Annamária (ROAGAAO.PTE)
OAK-FUL  Otolaryngology

Course director: Dr. Imre Gerlinger, professor
Department of Oto-rhino-laryngology

3 credit • semester exam • Clinical module • autumn semester • recommended semester: 7

Number of hours/semester: 14 lectures + 28 practices + 0 seminars = total of 42 hours
Course headcount limitations (min.-max.): 1 –
Prerequisites: OAP-Pa2 completed

Topic

Short description of the course: Selections from the fundamental parts of the ORL
The main educational task of the subject: Learning the basics of ORL.

Conditions for acceptance of the semester

Acceptance of the semester: Participation in the lectures and practices. Missing of two lectures accepted.

Mid-term exams

There is no possibility

Making up for missed classes

There is no possibility.

Reading material

- Obligatory literature
- Literature developed by the Department
- Notes
- Recommended literature

Readings: Karmody: Otorhinolaryngology

Lectures

1  Introduction into Otolaryngology
   Dr. Gerlinger Imre
2  Anatomy of the ear, physiology of hearing
   Dr. Pytel József
3  Objective and subjective audometry
   Dr. Pytel József
4  Diseases of the external ear and tympanic membrane
   Dr. Gerlinger Imre
5  Acute serousus /suppurative otitis media
   Dr. Gerlinger Imre
6  Otitis media suppurativa chronica and complications
   Dr. Lujber László
7  Acute and chronic infections of the nose and paranasal sinuses
   Dr. Gerlinger Imre
8  Tinnitus, vertigo
   Dr. Gerlinger Imre
9  Tumors of the the paranasal sinuses
   Dr. Gerlinger Imre
10 Diseases of the salivary glands, Facial nerve palsy.
    Dr. Lujber László
11 Diseases of the oral cavity (benign and malignant)
    Dr. Szanyi István
12 Benign tumors of the larynx. TOP TEN ENT.
    Dr. Gerlinger Imre
13 Malignant tumors of the larynx and hypopharynx. Malignant oropharyngeal tumors.
    Dr. Szanyi István
14 Answers, questions (date and location discussed later)
    Dr. Gerlinger Imre
Practices

1. Examine the patient’s ear
2. Examine the patient’s nose and nasal cavities /anterior rhinoscopy/
3. Examine the patient’s oral cavity
4. Examine the patient’s larynx and hypopharynx /indirect laryngoscopy/
5. Examine the patient’s nasopharynx /posterior rhinoscopy/
7. Tests of the patient’s vestibular system /spontaneous nystagmus Romberg test, past-pointing, walking/
8. Tests of the patient’s neck
9. Tests of the patient’s function of the facial nerve
10. Tests of the patient’s signs of meningitis
11. Tests of the patient’s Eustachian tube function
12. Caloric test
13. Control of epistaxis
14. Myringotomy
15. Feeding by nasogastric tube
16. Tracheal tubes
17. X-ray films
18. Hearing aids
19. Antral lavage
20. Draining of a peritonsillar abscess
21. Irrigation of external ear canal, removal of foreign bodies from the external ear canal and nose
22. Pure tone audiometry
23. Speech audiometry
24. Otoacoustic emissions
25. Brainstem evoked response audiometry
26. CT, MR, US demonstration
27. Repetition
28. Repetition

Seminars

Exam topics/questions

Requirements of the final examination

I. Physical examination by head-mirror /headlight/
   Examine the patient
   1. ear
   2. nose and nasal cavities /anterior rhinoscopy/
   3. oral cavity
   4. larynx and hypopharynx /indirect laryngoscopy/
   5. nasopharynx /posterior rhinoscopy/

II. A. Clinical tests
   6 different examinations:
   Weber and Rinne test
   Spontaneous vestibular signs
   Examinations of the neck (lymph nodes, thyreoid gland)
   Examinations of the nervus facialis functions
   Examinations of the meningeal signs

II. B. Demonstrate how to use the instruments of
   1. control of epistaxis
      - anterior nasal packing
      - posterior nasal packing
   2. myringotomy, grommet
   3. feeding by nasogastric tube
   4. tracheal tubes
   5. antral lavage
   6. draining of a peritonsillar abscess
7. irrigation of external ear canal
8. removal of foreign bodies from the external ear canal and nose
9. topical anaesthesia of the nasal and oro-pharyngeal mucosa
11. pure tone audiometry, speech audiometry, BERA
12. hearing aids
13. humidifying bandage

III. Theoretical questions
1. Pure tone audiometry, speech audiometry
2. Otoacoustic emissions, brainstem evoked response audiometry
3. Diseases of the pinna and the external ear canal
4. Diseases of the tympanic membrane, tumours of the external ear (benign, malignant tumours)
5. Serous otitis media (acute, chronic)
6. Suppurative otitis media (acute, chronic)
7. Complications of suppurative otitis media
8. Idiopathic facial nerve palsy, Bell palsy
9. Disorders of the inner ear, congenital malformations, hereditary deafness
10. Trauma of the temporal bone (longitudinal, transverse fractures)
11. Otosclerosis, tympanosclerosis
12. Fluid systems of the labyrinth, Ménière’s disease, toxic lesions of the inner ear
13. Acoustic tumours, noise induced hearing losses
14. Tinnitus
15. Cochlear implantation
16. Sleep apnea
17. Benign/malignant tumours of the paranasal sinuses
18. Obstruction of the nasal airway, rhinitis (forms of rhinitis, except allergic rhinitis)
19. Allergic rhinitis
20. Fractures of the paranasal sinuses. Fronto-basal, maxillo-facial, blow-out fractures, Le Fort fractures
21. Acute and chronic rhinosinusitis
22. Tumours of the salivary glands (benign and malignant)
23. Differential diagnosis of the neck masses (neck regions I-VII, origin of metastases)
24. Infectious diseases of the oral cavity and the pharynx (peritonsillar abscess)
25. Precancerous disorders in the oral cavity, pharynx, larynx and esophagus
26. Malignant tumours in the oral cavity and pharynx (+ nasopharyngeal tumours)
27. Clinical symptoms and signs of benign and malignant diseases of the larynx, hypopharynx and base of the tongue
28. Acute and chronic infections of the larynx, acute epiglottitis, phlegmonous epiglottitis, abscess of the epiglottis
29. Benign tumours of the larynx.
30. Laryngeal cancer (supraglottic, glottic, subglottic), TNM stage
31. Congenital malformations of the neck, benign tumours of the neck
32. Thyroiditis, malignant tumours of the thyroid gland
33. Clinical signs of obstructions of the upper airways (upper airway stenosis), conicotomy, tracheotomy
34. Foreign bodies in the bronchial system, foreign bodies of the esophagus
35. Tumours of the esophagus, dysphagia
36. Vertigo in otolaryngological practice

Participants
Dr. Burián András (BUIAAO.PTE), Dr. Gerlinger Imre (GEIOAAK.PTE), Dr. Lujber László (LULPAAP.PTE), Dr. Németh Adrienne (NEASAAP.PTE), Dr. Piski Zalán Szabolcs (PIZIAAO.PTE), Dr. Pytel József (PYJGAAO.PTE), Dr. Szanyi István (SZIFABO.PTE)
OAK-GT3  Pharmacology 3

Course director: DR. ERIKA PINTÉR, professor
Department of Pharmacology and Pharmacotherapy

3 credit • final exam • Clinical module • autumn semester • recommended semester: 7

Number of hours/semester: 14 lectures + 0 practices + 28 seminars = total of 42 hours

Course headcount limitations (min.-max.): 5 –
Prerequisites: OAP-GT2 completed + OAP-MI2 completed

Topic

The general aim of the subject is to provide the medical students with all the basic information in pharmacology necessary to understand the actions of drugs and the clinical pharmacotherapy and to pass the Foreign Medical Graduate Examination in Medical Sciences. Pharmacology can be defined as the study of the manner in which the function of living systems is affected by chemical agents. Therefore, the students should be familiar with the basic knowledge of the physiological, pathophysiological and biochemical background of the pharmacological and therapeutic approaches. On the other hand, drug therapy is closely related to the clinical aspects of diseases.


Conditions for acceptance of the semester

Maximum of 25 % absence allowed

Mid-term exams

Making up for missed classes

Each missed seminar has to be made up for with another group in the same week.

Reading material

- Obligatory literature

- Literature developed by the Department

  Materials related to the topics discussed in lectures and seminars will be available in Neptun.

- Notes

- Recommended literature


Lectures

1  Corticosteroids I
   Tamásikné Dr. Helyes Zsuzsanna

2  Corticosteroids II
   Tamásikné Dr. Helyes Zsuzsanna

3  Oestrogens, antioestrogens, progestins and antiprogestins
   Dr. Pethő Gábor

4  Postmenopausal hormone therapy and hormonal contraceptives
   Dr. Pethő Gábor

5  Androgens, anabolic steroids and antiandrogens
   Dr. Pethő Gábor

6  Thyroid hormones, antithyroid drugs
   Tamásikné Dr. Helyes Zsuzsanna

7  Hypothalamic and pituitary hormones I
   Dr. Gregus Zoltán

8  Hypothalamic and pituitary hormones II
   Dr. Gregus Zoltán

9  Insulin, insulin analogs
   Sánticsné Dr. Pintér Erika

10 Oral hypoglycaemic agents. Glucagon
    Sánticsné Dr. Pintér Erika
11 Parathyroid hormone, calcitonin, vitamin D and drug treatment of osteoporosis I  
   Tamasikné Dr. Helyes Zsuzsanna  
12 Parathyroid hormone, calcitonin, vitamin D and drug treatment of osteoporosis II  
   Tamasikné Dr. Helyes Zsuzsanna  
13 Drug interactions  
   Dr. Pethő Gábor  
14 Future perspectives of pharmacology  
   Sánticsné Dr. Pintér Erika

**Practices**

**Seminars**

1. Basic principles of chemotherapy  
2. Sulfonamides and trimethoprim. Fluoroquinolones  
3. Antibiotics impairing bacterial cell envelope function: penicillins, cephalosporins  
4. Antibiotics impairing bacterial cell envelope function: carbapenems, monobactams, lactamase inhibitors  
5. Antibiotics impairing bacterial cell envelope function: glycopeptides, lipopeptides, polymixins, gramicidins  
6. Nitroimidazole drugs  
7. Antibiotics inhibiting protein synthesis: clindamycin, chloramphenicol, macrolides  
8. Antibiotics inhibiting protein synthesis: aminoglycosides, tetracyclines  
9. Antibiotics inhibiting protein synthesis: spectinomycin, linezolid, streptogramins  
10. Antituberculotic drugs I  
11. Antituberculotic drugs II  
12. Treatment of leprosy; anthelminthic agents  
13. Antiviral drugs I  
14. Antiviral drugs II  
15. Antiviral drugs III  
16. Antifungal drugs  
17. Antiprotozoal drugs I  
18. Antiprotozoal drugs II  
19. Antiseptics and disinfectants I  
20. Antiseptics and disinfectants II  
21. Cytotoxic/embryotoxic effects of drugs  
22. Drug allergy  
23. Pharmacogenetics, pharmacogenomics  
24. Effects of age, diet and disease on drug action  
25. Toxicology: management of the poisoned patient I  
26. Toxicology: management of the poisoned patient II  
27. Toxicology: drug intoxications I  
28. Toxicology: drug intoxications II

**Exam topics/questions**

1. Definition of pharmacology and the related subjects. Drug development  
2. Drug names, drug compendia. Prescription writing  
3. Drug formulations  
4. Basic mechanisms of drug actions (examples of drug effects on receptors, ion channels, enzymes, carrier systems and effects mediated by physicochemical interactions)  
5. Characterisation of agonist-receptor interaction: occupancy, affinity, dose-response curve, potency, efficacy  
6. Significance of signal transduction mechanisms in the effects of drugs. Tachyphylaxis and tolerance to drugs  
7. Mechanisms of drug antagonisms  
8. Transport of drugs across membranes  
9. Absorption of drugs, oral bioavailability and presystemic elimination  
10. Plasma protein binding and tissue distribution of drugs  
11. Biotransformation of drugs  
12. Excretion of drugs  
13. Pharmacokinetics: zero and first order elimination, volume of distribution, clearance, elimination half-life, oral bioavailability, calculation of loading and maintenance doses  
14. Cholinergic agonists and cholinesterase inhibitors  
15. Muscarinic receptor antagonists  
16. Neuromuscular blocking agents
17. Agents acting on the biosynthesis, storage, release and elimination of catecholamines
18. Adrenergic receptor agonists
19. Adrenergic receptor antagonists
20. Local anaesthetics
21. Histamine, antihistaminic drugs
22. Pharmacology of eicosanoids. Drugs acting on smooth muscle
23. Pharmacology of protein and peptide mediators, the purinergic system and nitric oxide
24. Drugs used to treat bronchial asthma
25. Drug treatment of allergic rhinitis, antitussives, expectorants and mucolytics
26. Calcium channel blockers
27. Drugs acting on the renin-angiotensin-aldosterone system
28. Diuretic drugs
29. Drugs used to treat congestive heart failure
30. Antiinflammatory drugs. Drugs that increase regional blood flow
31. Antihypertensive drugs
32. Antiarrhythmic drugs
33. Drugs used to treat hyperlipoproteinaemias
34. Anticoagulants, antiplatelet drugs
35. Fibrinolytics, antifibrinolytics, haemostatic agents
36. Drugs affecting haematopoiesis
37. Drug treatment of obesity
38. Antineoplastic drugs: alkylating agents, antimetabolites, microtubule-damaging drugs, topoisomerase inhibitors
39. Antineoplastic drugs: hormonal agents, agents inducing differentiation, cytokines, tyrosine kinase inhibitors, monoclonal antibodies
40. Immunosuppressants, immunomodulators, treatment of rheumatoid arthritis
41. Antianxiety and hypnotic drugs
42. Alcohols: pharmacology, toxicology
43. Antipsychotic drugs
44. General anaesthetics
45. Psychomotor stimulants and nootropic agents
46. Antiepileptic drugs
47. Drug treatment of neurodegenerative disorders
48. Drug abuse and dependence: general principles, opioids, anti-anxiety and hypnotic drugs, inhalants, ethanol
49. Drug abuse and dependence: psychomotor stimulants, psychedelics, cannabis
50. Opioid analgesic drugs: morphine and codeine
51. Opioid analgesic drugs: semisynthetic, synthetic opioids, opioid antagonists
52. Non-steroidal antiinflammatory drugs: aspirin, paracetamol
53. Non-steroidal antiinflammatory drugs: drugs other than aspirin or paracetamol
54. Adjuvant analgesics. Drugs used to treat gout. Centrally-acting muscle relaxants
55. Drugs used in the treatment of peptic ulcer
56. Laxatives, anti diarrhoeal agents, drug treatment of inflammatory bowel disease and paralytic ileus, digestive, drugs used in cholelithiasis
57. Serotonin, serotonin receptor agonists and antagonists
58. Hypothalamic and pituitary hormones
59. Corticosteroids
60. Oestrogens, antioestrogens, progestins, antiprogestins
61. Postmenopausal hormone therapy and hormonal contraceptives
62. Androgens, anabolic steroids, antiandrogens
63. Thyroid hormones, antithyroid drugs
64. Insulin and oral hypoglycaemic agents. Glucagon
65. Parathyroid hormone, calcitonin and vitamin D, drugs used to treat osteoporosis
66. Sulphonamides and trimethoprim. Fluoroquinolones
67. Penicillins, cefalosporins
68. Carbapenems, monobactams, lactamase inhibitors
69. Glycopeptide antibiotics, polymixins, gramicidins, nitroimidazoles
70. Tetracyclines, aminoglycosides
71. Clindamycin, macrolide antibiotics, chloramphenicol, linezolid, streptogramins
72. Antituberculosis drugs. Anti-leprosy drugs
75. Antifungal drugs
76. Antiviral drugs
77. Antiprotozoal drugs
78. Anthelminthic drugs
79. Antiseptics and disinfectants
80. Cytotoxic/embryotoxic effects of drugs. Drug allergy
81. Pharmacogenetics, pharmacogenomics. Effects of age, diet and disease on drug action
82. Drug interactions
83. The treatment of the intoxicated patient: decontamination, facilitation of toxicant elimination, antidote administration, supportive treatment
84. Drug intoxications: mechanisms, symptoms, treatment
85. Future perspectives of pharmacology

Upon the oral exam, 3 exam topics are chosen. In addition to these exam topics, important parts of the exam are the questions that aim at assessing the general knowledge of the student. Bad performance in this part of the exam may lead to failure regardless of the answers to exam topics.

Participants
Dr. Gregus Zoltán (GRZMAAO.PTE), Dr. Németi Balázs Ferenc (NEBMAAO.PTE), Dr. Pethő Gábor (PEGGAO.PTE), Dr. Pozsgai Gábor (POGFAAO.PTE), Sánticsné Dr. Pintér Erika (PIEMAAO.PTE), Tamasikné Dr. Helyes Zsuzsanna (HEZFAAO.PTE)
OAK-HAE  INTERNAL MEDICINE: HAEamatology

Course director: DR. HUSSAIN ALIZADEH, assistant professor
1st Department of Internal Medicine

| 3 credit | semester exam | Clinical module | autumn semester | recommended semester: 7
---|---|---|---|---
Number of hours/semester: 14 lectures + 28 practices + 0 seminars = total of 42 hours
Course headcount limitations (min.-max.): 1 – 100
Prerequisites: OAP-BPR completed + OAP-KO2 completed + OAP-GT2 completed

**Topic**

Short description of the course: The course involves two topics, Haematology (Benign & Malignant disorders) and Haemostasis. Haematology will be lectured in 1 hour/week through 10 weeks. Etiology, pathophysiology, genetic background of malignant haematological diseases, clinical symptoms, physical disturbances, diagnostic procedures will be highlighted. Detailed therapeutic possibilities will also be discussed. Haemostasis education will be given for 4 weeks, involving thromboembolic and bleeding disorders with their therapies. Each lecture will be completed by 2 hours practice. The topic of the practices will be adjusted to the lecture of the week.

The main educational task of the subject: In Haematology the recognition of the most important entities of benign and malignant haematological disorders will be emphasized. The competence level at the different working places, according to the nature and severity of the disease as well as therapeutic intervention must be recognized and on the basis of that knowledge capability to send patient to the most appropriate hospital has to be reached. In Haemostasis the students have to recognize inherited and acquired thrombophilias, bleeding tendencies on the basis of symptoms and the laboratory results. Therapeutic strategies of prevention and therapy will be discussed.

**Conditions for acceptance of the semester**

Acceptance of the semester: maximum 15% absences from the practices are allowed.

**Mid-term exams**

**Making up for missed classes**

**Reading material**

- **Obligatory literature**
- Literature developed by the Department
  Lectures is available online.
- **Notes**
- **Recommended literature**
  R. Hoffman (ed.): Hematology, Churchill- Livingstone 2005

**Lectures**

   Dr. Vereczkei Lajosné (Dr. Losonczy Hajna)
2. Iron deficiency, and megaloblastic anaemias
   Dr. Egyed Miklós
3. Inherited and acquired haemolytic anaemias
   Dr. Nagy Ágnes
4. Immune thrombocytopenia (ITP), microangiopathic haemolytic anaemias (TTP, HUS)
   Dr. Alizadeh Hussain
5. Aplastic anaemia. Allogeneic stem cell transplantation
   Dr. Szomor Árpád
6. Autologous stem cell transplantation
   Dr. Szomor Árpád
7. Acute leukaemias, Myelodysplastic syndrome
   Dr. Csalódi Renáta
8. CLL and low-grade non-Hodgkin’s lymphomas
   Dr. Vereczkei Lajosné (Dr. Losonczy Hajna)
9. Hodgkin and non-Hodgkin malignant lymphomas
   Dr. Szomor Árpád
10. Monoclonal gammapathies. Multiple myeloma. Chronic lymphocytic leukaemia
   Dr. Kosztolányi Szabolcs
11 Chronic myeloproliferative diseases (PV, CML, OMF, ET)  
  Dr. Alizadeh Hussain
12 Haemostasis, Inherited and acquired thrombophilia, venous and arterial thromboembolic disorders  
  Dr. Nagy Ágnes
13 Prevention and therapy of thromboembolic diseases. DIC, HIT Fibrinolytic and antiplatelet therapies  
  Dr. Nagy Ágnes
14 Bleeding disorders (inherited and acquired)  
  Dr. Nagy Ágnes

Practices
1 Physical examination and characteristic alterations in hematologic patient.
2 Normal blood counts, peripheral blood smear, and bone marrow slide viewing
3 Examination of patients with iron deficiency and megaloblastic anaemia.
4 Peripheral blood smears of patients with microcytic and macrocytic anaemia.
5 Haemolytic anaemia, inherited and acquired.
6 Evaluation and discussion of laboratory results.
7 ITP’ clinical features, diagnosis and therapeutical options
8 Thrombotic microangiopathies: TTP, HUS
9 Diagnostic procedure and treatment of acute myelocytic leukaemias, peripheral blood smears.
10 Diagnostic procedure and treatment of acute lymphocytic leukaemias, peripheral blood smears.
11 Myelodysplastic syndrome, classification, treatment.
12 Diagnosis and treatment of chronic myelocytic leukaemia, peripheral blood smears.
13 Diagnosis and treatment of chronic lymphocytic leukaemia, peripheral blood smears.
14 Hodgkin’s disease - clinical symptoms, staging and therapy
15 Multiple myeloma and other plasma cell dyscrasias
16 The practice of autologous stem cell transplantation.
17 Visit to the haemapheresis laboratory (stem cell collection, and freezing). The transplantation unit.
18 Non-Hodgkin’s lymphomas - clinical symptoms, staging and therapy
19 Haemostasis, platelets, fibrinolysis and evaluation of laboratory tests.
20 Diffuse intravascular coagulation
21 The bleeding patient - inherited and acquired bleeding disorders
22 Evaluation of the blood coagulation tests.
23 Thrombophilia.
24 Anticoagulant prophylaxis and treatment of venous thromboembolism.
25 Heparin induced thrombocytopenia.
26 Control of anticoagulant treatment
27 Fibrinolytic treatment.
28 Antiplatelet therapies

Seminars
Exam topics/questions
1. Haematopoiesis
2. Iron deficiency anaemia
3. Pernicious anaemia
4. Haemolytic anaemias (inherited and acquired)
5. Microangiopathic haemolytic anaemias (TTP, HUS)
6. Osteomyelofibrosis
7. Polycythaemia vera
8. Essential thrombocythaemia
9. Acute leukaemias
10. Chronic myelogenous leukaemia
11. Myelodysplastic syndrome
12. Bone marrow failure syndromes including aplastic anaemia
13. Aggressive non-Hodgkin’s lymphomas
15. Chronic lymphocytic leukaemia
16. Hodgkin’s lymphoma
17. Plasma cell dyscrasias
18. Haematopoietic growth factors and their role in the therapy
19. Platelet disorders
20. Coagulopathies (inherited and acquired bleeding disorders)
21. Therapy of different haemorrhagic diatheses
22. Inherited and acquired thrombophilias
23. Prevention of venous thromboembolic diseases in internal medicine
24. Prevention of arterial thrombosis
25. Anticoagulant therapy
26. Diseases of the spleen
27. Haematopoietic Stem Cell Transplantation

Participants

Dr. Alizadeh Hussain (ALHWAAP.PTE), Dr. Csalódi Renáta (CSRSAAO.PTE), Dr. Kosztolányi Szabolcs (KOSFABO.PTE), Dr. Nagy Ágnes (NAAMAAO.PTE), Dr. Szomor Árpád (SZAMACO.PTE), Dr. Vereczkei Lajosné (Dr. Losonczy Hajna) (LOHGAAO.PTE)
OAK-KBK  

**CLINICAL BIOCHEMISTRY**

Course director: Dr. Attila Miseta, professor
Institute of Laboratory Medicine

2 credit • semester exam • Clinical module • autumn semester • recommended semester: 7

Number of hours/semester: 14 lectures + 14 practices + 0 seminars = total of 28 hours

Course headcount limitations (min.-max.): 5 – 100

Prerequisites: OAA-BK2 completed + OAP-PA2 completed

---

**Topic**

The aim of clinical biochemistry is to improve the ability of medical students to integrate information provided by the clinical laboratory with other clinical diagnostic disciplines and thus, to form an accurate diagnosis. We will give you a guideline how to request and interpret laboratory tests to diagnose, evaluate the prognosis and monitor the therapy of the patients. The subject „Clinical Biochemistry“ requires your existing knowledge in biochemistry and pathology. We will teach you how to select from a variety of laboratory parameters, provide you with a strategy on how and when to order these tests, and help you to develop a molecular approach to medicine. Clinical biochemistry includes classic subfields such as clinical chemistry, hematology, hemostaseology, immunology, however the lectures and seminars will emphasize that instead of sub-categories it is more important to treat patients and their diseases with the educated use of the complete arsenal of the clinical laboratory.

---

**Conditions for acceptance of the semester**

Attending the lectures and practices is obligatory. Absences up to 25% are accepted.

**Mid-term exams**

Making up for missed classes

Attending the practices is obligatory. If someone misses a practice for any reason, he/she is asked to attend the practice in question given to another group.

**Reading material**

- Obligatory literature
- Literature developed by the Department
- Notes
- Recommended literature
  
  
  

**Lectures**

1. Role of clinical laboratory in the current healthcare system. Informative value of laboratory tests
   Dr. Miseta Attila

2. Disorders of water, Na+ and K+ balance
   Dr. Köszegi Tamás Antal

3. Acid/base balance.
   Dr. Miseta Attila

4. Iron, porphyrin and hemoglobin metabolism.
   Dr. Kellermayer Miklós

   Dr. Nagy Tamás II

6. Diseases of the liver, pancreas and the gastrointestinal tract.
   Dr. Miseta Attila

7. Disorders of the carbohydrate metabolism.
   Dr. Kovács Gábor László

8. Lipid metabolism, lipid disorders and laboratory diagnostics.
   Dr. Kovács Gábor László

9. Laboratory diagnostics of the heart and striated muscle diseases.
   Dr. Miseta Attila

10. Renal diseases.
    Dr. Czéh Boldizsár

11. Disorders of calcium and magnesium metabolism, laboratory diagnostics of bone and joint diseases.
    Dr. Köszegi Tamás Antal
12 Toxicology and therapeutic drug monitoring.  
Vassné Lakatos Ágnes

13 Tumors and tumor markers.  
Dr. Miseta Attila

14 Evaluation of laboratory results concerning nutrition and lifestyle. Age-related considerations: interpretation of lab tests of infants, children and elderly people.  
Dr. Lányi Éva

Practices
1 General introduction to the use of clinical laboratory tests - Patient preparation, sampling and sample handling.
2 Requesting a lab test - The informational value of the test results.
3 Laboratory monitoring of blood coagulation.
4 Hematology - Laboratory tests involved in red blood cell quantification - various types of anemia
5 Hematology - Laboratory tests in the diagnosis and monitoring of inflammatory and malignant blood disorders.
6 Analysis of immunoglobulins, electrophoresis, immunofixation.
7 Analysis of the soluble components of blood - Electrolytes, metals, trace elements.
8 Analysis of the soluble components of blood - lipids, metabolites, bilirubin, uric acid.
9 Laboratory analysis of the endocrine systems: thyroid, parathyroid and adrenal glands.
10 Laboratory analysis of the endocrine systems: hypophysis and sex hormones.
11 Urinalysis - Bedside and chemical (quantitative) urine tests and their interpretation.
12 Basic bedside laboratory tests (POCT).
13 Molecular biological assays in the clinical laboratory.
14 Laboratory tests of liquor and other body fluids.

Seminars
Exam topics/questions
Questions for the oral examination
1. Purpose of laboratory test requests (screening, diagnosis, differential-diagnosis, validation, monitoring).
2. Factors influencing laboratory test results. Alterations due to errors in sample collection, sample preparation and application of different analytical methodologies. The effect of individual biological variations on the test results. Patient preparation before sampling.
3. Proper method to carry out blood collection (venous, capillary) and urine collection. Type of tubes, rules to obey during sample collection. Sampling errors; recognition and troubleshooting.
4. Reference values and ranges, specificity, sensitivity and predictive value of laboratory tests.
5. Interpretation of laboratory results (results influencing the therapy, differential-diagnosis, ordering additional, confirmatory or repeated tests, panic values).
6. Broad-spectrum analysis of proteins in the plasma (total protein levels, electrophoresis).
7. Disorders of water and sodium homeostasis.
10. Disorders of immunoglobulins and paraproteins.
11. Laboratory analysis of plasma proteins.
12. Blood coagulation: cellular components (platelets, endothelial cells) and their laboratory analysis.
14. Laboratory diagnostic approaches in anemias.
15. Hemoglobinopathies: Disorders in porphyrin metabolism.
16. Disorders of hemoglobin and iron metabolism. Laboratory approaches.
17. Diagnostic value of complete blood count in acute inflammation.
18. Laboratory diagnosis of malignant hematologic disorders; complete blood count and flow cytometry
20. Laboratory monitoring of the therapy of acute myocardial infarction (reperfusion, fibrinolysis). Laboratory approaches in chronic heart failure (BNP, proBNP, electrolytes).
22. Laboratory diagnostics of the striated muscle diseases.
23. Lipids and lipoproteins in the blood plasma.
24. Laboratory tests that predict hepatic disorders.
25. Laboratory diagnostics of alcoholic liver damage. Laboratory tests to assess liver cirrhosis.
27. Diagnostic value of testing acute phase proteins, diagnosis and monitoring of sepsis.
28. Laboratory diagnosis of acute and chronic pancreatitis.
29. Diagnostic criteria of diabetes mellitus (WHO criteria)
30. Laboratory monitoring of patients with diabetic history.
31. Clinical biochemistry of hypoglycemia and hyperglycemia.
32. Clinical biochemistry of metabolic syndrome.
33. Laboratory diagnosis of acute renal diseases (salt and water balance, acid-base balance, urea, creatinine).
34. Laboratory diagnosis and monitoring of chronic renal diseases (GFR, clearance, creatinine, Ca and P, etc.).
35. Laboratory findings in proteinuria and hematuria.
36. Laboratory tests of liquor and other body fluids.
37. Laboratory findings in metabolic type changes of the acid/base balance.
38. Laboratory findings in respiratory type changes of the acid/base balance.
39. Laboratory approaches for the detection of disorders in calcium, magnesium and phosphate homeostasis.
40. Clinical biochemistry of osteoporosis. Laboratory tests to assess joint and bone disorders.
41. Laboratory assessment of thyroid function.
42. Pre-analytical considerations of hormone tests.
43. Clinical biochemistry of hypothalamus, hypophysis (endocrine regulation).
44. Clinical biochemistry of the disorders of adrenal medulla/cortex.
45. Clinical biochemistry of the disorders of the human reproductive system.
46. Laboratory assessment of increased serum uric acid levels (causes, metabolism, consequences)
47. The most important non-specific laboratory tests that suggest the presence of malignant diseases (sedimentation rate, metabolites, enzyme activities, etc.).
48. Tumor markers and their informational value in the clinical laboratory practice.
49. Therapeutic drug monitoring (TDM).
51. Toxicology tests in the clinical laboratory.
52. Bedside/point of care tests (POCT) and their informational value.
53. Molecular biology applications in the practice of clinical laboratories (implications, advantages, methods).
54. Evaluation of laboratory results concerning nutrition and lifestyle. (Assessing nutritional state. Laboratory parameters influenced by physical exercise / sedentary lifestyle. Effect of smoking, alcohol consumption in lab results)
55. Interpretation of lab tests of the very young and the very old (Challenges in sample collection. Age-dependent reference ranges. Screening tests for various age-groups)

Participants
Dr. Kellermayer Miklós (KEMGAAO.PTE), Dr. Kiss Gabriella (KIGGAAO.PTE), Dr. Kőszegi Tamás Antal (KOTHAAE.PTE), Dr. Péterfalvi Ágnes (PEAFAFO.PTE)
OAK-KRA  CLINICAL RADIOLOGY

Course director:  
DR. PÉTER BOGNER, professor  
Department of Radiology

4 credit • semester exam • Clinical module • autumn semester • recommended semester: 7

Number of hours/semester:  
28 lectures + 28 practices + 0 seminars = total of 56 hours

Course headcount limitations (min.-max.):  
1 – 150  
Prerequisites: OAP-PA2 completed + OAP-SPR completed

Topic

The Medical Student Education Program of the Department of Radiology is active in the fourth year of the medical student curriculum, training not only future radiologists, but also future physicians of all specialties. We realize that most of our students will not be going into Radiology, but all of our students will be using radiology as a tool in the care of their patients. Our goal is to provide a firm grounding in the basic knowledge and skills of our field as well as instruction on how to interact with radiology and radiologists to get the most benefit for your patients. In addition, since nuclear medicine is not a part of the current medical student curriculum (only optional) the major features and application of nuclear medicine methods are integrated in the lectures and clinical practices.

Conditions for acceptance of the semester

The completion of Clinical Radiology course will be verified (and the index signed) in case of maximum two absences from clinical practices (4 hours). To recover the absences over the limit, the permission of clinical director is needed (e.g. in case of health problems that is legally documented).

The final exam starts with a written test, based on which we offer a grade for the student. If the test fails or the offered grade is not acceptable, an oral exam shall be taken.

Mid-term exams

Making up for missed classes

No possibility for the replacement.

Reading material

- Obligatory literature
- Literature developed by the Department
- Notes
- Recommended literature

In English:
Herring: Learning Radiology, Saunders, 2015
R. B. Gunderman: Essential Radiology, Thieme, 2006
G. M. Roberts, J. P. Hughes and M. D. Hourihan: Clinical Radiology for Medical Students

In Hungarian:
Fráter, Palkó, Makó, Kollár, Battyáni: Radiológia, Medicina, 2007
Recommended:

Lectures

1  Introduction, physics, radiation protection I.  
Dr. Bogner Péter

2  Introduction, physics, radiation protection II.  
Dr. Bogner Péter

3  X-ray devices, CT, nuclear medicine devices I.  
Dr. Bogner Péter

4  X-ray devices, CT, nuclear medicine devices II.  
Dr. Bogner Péter

5  Ultrasound  
Dr. Bogner Péter

6  MR  
Dr. Bogner Péter
Cardiovascular system I.
Dr. Várady Edit
Cardiovascular system II.
Dr. Várady Edit
Chest I.
Dr. Battyáni István
Chest II.
Dr. Battyáni István
Gastrointestinal system I.
Dr. Faluhelyi Nándor
Gastrointestinal system II.
Dr. Faluhelyi Nándor
Breast, female pelvis I.
Dr. Farkas Orsolya
Breast, female pelvis II.
Dr. Rostás Tamás
Head and neck I.
Dr. Rostás Tamás
Head and neck II.
Dr. Rostás Tamás
Musculoskeletal system I.
Dr. Giyab Omar
Musculoskeletal system II.
Dr. Giyab Omar
Neuroradiology I.
Dr. Rostás Tamás
Neuroradiology II.
Dr. Rostás Tamás
Urogenital system I.
Dr. Faluhelyi Nándor
Urogenital system II.
Dr. Faluhelyi Nándor
Pediatric radiology I.
Dr. Péleyné Dr. Mohay Gabriella
Pediatric radiology II.
Dr. Péleyné Dr. Mohay Gabriella
Vascular intervention: diagnostics and therapy I.
Dr. Battyáni István
Vascular intervention: diagnostics and therapy II.
Dr. Battyáni István
Non-vascular intervention: diagnostics and therapy I.
Dr. Battyáni István
Non-Vascular intervention: diagnostics and therapy II.
Dr. Battyáni István

Practices
1. Introduction to the diagnostic X-ray workplace, characteristics of a radiation hazardous workplace. Basics of radiation protection (protection equipment, distance, modification of the aperture diaphragm, time, etc).
7. Types of cardiomegaly, radiographic features. Examination of occlusion, stenosis, thrombosis with US/Doppler, CT, MRI.
8. Examinations and communication of the examinations to the patient.
9. Identification of the structures listed below on the PA and lateral radiograph: lobes and fissures, trachea, main bronchi, atria and ventricles, pulmonary arteries, aorta, structures of the mediastinum, diaphragm. Examinations and communication of the results to the patient.

10. Recognition of the position of the intrathoracic medical equipments (endotracheal tube, central venous pressure line, nasogastric tube, intercostal drain, pacemaker). Identification of pneumonia, emphysema, space occupying lesions of the lungs and mediastinum, pleural effusion on CT and X-ray images. Recognition of pneumothorax and tension pneumothorax on chest X-ray images.


12. Examinations and communication of the results to the patient.


14. Female pelvis: Recognition of anatomical structures on US, CT and MRI images. Examinations and communication of the results to the patient. Selection of the adequate imaging method in pregnant women.

15. Identification of anatomical structures on US, CT and MRI images.

16. Examinations and communication of the results to the patient.


18. Examinations and communication of the results to the patient.


20. Examinations and communication of the results to the patient.


22. Examinations and communication of the results to the patient.


24. Examinations and communication of the results to the patient, and to the parents.

25. Nuclear medicine practice I. Introduction to the main examinations in practice and in the basis of archive images.


Seminars

Exam topics/questions

Group A (General Radiology)


2. Main parts of the X-ray equipment.


9. Biological effects of radiation, stochastic and deterministic effects.


11. Combined imaging techniques, image fusion, diagnostic efficiency (PET, PET-CT, DSA-US, DSA-MRI, SPECT-CT)

Group B (Diagnostic radiology)

1. The diagnosis and diagnostic difficulties of severe pulmonary embolism.

2. Underlying reasons for abnormal hilar shadows, differential diagnosis, examining methods.


5. Pulmonary masses. Diagnostic strategy.

6. The role and application of high resolution CT (HRCT).


13. Diagnostic imaging and diseases of the aorta, the role of CT and MRI.
20. Diagnostic imaging of hepatobiliary system diseases. Imaging techniques, indications, information content.
21. Diagnostic imaging of the pancreas and the spleen. Imaging techniques, indications, information content.
22. Differential diagnosis of hepatic tumours.
24. Diagnostic imaging of renal masses, methods, diagnostic strategy.
27. Pathophysiology, diagnosis and treatment of atherosclerosis.
29. Diagnostic imaging of the venous system.
30. Diagnostic imaging of the lymphatic system. Indications, information content.
32. Diagnostic imaging of soft tissue diseases (musculoskeletal system).
33. X-ray imaging of the bones and joints. Basic pathological alterations.
35. Diagnostic imaging of benign and malignant bone tumours.
36. Diagnostic imaging of the breast (mammography, clinical mammography, ultrasound, galactography, pneumocystography).
38. Diagnostic imaging of acute cerebrovascular diseases.
39. Diagnostic imaging of central nervous system tumours and the spinal cord.

Group C (Interventional radiology)
1. Definition and techniques of interventional radiology.
4. Imaging guided biopsies.
5. Cyst puncture, drainage (biliary, renal, bladder etc.)
6. Tumour ablation techniques, indications.
7. Radiological interventions of liver tumours (selective cytostatic treatment, chemoembolization) Indication, technique, efficiency.
8. Radiological interventions in gynecological tumours.
12. Radiological interventions in the treatment of acute lower extremity ischemia.

Participants
Dr. Battyáni István (BAIHABO.PTE), Dr. Bódisné Dr. Zámbó Katalin (BOZMAAO.PTE), Dr. Farkas Orsolya (FAOFAAO.PTE), Dr. Giyab Omar (ABJHAAO.PTE), Dr. Rostás Tamás (ROTMAAO.PTE)
OAK-REP  
PUBLIC HEALTH 5 (DETAILED EPIDEMIOLOGY)  
Course director: DR. ISTVÁN KISS, professor  
Department of Public Health Medicine

1 credit • semester exam • Clinical module • autumn semester • recommended semester: 7

Number of hours/semester: 14 lectures + 0 practices + 0 seminars = total of 14 hours
Course headcount limitations (min.-max.): 1 –  
Prerequisites: OAP-NEO/OAP-NOT completed

 Topic

The aim of the subject is the introduction into the epidemiology of non-communicable diseases, focusing on the primary and secondary prevention possibilities.

 Conditions for acceptance of the semester

Mid-term exams
Making up for missed classes

Reading material
- Obligatory literature
- Literature developed by the Department
  Educational material uploaded on Neptun.
- Notes
- Recommended literature

 Lectures
1  Most important public health related problems of developed countries (mortality and morbidity trends, changes, risk factors)  
Dr. Kiss István
2  Epidemiology and prevention of cardiovascular diseases I. (Ischemic heart disease)  
Dr. Kiss István
3  Epidemiology and prevention of cardiovascular diseases II. (Cerebrovascular diseases, hypertension)  
Dr. Kiss István
4  Epidemiology and prevention of osteoporosis.  
Dr. Kiss István
5  Epidemiology and prevention of diabetes mellitus  
Dr. Patczaíné Dr. Gőcze Katalin Réka
6  Epidemiology and prevention of cancers I.  
Dr. Kiss István
7  Epidemiology and prevention of cancers II.  
Dr. Kiss István
8  Epidemiology and prevention of chronic obstructive pulmonary disease and hepatic cirrhosis  
Dr. Patczaíné Dr. Gőcze Katalin Réka
9  Epidemiology and prevention of asthma bronchiale and allergic rhinitis.  
Dr. Patczaíné Dr. Gőcze Katalin Réka
10  Epidemiology and prevention of non-communicable gastrointestinal diseases (ulcer, inflammatory bowel diseases)  
Dr. Patczaíné Dr. Gőcze Katalin Réka
11  Epidemiology and prevention of mental disorders (depression, anxiety, schizophrenia, Alzheimer disease)  
Dr. Kiss István
12  Epidemiology and prevention of suicide  
Dr. Kiss István
13  Epidemiology and prevention of addictions (alcohol, smoking, drug addiction)  
Dr. Horváth-Sarródi Andrea
14  Prevention of non-communicable diseases; compulsory and recommended screening methods  
Dr. Patczaíné Dr. Gőcze Katalin Réka
Public Health 5. (Detailed Epidemiology)
1. Importance of non-communicable diseases in developed countries (mortality, morbidity, trends)
2. Epidemiology of ischaemic heart disease
3. Main modifiable risk factors of coronary heart disease
4. Other modifiable risk factors of coronary heart disease
5. Risk factors of coronary heart disease (excluding main and other modifiable risk factors)
6. Epidemiology and prevention of cerebrovascular diseases
7. Epidemiology and prevention of hypertension
8. Cardiovascular diseases: risk assessment and prevention
9. Morbidity and mortality of malignant diseases
10. Role of infectious diseases in tumour development
11. Risk factors of malignant diseases
12. Screening of malignant diseases
13. Epidemiology and prevention of lung cancer
14. Epidemiology and prevention of colorectal cancer
15. Epidemiology and prevention of breast cancer
16. Epidemiology and prevention of prostate and cervix cancer
17. Epidemiology and prevention of liver-, pancreas- and gastric cancer
18. Epidemiology and prevention of head and neck cancers and skin cancers
19. Epidemiology and prevention of diabetes
20. Epidemiology and prevention of osteoporosis
21. Epidemiology and prevention of chronic obstructive pulmonary disease
22. Epidemiology and prevention of asthma
23. Epidemiology and prevention of allergic rhinitis
24. Epidemiology and prevention of hepatic cirrhosis
25. Epidemiology and prevention of ulcer disease
26. Epidemiology and prevention of inflammatory bowel diseases
27. Epidemiology and prevention of suicide
28. Epidemiology and prevention of depression and mood disorders
29. Epidemiology and prevention of anxiety disorders
30. Epidemiology and prevention of schizophrenia and dementias
31. Epidemiology and prevention of addictions
32. Recommended and compulsory screening methods for non-communicable diseases (excluding cancers)
OAR-VTA  BASICS OF BLOODTRANSFUSION

Course director: DR. ATtila MiSETA, professor
Institute of Laboratory Medicine

0 credit • signature • Criterion requirement module • autumn semester • recommended semester: 7
Number of hours/semester: 3 lectures + 4 practices + 0 seminars = total of 7 hours
Course headcount limitations (min.-max.): 1 –
Prerequisites: OAP-BPR completed + OAP-KQ2 completed + OAP-GT2 completed

Topic

The aim of the subject is to provide the theoretical and practical basics necessary for transfusion therapy.
The topic of the subject: blood products, transfusion complications, ABO and RhD blood groups, blood grouping in theory and practice.
The subject is based on physiological, pathophysiological, haematological, and emergency medical studies.
Number of classes: 3 hour lectures, 4 hour practices

Lecture

1. Presentation of blood, blood products and their indications
   1.1. Place of transfusion medicine in medical sciences
   1.2. Principle of transfusion
   1.3. Theory of blood conservation
   1.4. Production of blood products and their types
   1.5. Administration of blood products, their indication and hazards
   1.6. Future of transfusion medicine

2. Complications of transfusion
   2.1. Transfusion guidelines - Who can perform transfusion?
   2.2. Symptoms indicating transfusion side effects
   2.3. Categorisation of transfusion complications
   2.4. Symptoms, treatment, and prevention of transfusion complications
   2.5. Infection transmission with blood products
   2.6. Haemovigilance

3. Resource management in blood supply
   A prerequisite of the hospitals’ safe supply with blood components is the conscious and efficient management of scarce resources. A most important such resource is the healthy, group-specific full-blood, the so called national blood treasure being beared by the national donor-pool. The management of the national donor-pool - with particular focus on the donor- and recipient age-trees changing and aging in different ways - is a most important task. The institutional (both blood-bank and hospital) management of the completed blood-components is impossible without an integrated information system that takes into consideration logistics, expiration and possible disposal of the preparations. The Hungarian National Blood Transfusion Service has reached an eminent position in the region so its experience can serve as adaptable benchmark for other countries, as well.

Practices

1. Practice - ABO blood group system - ABO blood grouping
   (the test must be performed on two blood samples)
   1.2. Theoretical studies relevant to practice
      1.2.1. Concepts of antibody, antigen
      1.2.2. Properties of red blood cell antigens
      1.2.3. Properties of antibodies against red blood cell antigens
      1.2.4. Landsteiner’s rule
      1.2.5. Agglutination reaction
      1.2.6. Blood group serological test methods
      1.2.7. Concept of clinical and laboratory blood grouping and their application
   1.3. ABO blood grouping on slide
      1.3.1. Signing of blood sample tubes, administration of slides
      1.3.2. Preparation of cell suspensions (50% and 10%)
      1.3.3. Test procedure
      1.3.4. Sources of errors
      1.3.5. Individual evaluation of test results
2. Practice - Rh blood group system, antibody tests - RhD blood grouping
   (the test must be performed on two blood samples)
   2.1. Theoretical overview
      2.1.1. Antigens of the Rh system - Rh phenotype
      2.1.2. Specificity of RhD antigen
      2.1.3. Properties of antibodies against Rh antigens
   2.2. RhD grouping on slide
      2.2.1. Administration of blood sample tube and slide
      2.2.2. Preparation of cell suspension (50%)
      2.2.3. Test procedure
      2.2.4. Sources of errors
      2.2.5. Individual evaluation of test results
   2.3. Bed side card usage
      2.3.1. Purpose of bed side card
      2.3.2. Principle of function
      2.3.3. Test procedure
      2.3.4. Sources of error
      2.3.5. Individual evaluation of test results
   2.4. Antibody tests - presentation
      2.4.1. Elements and concept of compatibility
      2.4.2. Purpose and principle of the test
      2.4.3. Antibody screening and identification
      2.4.4. Presentation of gel card method, evaluation of tests in small groups - discussion of results

Conditions for acceptance of the semester
Successful test exam - min 80%
Mid-term exams
Making up for missed classes
Additional practices at another group

Reading material
- Obligatory literature
- Literature developed by the Department
- Notes
- Recommended literature

National Blood Transfusion Service Pécs Regional Blood Transfusion Center Educational materials

Lectures
1. Basics of transfusion medicine: Presentation of blood, blood products and their indications
   Dr. Csernus Zita
2. Basics of transfusion medicine: Complications of transfusion
   Dr. Csernus Zita
3. Resource management in blood supply
   Dr. Csernus Zita

Practices
1. Basics of transfusion medicine: ABO blood group system - ABO blood grouping
2. Basics of transfusion medicine: ABO blood group system - ABO blood grouping
3. Basics of transfusion medicine: Rh blood group system, antibody tests - RhD blood grouping
4. Basics of transfusion medicine: Rh blood group system, antibody tests - RhD blood grouping

Seminars
Exam topics/questions
Included in the detailed thematics
Participants
Dr. Csernus Zita (CSZQAAP.PTE), Dr. Faust Zsuzsanna (FAZVAAO.PTE)
OAK-KAR  INTERNAL MEDICINE: CARDIOLOGY

Course director:  DR. KÁLMÁN TÓTH, professor
1st Department of Internal Medicine

3 credit  •  semester exam  •  Clinical module  •  spring semester  •  recommended semester: 8

Number of hours/semester:  14 lectures + 28 practices + 0 seminars = total of 42 hours
Course headcount limitations (min.-max.):  1
Prerequisites:  OAP-BPR completed + OAP-KO2 completed + OAP-GT2 parallel

Topic
The subject provides general theoretical and practical baselines to the state of the art of cardiological diagnostics and therapy and their application in the everyday medical practice. Interactions and differential diagnostic features with other internal diseases are emphasized. Cardiovascular diseases represent the largest patient population requiring medical attention in general practice. This subject includes special topics of case history and physical examination of cardiac patients, the most important characteristics of cardiological diseases, non-invasive and invasive cardiological diagnostic procedures and therapeutic possibilities.

Conditions for acceptance of the semester
Maximum of 15 % absence allowed

Mid-term exams
Making up for missed classes
Maximal 15% absence from the practices is tolerated (in case of 15-25% absence, students may apply for personal excuse to the course leader). You can join a practice of another group to make up for absences.

Maximal 15% absence from all contact hours (lectures + practices) is tolerated (in case of 15-25% absence, students may apply for personal excuse to the course leader).

More absences result in automatic exclusion from the exam.

Reading material
- Obligatory literature
- Literature developed by the Department
  First Department of Medicine lecture slides:
- Notes
- Recommended literature
  Houghton AR, Gray D: Making Sense of the ECG - A hands-on guide

Lectures
1  Introduction to cardiology. Noninvasive cardiological diagnostics I: Electrocardiology (ECG, stress tests, Holter monitoring, transtelephonic ECG)
   Dr. Tóth Kálmán
2  Noninvasive cardiological diagnostics II: ABMP, echocardiography, nuclear cardiology
   Dr. Cziráki Attila
3  Noninvasive cardiological diagnostics III: Cardiac MRI and coronary CT
   Dr. Simor Tamás
4  Invasive cardiological diagnostics: Coronary angiography, IVUS, FFR
   Dr. Horváth Iván Gábor
5  Arrhythmias and their pharmacological treatment
   Dr. Tóth Kálmán
6  Invasive clinical electrophysiology, diagnostics, ablation and non-pharmacological treatment of arrhythmias (pacemakers, CRT, ICD)
   Prof Dr. Simor Tamás/Dr. Kónyi Attila
7  Hypertension
   Dr. Czopf László József
Chronic heart failure
Dr. Habon Tamás

Stable coronary heart disease. Cardiovascular prevention
Dr. Tóth Kálmán

Acute coronary syndromes. Percutaneous coronary intervention (PCI)
Dr. Horváth Iván Gábor

Acute heart failure
Dr. Márton Zsolt I

Inflammatory diseases of the heart. Valvular heart diseases
Dr. Cziráki Attila

Cardiomyopathies
Dr. Halmosi Róbert

Cardiac rehabilitation
Dr. Szabados Eszter

Courses
Introduction to cardiology. Noninvasive cardiological diagnostics I: Electrocardiology (ECG, stress tests, Holter monitoring, transtelephonic ECG)

Introduction to cardiology. Noninvasive cardiological diagnostics I: Electrocardiology (ECG, stress tests, Holter monitoring, transtelephonic ECG)

Noninvasive cardiological diagnostics II: ABMP, echocardiography, nuclear cardiology

Noninvasive cardiological diagnostics II: ABMP, echocardiography, nuclear cardiology

Noninvasive cardiological diagnostics III: Cardiac MRI and coronary CT

Noninvasive cardiological diagnostics III: Cardiac MRI and coronary CT

Invasive cardiological diagnostics: Coronary angiography, IVUS, FFR

Invasive cardiological diagnostics: Coronary angiography, IVUS, FFR

Arrhythmias and their pharmacological treatment

Arrhythmias and their pharmacological treatment

Invasive clinical electrophysiology, diagnostics, ablation and non-pharmacological treatment of arrhythmias (pacemakers, CRT, ICD)

Invasive clinical electrophysiology, diagnostics, ablation and non-pharmacological treatment of arrhythmias (pacemakers, CRT, ICD)

Hypertension

Hypertension

Chronic heart failure

Chronic heart failure

Stable coronary heart disease. Cardiovascular prevention

Stable coronary heart disease. Cardiovascular prevention

Acute coronary syndromes. Percutaneous coronary intervention (PCI)

Acute coronary syndromes. Percutaneous coronary intervention (PCI)

Acute heart failure

Acute heart failure

Inflammatory diseases of the heart. Valvular heart diseases

Inflammatory diseases of the heart. Valvular heart diseases

Cardiomyopathies

Cardiomyopathies

Cardiac rehabilitation

Cardiac rehabilitation

Exams
Exam topics/questions
Cardiology Theses:
1. Basic principles of ECG analysis
2. Special cardiological investigations I: Stress tests, Holter monitoring and Ambulatory Blood Pressure Monitoring (ABPM)
3. Special cardiological investigations II: Echocardiography, nuclear methods, computed tomography, cardiac MRI
4. Special cardiological investigations III: Invasive studies (electrophysiology, heart catheterization, coronary angiography and coronary interventions)
5. Mechanisms of arrhythmias
6. Sinus and atrial arrhythmias
7. Arrhythmias involving the AV node and accessory pathways
8. Ventricular arrhythmias
9. AV blocks and ventricular conduction defects
10. Syncope and sudden cardiac death
11. Antiarrhythmic drugs
12. Pacemakers and implantable cardioverter defibrillators
13. Epidemiology and risk factors of ischemic heart disease (IHD), primary prevention
14. Types of ischemic heart disease (IHD) (types of angina pectoris)
15. The diagnostics of ischemic heart disease (IHD)
16. The drug treatment of ischemic heart disease (IHD)
17. The revascularisation treatment (PCI, CABG) of ischemic heart disease (IHD)
18. Types and diagnostics of acute coronary syndromes (ACS)
19. The treatment of acute coronary syndromes with ST segment elevation (STEMI)
20. The treatment of acute coronary syndromes without persistent ST segment elevation (NSTEMI)
21. The most important complications of acute myocardial infarction (AMI) and their treatment
22. Risk stratification after acute myocardial infarction (AMI), secondary prevention
23. Risk factors, pathogenesis, epidemiology and types of hypertension.
24. The treatment of hypertension
25. Epidemiology, risk factors and pathomechanism of heart failure
26. The clinical syndromes of heart failure
27. The drug treatment of chronic heart failure
28. The non-pharmacological treatment of heart failure
29. The treatment of acute heart failure
30. Classification of cardiomyopathies
31. Dilated cardiomyopathy
32. Hypertrophic and restrictive cardiomyopathy, arrhythmogenic right ventricular cardiomyopathy
33. Myocarditis and rheumatic fever
34. The diseases of the pericardium, cardiac tamponade
35. Infective endocarditis
36. Diseases of the mitral valve
37. Diseases of the aortic valve
38. Combined and multiple valve diseases
39. Pulmonary embolism and primary pulmonary hypertension
40. Anticoagulant and fibrinolytic therapy in cardiovascular diseases
41. Antiplatelet therapy in cardiovascular diseases
42. Laboratory diagnostics in cardiology, biomarkers
43. Pregnancy and heart disease
44. Cardiac rehabilitation
45. The role of multicenter, international clinical studies in the therapy of heart diseases (arrhythmias, ACS, secondary prevention, etc.)

Participants
Dr. Faludi Réka (FARRAAO.PTE), Dr. Gaszner Balázs (GABFADO.PTE), Dr. Habon Tamás (HATMAAO.PTE), Dr. Halmosi Róbert (HARFABO.PTE), Dr. Hegedüs Dalma (HEDFAAO.PTE), Dr. Kenyeres Péter (KEPFACO.PTE), Dr. Késmárky Gábor Róbert (KEGFACO.PTE), Dr. Magyar Klára (MAKFADO.PTE), Dr. Németh Ádám (NEAFAFO.PTE), Dr. Nógrádi Ágnes (NOATAA0.PTE), Dr. Szabados Eszter (SZEMAAO.PTE), Dr. Vorobcsuk András (VOAGAAO.PTE)
OAK-KIR  INTERNAL MEDICINE: CLINICAL IMMUNOLOGY - RHEUMATOLOGY

Course director: Dr. LÁSZLÓ CZIRJÁK, professor
Department of Immunology and Rheumatology

2 credit • semester exam • Clinical module • spring semester • recommended semester: 8

Number of hours/semester: 14 lectures + 14 practices + 0 seminars = total of 28 hours

Course headcount limitations (min.-max.): 1 –

Prerequisites: OAA-IMM completed + OAP-BPR completed + OAP-PA2 completed

Topic

The goal of the course is to learn the basic knowledge of clinical immunology and rheumatology, to practice the examination of patient with musculoskeletal and joint complaints, to learn the basics of clinical immunological problems.

Conditions for acceptance of the semester

Examination of the musculoskeletal system.

Mid-term exams

Making up for missed classes

During the practice of another group.

Reading material

- Obligatory literature
- Literature developed by the Department
  - Presentations: on Intranet
- Notes
- Recommended literature
  - Lynn S. Bickley: Bates’ Guide to Physical Examination and History Taking. (The actual version.)
  - Philip Seo (with Alan J. Hakim, Gavin P. R. Cluine, Inam Haq): Oxford American Handbook of Rheumatology, Oxford University Press. (The actual version.)

Lectures

1. General characteristics of systemic autoimmune diseases.
   Dr. Czirják László István
2. Systemic lupus erythematosus.
   Dr. Czirják László István
   Dr. Czirják László István
   Dr. Sütő Gábor
   Dr. Czirják László István
   Dr. Sütő Gábor
   Dr. Czirják László István
8. Rheumatoid arthritis. Treatment and monitoring of patients
   Dr. Sütő Gábor
   Dr. Horváth Gábor
    Dr. Tuba Éva
    Dr. Tuba Éva
12. Osteoporosis, osteoarthrosis. Osteonecrosis. Diagnosis and treatment of gout and crystal induced arthropathies.
    Dr. Sarlós Gézáné (Dr. Varjú Cecília)
13. Clinical characteristics of metabolic disorders.
    Dr. Minier Tünde
    Dr. Sarlós Gézáné (Dr. Varjú Cecília)
Practices
1. Learn and practice the examination of patient with musculoskeletal complaints. GALS assessment.
2. Learn and practice the examination of patient with musculoskeletal complaints. Demonstration of various rheumatologic conditions.
3. Rheumatoid arthritis (early and late forms), systemic lupus erythematosus, scleroderma, Sjögren’s syndrome.
4. Rheumatoid arthritis (early and late forms), systemic lupus erythematosus, scleroderma, Sjögren’s syndrome.
5. Ankylosing spondylitis (Bechterew disease), psoriatic arthritis, other spondylarthropathies.
6. Examination of patients with lupus, myositis, scleroderma.
7. Ankylosing spondylitis (Bechterew disease), psoriatic arthritis, other spondylarthropathies.
8. Gout, crystal-induced arthropathy.
9. Examination of patients with lupus, myositis, scleroderma.
10. Severe osteoporosis (postmenopausal, senile, secondary).
11. Diagnostics of monarthritis, oligoarthritis.
12. Osteoarthritis cases (various joint manifestations).
13. Osteoarthritis cases (various joint manifestations).

Seminars
Exam topics/questions
Exam’s questions A
1. Musculoskeletal examination. GALS assessment. Examination of the hand, shoulder, knee, ankle.
2. What are the general characteristics of connective tissue diseases?
3. Basic laboratory tests in systemic autoimmune diseases. Autoantibody screening and specific autoantibody detection.
5. Differential diagnosis of polyarthritis.
8. Characteristic laboratory and radiographic findings in rheumatoid arthritis. Basic investigations during monitoring of patients. Activity indexes: DAS28, SDAI, CDAI. What is HAQ index used for?
10. Juvenile idiopathic arthritis.
11. SLE. General characteristics, diagnostic steps.
12. Organ manifestations in lupus. Laboratory tests in lupus.
15. Primary, secondary antiphospholipid syndrome. Laboratory diagnostics, symptoms, treatment.
16. Sjögren syndrome - general characteristics.
24. Crystal induced arthropathies. Diagnosis and treatment of gout.

Exam’s questions B
1. Disease modifying drugs in rheumatoid arthritis. Dosage, side effects, monitoring of patients during treatment with sulphasalazine, methotrexate, leflunomide. Treat to target.
2. Disease modifying drugs in rheumatoid arthritis. Dosage, side effects, monitoring of patients during treatment with biologics. Combination therapy with disease modifying drugs.
3. Therapeutical principals in rheumatoid arthritis. Early treatment, principals of treat to target and tight patient control.
4. What are the indications for switching disease modifying therapy in rheumatoid arthritis?
5. Diagnostics and therapeutical principals in Sjögren syndrome.
7. Therapeutic options in systemic sclerosis.
8. Pharmacological and nonpharmacological treatment of myositis.
12. Effects and side effects of non steroidal antiinflammatory drugs.
13. TNF antagonist biological therapy.
15. Pain relief in rheumatology.
18. Diagnosis, pharmacological and nonpharmacological treatment of fibromyalgia syndrome.
19. Risk factors of osteoporosis. FRAX index. Calcium, vitamin D substitution, physiotherapy in the management of osteoporosis.

Exam´s questions C
2. Soft tissue disorders.
4. Infectious side effects during pharmacological treatment of rheumatic disorders (methotrexate, azathioprin, cyclophosphamide, corticosteroid, biological therapy).
5. Bacterial infective arthritis.
6. Diagnosis and treatment of osteoarthritis.
9. Degenerative disorders of the cervical and thoracic spine.
11. Primary osteoporosis. Diagnostic and monitoring protocols.
12. Treatment of osteoporosis.
15. Compression tunnel syndromes.
18. Evaluating the efficacy of treatment in myositis and systemic sclerosis.
19. Evaluating the efficacy of treatment in rheumatoid arthritis and spondylarthritis.
20. Differentiation between inflammatory and degenerative musculoskeletal conditions.

Mandatory requirements for a successful exam:
1. Management of anaphylactic shock.
2. General characteristics of connective tissue disorders (systemic autoimmune diseases) - which symptoms indicate these illnesses?
3. Typical clinical signs, laboratory and radiographic abnormalities in rheumatoid arthritis.
4. Diagnostic criteria of rheumatoid arthritis.
5. Typical clinical signs of ankylosing spondylitis.
6. Side effects of NSAIDs.
7. Side effects of glucocorticoids.
8. Doses of medications and obligatory monitoring measures in methotrexate, leflunomide, azathioprine therapy.
10. Basic symptoms of rheumatoid arthritis and lupus.
11. Typical skin symptoms in rheumatology (infective arthritis, gout, livedo, scleroderma, erythema, lupus)
13. GALExamination.
14. Examination of the hand (synovitis, arterial pulse, skin signs, deformities, carpaltunnel sy, Heberden-Bouchard arthritis)
17. Clinical signs of hip osteoarthritis.
18. Cervicobrachialgia.
19. Differentiation between mechanical and inflammatory back pain.
Participants
Dr. Czirják László István (CZLHAAE.PTE), Dr. Horváth Gábor (HOGPAAP.PTE), Dr. Minier Tünde (MITMAAO.PTE), Dr. Sarlós Gézáné (Dr. Varjú Cecília) (VACPAAP.PTE), Dr. Sütő Gábor (SUGPAAP.PTE), Dr. Tuba Éva (TUEMAAO.PTE), Szendelbacherné Dr. T. Kovács Katalin (TKODBAO.PTE)
# Public Health 6 (Occupational Hygiene and Occupational Medicine)

<table>
<thead>
<tr>
<th>Course director:</th>
<th>Dr. István Kiss, professor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department:</td>
<td>Department of Public Health Medicine</td>
</tr>
</tbody>
</table>

**1 credit • final exam • Clinical module • spring semester • recommended semester: 8**

**Number of hours/semester:**  
7 lectures + 7 practices + 0 seminars = total of 14 hours

**Course headcount limitations (min.-max.):** 1 – Prerequisites: OAK-REP completed

**Topic**

The aim of the subject is to present the basics of occupational medicine and major risk factors in work environment and possibilities of prevention of occupational diseases.

After Public Health 6 the students must take a public health final exam which includes the material of all the Public Health subjects (Public Health 1 - 6).

**Conditions for acceptance of the semester**

Participation in practicals is obligatory which is registered.

Absences should not exceed 2x45 min. Otherwise signature of grade book is denied.

**Mid-term exams**

Making up for missed classes

Students may attend the practical of another group on the same week. Pre-consultation with practical leader is needed.

**Reading material**

- **Obligatory literature**
  

- **Literature developed by the Department**
  
  Educational material uploaded on Neptun.

- **Notes**

- **Recommended literature**

**Lectures**

1. History and development of occupational health.  
   Dr. Tibold Antal
2. Organization and levels of occupational health services. Labour safety.  
   Dr. Tibold Antal
3. Chemical hazards.  
   Dr. Varga Csaba
4. Occupational toxicology; chemical safety.  
   Dr. Varga Csaba
5. Psychosocial and biological hazards.  
   Dr. Tibold Antal
   Dr. Tibold Antal
7. Occupational cancers.  
   Dr. Kiss István

**Practices**

1. Medical and occupational health aspects of migration and disasters I.
2. Medical and occupational health aspects of migration and disasters II.
3. Increased exposures at workplace and risk assessment I.
4. Increased exposures at workplace and risk assessment II.
5. Genotoxicity laboratory practical I.
6. Genotoxicity laboratory practical II.
7. Physical, ergonomic hazards.
Seminars

Exam topics/questions

After Public Health 6 the students must take a public health final exam which includes the material of all the Public Health subjects (Public Health 1 - 6).

Public Health Final Exam
1. History and objectives of public health
2. Definition of health and disease
3. Determinants of health
4. Social risk factors
5. Levels of prevention
6. Health promotion
7. Health politics
8. Maternal and newborn health
9. Child and adolescent health
10. Health concerns of elderly. Aging societies
11. Minorities: Health issues and disparities
12. Health issues and disparities of people living with disabilities
13. Evidence-based medicine and prevention
14. History and objectives of epidemiology
15. Causation in epidemiology: association and causation
16. Epidemiological indicators I: indicators of disease frequency and population impact of a disease
17. Epidemiological indicators II: definition and measures of relative risk and odds ratio
18. Standardization
19. Epidemiological studies: parameters, design
20. Descriptive epidemiological studies, cross-sectional studies
21. Ecological studies, Immigrant studies
22. Case-control studies
23. Cohort studies
24. Experimental (interventional) epidemiological studies
25. Meta-analysis, systematic review
26. Errors and bias in epidemiological studies
27. Confounders, effect modifiers and possibilities for elimination
28. Molecular epidemiology
29. Basic principles of screening
30. Optional and mandatory screening
31. Demography: definition, methods, data sources
32. Demographic indicators: measures of mortality
33. Demographic indicators: measures describing population groups. Population pyramids
34. Demographic indicators: measures of birth and fertility
35. Role of nutrition in prevention of cardiovascular diseases
36. Role of nutrition in prevention of cancers
37. Principles of healthy diet
38. Epidemiology of malnutrition and nutritional deficiencies
39. Dietary guidelines
40. Special nutritional considerations: vegetarianism
41. Special nutritional considerations: Mediterranean diet, DASH- (Dietary Approaches to Stop Hypertension) diet
42. Special nutritional considerations: trendy diets
43. Assessment of nutritional status, nutritional screening
44. Dietary supplements and functional foods
45. Food additives
46. Food safety, food safety testing
47. Chemoprevention
48. Genetically modified organisms
49. Interaction of environmental and genetic factors in disease development
50. Genomics and epigenetics in public health. Nutrigenomics
51. Molecular basics of carcinogenesis
52. Primary and secondary factors of epidemic process (virulence, source of infection, means of transmission, susceptible host)
53. Nosocomial infections. Sterilization, disinfection
54. Infectious diseases worldwide
55. Prevention of infectious diseases: vaccination, chemoprophylaxis
56. Epidemiology and prevention of vaccine-preventable diseases, mandatory immunisation for children
57. Epidemiology and prevention of airborne bacterial infections
58. Epidemiology and prevention of airborne viral infections
59. Characteristics, types, occurrence and prevention of enteric infections
60. Epidemiology and prevention of enteric bacterial infections
61. Epidemiology and prevention of enteric viral infections
62. Epidemiology and prevention of enteric helminth and protozoon infections
63. Epidemiology and prevention of viral hepatitides
64. Epidemiology and prevention of haematogenic and lymphogenic infections
65. Epidemiology and prevention of infections transmitted through the skin
66. Epidemiology and prevention of zoonotic helminth and bacterial infections
67. Epidemiology and prevention of zoonotic protozoon and viral infections
68. Epidemiology and prevention of sexually transmitted diseases (excluding AIDS)
69. Epidemiology and prevention of AIDS
70. Epidemiology and prevention of prion diseases
71. New infectious diseases. Bioterrorism
72. Importance of non-communicable diseases in developed countries (mortality, morbidity, trends)
73. Epidemiology of ischaemic heart disease
74. Main modifiable risk factors of coronary heart disease
75. Other modifiable risk factors of coronary heart disease
76. Risk factors of coronary heart disease (excluding main and other modifiable risk factors)
77. Epidemiology and prevention of cerebrovascular diseases
78. Epidemiology and prevention of hypertension
79. Cardiovascular diseases: risk assessment and prevention
80. Morbidity and mortality of malignant diseases
81. Role of infectious diseases in tumour development
82. Risk factors of malignant diseases
83. Screening of malignant diseases
84. Epidemiology and prevention of lung cancer
85. Epidemiology and prevention of colorectal cancer
86. Epidemiology and prevention of breast cancer
87. Epidemiology and prevention of prostate and cervix cancer
88. Epidemiology and prevention of liver-, pancreas- and gastric cancer
89. Epidemiology and prevention of head and neck cancers and skin cancers
90. Epidemiology and prevention of diabetes
91. Epidemiology and prevention of obesity
92. Epidemiology and prevention of osteoporosis
93. Epidemiology and prevention of chronic obstructive pulmonary disease
94. Epidemiology and prevention of asthma
95. Epidemiology and prevention of allergic rhinitis
96. Epidemiology and prevention of hepatic cirrhosis
97. Epidemiology and prevention of ulcer disease
98. Epidemiology and prevention of inflammatory bowel diseases
99. Epidemiology and prevention of suicide
100. Epidemiology and prevention of depression and mood disorders
101. Epidemiology and prevention of anxiety disorders
102. Epidemiology and prevention of schizophrenia and dementias
103. Epidemiology and prevention of addictions
104. Recommended and compulsory screening methods for non-communicable diseases (excluding cancers)
106. Settlement health, transportation and health. Health effects of interiors, health and the built environment
107. Environmental monitoring and protection. Health effects of global environmental issues
108. Air pollutants and their health effects
109. Health effects of microbiological and chemical water pollutants, water quality testing
110. Health effects of soil contamination. Health effects and management of waste water, wastes and hazardous wastes
111. History of occupational health. Organization and levels of occupational health services.
Work safety.
112. Risk assessment, management and communication
113. Occupational toxicology, chemical safety
114. Occupational cancers
115. Physical hazards: health effects of low and high temperature
116. Physical hazards: disorders caused by noise and vibration and their prevention
117. Chemical hazards: Industrial and agricultural toxicology of organic compounds
118. Chemical hazards: Industrial and agricultural toxicology of inorganic compounds
119. Psychosocial and biological hazards in the workplace
120. Health effects of ionizing and non-ionizing radiations
121. Ergonomic factors. Health effects of inorganic and organic dusts and their prevention
122. New and emerging risks in occupational medicine
124. Migration and catastrophes, medical and occupational health considerations

Participants
Dr. Szendi Katalin (SZKFAPO.PTE), Dr. Szilárd István (SZAFAAP.PTE), Dr. Tibold Antal (TIAFABO.PTE), Dr. Varga Csaba (VACMAAO.PTE), Marek Erika (MAEAAP.JPTE)
**OAK-ONK Oncology**

**Course director:** Dr. LÁSZLÓ MANGEL, associate professor
Department of Oncotherapy

2 credit • semester exam • Clinical module • spring semester • recommended semester: 8

Number of hours/semester: 14 lectures + 14 practices + 0 seminars = total of 28 hours

Course headcount limitations (min.-max.): 1 –

Prerequisites: OAP-PA2 completed + OAP-SPR completed

**Topic**

The main educational task of the subject: An introduction to the biological and clinical properties of tumors, that a successful treatment is only possible with the help of dynamic teamwork and especially if the detection of the tumor happens at an early stage. The role of practicing physicians in the prevention of tumors, in their early detection and during the treatment of the patients.

Short description of the course: The aetiology, development and progression of tumors. The epidemiology, classification and identification of tumors, the examinations needed to classify the tumors into certain stages. The current possible therapies (surgery, radio-, chemo-, hormone-, and immune therapy) and their success in the treatment of different types of tumors. The early and late complications of these therapies and their possible prevention. Acute cases in oncology and their treatment. Supportive and palliative treatment, painkilling and the psychological support of patients.

**Conditions for acceptance of the semester**

Acceptance of the semester: The student with two unjustified absences (including either the lecture or the practice) is allowed to take the exam. In the case of three or more unjustified absences he/she cannot take the exam.

**Mid-term exams**

**Making up for missed classes**

**Reading material**

- **Obligatory literature**
- Literature developed by the Department
- Notes
- **Recommended literature**

**Lectures**

1. Statement of the Clinical Oncology
   Dr. Mangel László
2. Radiation Physics as Applied to Clinical Radiation Oncology
   Dr. Sebestyén Zsolt
3. Systemic treatment in oncology (László Torday Dr.)
   Dr. Mangel László
4. Colorectal Tumors
   Dr. Karádi Oszkár
5. Nervous System Tumors
   Dr. Mangel László
6. Breast Cancer
   Dr. Mangel László
7. Gynecologic Tumors
   Dr. Bellyei Szabolcs
8. Palliative Care, Cancer Pain Management (Ágnes Csikós Dr.)
   Dr. Mangel László
9. Urologic and Male Genital Cancer (Lajos Géczi Dr.)
   Dr. Mangel László
10. Upper Alimentary Tract Cancers (Harald-Robert Bruch Dr.)
    Dr. Mangel László
11. Tumors of Head and Neck
    Dr. Boronkai Árpád
12. Lung Cancer
    Dr. Boronkai Árpád
13. Endocrin, neuroendocrin cancer
    Dr. Karádi Oszkár
14 Skin Cancers and Melanoma Malignum (Gabriella Liszkay Dr.)
   Dr. Mangel László

Practices
1 Decision making in the practice of oncology
2 Chemo-, hormonal, -immune, -biological treatments
3 The equipment used in radiation oncology
4 Treatment planning systems
5 Breast cancer in practice
6 Oncologies emergencies
7 Urologic cancers in practice
8 Gynecological cancer in practice
9 Nervous system cancer in practice
10 Alimentary tract cancer in practice
11 Head and neck cancer
12 Cancer pain management, palliative care
13 Psychooncology
14 Lung Cancer

Seminars
Exam topics/questions
Type of exam 1: written
Type of retake-exam: oral
1. The basis principals of tumor biology
2. Principles of surgical oncology
3. Radiation physics
4. The equipment used in radiation oncology
5. Treatment planning, radiation protection
6. Basic concepts of chemotherapy
7. Basic concepts of hormone therapy
8. Biological treatment
9. Cancer pain management
10. Psycho oncology
11. Oncologic emergencies
12. Palliative care
13. Tumors of head and neck
14. Lung cancer
15. Breast Cancer
16. Cancer of the esophagus and the stomach
17. Cancer of the pancreas and the liver
18. Colorectal cancer
19. Skin cancer
20. Melanoma
21. Soft tissue sarcomas and bone tumors
22. Nervous system tumors
23. Gynecologic tumors
24. Urologic and male genital cancers

Participants
Dr. Bellyei Szabolcs (BESFAAO.PTE), Dr. Boronkai Árpád (BOAFABO.PTE), Dr. Karádi Oszkár (KAOHAAE.PTE), Dr. Kóbor József (KOJLAAP.PTE), Dr. Lőcsei Zoltán (LOZGAAO.PTE), Dr. Mangel László (MALPAAO.PTE), Dr. Sebestyén Zsolt (SEZGAAT.PTE)
OAK-ORM  ORAL MEDICINE

Course director:  DR. ÁKOS NAGY, associate professor
Department of Dentistry, Oral-, Maxillofacial Surgery

2 credit • semester exam • Clinical module • spring semester • recommended semester: 8

Number of hours/semester:  14 lectures + 14 practices + 0 seminars = total of 28 hours
Course headcount limitations (min.-max.):  2 – 200
Prerequisites:  OAP-KO2 completed + OAP-MI2 completed + OAP-PA2 completed

Topic
The main message of this course is to get informed students about frequent oral diseases, hard and soft tissue lesions in the oral cavity. In addition to this malformations, inflammations, tumors on maxillofacial region are also the topics in this course. Students should collect information in maxillofacial traumatology and pain disorders. The organic part of that programme is to deal with manifestations of general diseases in the oral cavity.

Conditions for acceptance of the semester
Written test in the 14th week of the semester.

Mid-term exams
There is not any

Making up for missed classes
None

Reading material
- Obligatory literature
- Literature developed by the Department
  Handouts
- Notes
- Recommended literature
  Harrit S. Goldman; Michael Z. Marder: Physicians’ Guide to Diseases of the Oral Cavity

Lectures
1  Diagnostic procedures in oral diseases
  Dr. Nagy Ákos
2  The basics of dental prevention
  Dr. Nagy Ákos
3  Treatments and acute cases in pediatric dentistry
  Dr. Balázsne Dr. Szántó Ildikó
4  The ethiology, pathology and therapy of dental caries. Disease of the pulp.
  Dr. Lempel Edina
5  Inflammation diseases. Focal infections. Periostitis. Phlegmone
  Dr. Gelencsér Gábor
6  Periodontal diseases.
  Dr. Mandel Iván
7  Precancerous state of maxillofacial region. Benign tumours of the oral cavity
  Dr. Olasz Lajos
8  Malignant tumours of the oral cavity
  Dr. Olasz Lajos
9  Implantology. Dentures. Geriatric Considerations in Oral Medicine
  Dr. Benke Beáta
10  Malformations and disorders in maxillofacial region
  Dr. Gurdán Zsuzsanna
11  Maxillofacial traumatology
  Dr. Gelencsér Gábor
12  Facial pain and TMJ disorders
  Dr. Radnai Márta Mária
13  Oral manifestation of systemic diseases
  Dr. Mandel Iván
14  Consultation
  Dr. Balázsne Dr. Szántó Ildikó
Practices

1. Oral examinations of patients (interview, first examination, dental equipment)
2. Oral examinations (X-ray, treatment plan) restorative dental treatments
3. Edentulous state. Dental treatment for elderly people
4. Classification of fixed and removable dentures. Bruxism and myofacial pain dysfunction
5. Preventive methods in pediatric dentistry
6. Patient examination in pediatric dentistry. Acute treatments
7. Methods of removal plaque and calculus
8. Oral hygiene self care. Tooth pastes, toothbrushes, dental floss
9. Orthodontic methods. Slideshow
10. Orthodontic methods. Introduction of patients
11. Maxillofacial traumatology. Examination and treatment of injured patients
13. Patient examination
14. Patient examination. Consultation

Seminars

Exam topics/questions

1. Medical history, dental history, oral examination
2. Clinical examination of the lips, labial mucosa, buccal mucosa, gingivae, palate, tongue, floor of the mouth and salivary glands
3. Caries prevention
4. The correct oral hygiene for adults
5. Intra- and extraoral radiographics, types of intraoral views to take for endodontic therapy
6. The aetiology of carious lesion
7. The clinical features of carious lesion
8. The diseases based on carious lesion: Pulp diseases
9. The diseases based on carious lesion: periapical inflammation
10. Examination of children in dentistry
11. Acute cases in pediatric dentistry: inflammatory cases
12. Acute cases in pediatric dentistry: injury cases
13. Advantages of oral hygiene in childhood
14. Eruption of teeth, sequence and age-range of eruption
15. Disturbed eruption of teeth
16. Local factors affecting delayed eruption
17. Alterations in number of teeth: amelogenesis imperfecta, dentinogenesis imperfecta
18. Cleft palate
19. Lip diseases
20. Adult and juvenile periodontitis
21. Focal infection
22. Alterations in shape of teeth
23. The diseases of tongue
24. Oral lichen planus
25. Salivary gland diseases. Sjögren’s syndrome
26. Acute ulcerative gingivitis
27. Oral manifestations of viral infections
28. Minor-, major aphthous ulcers
29. The oral signs and symptoms in anaemia, leukaemia
30. Candidiasis
31. The oral manifestations of AIDS
32. Inflammatory tumours
33. The leukoplakia
34. The clinical locations of oral cancer
35. The clinical aspects of oral cancer
36. The treatment of oral cancer
37. The TNM system for staging oral cancer
38. Malignant potential of oral pre-cancerous lesions
39. The treatment of leukoplakia
40. Fibromas, papillomas, hemangiomas
41. The investigation of facial pain
42. Trigeminal neuralgia, post-herpetic neuralgia, migraine
43. Temporal headache, Beell’s palsy, anaesthesia and paraesthesia of the trigeminal nerve
44. The examination of the TM joint
45. TMJ dysfunction syndrome
46. Occlusion, articulation in partial and total toothless stage.
47. Partial and total toothless stage
48. Advantages and disadvantages of fixed dentures
49. Advantages and disadvantages of removable dentures
51. Etiology and diagnosis of mandibular fractures
52. Treatment of mandibular fractures
53. Classification and diagnosis of maxillary fractures
54. Treatment of maxillofacial fractures
55. Etiology and progression of odontogenic infections
56. Osteomyelitis of upper and lower jaws
57. Dental abscess
58. Phlegmone

Participants
Dr. Balánsé Dr. Szántó Ildikó (SZINAJP.PTE), Dr. Benke Beáta (BEBFADO.PTE), Dr. Gelencsér Gábor (GELADOB.PTE), Dr. Lempel Edina (LEEFABO.PTE), Dr. Marada Gyula (MAGFABO.PTE), Dr. Nagy Ákos (NAARADP.PTE)
Course director: Dr. Miklós Tunyogi Csapó, assistant professor
Department of Orthopaedics

**Text:**

Orthopaedics is concerned with disease of the musculoskeletal system and forms an important part of essential medical knowledge. Our aim is to provide a well-rounded education of aetiopathology, pathomechanism, clinical signs, diagnosis, conservative and surgical treatment and rehabilitation of congenital and acquired degenerative disorders, from which students should be able to carry on continued learning for the remainder of their career.

**Conditions for acceptance of the semester**

Maximum of 15% absence allowed

**Mid-term exams**

Making up for missed classes

Absence from practices can be redeemed in case the time of the practice does not interfere with other practices and lectures. Redeem can be completed under the circumstances of regular practices. Absences from up to two practices can be redeemed with other groups, but require confirmation.

**Reading material**

- **Obligatory literature**
  Dr. Szendrői Miklós: Orthopaedics, Semmelweis Kiadó, Budapest 2005.
- **Literature developed by the Department**
- **Notes**
- **Recommended literature**
  Mark D Miller: Review of Orthopedics, Saunders, 2004  

**Lectures**

1. Introduction, gait cycle, symptoms in orthopedic disorders  
   Dr. Than Péter
2. Congenital dyslocation of the hip  
   Dr. Than Péter
3. Congenital foot deformities  
   Dr. Than Péter
4. Spine deformities  
   Dr. Tunyogi Csapó Miklós
5. Cerebral palsy  
   Dr. Than Péter
6. Pediatric hip diseases (Perthes, Epihyseolysis)  
   Dr. Than Péter
7. Shoulder disorders  
   Dr. Tunyogi Csapó Miklós
8. Prearthrotic conditions, osteoarthritis  
   Dr. Vermes Csaba
9. Joint arthroplasty  
   Dr. Than Péter
10. Complications of joint replacement and revision arthroplasty  
   Dr. Vermes Csaba
11. Adult foot deformities  
   Dr. Vermes Csaba
12. Acute injuries and degenerative diseases of the knee joint  
   Dr. Tunyogi Csapó Miklós
13. Low back pain  
   Dr. Tunyogi Csapó Miklós  
14. Bone tumors  
   Dr. Tunyogi Csapó Miklós  

**Practices**

1. Introduction  
2. History  
3-28. Physical examination  

**Seminars**

**Exam topics/questions**

Questions for the exam  
Exam will be oral.  
1. Brachial plexus injury after birth  
2. Praearthritic conditions  
3. Pes planovalgus  
4. Benigne bone tumours  
5. Protrusio acetabuli  
6. Tendovaginites  
7. Aetiology and pathology of DDH  
8. Ewing sarcoma  
9. Hallux valgus, digitor malleus, digitus quintus varus  
10. Popliteal cysts, knee effusions  
11. Types of limping  
12. Chronic osteomyelitis, osteomyelitis sec. Garré, Brodie abscess  
13. Epiphyseolysis capitis femoris in adolescents  
14. Rheumatoid arthritis and its surgical aspects  
15. Ultrasound diagnostics in orthopaedics  
16. Clinical features and conservative treatment of coxarthrosis  
17. Infantile cerebral palsy  
18. Scheuermann disease  
19. Torticollis congenita  
20. Spondylolysis, spondylolisthesis, sacralisation, lumbalisation  
21. Epicondylitis humeri  
22. Actiologia and pathology of clubfoot  
23. Coxa vara congenita and symptomatica  
24. Treatment of clubfoot  
25. Madelung deformity  
26. Limb equalisation  
27. Osteochondritis deformans juvenilis coxae  
29. Habitual shoulder dislocation  
30. Spondylarthritis ankylopoetica.  
31. Functional scoliosis, postural deformities.  
32. Posttraumatic dystrophy of the lower extremity (Sudeck)  
33. Sterile necrosis of bones of the foot  
34. Osteoarthritis cubiti.  
35. Periarthritis humeroscapularis  
36. Alternative surgical treatment options of degenerative joint disorders  
37. Degenerative spine disorders (lumbago, lumbo-ishialgia)  
38. Osteoclastoma  
39. Clinical and radiological features of DDH  
40. Cervical rib, thoracic outlet syndrome (TOS)  
41. Syndroma cervicobrachialis  
42. Conservative treatment of DDH  
43. Types and treatment possibilities of scoliosis with known aetiology  
44. Habitual patella dislocation: diagnostics and treatment  
45. Early and late symptoms of knee arthritis, conservative treatment options
46. Prognostic significance of septic hip conditions in newborn
47. Knee ligament injuries
48. Necrosis capitis femoris
49. Meniscus injuries
50. Coxitis tuberculosa
51. Joint motions, measurement of muscle strength
52. Idiopathic structural scoliosis
53. Surgical treatment of DDH
54. Chondromalatia patellae
55. Transitory coxitis, coxa saltans
56. Rehabilitation after limb amputation. Orthoses, paediatric and adult orthopaedic shoes
57. Osteomyelitis acuta
58. Complications of joint replacements
59. Endoprostheses
60. Rocker bottom foot
61. Injection contractures
62. Orthopaedic aspects of osteoporosis
63. Bone substitution in orthopaedics
64. Diagnostics and treatment baselines of bone tumours
65. Arthroscopy
66. Clinical and radiological features of osteogenic sarcoma, treatment options
67. Closure abnormalities of the spinal cord
68. Discus hernia
69. Aseptic bone necroses.

Participants
Dr. Antal Hunor (ANHGAAO.PTE), Dr. Bogyó Csaba (BOCTAA0.PTE), Dr. Than Péter (TAPHAAE.PTE), Dr. Tunyogi Csapó Miklós (TUCEAA.K.JPTE), Dr. Vermes Csaba (VECFAAO.PTE)
OAK-ROL  UROLOGY
Course director: DR. LÁSZLÓ FARKAS, professor
Department of Urology

3 credit • semester exam • Clinical module • spring semester • recommended semester: 8
Number of hours/semester: 14 lectures + 28 practices + 0 seminars = total of 42 hours
Course headcount limitations (min.-max.): 5 – 90
Prerequisites: OAP-PA2 completed + OAK-SE1 parallel + OAK-GT3 completed

Topic
We start the English program practice in urology with a review of the anatomy and physiology of genitourinary organs. Thereafter, instruments, catheters and diagnostic equipment used in general urology will be introduced to the students. In the following practices, they will take part in patient examination, catheterization, and some other routine urologic procedures. In the following practices, specific urologic diseases, differential diagnosis, and alternative treatments will be discussed as a bedside practice. The emphasis will be on genitourinary congenital diseases, obstructive uropathy, urolithiasis, uro-infections, male infertility, erectile dysfunction, urinary incontinence and other minor urologic diseases. The etiology, risk factors, diagnosis, alternative treatments, and follow up of these diseases will be discussed in detail.

Conditions for acceptance of the semester
Presence in at least 80% of the practices is mandatory.
Passing the final oral exam held at the end of the semester is necessary. In the exam, any topic discussed in lectures and/or the practices may be required

Mid-term exams
Making up for missed classes
In case of an excused absence, the tutor can decide on the method of compensation

Reading material
- Obligatory literature
  Emil A. Tanagho, Jack W. McAninch: Smith’s General Urology, last edition, McGraw-Hill Medical
- Literature developed by the Department
- Notes
- Recommended literature

Lectures
1 Anatomy & physiology of the GUT. Physical examination of the GUT
   Dr. Farkas László
2 Diagnostic uro-radiology. Radioisotopic kidney studies.
   Dr. Jávorházy András
3 Disorders & anomalies of the GUT in childhood
   Dr. Pintér András
4 Urinary Tract Infections. Antibiotics
   Dr. Villányi Kinga
5 Tumors of the bladder: Diagnosis & treatment
   Dr. Beöthe Tamás
6 Tumors of the testis: Diagnosis & treatment
   Dr. Farkas László
7 Urinary stones: Clinical features, diagnosis and treatment
   Dr. Villányi Kinga
8 Tumors of the Kidney, Renal Pelvis, Ureter, Penis, Urethra & Scrotum
   Dr. Beöthe Tamás
9 Benign prostatic hyperplasia (BPH): Diagnosis & treatment
   Dr. Damásdi Miklós
10 Carcinoma of the prostate: Diagnosis & treatment
   Dr. Beöthe Tamás
11 Emergency room urology
   Dr. Pusztai Csaba
12 Male sexual dysfunction
   Dr. Szántó Árpád
UP MS General Medicine major – subjects of the Basic module - Course descriptions – academic year of 2016/2017

Tumors of the Penis: Pyelum, Ureter, Scrotum, Diagnosis & treatment
Dr. Damášdi Miklós

13 Male sexual dysfunction. Male infertility
Dr. Szántó Árpád

Practices
1-28 The practices usually follow the lectures according to the availability of such patients in the given day.

Seminars

Exam topics/questions
1. Physical examination of the genitourinary tract
2. Symptoms of disorders of the genitourinary tract and differential diagnosis
3. Urologic laboratory examination. Urinalysis and urine culture
4. Symptoms related to the act of urination and quantitative changes of the urine
5. Urinary storage and voiding dysfunction
6. Pyuria and its examination
7. Hematuria and its evaluation
8. Urethral catheterization: Types, indications, and technique
9. Cystourethroscopy: Requirements, technique, and indications
10. Urinary tract imaging: Purpose, and indications
11. Interventional uro-radiology: Principles, technique, indications, and contraindications
12. Radionuclide imaging in urology
13. Kidney function investigations
14. Genitourinary tract biopsy: Indications and technique
15. Evaluation and management of urological emergencies: Renal colic, suprapubic pain, acute scrotum, gross hematuria, anuria, and urinary retention
16. Role of minimal invasive procedures in urology
17. Congenital anomalies of the nephric system (kidney, pyelon, ureter)
18. Congenital anomalies of the gonads and vesicourethral unit (bladder, urethra)
19. Lower urinary tract infections in women: Classification, pathogenesis, and management
20. Prostatitis and lower urinary tract infections in men: Diagnosis and treatment
22. Specific infections of the genitourinary tract
23. Urinary stone: Epidemiology, composition, and etiology of specific stone types
24. Clinical manifestations and diagnosis of urolithiasis
25. Management and medical treatment of patients with urinary stones
26. Non-medical treatment of urolithiasis: Therapeutic modalities, indications, and contraindications
27. Urinary obstruction and stasis: Differential diagnosis and management
28. Prolapse of the kidney: Symptoms, diagnosis, and treatments
29. Injuries of the kidney and ureter: Etiology, evaluation, classification, and management
30. Injuries of the bladder, urethra, penis, and scrotum
31. Foreign bodies in the urinary tract
32. Non-malignant intrascrotal disorders: Differential diagnosis, and treatment
33. Non-tumor diseases of the penis and urethra
34. Urinary incontinence and urodynamic studies
35. Male sexual dysfunction, male infertility
36. Renal parenchymal neoplasms: Types, clinical features, diagnosis, and treatment
37. Urothelial carcinoma: Location, clinical features, diagnosis and staging
38. Urothelial carcinoma: Treatment modalities
39. Benign prostatic hyperplasia (BPH): Clinical features and diagnosis
40. Benign prostatic hyperplasia (BPH): Medical and surgical treatment
41. Carcinoma of the prostate gland: Incidence, diagnosis, grading, and staging
42. Carcinoma of the prostate: Treatment modalities
43. Tumors of the testis: Risk factors, classification, diagnosis and staging
44. Complex treatment of testis tumors
45. Tumors of the penis, scrotum and urethra.
Participants

Dr. Balló András (BAAFAMO.PTE), Dr. Beöthe Tamás (BETFAAO.PTE), Dr. Damásdi Miklós (DAMFAAO.PTE), Dr. Horváth Bálint (HOBIAAO.PTE), Dr. Jávorházy András (JAAFACO.PTE), Dr. Kenyerész Balázs (KEBOAO.PTE), Dr. Molnár Ágnes (MOAIAAT.PTE), Dr. Péterfi Lehel (PELTAAO.PTE), Dr. Pusztai Csaba (PUCMAAO.PTE), Dr. Pytel Ákos (PYAPAAP.PTE), Dr. Sarlósi Donát Péter (SADOAAO.PTE), Dr. Szántó Árpád (SZAMABO.PTE), Dr. Villányi Kinga (VIKMAAO.PTE)
OAK-SE1  Surgery 1

Course director: DR. ANDRÁS GÁBOR VERECZKEI, professor Surgery Clinic

2 credit • semester exam • Clinical module • spring semester • recommended semester: 8

Course headcount limitations (min.-max.): 1 – 200

Prerequisites: OAP-PA2 completed + OAP-SPR completed + OAP-GT2 completed

Number of hours/semester:
14 lectures + 14 practices + 0 seminars = total of 28 hours

Topic

Surgery 1 includes selected chapters of special surgery (vascular and cardiac surgery). This subject conveys a basic knowledge to the future general practitioners to be able to deal with the surgical patients.

Conditions for acceptance of the semester

Maximum of 15% absence allowed

Mid-term exams

Making up for missed classes

Unfulfilled practices are to be replaced at another time according to appointments with the group leader.

Reading material

- Obligatory literature
  - Porter and Malt: Oxford Textbook of Surgery
  - Braunvald: Heart Disease A Textbook of Cardiovascular Medicine
  - D.J. Wheatley: Surgery of Coronary Artery Disease
  - Edmunds: Cardiac Surgery in the Adult
  - Cooper-Müller-Patterson: The Transplantation and Replacement of Thoracic Organs
  - K.A. Ellenbogen: Cardiac Pacing

- Literature developed by the Department

- Notes

- Recommended literature
  - Castaneda-Jonas-Meyer-Hanley: Cardiac Surgery of the Neonate and Infant
  - Ebert: Atlas of Congenital Cardiac Surgery

Lectures

1  Imaging of Vascular Anomalies  
   Dr. Battyáni István
2  Surgical treatment of the supraaortic branches  
   Dr. Menyhei Gábor
3  Surgical treatment of peripheral arterial disease. Thoracic outlet syndrome  
   Dr. Arató Endre
4  Surgical treatment of aneurysms  
   Dr. Sinay László
5  Endovascular interventions. Mesenteric vascular diseases  
   Dr. Benkő László
6  Acute venous disease. Anomalies of the lymphatic vessels  
   Dr. Menyhei Gábor
7  Chronic venous disease  
   Dr. Menyhei Gábor
8  The development of cardiac surgery, extracorporal circulation, myocardial protection  
   Dr. Szabados Sándor
9  The cardiac surgical treatment of ischemic heart disease  
   Dr. Szabados Sándor
10  The treatment of valvular heart diseases with cardiac surgery  
    ifj. Dr. Lénárd László
The treatment of congenital heart disease receiving cardiac surgery  
Dr. Hejjel László

The treatment of heart failure cardiac surgery. Heart transplantation 
Dr. Szabados Sándor

Cardiac surgical treatment of ascendent aorta and the aortic 
Dr. Donauer Elemér

Pacemaker treatment of cardiac arrhythmias 
Dr. Holczer Lőrinc

Practices

1. Examination of vascular circulatory pathologies
2. Examination of vascular circulatory pathologies
3. Peripheral arterial disease. Aneurysm
4. Peripheral arterial disease. Aneurysm
5. Surgery of supraaortic branches
6. Surgery of supraaortic branches
7. Acute venous disease.
8. Chronic venous disease.
9. Examination before heart surgery
10. Heart surgery
11. Surgery of ischaemic heart disease
12. Surgery of ischaemic heart disease
13. Surgery of valvular diseases
14. Surgery of valvular diseases

Seminars

Exam topics/questions

Semester exam questions for the subject Surgery 1:

-----------------------------------------------------
1. Indications and complications of carotid endarterectomy
2 Open and endovascular surgery in the treatment of abdominal aortic aneurysm
3 Endovascular and hybrid procedures in the arteries of the lower extremity
4 Epidemiology and pathophysiology of peripheral occlusive arterial disease
5 Imaging of Vascular Disease
6 The pathophysiology and symptoms of chronic venous insufficiency
7 Surgical treatment of chronic venous insufficiency
8 Diagnosis and treatment of acute deep vein thrombosis and superficial thrombophlebitis
9. Mesenteric and renal artery disease. Symptomatology and management
10 Physical and instrumental examination of vascular anomalies
11 The conservative treatment options for peripheral arterial disease
12 Acute clinical symptoms and treatment of peripheral arterial disease
13 Symptoms and Treatment of Thoracic Outlet Syndrome
14 Clinical manifestations and treatment of upper extremity arterial disease
15 Surgical treatment options of the chronic lower extremity arterial disease
16 A brief history of heart surgery. Overview of the cardiac surgery interventions.
17. Extracorporeal circulation, hypothermia, cardioprotection.
18. Cardiac surgery anesthesia, perioperative intensive therapy.
21. Surgical management of valvular heart disease.
22. Aortic atherosclerosis, aneurysm, dissection. Injuries of the heart and the great arteries.
23. The surgical treatment of heart failure.
25. Atrial septal defect (ASD), Partial pulmonary vein transposition.
27. Atrio-ventricular septal defect (AVSD).
28. Aortic stenosis, pulmonary stenosis. Transposition of the great arteries.
29. Complete Pulmonary vein transposition. Transposition of the great arteries.
30. Tetralogy of Fallott. Tricuspid atresia, Ebstein anomaly.
Participants

Dr. Arató Endre (AREPAAP.PTE), Dr. Fazekas Gábor (FAGFABO.PTE), Dr. Hejjel László (HELOABP.PTE), Dr. Holczer Lőrinc (HOLHAAO.PTE), Dr. Jancsó Gábor (JAGMAAO.PTE), Dr. Kasza Gábor (KAGQAAP.PTE), Dr. Menyhei Gábor (MEGMABO.PTE), Dr. Pintér Örs (PIOFAAO.PTE), Dr. Szabados Sándor (SZSMAAO.PTE), ifj. Dr. Lénárd László (LELRABO.PTE)
OAK-TRA  
TRAUMATOLOGY

Course director:  
DR. NORBERT WIEGAND, associate professor  
Department of Traumatology and Hand Surgery

3 credit • semester exam • Clinical module • spring semester • recommended semester: 8  
Number of hours/semester:  
14 lectures + 8 practices + 20 seminars = total of 42 hours  
Course headcount limitations (min.-max.):  
5 – 50  
Prerequisites:  
OAA-NEA completed + OAP-SPR completed

Topic

Trauma curriculum:  
Socio-economic and medical importance of the trauma care.  
Diagnostical and therapeutical options of different injuries.  
Outpatient care: rehabilitation  
Basic interventions in the trauma care (wound treatment, casting techniques, basic osteosynthesis forms, basic treatment options of hand injuries)  
In duty service.

Conditions for acceptance of the semester

Participation on lectures and practices. Short presentation of a given topic on practice (10 minutes).

Mid-term exams

Making up for missed classes

Participation at practises and seminars are mandatory. Any absence should be replaced with extra in-duty time.

Reading material

- Obligatory literature
- Literature developed by the Department
- Notes
- Recommended literature

Basic books
- Traumatology, lecture Notes of Szeged University

Handbooks:
- Oxford Handbook of Orthopaedic and Trauma, Oxford Medical Handbooks
- Campbell’s Operative Orthopaedics, 12th edition, Elsevier
- Green’s Operative Hand Surgery, Elsevier

homepages: http://www.aotrauma.org

Lectures

Dr. Wiegand Norbert
2  Characteristics and classifications of fractures. Bone healing, delayed fracture healing and non-union.  
Dr. Wiegand Norbert
3  Basic principles of non-operative and surgical fracture treatment.  
Dr. Nőt László Gergely
4  Treatment of soft tissue and joint injuries.  
Dr. Wiegand Norbert
5  Management of severely injured patients. Damage control. ATLS.  
Dr. Nőt László Gergely
6  Injuries of the chest and abdomen.  
Dr. Molnár F. Tamás
7  Open fractures. Treatment of bone and joint infections.  
Dr. Wiegand Norbert
8 Neurotraumatology. Injuries of the head and spine.
   Dr. Büki András
9 Pelvic and acetabular fractures.
   Dr. Naumov István
10 Hip fractures.
   Dr. Wiegand Norbert
11 Femur and lower leg fractures. Injuries of the knee.
   Dr. Wiegand Norbert
12 Ankle and foot injuries. Post-traumatic complications.
   Dr. Wiegand Norbert
13 Fractures of the upper extremity (clavicle-forearm).
   Dr. Nőt László Gergely
14 Injuries of the wrist and the hand. Microsurgery.
   Dr. Szabó Tamás

Practices
1 Basic principles of wound treatment (Anaesthesia, excision, closure).
2 Basic forms of osteosynthesis. (Screw OS, plate OS).
3 Practice of cast fixation.
4 The basic principles of the ATLS.
5 Principles of microsurgery
6 Physical diagnostics of the hand
7 Duty
8 Duty

Seminars
1 Bone healing
2 Possibilities for fracture treatment
3 Types of wounds. Wound treatment.
4 Femoral neck fracture
5 Fractures around the hip.
6 Fractures of the upper extremity
7 Fractures of the femoral and the crural diaphysis
8 Fractures around the knee
9 Pathophysiology of the knee. Treatment of the ligament and meniscal injuries
10 Fractures of the ankle
11 Fractures of the foot.
12 Tendon injuries of the hand.
13 Microsurgery
14 Injuries of the thorax
15 Injuries of the abdomen
16 Injuries of the spine and pelvis
17 X-ray practice
18 X-ray practice
19 X-ray practice
20 X-ray practice

Exam topics/questions
A - series
1. Medical first aid, bleeding control, ATLS, TRIAGE
4. Classification and management of open fractures.
6. Joint dislocations. Diagnosis and therapy of joint-related soft tissue injuries.
10. Management of the septic condition of soft tissues, bones and joints.
11. Inactivity-induced atrophy, reflex dystrophy, compartment syndrome.
12. Replantation, revascularization, microsurgery.
13. Head and spine injuries.
15. Injuries of the abdomen.

B - series

3. Trochanteric, diaphyseal and distal fractures of the femur.
4. Proximal and middle shaft lower leg fractures.
5. Ligament and meniscal injuries of the knee. Patellar fractures.
9. Proximal and middle shaft humeral fractures.
10. Elbow fractures and dislocations.
12. Carpal and metacarpal injuries. Basic principles of immobilization of the hand.
14. Tendon injuries of the hand.
15. Treatment of the septic hand.

Participants

Dr. Kromek Lóránd (KRLBAA.AJUTE), Dr. Nőt László Gergely (NOLFAAO.PTE), Dr. Patczai Balázs (PABFADO.PTE), Dr. Szabó Tamás (SZTFAMO.PTE), Dr. Wiegand Norbert (WINPAAP.PTE)
UP MS General Medicine major – subjects of the Basic module - Course descriptions – academic year of 2016/2017

**OAR-SEB - SUMMER PRACTICE IN SURGERY**

**Course director:** Dr. András Gábor Vereczkei, professor
Surgery Clinic

<table>
<thead>
<tr>
<th>0 credit • signature • Criterion requirement module • spring semester • recommended semester: 8</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of hours/semester:</strong> 0 lectures + 120 practices + 0 seminars = total of 120 hours</td>
</tr>
<tr>
<td><strong>Course headcount limitations (min.-max.):</strong> 1 – 200</td>
</tr>
<tr>
<td><strong>Prerequisites:</strong> OAP-SPR completed + OAK-SE1 parallel</td>
</tr>
</tbody>
</table>

**Topic**

It includes the obligatory 4 weeks summer practice for 4th year students in surgical departments. The mainly bedside practice of 4th year students provides a better knowledge of patient care and management (know-how of patient examination, evaluation of diagnostic finds, observer-activity at operations, wound care, change of dressing, etc.)

**Conditions for acceptance of the semester**

No exam. The duration of the practice is 4 weeks.

The practice can be spent at departments with significant surgical activity: surgery, vascular surgery, neurosurgery, pediatric surgery, heart surgery, traumatology, orthopedics.

**Mid-term exams**

Making up for missed classes

The summer practice is obligatory. To do it abroad a special consent is needed from the head of the department, and the vice-dean for medical education.

**Reading material**

- **Obligatory literature**
  - Sabiston D.C.: Textbook of Surgery, Elsevier, Philadelphia,
  - Poerter - Malt: Oxford Textbook of Surgery, Oxford University Press,

- **Literature developed by the Department**

- **Notes**

- **Recommended literature**

**Lectures**

**Practices**

1-120 Bedside practice at the thoracic surgical unit

  - Control of O2-saturation
  - Investigation of respiratory capacity (functional tests)
  - Postoperative assisted ventilation and supporting physiotherapy
  - Supportive treatment of venous disorders (elastic bandage, elastic stockings, local ointments)
  - How to check the effectivity of sympathectomy?
  - Bedside investigation of the limbs in obstructive vascular disease
  - Change of pads and bandages
  - Administration of pain-killers in patients operated on for gastrointestinal disease
  - How long should abdominal drainage be maintained?
  - Enteral and parenteral nutrition in surgical patients
  - Starting of oral nutrition following GI surgery
  - Evaluation of patients in the outpatient and emergency ambulance?
  - Necessary measures at the admission of acute cases
  - The importance of the patient’s consent to the planned surgery
  - Thromboembolic prophylaxis in surgical patients

**Seminars**

Exam topics/questions

No questions.

**Participants**

Dr. Baracs József (BAJFADO.PTE), Dr. Ember Ágoston (EMAFAAO.PTE), Dr. Ferencz Sándor (FESDAA.T.JPTE), Dr. Kalmár Nagy Károly (KAKNAFP.PTE), Dr. Kelemen Dezső Tamás (KEDMAAO.PTE), Dr. Papp András (PAAOABP.PTE), Dr. Szakály Péter (SZPMAAO.PTE), Dr. Szalai Gábor (SZFAGO.PTE), Dr. Szántó Zalán János (SZZFAAO.PTE), Dr. Vereczkei András Gábor (VEAGAAO.PTE), Dr. Zapf István Tamás (ZAIFAAO.PTE)
**OAK-DAN**

**INTERNAL MEDICINE: DIABETES - ANGIOLOGY**

**Course director:**

<table>
<thead>
<tr>
<th>1 credit</th>
<th>semester exam</th>
<th>Clinical module</th>
<th>autumn semester</th>
<th>recommended semester: 9</th>
</tr>
</thead>
</table>

**Number of hours/semester:**

4 lectures + 8 practices + 0 seminars = total of 12 hours

**Course headcount limitations (min.-max.):**

5 – 100

**Prerequisites:**

OAP-BPR completed + OAK-GT3 completed

---

**Topic**

The purpose of the subject is to teach the students the major carbohydrate and metabolic disorders. The theoretical knowledge is accompanied with the next clinical skills: specific history taking and physical examination of patients with carbohydrate metabolic abnormalities and angiological diseases, blood glucose measurement, carotid intima-media thickness measurement, detection of diabetic neuropathy (vegetative, sensoric), use of insulins, PENS, diagnosis and treatment of ulcer cruris, demonstration of continuous glucose monitoring system and insulin pump, measurement of waist-hip ratio, calculation of body mass index and LDL-cholesterol, calculation of a diabetic diet. Importance of Ankle-brachial index test.

**Conditions for acceptance of the semester**

1 absence allowed.

**Mid-term exams**

Making up for missed classes

Making up the absences is not allowed.

**Reading material**

- **Obligatory literature**
- **Literature developed by the Department**
- **Notes**
  

- **Recommended literature**

  Harrison’s Principles of Internal Medicine, McGrew-Hill Book Company

**Lectures**

1. Metabolic diseases and atherosclerosis, pre-diabetes.
   Dr. Wittmann István
2. Type 2 diabetes mellitus and acute complications of diabetes.
   Dr. Wittmann István
3. Type 1 diabetes mellitus and pancreoprive diabetes, the metabolic syndrome.
   Dr. Wittmann István
   Dr. Wittmann István

**Practices**

1-8 As the themes of the lectures.

**Seminars**

**Exam topics/questions**

1) Role of metabolic diseases in the development of atherosclerosis
2) Pre-diabetic states
3) Type 1 diabetes mellitus
4) Type 2 diabetes mellitus
5) Pancreoprive diabetes mellitus
6) Insulin therapy
7) Oral antidiabetic agents
8) Acute complications of diabetes mellitus
9) Chronic complications of diabetes mellitus
10) Dietetotherapy in diabetes mellitus.
11) Preoperative care of diabetic patients and the therapy of hypertension
12) The metabolic syndrome
13) Gout (hyperuricaemia)
14) Diagnosis and treatment of patients with other metabolic diseases.

Participants
Dr. Bekő Viktória (OKBFAA.A.JPTE), Dr. Csiky Botond (CSBMAAO.PTE), Dr. Kovács Tibor József (KOTMABO.PTE), Dr. Laczy Boglárka (LABFAAO.PTE), Dr. Molnár Gergő Attila (MOGFABO.PTE), Dr. Sebők Judit (SEJFAAO.PTE)
OAK-GAS

INTERNAL MEDICINE: GASTROENTEROLOGY

Course director: DR. ÁRON ENDRE VINCZE, associate professor
1st Department of Internal Medicine

3 credit • semester exam • Clinical module • autumn semester • recommended semester: 9

Number of hours/semester: 14 lectures + 28 practices + 0 seminars = total of 42 hours
Course headcount limitations (min.-max.): 5 – 160
Prerequisites: OAP-BPR completed + OAP-KG2 completed + OAP-GT2 parallel

Topic

As a subspeciality of internal medicine, gastroenterology training combines a weekly lecture and weekly bedside practice to overview main issues of digestive system disorders, and bedside training to promote skills in physical examination and management of patients with gastrointestinal, pancreatic, and hepatic disorders.

Conditions for acceptance of the semester

According to the Code of Studies and Examinations.

Exam: bedside skills and oral exam.

Mid-term exams

Making up for missed classes

Participation on the lectures and bedside practices are compulsory. Maximum of 2 bedside practice can made up for during the semester by joining to an other group, if the number of students are not exceeding 12 in that group. Individual options such as changing the officially assigned group can be requested from the study coordinator.

Maximum 15% absences are tolerated during the semester at the lectures and practices. More absences result in automatic exclusion from the exam.

Reading material

- Obligatory literature
  - Tierney LM, McPhee SJ, Papadakis MA. Current Medical Diagnosis and Treatment, current ed., Lange/McGraw-Hill, New York, NY
- Literature developed by the Department
- Notes
- Recommended literature

Lectures

1. Introduction. Esophageal diseases.
   Dr. Vincze Áron Endre
   Dr. Szabó Imre
3. Gastrointestinal bleeding.
   Dr. Vincze Áron Endre
4. Abdominal emergencies.
   Dr. Czimmer József
5. Functional gastrointestinal disorders.
   Dr. Vincze Áron Endre
   Dr. Mózsik Gyula
7. Inflammatory bowel diseases.
   Dr. Vincze Áron Endre
8. Diverticular disease. Premalignant lesions of the colon
   Dr. Vincze Áron Endre
9. Chronic viral hepatitis.
   Dr. Pár Gabriella
    Dr. Pár Alajos
11. Autoimmune hepatitis, PBC, PSC
    Dr. Pár Gabriella
12 Liver cirrhosis. Hepatic failure.  
   Dr. Hunyady Béla  
13 Biliary tract obstruction. Gallstone disease.  
   Dr. Pakodi Ferenc  
14 Acute and chronic pancreatitis.  
   Dr. Hegyi Péter

**Practices**
1 History taking, physical examination in patients with GI disorders  
2 Reflux disease  
3 Peptic ulcer disease  
4 Complications of peptic ulcer disease  
5 Upper gastrointestinal bleeding  
6 Lower gastrointestinal bleeding  
7 Acute abdomen  
8 Ileus  
9 Functional disorders of the upper GI tract  
10 Functional disorders of the lower GI tract  
11 Malabsorption  
12 Gluten sensitive enteropathy  
13 Ulcerative colitis  
14 Crohn’s disease  
15 Precancerous conditions in the upper GI tract  
16 Precancerous conditions in the lower GI tract  
17 Chronic HBV-hepatitis  
18 Chronic HCV-hepatitis  
19 Alcoholic liver disease  
20 Non alcoholic steatohepatitis  
21 Autoimmune hepatitis, Wilson’s disease, hemochromatosis  
22 Primary sclerosing cholangitis, primary biliary cirrhosis  
23 Acute and chronic liver failure  
24 Liver cirrhosis  
25 Gallstone disease  
26 Complications of gallstone disease  
27 Acute pancreatitis  
28 Chronic pancreatitis

**Seminars**

**Exam topics/questions**
1. Gastroesophageal reflux disease  
2. Esophageal motility disorders  
3. Gastritis  
4. Peptic ulcer disease  
5. Non-variceal gastrointestinal bleeding  
6. Variceal gastrointestinal bleeding  
7. Malabsorption syndrome  
8. Gluten sensitive enteropathy  
9. Crohn’s disease  
10. Ulcerative colitis  
11. Intestinal obstruction, ileus  
12. Diverticular disease  
13. Premalignant lesions of the colon  
14. Appendicitis  
15. Toxic and drug-induced liver injury  
16. Non-alcoholic steatohepatitis  
17. Alcoholic liver disease  
18. Chronic viral hepatitis  
19. Autoimmune hepatitis  
20. Primary biliary cirrhosis
21. Primary sclerosing cholangitis
22. Liver cirrhosis
23. Haemochromastosis
24. Wilson’s disease
25. Tumors of the liver
26. Hyperbilirubinaemias
27. Gallstone disease
28. Acute pancreatitis
29. Chronic pancreatitis

Participants
Dr. Czimmer József (CZJFAAO.PTE), Dr. Gódi Szilárd (GOSAAA.TJPTE), Dr. Illés Anita (ILAFAAO.PTE), Dr. Mózsik Gyula (MOGGABO.PTE), Dr. Pár Alajos (PAAMAAO.PTE), Dr. Pár Gabriella (PAGFAAO.PTE), Dr. Szabó Imre (SZIHAFE.PTE), Dr. Vincze Áron Endre (VIAQAAP.PTE)
OAK-GY1  PAEDIATRICS 1

Course director: DR. KATALIN OHMACHT-HOLLÓDY, associate professor
Department of Paediatrics

4 credit • semester exam • Clinical module • autumn semester • recommended semester: 9

Number of hours/semester: 28 lectures + 28 practices + 0 seminars = total of 56 hours
Course headcount limitations (min.-max.): 5 – 200
Prerequisites: OAP-BPR completed + OAP-KO2 completed + OAK-GT3 completed

Topic
The basic goal is to get a good general knowledge from paediatrics. To acquire a good skill in examining patients and to be able to make plans for diagnostic procedures and to bring up therapeutic proposals.

Conditions for acceptance of the semester
Oral exam.

The attendance of the practices is compulsory, the teachers will check it regularly. The maximum permitted number of absences is 4, independently of the reason. In case of more than 4 absences, the signing of the index will be refused with the consequent invalidation of the semester.

Mid-term exams
Making up for missed classes
It can be appreciated only in very special cases.

Reading material
- Obligatory literature
- Literature developed by the Department
  Lectures, bedside teaching
- Notes
- Recommended literature

Lectures
1  Paediatrics and child health. Introduction
   Dr. Decsi Tamás
2  The characteristics of the premature and mature baby. Infant mortality, statistical data. Neonatal screening
   Dr. Decsi Tamás
3  Neonatal pulmonar pathology
   Dr. Decsi Tamás
4  Neonatal neurology (Hypoxic-ischaemic encephalopathy, intracranial haemorrhage, birth injuries)
   Dr. Csábi Györgyi
5  Neonatal haematology
   Dr. Decsi Tamás
6  Perinatal infections
   Dr. Decsi Tamás
7  Surgical diseases in the neonatal period
   Dr. Farkas András
8  Congenital heart malformations
   Dr. Masszi György
9  Infant feeding
   Dr. Decsi Tamás
10  Nutritional disorders (malnutrition, vitamins, minerals)
    Dr. Decsi Tamás
11  Inborn errors of metabolism
    Dr. Decsi Tamás
12  Normal and abnormal psychomotor development
    Dr. Ohmachtné Dr. Hollódy Katalin
13  Pneumonias in the infancy and childhood
    Dr. Adonyi Mária
<table>
<thead>
<tr>
<th>No.</th>
<th>Topic</th>
<th>Lecturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Obstructive respiratory disorders</td>
<td>Dr. Adonyi Mária</td>
</tr>
<tr>
<td>15</td>
<td>The most common ear-nose-throat diseases</td>
<td>Dr. Ráth Gábor</td>
</tr>
<tr>
<td>16</td>
<td>Carditis, disturbances of rate and rhythm, heart failure</td>
<td>Dr. Masszi György</td>
</tr>
<tr>
<td>17</td>
<td>Gastrointestinal infections</td>
<td>Dr. Tárnok András</td>
</tr>
<tr>
<td>18</td>
<td>Gastrointestinal motility disorders</td>
<td>Dr. Tárnok András</td>
</tr>
<tr>
<td>19</td>
<td>Malabsorption syndrome. Food allergy</td>
<td>Dr. Tárnok András</td>
</tr>
<tr>
<td>20</td>
<td>Disturbances of the body composition</td>
<td>Dr. Molnár Dénes</td>
</tr>
<tr>
<td>21</td>
<td>Chronic inflammatory bowel diseases</td>
<td>Dr. Tárnok András</td>
</tr>
<tr>
<td>22</td>
<td>The types of dehydration and their treatment</td>
<td>Dr. Molnár Dénes</td>
</tr>
<tr>
<td>23</td>
<td>Enteral and parenteral nutrition</td>
<td>Dr. Stankovics József</td>
</tr>
<tr>
<td>24</td>
<td>Liver and spleen disorders</td>
<td>Dr. Nyul Zoltán</td>
</tr>
<tr>
<td>25</td>
<td>Glomerulonephritis. Acut and chronic renal failure</td>
<td>Dr. Molnár Dénes</td>
</tr>
<tr>
<td>26</td>
<td>Urinary tract infections</td>
<td>Dr. Molnár Dénes</td>
</tr>
<tr>
<td>27</td>
<td>Nephrosis syndrome</td>
<td>Dr. Molnár Dénes</td>
</tr>
<tr>
<td>28</td>
<td>Acid-base balance</td>
<td>Dr. Molnár Dénes</td>
</tr>
</tbody>
</table>

**Practices**

1. Taking the patient history
2. Communication with children and parents
3. Examination of the healthy neonate
4. Examination of the healthy infant
5. Examination of the healthy child
6. The physical examination in detail, according to organ systems
7. Development, growth, body ratios, percentile tables (eutrophia, dystrophia definitions)
8. Development, growth, body ratios, percentile tables (eutrophia, dystrophia definitions)
9. Independent recording of physical status
10. The guidelines and methods of blood sampling, i.v. line placement, and infusions
11. Guidelines for fluid therapy (the use of different types of infusions)
12. Indication for use of blood products, total blood transfusion in practice
13. Examination of the blood smear
14. Ordering and interpreting blood test results
15. The technique of lumbar puncture. Examination of CSF.
16. Techniques of blood pressure measurement in infants and children
17. Obtaining urine samples and interpreting urine test results
18. Treatment of convulsions in infants and children (rectal, i.v. Diazepam dose)
19. Mechanical ventilation in the neonatal period, practical use of surfactant
20. Mechanical ventilation guidelines
21. Injection techniques (i.c., s.c., i.m., i.v.)
22. The technique of examining reflexes. Reflexes in the infant and neonate.
23. Independent recording of physical status
24. Practical aspects of infant nutrition (nursing, weaning, feeding in general)
25. Fever treatment
26. Ordering and interpreting blood test results
27. Use of antibiotics in everyday practice
28. Assessment of the unconscious patient (Glasgow Coma Scale)
Seminars

Exam topics/questions

The list of the questions can be found on the homepage of our department.


Participants

Dr. Csábi Györgyi (CSGPAAP.PTE), Dr. Erhardt Éva (EREMAAO.PTE), Dr. Farkas András (FAAMAAO.PTE), Dr. Major Judit (MAJIAAO.PTE), Dr. Mosdósi Bernadett (MOBFAAO.PTE), Dr. Oberritter Zsolt (OBZMAAO.PTE), Dr. Ohmachné Dr. Hollódy Katalin (HOKPAAP.PTE), Dr. Rózsai Barnabás (ROBFAAO.PTE), Dr. Stankovics József (STJMAAO.PTE), Dr. Tárnok András (TAAPABP.PTE), Dr. Vajda Péter (VAPFAAO.PTE), Dr. Vástyán Attila (VAAMAAO.PTE)
OAK-IGU | FORENSIC MEDICINE
Course director: DR. FRANCISKA KÖNCZOL, associate professor
Department of Forensic Medicine

4 credit • semester exam • Clinical module • autumn semester • recommended semester: 9
Number of hours/semester: 28 lectures + 28 practices + 0 seminars = total of 56 hours
Course headcount limitations (min.-max.): 5 –  Prerequisites: OAP-PA2 completed

Topic
Forensic medicine is a branch of medicine applied for the purposes of justice. For the achievement of these purposes in practice forensic medicine uses the knowledge comprised in various theoretical and clinical parts of medicine. Therefore, forensic medicine is a very complex science, which has different specialties, e.g. serology, toxicology, traumatology, genetics, etc.

Conditions for acceptance of the semester
Colloquium
Absences accepted according to the exam rules.
Mid-term exams
Making up for missed classes
Individual agreement
Reading material
- Obligatory literature
- Literature developed by the Department
- Notes
- Recommended literature
  P. Sótonyi (ed.): Lecture Notes of Forensic Medicine, Semmelweis University of Medicine, Budapest
  B. Knight (ed.: E. Arnold): Simpson’s Forensic Medicine, 10th edition

Lectures
1  Introduction.
   Dr. Kozma Zsolt
2  Legal systems
   Dr. Kozma Zsolt
3  Rules of Autopsy.
   Dr. Kricskovics Antal
4  Post-mortem (Crime scene) investigation
   Dr. Kricskovics Antal
5  Healthcare law.
   Dr. Kozma Zsolt
6  Medical Malpractice
   Dr. Kozma Zsolt
7  Asphyxia
   Dr. Simon Gábor
8  Asphyxia
   Dr. Simon Gábor
9  Firearm Injuries
   Dr. Simon Gábor
10 Firearm Injuries
    Dr. Simon Gábor
11 Identification
   Dr. Simon Gábor
12 Identification
   Dr. Simon Gábor
13 Forensic DNA examinations
   Poór Viktor Soma
14 Forensic DNA Examinations
   Poór Viktor Soma
15 Forensic Toxicology
   Dr. Pórpácz Zoltán
16 Forensic Toxicology
   Dr. Pórpácz Zoltán
17 Sexual offences
   Dr. Simon Gábor
18 Sexual offences
   Dr. Simon Gábor
19 Workplace diseases. Compensation
   Dr. Kozma Zsolt
20 Workplace diseases
   Dr. Kozma Zsolt
21 Traffic Accidents
   Dr. Kozma Zsolt
22 Traffic accidents
   Dr. Kozma Zsolt
23 Abortion
   Dr. Simon Gábor
24 Infanticide
   Dr. Simon Gábor
25 Forensic psychiatry
   Dr. Fekete Sándor
26 Forensic psychiatry
   Dr. Fekete Sándor
27 Consultation
   Dr. Simon Gábor
28 Consultation
   Dr. Simon Gábor

Practices
1 Changes after death
2 Changes after death
3 Autopsy case demonstration
4 Autopsy case demonstration
5 Vital signs and reactions
6 Vital signs and reactions
7 Wounds and injuries
8 Wounds and injuries
9 Head and spinal injuries I
10 Head and spinal injuries II
11 Burns
12 Electrocution
13 Serology, paternity tests
14 Serology, paternity tests
15 Alcohol (introduction)
16 Alcohol (introduction)
17 Toxicology (introduction)
18 Toxicology (introduction)
19 Identification, skeletal remains
20 Identification, skeletal remains
21 Organ Transplantation
22 Forensic Histology
23 Autopsy case demonstration (changes after death, post-mortem examination)
24 Autopsy case demonstration (changes after death, post-mortem examination)
25 Autopsy case demonstration (changes after death, post-mortem examination)
26 Autopsy case demonstration (changes after death, post-mortem examination)
27 Autopsy case demonstration
28 Autopsy case demonstration
Exam topics/questions

A/1. Patient’s and physician’s rights
A/2. Medical negligence and malpractice
A/4. Post-mortem examination, Exhumation
A/5. Rules of autopsy. Autopsy Report
A/6. Sexual deviations. Sexual crimes (excluding rape)
A/7. Illegal drugs: depressants
A/8. Illegal drugs: stimulants, hallucinogens
A/10. Ethylene glycol, methanol intoxication. Paraquat, DDT
A/11. Carbon-Monoxide intoxication. Cyanide
A/12. Drunkenness. Absorption and elimination of ethanol. Pathologic drunkenness
A/13. Organ transplantation: Law and ethics
A/14. DNA Fingerprinting
A/15. Vital signs and reactions
A/16. Legal aspects of mental disorders. Criminal responsibility. Wills and testamentary capacity
A/17. Forensic Histopathology

B/1. Sudden natural death in adult. SIDS
B/2. Post-mortem changes of the body
B/3. Hypothermia, electrocution
B/4. Injuries caused by blunt force
B/5. Injuries caused by sharp force
B/6. Firearm injuries
B/7. Motor vehicle accidents
B/8. Asphyxial death: suffocation, choking, traumatic asphyxia
B/9. Fatal pressure of the neck
B/10. Immersion Death
B/11. Rape and unlawful sexual intercourse
B/12. Abortion
B/13. Battered child, infanticide
B/15. Identification of skeletal remains
B/16. Head injuries
B/17. Chest and abdominal injuries
B/18. Burns

Participants

Dr. Kozma Zsolt (KOZEA.C.KJPT), Dr. Mayer Mátyás (MAMSAB.PT), Dr. Porpácz Zoltán (POZHAAE.PTE), Dr. Simon Gábor (SIGFAO.PTE), Nagy Gergely (NAGQAAP.PTE)
OAK-NE1 Neurology 1

Course director: Dr. Zoltán Pfund, associate professor
Department of Neurology

3 credit • midsemester grade • Clinical module • autumn semester • recommended semester: 9

Number of hours/semester: 14 lectures + 28 practices + 0 seminars = total of 42 hours
Course headcount limitations (min.-max.): 5 – 100
Prerequisites: OAA-NEA completed + OAP-PA2 completed + OAK-GT3 completed

Topic
Investigation of patients with different neurological diseases: history taking, neurological physical examination, discovery of common neurological disorders and neurological emergencies.

Conditions for acceptance of the semester
Maximum of 15 % absence allowed

Mid-term exams
Making up for missed classes
Extra scheduled practices

Reading material
- Obligatory literature
- Literature developed by the Department
- Notes
- Recommended literature

Physical examination
http://neurology.hu/physicalexamination.pdf

Books
Hankey’s Clinical Neurology, 2014
Neurology: A Queen Square Textbook, 2009
Oxford Handbook of Neurology, 2014

Lectures
1  Neurodiagnostic procedures I
   Dr. Pfund Zoltán
2  Neurodiagnostic procedures II
   Dr. Pfund Zoltán
3  Neuromuscular junction disorders
   Dr. Komoly Sámuel
4  CSF taking, analysis, disease specific indications of sample taking
   Dr. Bors László
5  Diagnostic tools in sleep disorders
   Dr. Faludi Béla
6  Myopathies
   Dr. Pál Endre
7  Neuromuscular junction disorders
   Dr. Komoly Sámuel
8  Multiple sclerosis and neuromyelitis optica (Davic’s)
   Dr. Komoly Sámuel
9  Parkinson’s disease and Parkinson’s plus syndromes
   Dr. Komoly Sámuel
10 Phenomenology of movement and gait disorders
    Dr. Kovács Norbert
11 Peripheral neuropathies
    Dr. Pfund Zoltán
12 Vertigo and dizziness
    Dr. Pfund Zoltán
13 Meningitis, encephalitis, Lyme disease
   Dr. Komoly Sámuel
14 Imaging-based patient selection
   Dr. Fehér Gergely

Practices
1 Reflexes
2 Testing of cranial nerves
3 Testing of cranial nerves
4 Tests of motor functions
5 Tests of motor functions
6 Testing of sensory functions
7 Testing of sensory functions
8 Testing of cerebellar and vestibular functions
9 Testing of cerebellar and vestibular functions
10 Testing of gait and stance
11 Testing of gait and stance
12 Testing of higher cortical functions
13 Testing of higher cortical functions
14 Testing of higher cortical functions
15 Reflexes
16 Reflexes
17 Testing of cranial nerves
18 Testing of cranial nerves
19 Tests of motor functions
20 Tests of motor functions
21 Testing of sensory functions
22 Testing of sensory functions
23 Testing of cerebellar and vestibular functions
24 Testing of cerebellar and vestibular functions
25 Testing of gait and stance
26 Testing of gait and stance
27 Testing of higher cortical functions
28 Testing of higher cortical functions

Seminars
Exam topics/questions
Physical examination of the skull and vertebral column
Signs of meningeal irritation
Investigation of cranial nerves
Investigation of motility
Investigation of somatic sensation
Investigation of deep tendon and superficial reflexes
Pathological reflexes
Investigation of coordination
Hyperkinesias
Investigation of speech, gnostic and cognitive functions
Investigation of the unconscious patient. Confusional status
Signs of increased intracranial pressure. Main intracranial herniations
Signs of temporal lobe lesions
Signs of frontal lobe lesions
Signs of parietal lobe lesions.
Signs of occipital lobe lesions
Signs of blood circulation disturbances (internal carotid artery, basilar artery)

Participants
Dr. Ács Péter (ACPNAAO.PTE), Dr. Faludi Béla (FABHAAE.PTE), Dr. Kovács Norbert (KONFAAO.PTE), Dr. Sebők Ágnes (SEASAAP.PTE)
OAK-PS1  Psychiatry 1

Course director: DR. SÁNDOR FEKETE, professor
Department of Psychiatry and Psychotherapy

3 credit • semester exam • Clinical module • autumn semester • recommended semester: 9

Number of hours/semester: 14 lectures + 28 practices + 0 seminars = total of 42 hours
Course headcount limitations (min.-max.): 5 – 50
Prerequisites: OAP-MT5 completed + OAP-PA2 completed + OAP-GT2 completed

Topic

Requirements
- To acquire the knowledge and skills of clinical psychiatry in the general practice

Themes:
- The essential psychopathological symptoms and syndromes
- The treatment of the ill patient’s emotional responses
- Psychological first aid and psychiatric emergencies in crisis and stress situations
- Exploration, evaluation of the psychiatric patients
- Biological and psychological therapeutic interventions
- Prevention and postvention of psychiatric disorders
- Psychiatric care and mentalhygienic activity in the general practice (Psychiatric interview in Hungarian)
- Practices (first and second semesters)
- Psychiatric evaluation (interview, psychiatric history, mental status examination) /2 x 2 hrs/
- Anxiety disorders (amiety, phobias, obsessive compulsive disorder, panic disorder) /2 x 2 hrs/
- Conditions which mimic physical disease (somatisation disorders, conversion disorder, hypochondriasis, somatoform pain disorder) /2 x 2 hrs/
- Psychosomatic disorders /2 x 2 hrs/
- Psychosexual disorders/dysfunction and paraphilia /2 hrs/

Practices:
- Observation, description and evaluation of the patients’ behaviour

Conditions for acceptance of the semester

According to the Code of Studies and Examinations

Mid-term exams

Making up for missed classes

According to the Code of Studies and Examinations

Reading material
- Obligatory literature
- Literature developed by the Department
- Notes
- Recommended literature


Lectures
1  History and context of psychiatry
   Dr. Fekete Sándor
2  Classification of mental disorders
   Dr. Fekete Sándor
3  Neurobiology and genetics of mental disorders
   Dr. Fekete Sándor
4  Anxiety disorders
   Dr. Fekete Sándor
5  Impulse control disorders and obsessive-compulsive disorder
   Dr. Fekete Sándor
6  Emergency psychiatry
   Dr. Fekete Sándor
7 Suicidal behaviour from genetics to cultural approach  
   Dr. Fekete Sándor
8 Neurotic disorders I - history and classification  
   Dr. Osváth Péter
9 Neurotic disorders II - Somatoform and dissociative disorders  
   Dr. Osváth Péter
10 Psychomatic disorders- eating disorders  
   Dr. Gáti Ágnes
11 Sexual dysfunctions and paraphilic disorders  
   Dr. Fekete Sándor
12 Sleep-wake disorders  
   Dr. Fekete Sándor
13 Dynamic psychotherapies  
   Dr. Fekete Sándor
14 Cognitive-behaviour and client centered psychotherapies  
   Dr. Fekete Sándor

Practices
0 Adjustment disorders I
0 Crisis intervention II
0 Suicide III
0 Adjustment disorders IV
0 Psychopathology II
0 Crisis intervention I
0 Psychopathology III
0 Sleep disorders I
0 Adjustment disorders III
0 Sleep disorders II
0 Adjustment disorders II
0 Anxiety II
0 Anxiety I
0 Psychopathology VI
0 Psychopathology V
0 Psychopathology IV
0 Psychopathology I
0 Suicide I
0 Psychosomatic disorders IV
0 Personality disorders I
0 Suicide IV
0 Psychosomatic disorders I
0 Psychosomatic disorders II
0 Psychosomatic disorders III
0 Personality disorders II
0 Personality disorders III
0 Personality disorders IV
0 Suicide II

Seminars

Exam topics/questions
1./ Psychiatric anamnesis and interview  
   Classification of anxiety disorder
2./ The mental status  
   Sleep-wake disorders
3./ Diagnosis and differential diagnosis of psychosis  
   Somatic symptom and related disorders
4./ Disturbances of consciousness  
   Sexual dysfunctions
5./ Disturbances of orientation  
   Psychosomatic disorders
6./ Disturbances of memory
   Impulse-control, and factitious disorders
7./ Disturbances of attention
   The most important features of psychotherapy
8./ Disturbances of perception
   Panic and generalised anxiety disorders
9./ Disturbances of thinking
   Suicidal behaviour - treatment and prevention
10./ Disturbances of affectivity
    Dissociative disorders
11./ History of psychiatry
    Emergency psychiatry
12./ The symptoms of anxiety
    Dynamic psychotherapies
13./ Disturbances and examination of intelligence
    Cognitive and behaviour psychotherapies
14./ Disturbances of motor behaviour
    Adjustment disorders and psychological crisis, crisis-intervention
15./ Disturbances of instincts
    Client-centered psychotherapy
16./ Disturbances of judgment and insight
    Obsessive-compulsive disorder
17./ Symptoms of delirium
    Classification of mental disorders
18./ Concept and types of delusions
    The main factors of suicidal behaviour from neurobiology to culture
19./ Differential diagnosis of anxiety disorders
    The main factors of emergency psychiatry
20./ The Ekbom-symptom
    Conversion disorder
21./ The clinical significance of hallucinations and illusions
    The examination and treatment of desorientated patient
22./ The symptoms of catatonia
    Psychosocial crisis, presuicidal syndrome, cry for help
23./ Types of phobias
    The examination and treatment of aggressive patients

Participants
Dr. Gáti Ágnes (GAAHAAE.PTE), Dr. Herold Róbert (HERMAAO.PTE), Dr. Kovács Attila (KOAMAAO.PTE), Dr. Osváth Péter (OSPMAAO.PTE), Dr. Tényi Tamás (TETGAAO.PTE), Dr. Vörös Viktor (VOVFAAO.PTE)
OAK-SE2 | SURGERY 2

Course director: DR. ANDRÁS GÁBOR VERECZKEI, professor
Surgery Clinic

3 credit • semester exam • Clinical module • autumn semester • recommended semester: 9

Number of hours/semester: 14 lectures + 28 practices + 0 seminars = total of 42 hours

Course headcount limitations (min.-max.): 1 – 200
Prerequisites: OAK-SE1 completed

Topic
Further important chapters of detailed surgery (surgery of the gastrointestinal tract from the esophagus to rectum, and thoracic surgery). Decision making how to handle surgical cases according to indication of surgical interventions or other treatment modalities.

Conditions for acceptance of the semester
Admission and physical examination of new patients. Participation in endoscopic investigations and attendance at rounds, actually also at operations. Ability to evaluate imaging diagnostic finds and labpanels. Attendance to the lectures and participation on exercises is obligatory with max. two absences.

Mid-term exams
The first exam is accomplished in a written form, following corrective exams are oral.

Making up for missed classes
Missed exercises are to be made up for at a later time according to appointments with the group leader.

Reading material
- Obligatory literature
  Porter and Malt: Oxford Textbook of Surgery
- Literature developed by the Department
- Notes
- Recommended literature

Lectures
1. Thoracic surgery (mediastinum, deformities of the chest wall)
   Dr. Szántó Zalán János
2. Thoracic surgery (HTX, PTX)
   Dr. Szántó Zalán János
3. Thoracic surgery (lung resections)
   Dr. Szántó Zalán János
4. Surgery of the gallbladder and bile ducts
   Dr. Papp Róbert
5. Surgery of benign liver tumors
   Dr. Papp András
6. Surgery of malignant liver tumors
   Dr. Kalmár Nagy Károly
7. Surgery of acute and chronic pancreatitis
   Dr. Kelemen Dezső Tamás
8. Pancreatic tumors
   Dr. Kelemen Dezső Tamás
9. Esophageal surgery of benign diseases
   Dr. Horváth Órs Péter
10. Esophageal surgery of malignant diseases
    Dr. Papp András
11. Gastric surgery
    Dr. Vereczkei András Gábor
12. Proctology
    Dr. Baracs József
13. Malignant colorectal diseases
    Dr. Baracs József
14. IBD
    Dr. Vereczkei András Gábor
Practices

1. Examination of thoracic patients
2. Examination of thoracic patients
3. Instrumental examination of thoracic patients
4. Instrumental examination of thoracic patients
5. Postoperative treatment of thoracic patients
6. Postoperative treatment of thoracic patients
7. Surgery of the bile duct
8. Surgery of the bile duct
9. Examination of liver diseases
10. Surgery of liver diseases
11. Postoperative treatment of liver patients
12. Postoperative treatment of liver patients
13. Acute pancreatitis
14. Chronic pancreatitis
15. Examination of pancreatic tumors
16. Surgery of pancreatic tumors
17. Benign oesophageal disease
18. Malignant oesophageal disease
19. Investigation of gastric cancer
20. Surgery of gastric cancer
21. Proctology
22. Proctology
23. IBD
24. Surgery of IBD
25. Colorectal tumor investigation
26. Surgery of colorectal tumors
27. Investigation of the mediastinum
28. Surgery of the mediastinum

Seminars

Exam topics/questions

Semester exam questions for the subject SURGERY 2:

1. Types of PTX, treatment, surgical indications
2. Surgical treatment of lung cancer
3. Empyema thoracis, surgical treatment of thoracic infections
4. Preoperative examination in thoracic surgery, risks of operation and post operative complications
5. Mediastinal tumors
6. Malignant gastric tumors
7. Squamouscellular carcinomas of the esophagus and treatment
8. Adenocarcinoma of the esophagus and surgical therapy
9. GERD
10. Diaphragmatic hernia, hiatal hernias and esophageal diverticula
11. Esophageal injury
12. Gallstone disease and its treatment
13. Tumors of the gallbladder and bile ducts
15. Surgical anatomy of the liver and types of resection
16. Benign tumors of the liver, cystic diseases
17. Malignant liver tumors and their treatment
18. Surgical indications and treatment options of acute pancreatitis
19. Surgical therapy and types of chronic pancreatitis
20. Pancreatic tumors. Surgical therapy, palliative therapy
21. Differential diagnosis of haematochesia, importance of Rectal Digital Examination
23. Surgical treatment of hemorrhoids
24. Enterostomies
25. Malignant tumors of the large bowel and their surgical treatment
26. Surgical treatment of rectal tumors
27. Surgical treatment of ulcerative Colitis
28. Surgical treatment of Crohn’s disease

Participants

Dr. Baracs József (BAJFADO.PTE), Dr. Ember Ágoston (EMAFAAO.PTE), Dr. Ferencz Sándor (FESDAA.TJ.PTE), Dr. Horváth Örs Péter (HOOGAAO.PTE), Dr. Jakab László (JALIABO.PTE), Dr. Kalmár Nagy Károly (KAKNAFP.PTE), Dr. Kelemen Dezső Tamás (KEDMAAO.PTE), Dr. Kondor Ariella (KOAPAKA.PTE), Dr. Kovács Gyula (KOGFABO.PTE), Dr. Lukács László (LULHAAE.PTE), Dr. Papp András (PAAOABP.PTE), Dr. Papp Róbert (PARFABO.PTE), Dr. Pavlovics Gábor (PAGQAAO.PTE), Dr. Szakály Péter (SZPMAAO.PTE), Dr. Szalai Gábor (SZFAGO.PTE), Dr. Szántó Zalán János (SZZFAAO.PTE), Dr. Vereczkei András Gábor (VEAGAAO.PTE), Dr. Zapf István Tamás (ZAIFAAO.PTE)
Course Director: Dr. József Bódis, Professor
Department of Obstetrics and Gynaecology

Course: Obstetrics and Gynaecology

OAK-ST1

Credit: 4
Semester Exam: Clinical
Module: Autumn Semester
Recommended Semester: 9

Number of hours/semester:
- 28 lectures
- 28 practices
- 0 seminars
Total of 56 hours

Course headcount limitations (min.-max.): 5-100

Prerequisites: OAK-SE1 completed

Topic:

All aspects of obstetrics are discussed during one semester: physiology of pregnancy; fertilisation of oocyte, implantation; adaptation of maternal endocrine and circulatory system to pregnancy; embryonic, fetal development; diagnostic tools for evaluating fetal well-being; pregnancy pathology: diseases of the mother and the embryo/fetus, and diagnostic and therapeutical opportunities to manage them; physiological and pathological puerperium; the newborn: physiology of adaptation and management of diseases of the newborn.

The purpose of this teaching program is to give a basic knowledge in the field of obstetrics, however, novel scientific results are also reported. The program, with its practical part, makes students capable of:
- distinguishing normal and pathologic pregnancies,
- evaluating fetal well-being,
- managing normal labor,
- assisting in newborn adaptation, and
- revealing puerperal pathologies.

The program gives the opportunity to progress the knowledge obtained by the end of the semester.

Conditions for acceptance of the semester

Semester exam (written or oral)
Licence for exam: absences less than 20% of practices
Mid-term exams
Making up for missed classes
See above

Absences due to medical problem: student(s) should attend the department during the hours of duty services (organized for individuals).

Reading material:

- Obligatory literature
- Literature developed by the Department
- Notes
- Recommended literature

Subject of lectures - hand-out of lecturers;
  www.merck.com/mmpe/sec18.html
  www.acog.org
  www.fpnotebook.com/OB.htm
  www.obgyn.net/

Lectures:

1. Physiology of pregnancy / Maternal diseases and pregnancy
   Dr. Farkas Bálint
2. Endocrine physiology of pregnancy / Endocrine function of the placenta
   Dr. Farkas Bálint
3. Prenatal care / Hypertension in pregnancy
   Dr. Tamás Péter
4. Ultrasound examinations in pregnancy
   Dr. Farkas Bálint
5. Assessment of fetal well-being
   Dr. Farkas Bálint
6 Diabetes and pregnancy / Haemolytic disease of the newborn  
   Dr. Farkas Bálint  
7 Prenatal genetics  
   Dr. Veszprémi Béla  
8 Bleeding during late pregnancy  
   Dr. Kovács Kálmán András  
9 Physiology of normal labour  
   Dr. Gőcze Péter  
10 Breech presentation and breech delivery / Dystocia and prolonged labor; malpresentations  
   Dr. Gőcze Péter  
11 Preterm labour, premature rupture of the membranes  
   Dr. Tamás Péter  
12 Twin pregnancy and twin labor  
   Dr. Farkas Bálint  
13 Labour induction, obstetrical anaesthesia and analgesia  
   Dr. Tamás Péter  
14 Operative delivery  
   Dr. Tamás Péter  
15 Rupture of the uterus, coagulation defects, amniotic fluid embolism  
   Dr. Tamás Péter  
16 Abortion / Ectopic pregnancy  
   Dr. Farkas Bálint  
17 Physiology of adaptation after birth  
   Dr. Ertl Tibor  
18 Birth asphyxia and resuscitation  
   Dr. Ertl Tibor  
19 Puerperium and its complications  
   Dr. Tamás Péter  
20 Family planning methods  
   Dr. Papp Szilárd  
21 Anatomy of the genital tract  
   Dr. Koppán Miklós Endre  
22 Physiology of the menstrual cycle  
   Dr. Papp Szilárd  
23 Abnormal uterine bleeding  
   Dr. Bódis József  
24 Dysmenorrhea and premenstrual syndrome. Anovulatory cycle  
   Dr. Papp Szilárd  
25 Amenorrhea  
   Dr. Papp Szilárd  
26 Intersexuality  
   Dr. Gőcze Péter  
27 Gynecological infections I  
   Dr. Tamás Péter  
28 Gynecological infections II  
   Dr. Tamás Péter

**Practices**

1 Diagnosis of pregnancy, medical history  
2 Diagnosis of pregnancy, medical history  
3 Physical, bimanual examination of pregnant women, diagnosis of intrauterine positioning of the fetus in the last trimester; intrauterine death  
4 Assessment of foetal well-being  
5 Recording of uterine activity and foetal hearth rate; demonstration in labour-ward  
6 Examination of amniotic fluid, prenatal genetics; ultrasound examination  
7 Examination of amniotic fluid, prenatal genetics; ultrasound examination  
8 Conduction of normal labour  
9 Puerperium
Abnormal labour I
Abnormal labour I
Abnormal labour II
Abnormal labour II
Preterm delivery, the signs of threatened abortion and preterm delivery
Preterm delivery, the signs of threatened abortion and preterm delivery
Adaptation of the newborn after birth
Adaptation of the newborn after birth
Birth asphyxia and resuscitation
Birth asphyxia and resuscitation
Placental and postplacental bleeding; manual separation of the placenta
Placental and postplacental bleeding; manual separation of the placenta
Operative delivery
Operative delivery
Pregnancy termination during the first and second trimester
Pregnancy termination during the first and second trimester
Contraceptive methods
Contraceptive methods

Seminars

Exam topics/questions

1. Methods for the assessment of the fetal well-being during labor (CTG, pulse oximetry, STAN, fetal scalp blood gas analysis).
   Definition and possible reason of polyhydramnios and oligohydramnios.
2. Positioning of the fetus during the last trimester (possible options and determination).
   Types, and indications of cesarean section.
   Significance of non-stress test and oxytocin challenge test in the assessment of fetal well-being.
4. Pathological bleedings during labor.
   Planned and indicated delivery induction.
5. Pathogenesis and management of gestational hypertension and preeclampsia.
   Resuscitation of the neonate. The Apgar score.
6. Diagnosis of pregnancy.
   Pathogenesis, diagnosis, and differential diagnosis of placental abruption
   Disturbance of the fetal oxygenisation during labor.
8. Intrauterine growth restriction (IUGR).
   Perinatal mortality; components and reasons.
   Obstetrical analgesia.
10. Type and significance of placenta previa.
    Pathogenesis, diagnosis, and treatment options of cervical incompetency.
11. Prenatal care.
    Screening of fetal chromosomal abnormalities (non-invasive and invasive methods).
12. Preterm and premature rupture of the membranes.
    Ultrasound screening for congenital abnormalities during the first trimester of pregnancy.
    Definition and consequences of postterm (“overdue”) pregnancy and postmature birth.
14. Artificial abortion; methods and possible complications.
    Rotation abnormalities of fetal head during labor.
    Malpresentation of fetal head.
16. Types of abnormal fetal head insertions (abnormal position).
    Reason, significance, and management of threatened preterm delivery.
17. Infections during pregnancy (hepatitis, HIV, toxoplasmosis, syphilis, Group B Streptococci).
    Twin pregnancy, and twin labour.
18. Breech presentation and transverse lie.
    Fertilization and implantation.
19. Rupture of the uterus.
    Forthlying, and prolapsed umbilical cord or minor fetal part.
20. Emesis and hyperemesis during the first trimester of pregnancy.
   Abnormalities of placentation and its late consequences.
   Pathogenesis, and prevention of Rh isoimmunization; erythroblastosis fetalis.
22. Uterine atony; symptoms and management.
   Physiology of lactation; mastitis; puerperal sepsis.
23. Role of amniocentesis and chorionic villi sampling in the recognition of fetal genetic diseases.
   Birth stages.
   Operative vaginal delivery (forceps and vacuum extraction

Participants
Dr. Bódis József (BOJHA.E.PTE), Dr. Ertl Tibor (ERTMAAO.PTE), Dr. Farkas Bálint (FABFAO.PTE), Dr. Gőcze Péter (GOPMAAO.PTE), Dr. Kovács Kálmán András (KOKFAO.PTE), Dr. Papp Szilárd (PASFACO.PTE), Dr. Tamás Péter (TAPMAAO.PTE), Dr. Veszprémi Béla (VEBMAAO.PTE)
OAK-SZE  OPHTHALMOLOGY

Course director: DR. LÁSZLÓ BALÁZS VARSÁNYI, assistant professor
Department of Ophthalmology

3 credit • semester exam • Clinical module • autumn semester • recommended semester: 9
Number of hours/semester: 14 lectures + 28 practices + 0 seminars = total of 42 hours
Course headcount limitations (min.-max.): 1 – 80
Prerequisites: OAP-PA2 completed + OAK-SE1 completed

Topic
The diagnostic tools and therapies of ophthalmic diseases will be discussed highlighting the diseases occurring frequently in the general practices and emergency ambulancies. The basic diagnostic methods needed also in non-ophthalmical offices are treated.

Conditions for acceptance of the semester
It is obligatory to attend all the lectures and practices.

Mid-term exams
Making up for missed classes

Reading material
- Obligatory literature
- Literature developed by the Department
- Notes
- Recommended literature
  G. Lang: Ophthalmology, Thieme

Lectures
1  Introduction. Anatomy of the globe. The eye, as optical system.
   Dr. Biró Zsolt
2  Functional anatomy of the eye. Examination in Ophthalmology.
   Diseases of the eyelids and the lacrimal apparatus
   Dr. Varsányi László Balázs
3  Conjunctiva, cornea, sclera, the uveal tract. Intraocular inflammations.
   Dr. Horváth Zoltánné (Dr. Szabó Ilona)
4  The lens. Cataract.
   Dr. Biró Zsolt
5  The glaucoma. Classification, diagnosis, pathogenesis and treatments.
   Dr. Varsányi László Balázs
6  The vitreous and the vitreoretinal diseases. Retinal detachment.
   Dr. Szomorné Dr. Szijártó Zsuzsanna
7  Retinal vascular abnormalities. Systemic diseases in Ophthalmology.
   Dr. Szomorné Dr. Szijártó Zsuzsanna
8  Retinal degenerations, AMD.
   Dr. Varsányi László Balázs
9  Retinal dystrophies. Electrophysiology.
   Dr. Varsányi László Balázs
10 Neuroophthalmology.
    Dr. Varsányi László Balázs
11 Intraocular tumors. The orbit.
    Dr. Horváth Zoltánné (Dr. Szabó Ilona)
    Dr. Szapáryné Dr. Gaál Valéria
    Dr. Biró Zsolt
14 Differential diagnostics. Consultation.
    Dr. Varsányi László Balázs
Practices

1. Taking the history. Testing of visual acuity and optical defects. Light and colour perception. The methods of morphological examination
2. Taking the history. Testing of visual acuity and optical defects. Light and colour perception. The methods of morphological examination
3. Eyelids and lacrimal apparatus. Eversion of the upper eyelid. Examination of the lacrimal system. Irrigation of the nasolacrimal duct
4. Eyelids and lacrimal apparatus. Eversion of the upper eyelid. Examination of the lacrimal system. Irrigation of the nasolacrimal duct
5. Conjunctiva. Irrigation of the conjunctival sac. The application of drops and ointments into the conjunctival sac. Patching and bandage of the eye
6. Conjunctiva. Irrigation of the conjunctival sac. The application of drops and ointments into the conjunctival sac. Patching and bandage of the eye
11. Lens. Slit-lamp examination before and after cataract surgery. Cataract surgery: ICCE, ECCE, lensectomy, ultrasonic phakoemulsification (video demonstration)
12. Lens. Slit-lamp examination before and after cataract surgery. Cataract surgery: ICCE, ECCE, lensectomy, ultrasonic phakoemulsification (video demonstration)
17. Retina I. Fundus examination. Fluorescein angiography. Diabetic and hypertensive retinopathy
18. Retina I. Fundus examination. Fluorescein angiography. Diabetic and hypertensive retinopathy
20. Retina II. Colour vision. Dark adaptation. Electrophysiology, fundus examination, genetic counselling
23. Intraocular tumours. The clinical picture, diagnosis, differential diagnosis of white pupil, ultrasonography (video demonstration)
24. Intraocular tumours. The clinical picture, diagnosis, differential diagnosis of white pupil, ultrasonography (video demonstration)
25. Strabismus. Extraocular muscles, testing for strabismus. Amblyopia treatment (video demonstration)
26. Strabismus. Extraocular muscles, testing for strabismus. Amblyopia treatment (video demonstration)
27. Ocular injuries. Low vision aids (video demonstration)
28. Ocular injuries. Low vision aids (video demonstration)

Seminars

Exam topics/questions

1. A) Gross anatomy of globe
   B) Ophthalmological complications of hypertension and diabetes mellitus
2. A) Anatomy of the ocular adnexa
   B) Vascular diseases of the retina
3. A) The methods of examination, special ophthalmologic examinations
   B) Treatment of strabismus
4. A) Ophthalmoscopy and its significance, the blurred disc margin
   B) Diseases of the eyelids and their treatment
5. A) Physiology and pathophysiology of the tears
   B) Retinal detachment and its treatment
6. A) Applying bandage, ointment and drop to the eye, irrigation of the nasolacrimal duct
   B) Ophthalmological traumatology
7. A) The significance of the vitreous body
   B) Diseases of the conjunctiva and their treatment
8. A) Anatomy and physiology of the retina
   B) Diseases of the lacrimal apparatus and their treatment
9. A) The classification of the glaucoma
   B) Tumors of the lids, of the globe and of the orbita
10. A) Anatomy and physiology of the extraocular muscles
    B) Chief complaints in ophthalmology; taking the patients history
11. A) The significance and diagnosis of strabismus
    B) Treatment of cataracta
12. A) The sensory visual pathway
    B) Diseases of the cornea and their treatment
13. A) Emergency situations in ophthalmology
    B) Diseases of the sclera and their treatment
14. A) Lethal diseases in ophthalmology
    B) Glaucomas - other than chronic open angle glaucoma
15. A) Causes of sudden monocular loss of vision
    B) Inflammation of the uveal tract
16. A) Differential diagnosis of red eye
    B) The blindness: main causes, prevention
17. A) Pharmacology of the eye, commonly used eye medications
    B) The orbit and its diseases
18. A) Nervous innervations of the globe and its adnexa
    B) Diseases of the macula and their treatment
19. A) Significance of ophthalmology in the choice of profession
    B) Diagnosis and therapy of chronic open angle glaucoma
20. A) Pediatric ophthalmology. Special subjects of pediatric interests
    B) Significant degenerations of the retina
21. A) Genetic aspects of the eye diseases
    B) Diseases of the optic nerve

Participants
Dr. Horváth Zoltánné (Dr. Szabó Ilona) (HOZTAD0.PTE), Dr. Szomómé Dr. Szijártó Zsuzsanna (SZZSAEP.PTE), Dr. Varsányi László Balázs (VABUAAP.PTE)
OAK-AIT

ANAESTHESIA AND INTENSIVE CARE

Course director: DR. LAJOS BOGÁR, professor
Department of Anaesthesia and Intensive Therapy

Course director: DR. LAJOS BOGÁR, professor
Department of Anaesthesia and Intensive Therapy

3 credit • semester exam • Clinical module • spring semester • recommended semester: 10

Number of hours/semester: 14 lectures + 28 practices + 0 seminars = total of 42 hours
Course headcount limitations (min.-max.): 5 – 200
Prerequisites: OAK-GT3 completed + OAK-SE2 completed

Topic
The 14 lectures and 28 classes will provide information and practical skills on basic and advanced life support, general and regional anesthesia as well as the main elements of the critical care. It is of primary importance to provide skill training to identify the clinical signs of the cardiac arrest and a number of life threatening conditions may require immediate medical interventions. Furthermore, the students will receive lectures and practices how to provide analgesia for patients during and after operation and how to avoid serious complications of general and regional anesthesia. The discipline contains the diagnostic and therapeutic methods of major shock states (hemorrhagic, septic and cardiogenic). Students will receive lectures and bedside demonstrations on severe poisoning, organ support (mechanical ventilation, renal replacement therapy, cardiovascular support etc.) and intensive care monitoring devices.

Conditions for acceptance of the semester
Maximum 2 absences are acceptable.

Minimum requirements
In practice:
- Performing cardiopulmonary resuscitation

In theory:
- The management of upper airway obstruction, status asthmaticus
- The differential diagnostic signs of acute circulatory failure
- The early treatment of the intoxicated patient
- The management of multiple trauma care

Mid-term exams
Making up for missed classes
Student can join other group for the supplementation.

Reading material
- Obligatory literature
- Literature developed by the Department
- Notes
- Recommended literature

Key Topics in Anesthesia, R. Bonnett: Taylor and Francis Group, 2000, ISBN: 1859961320

Lectures
1 Fluid management and clinical nutrition.
   Dr. Jáksó Krisztián
2 Invasive haemodynamic monitoring.
   Dr. Csontos Csaba
3 Acute respiratory failure. ARDS
   Dr. Tóth Ildikó
4 Oxygen therapy and mechanical ventilation.
   Dr. Kiss Tamás
5 Diagnosis of brain death and donor management.
   Dr. Molnár Tíhamér
6 Management of acute and chronic pain.
   Dr. Almási Attila
7 Management of polytrauma.
   Dr. Csontos Csaba
8 Intensive care management of acute pulmonary embolism (PE).
Dr. Kiss Tamás
9 Pathophysiology and management of sepsis, septic shock and multiple organ dysfunction syndrome.
Dr. Bogár Lajos
10 Acute renal failure and renal replacement therapy in intensive care.
Dr. Nagy Bálint János
11 Preoperative assessment, risks and complications of anaesthesia.
Dr. Bátai István
12 General anaesthesia.
Dr. Bátai István
13 Regional anaesthetic techniques.
Dr. Szücs Ferenc
14 Emergency anaesthesia.
Dr. Szabó Zoltán

Practices
1 Recognition of the peri-arrest state. Emergency ECG analysis.
2 Cardiopulmonary resuscitation: Basic life support. (BLS)
3 Resuscitation: Advanced life support. (ALS)
4 Monitoring of the critically ill.
5 Invasive haemodynamic monitoring. Practical approach.
6 Management of severe hepatic failure.
7 Intensive care management of acute pancreatitis.
8 Recognition and treatment of peri-arrest arrhythmias. Cardioversion, pacemaker therapy.
9 Management of heart attack and cardiogenic shock.
10 Management of electrolyte abnormalities and acid-base disturbances.
11 Fluid therapy. Intensive care management of severe hemorrhage, hypovolaemic hemorrhagic shock.
12 Acute respiratory failure, (Pneumonia, ARDS, PTX, acute exacerbation of COPD, severe asthma).
13 Oxygen therapy and mechanical ventilation. Practical approaches.
14 Management of polytrauma.
15 Intensive care management of seriously burn injured patients.
17 Clinical toxycology.
18 Neurointensive care.
19 Neurointensive care
20 Management of distributonal shock.
21 Anaphylaxis, severe sepsis, septic shock. Practical approaches.
22 Anaesthetic equipment. The anaesthetic machine.
23 Equipment of airway management. Difficult airway.
24 Preoperative management and general anaesthesia.
25 Monitoring in the operating theatre.
26 Pain management. Practical approaches.
27 Regional anaesthesia. Practical approaches.

Seminars
Exam topics/questions
Examination requirements
One question in anaesthesia and a second one in intensive care.
Examination questions in intensive care
1. Definition and emergency treatment of shock
2. Syndromes with acute chest pain (aortic dissection, acute myocardial infarction, pneumothorax)
3. The acute management of massive pulmonary embolism
4. Management of acute rhythm disturbances
5. Hemodynamic monitoring (arterial line, central line insertion, invasive hemodynamic monitoring)
6. Acute management of fluid imbalance
7. Acid-base disorders and management
8. Infection and infection control on the ICU
9. Basic management of sepsis, severe sepsis and septic shock
10. Multiple organ failure
11. ARDS, definition and basic ventilatory management
12. Indications and basis of mechanical ventilation
13. Management of acute respiratory illnesses (acute exacerbation of COPD, asthma)
14. Monitoring and treatment of acute renal failure
15. Intensive therapy of acute liver failure
16. Nutrition of the critically ill (types of nutrition and indications)
17. Mental disorders, drug overdosed patients
18. Critical care of polytrauma victims
19. Critical care after central nervous system injury, treatment elevated intracranial pressure
20. Critical care of severely burned patients
21. Cardio-pulmonary resuscitation
22. Definition and ethical aspects of brain-stem death

Examination questions in anaesthesia
1. Preoperative patient assessment and risk stratification, preparation for anaesthesia
2. Airway maintenance, respiratory systems
3. Anaesthetic machine
4. Pharmacology of inhalational anaesthetics
5. Pharmacology of intravenous anaesthetics
6. Pharmacology of muscle relaxants
7. Peripheral and central regional anaesthetic techniques: pharmacology, indications, contraindications
8. Patient monitoring during anaesthesia: depth of anaesthesia, peripheral muscle relaxation, gas exchange, circulation
9. Postoperative analgesia
10. Chronic pain treatment

Participants
Dr. Bátaı István (BAIMABO.PTE), Dr. Bogár Lajos (BOLGAAO.PTE), Dr. Csontos Csaba (CSCSAAP.PTE), Dr. Kiss Tamás (KITFAAO.PTE), Dr. Molnár Tihamér (MOTTA0.PTE)
UP MS General Medicine major – subjects of the Basic module - Course descriptions – academic year of 2016/2017

OAK-CSA

FAMILY MEDICINE

Course director: DR. SÁNDOR BALOGH, associate professor
Department of Primary Health Care

1 credit • midsemester grade • Clinical module • spring semester • recommended semester: 10

Number of hours/semester: 4 lectures + 0 practices + 10 seminars = total of 14 hours

Course headcount limitations (min.-max.): 5 – 200

Prerequisites: OAP-BPR completed + OAK-IGU parallel

Topic


Conditions for acceptance of the semester

The attendance is obligatory. Missing more than 20% (3 hours) of the classes means that the course is not accepted.

Written test after the lectures and on the seminars. Based on the test results grade will be offered, if the grade is not accepted by the student oral exam can be taken.

Mid-term exams

Making up for missed classes

Missing less than 20% of the classes and miss written tests will modify the offered grade.

Reading material

- Obligatory literature
- Literature developed by the Department
- Notes
- Recommended literature
  

Lectures

1 History of Family Medicine. Motivations (Renáta Papp)
   Dr. Balogh Sándor
2 Migration and Family Medicine
   Dr. Sziárd István
3 Daily Work of a Family Doctor. Prevention and Follow-up Ildiko Ban
   Dr. Bán Ildikó
4 Ethical aspects of Family Medicine. Mixed practices Daniel Kurthy
   Dr. Balogh Sándor

Practices

Seminars

1 Elderly Patient (Szilvia Heim)
2 Elderly Patient (Szilvia Heim)
3 Acut Care (Ildikó Bán)
4 Acut Care (Ildikó Bán)
5 End-of-life Care in Family Practice (Ildikó Radványi)
6 Interesting cases, treating at home (Dániel Kürtthy)
7 Judicial and different medical expert activities
8 Interesting cases, treating at home (Dániel Kürtthy)
9 Patient Education
10 Occupational safety and health (Antal Tibold)

Exam topics/questions

Tests are based on the previous class materials (slides and presentation).
Participants
Dr. Bán Ildikő (BAIFACO.PTE), Dr. Heim Szilvia (HESPAAP.PTE), Dr. Rinfel József (REJPAAP.PTE), Dr. Sándor György (SAGMAAO.PTE), Dr. Somogyi Lászlóné (Dr. Végh Mária) (SOLTAE0.PTE), Dr. Szilárd István (SZIQAAP.PTE), Várörsé Dr. Csikós Ágnes (VACTAB0.PTE)
OAK-EB
INTERNAL MEDICINE: ENDOCRINOLOGY AND METABOLIC DISEASES
Course director: DR. EMÉSE MEZŐSI, professor
1st Department of Internal Medicine

2 credit • semester exam • Clinical module • spring semester • recommended semester: 10
Number of hours/semester: 10 lectures + 20 practices + 0 seminars = total of 30 hours
Course headcount limitations (min.-max.): 3 – 80
Prerequisites: OAP-BPR completed + OAP-KO2 completed + OAP-GT2 parallel

Topic
Endocrine and metabolic disorders are common in the population and their incidence is increased continuously. Knowledge of these disorders is essential for the practitioners.
Topics: Disorders of the hypothalamus and pituitary gland, thyroid diseases, problems in the calcium homeostasis, disorders of the adrenal gland, endocrine tumors, obesity, primary and secondary hyperlipoproteinemias.

Conditions for acceptance of the semester
The attendance of the lectures and practices is compulsory.
The total number of justified and unjustified absences may not exceed 25%, while the number of unjustified absences may not exceed 15% of lectures and practices, otherwise the semester should be repeated.

Mid-term exams
Making up for missed classes
During the semester.

Reading material
- Obligatory literature
- Literature developed by the Department
  presentations are available on the intranet
- Notes
- Recommended literature
  www.endotext.org

Lectures
1 Disorders of the hypothalamus and pituitary gland 1
   Dr. Mezősi Emese
2 Disorders of the pituitary gland 2
   Dr. Mezősi Emese
3 Thyroid disorders 1
   Dr. Mezősi Emese
4 Thyroid disorders 2
   Dr. Mezősi Emese
5 Disorders of the calcium homeostasis, MEN syndromes
   Dr. Mezősi Emese
6 Disorders of the adrenal gland 1
   Dr. Mezősi Emese
7 Disorders of the adrenal gland 2
   Dr. Mezősi Emese
8 Weight disorders.
   Dr. Bajnok László Zoltán
9 Dyslipidemias 1
   Dr. Bajnok László Zoltán
10 Dyslipidemias 2
   Dr. Bajnok László Zoltán
Practices

1. Disorders of the hypothalamus and pituitary gland 1
2. Disorders of the hypothalamus and pituitary gland 1
3. Disorders of the pituitary gland 2
4. Disorders of the pituitary gland 2
5. Thyroid disorders 1
6. Thyroid disorders 1
7. Thyroid disorders 2
8. Thyroid disorders 2
9. Disorders of the calcium homeostasis, MEN syndromes
10. Disorders of the calcium homeostasis, MEN syndromes
11. Disorders of the adrenal gland 1
12. Disorders of the adrenal gland 1
13. Disorders of the adrenal gland 2
14. Disorders of the adrenal gland 2
15. Weight disorders
16. Weight disorders
17. Dyslipidemias 1
18. Dyslipidemias 1
19. Dyslipidemias 2
20. Dyslipidemias 2

Seminars

Exam topics/questions

1. Diagnosis of hypothalamic-pituitary axis
2. Pituitary neoplasms
3. Gigantism and acromegaly
4. Hyperprolactinaemia
5. Hypopituitarism
6. Diabetes insipidus
7. Syndrome of inappropriate ADH section
8. Diagnosis of thyroid disorders
9. Iodine metabolism, iodine deficiency
10. Euthyroid goiter
11. Thyroiditis
12. Hypothyroidism
13. Graves disease
14. Endocrine ophthalmopathy
15. Thyrotoxic crisis
16. Non-immune hyperthyroidism
17. Diagnosis of thyroid nodules
18. Thyroid cancer.
19. Diagnosis of pituitary-adrenal axis
20. Adrenal insufficiency
21. Addison crisis
22. Side effects of chronic corticosteroid treatment
23. Cushing syndrome
24. Primary and secondary hyperaldosteronism
25. Pheochromocytoma
26. Basic and advanced investigations in suspected endocrine hypertension
27. Diagnosis of parathyroid disorders
28. Hyperparathyroidism
29. Hypoparathyroidism
30. Medullary thyroid cancer, multiple endocrine neoplasias
31. Carcinoid
32. Insulinoma
33. Polycystic ovary syndrome
34. Main parts and processes of lipoprotein metabolism
35. Forms of dyslipidemias
36. Laboratory diagnosis of lipoprotein metabolism and definitions of dyslipidemias
37. Primary hyperlipoproteinemias
38. Secondary dyslipidemias
39. Target values in lipidology
40. Drug treatments of dyslipidemias
41. Indications, contraindications, side effects, and complications of statins
42. Theory and clinical practice of cardio-vascular risk stratification
43. Steps of lifestyle modification therapy
44. Definition and types of obesity and overweight. Methods for their measurements
45. Causes and pathomechanism of obesity and overweight
46. Pathomechanisms of obesity related complications
47. Obesity related complications
48. Lifestyle treatments of obesity and overweight
49. Drug treatment of obesity and overweight. Indications, contraindications, and side effects
50. Invasive treatments of obesity and overweight. Indications, contraindications, and side effects

Participants

Dr. Bajnok László Zoltán (BALPABP.PTE), Dr. Bódis Beáta (BOBHAAPTE), Dr. Mezősi Emese (MEENAAO.PTE), Dr. Nemes Orsolya (NEOFABO.PTE)
UP MS General Medicine major – subjects of the Basic module - Course descriptions – academic year of 2016/2017

OAK-GY2  PEADIATRICS 2
Course director:  DR. KATALIN OHMACHT-HOLLÓDY, associate professor
Department of Paediatrics

4 credit • semester exam • Clinical module • spring semester • recommended semester: 10
Number of hours/semester: 28 lectures + 28 practices + 0 seminars = total of 56 hours
Course headcount limitations (min.-max.):  5 – 200
Prerequisites:  OAK-GY1 completed

Topic
The basic goal is to get a good general knowledge from paediatrics. To acquire a good skill in examining patients and to be able to make plans for diagnostic procedures and to bring up therapeutic proposals.

Conditions for acceptance of the semester
Written exam.

The attendance of the practices is compulsory, the teachers will check it regularly. The maximum permitted number of absences is 4, independently of the reason. In case of more than 4 absences, the signing of the index will be refused with the consequent invalidation of the semester.

Mid-term exams
Making up for missed classes
It can be accepted only in very special cases.

Reading material
- Obligatory literature
- Literature developed by the Department
  Lectures, bedside teaching
- Notes
- Recommended literature

Lectures
1  Hypertension in childhood
   Dr. Molnár Dénes
2  Normal and abnormal growth and development
   Dr. Erhardt Éva
3  Endocrine disorders in the infancy and childhood
   Dr. Erhardt Éva
4  Hypoglycaemias
   Dr. Erhardt Éva
5  Hyperglyaemias, diabetes mellitus
   Dr. Erhardt Éva
6  Anaemias
   Dr. Molnár Dénes
7  Leukemias in the childhood
   Dr. Ottóffy Gábor
8  Solid tumours
   Dr. Ottóffy Gábor
9  Differential diagnosis of the hemorrhagic diseases
   Dr. Molnár Dénes
10 The disorders of the consciousness (traumas of the brain, poisoning)
   Dr. Stankovics József
11 Infections of the central nervous system
   Dr. Ohmachtné Dr. Hollódy Katalin
12 Convulsive disorders, epilepsy
   Dr. Ohmachtné Dr. Hollódy Katalin
13 Congenital and acquired immunodeficiencies
   Dr. Mosdósi Bernadett
14 The most common immunological disorders  
   Dr. Mosdósi Bernadett
15 Shock and its treatment  
   Dr. Stankovics József
16 Child with special needs  
   Dr. Ohmachtné Dr. Hollódy Katalin
17 The most common surgical diseases in the childhood I  
   Dr. Pintér András
18 The most common surgical diseases in the childhood II  
   Dr. Pintér András
19 Burns  
   Dr. Decsi Tamás
20 Resuscitation of the infant and child  
   Dr. Kövesi Tamás
21 The most common psychiatric diseases in childhood  
   Dr. Csábi Györgyi
22 Adolescent medicine  
   Dr. Molnár Dénes
23 Clinical neuroimaging in the infancy and childhood  
   Dr. Péleyné Dr. Mohay Gabriella
24 Dermatology in the childhood  
   Dr. Molnár Dénes
25 Infectious diseases in childhood  
   Dr. Nyul Zoltán
26 Evidence based medicine in the paediatrics  
   Dr. Decsi Tamás
27 Vaccination  
   Dr. Nyul Zoltán
28 Prevention of the adult diseases in childhood  
   Dr. Molnár Dénes

Practices
1-28 Physical examination, evaluation of the data

Seminars

Exam topics/questions
The questions of the written exams will be taken from the topics of the spring semester.


Participants
Dr. Erhardt Éva (EREMAAO.PTE), Dr. Farkas András (FAAMAAO.PTE), Dr. Mosdósi Bernadett (MOBFAAO.PTE), Dr. Nyul Zoltán (NYZIAAE.PTE), Dr. Oberritter Zsolt (OBZMAAO.PTE), Dr. Ohmachtné Dr. Hollódy Katalin (HOKPAAP.PTE), Dr. Ottóffy Gábor (OTGMAAO.PTE), Dr. Stankovics József (STJMAAO.PTE), Dr. Vajda Péter (VAPFAAO.PTE), Dr. Vástyán Attila (VAAMAAO.PTE)
OAK-INF  |  INTERNAL MEDICINE: CLINICAL INFECTOLOGY
Course director:  |  DR. ZOLTÁN PÉTERFI, associate professor
1st Department of Internal Medicine

| 3 credit • semester exam • Clinical module • spring semester • recommended semester: 10 |
| Number of hours/semester: 14 lectures + 28 practices + 0 seminars = total of 42 hours |
| Course headcount limitations (min.-max.): 5 – |
| Prerequisites: OAP-BPR completed + OAP-MI2 completed + OAK-GT3 completed |

**Topic**

The role of the subject in the fulfillment of the educational targets, short summary of the topics: The main goal is to acquire knowledge and understanding of the etiology, epidemiology, clinical appearance, differential diagnosis, therapy and the prevention of infectious diseases. The topic includes the immunological aspects of the infectious diseases, hospital hygiene, clinical epidemiology, nosocomial infections, sepsis, and the differential diagnosis of feverish diseases, antibiotic policy also. During practical teachings, the students will be taught on taking the patient’s history suspected for infectious diseases, to perform simple laboratory tests, like reading of blood smear, performing abdominal, chest and lumbar taps.

**Conditions for acceptance of the semester**

The attendance of the practices is obligatory. Only 2 absences are permitted (max 15%) from practices. The head of dep. can permit four practices to be fulfilled at different times, beyond the scheduled time table. The students are obligated to perform exam (practical and oral) at the end of the semester.

**Mid-term exams**

Making up for missed classes

The absences can be substituted by joining to another group.

Compensation of absences: obtaining permission from the head of the dept.

**Reading material**

- Obligatory literature
- Literature developed by the Department
  - Proposed books (English):
    - Mandel’s Principles and Practices of Infectious Diseases
    - Manson’s Tropical Diseases
- Notes
- Recommended literature

**Lectures**

1. Introduction in infectology
   Dr. Nemes Zsuzsanna
2. Clinical microbiology
   Dr. Kocsis Béla
3. Clinical microbiology
   Dr. Kocsis Béla
4. Antimicrobial therapy
   Dr. Rókus László
5. Differential diagnosis of fever, fever of unknown origin (FUO)
   Dr. Nemes Zsuzsanna
6. Zoonoses
   Dr. Péterfi Zoltán
7. Food and waterborne diseases
   Dr. Nemes Zsuzsanna
8. Infections of the central nervous system
   Dr. Péterfi Zoltán
9. Migration-related infectious diseases (malaria)
   Dr. Feiszt Zsófia
10. Hepatitis
    Dr. Nemes Zsuzsanna
11. Bloodstream infections
    Dr. Rókus László
12 Infectious diseases of the childhood
   Dr. Nyul Zoltán
13 Infective endocarditis
   Dr. Péterfi Zoltán
14 AIDS
   Dr. Péterfi Zoltán

Practices
1 Introduction in infectology
2 Infections of skin and soft tissues
3 Infections of skin and soft tissues
4 Infections of skin and soft tissues
5 Zoonoses
6 Zoonoses
7 Zoonoses
8 Zoonoses
9 Infectious diseases of the childhood
10 Infectious diseases of the childhood
11 Infections of the central nervous system
12 Infections of the central nervous system
13 Migration-related infectious diseases (malaria)
14 Migration-related infectious diseases (malaria)
15 Food and waterborne diseases
16 Food and waterborne diseases
17 Hepatitis
18 Hepatitis
19 Bloodstream infections
20 Bloodstream infections
21 Infective endocarditis
22 Infective endocarditis
23 Differential diagnosis of fever, fever of unknown origin (FUO)
24 Differential diagnosis of fever, fever of unknown origin (FUO)
25 Antimicrobial therapy
26 Antimicrobial therapy
27 Practice exam
28 Practice exam

Seminars

Exam topics/questions
1. The strategies of antibiotic treatment
2. The protein synthesis inhibitors (aminoglicosides, macrolides, lincosamides, tetracyclines, chloramphenicol)
3. The possible reasons of the unsuccessful antibiotic treatment
4. The beta lactame antibiotics groups and their indications for treatment
5. Fluoroquinolones
6. Glicopeptides
7. New antibiotics and their antimicrobial spectrum
8. Differential diagnosis of fever of unknown origin (FUO)
9. Infective endocarditis: diagnosis
10. Infective endocarditis: therapy
11. Salmonella gastroenteritis
12. Dysentery syndrome
13. E. coli enteritis
14. Campylobacter infection (gastroenteritis)
15. Viral enteritis
16. Traveller’s diarrhea
17. Pseudo membranous enteritis (Clostridium difficile infection)
18. Amoebiasis
19. Giardiasis
20. Ascariasis
21. Teniasis
22. Echinococcosis
23. Enterobiosis
24. Trichinellosis
25. Toxocariasis
26. Common cold
27. Influenza (Flu)
28. Streptococcal infections (S. pyogenes, S. agalactiae, S. pneumoniae, S. bovis, stb.)
29. Infectious mononucleosis, mononucleosis syndrome
30. Q-fever
31. Psittacosis
32. Legionellosis
33. Parotitis epidemica
34. HAV
35. HBV
36. HCV
37. HDV
38. HEV
39. The profilaxis of viral hepatitis
40. Scarlatina
41. Measles
42. Rubella
43. Exanthema subitum
44. Varicella-zoster (chickenpox, shingles)
45. Herpes simplex virus infections
46. Toxic shock syndrome, necrotising fasciitis
47. Anthrax
48. Tularemia
49. Leptospirosis
50. Toxoplasmosis
51. Sepsis, sepsis syndrome
52. Botulism
53. Lyme disease (acute, subacute, chronic symptoms, therapy)
54. Aseptic meningitis
55. Purulent meningitis
56. Meningitis epidemica (meningococcal meningitis)
57. The treatment possibilities of purulent meningitis
58. Tick-borne encephalitis
59. Herpes simplex encephalitis
60. Infections in immunocompromised patients
61. Epidemiology of AIDS
62. Clinical stages of AIDS
63. Treatment and prevention possibilities of AIDS
64. Rabies
65. Travel/related imported diseases
66. Malaria
67. Nosocomial infections
68. Pertussis

Participants
Dr. Feiszt Zsófia (FEZFAEO.PTE), Dr. Kappéter Ágnes (KAFAFO.PTE), Dr. Nemes Zsuzsanna (NEZHABE.PTE), Dr. Péterfi Zoltán (PEZFAAO.PTE)
OAK-NE2  Neurology 2

Course director: Dr. Zoltán Pfund, associate professor
Department of Neurology

3 credit • semester exam • Clinical module • spring semester • recommended semester: 10

Number of hours/semester: 14 lectures + 28 practices + 0 seminars = total of 42 hours
Course headcount limitations (min.-max.): 5 – 100
Prerequisites: OAK-NE1 completed

Topic
Investigation of patients with different neurological diseases: history taking, neurological physical examination, discovery of common neurological disorders and neurological emergencies
Management of common neurological disorders, drug treatments, indication of neurosurgical intervention.

Conditions for acceptance of the semester
Maximum of 15 % absence allowed

Mid-term exams
Making up for missed classes
Extra scheduled practices

Reading material
- Obligatory literature
- Literature developed by the Department
- Notes
- Recommended literature
  Physical examination
  http://neurology.hu/physicalexamination.pdf
  Books
  Hankey’s Clinical Neurology 2014
  Neurology: A Queen Square Textbook 2009
  Oxford Handbook of Neurology 2014

Lectures
1 Brain and spinal cord tumors
   Dr. Dóczi Tamás
2 Traumatic brain injuries
   Dr. Dóczi Tamás
3 Vascular malformations and subarachnoid haemorrhage
   Dr. Dóczi Tamás
4 Stroke I
   Dr. Fehér Gergely
5 Stroke II.
   Dr. Szapáry László
6 Paraneoplastic syndromes
   Dr. Komoly Sámuel
7 Neurogenetics
   Dr. Sebők Ágnes
8 Neurourology
   Dr. Komoly Sámuel
9 Sleep disorders
   Dr. Faludi Béla
10 Motor neuron diseases and headaches
   Dr. Pfund Zoltán
11 Epilepsy I.
   Dr. Janszky József Vladimir
12 Epilepsy II.
   Dr. Janszky József Vladimir
13 Multiple sclerosis, neuromyelitis optica  
   Dr. Komoly Sámuel  
14 Nociceptive and neuropathic pain  
   Dr. Komoly Sámuel

**Practices**

1. Examination of stroke patients
2. Examination of stroke patients
3. Examination of patients with multiple sclerosis
4. Examination of patients suffering from neuropathy
5. EMG, ENG, EEG examinations
6. EMG, ENG, EEG examinations
7. Observe lumbar puncture and visit the CSF laboratory
8. How to do basic CSF examinations?
9. Visit to the CT MRI facility
10. Visit to the CT MRI facility
11. Examination of patients suffering from muscle disorders
12. Consultation of patients with neurogenetics problem
13. Coma and related disorders of consciousness I
14. Coma and related disorders of consciousness II
15. Examination of stroke patients
16. Examination of stroke patients
17. Examination of patients with multiple sclerosis
18. Examination of patients suffering from neuropathy
19. EMG, ENG, EEG examinations
20. EMG ENG EEG examinations
21. Observe lumbar puncture and visit the CSF laboratory
22. How to do basic CSF examinations?
23. Visit to the CT MRI facility
24. Visit to the CT MRI facility
25. Examination of patients suffering from muscle disorders
26. Consultation of patients with neurogenetics problem
27. Coma and related disorders of consciousness I
28. Coma and related disorders of consciousness II

**Seminars**

**Exam topics/questions**

1. Symptoms of myopathies  
   Accidental (provoked) epileptic seizures
2. Benign paroxysmal positional vertigo (Bárány)  
   Transient ischemic attack, and its significance
   Basics of acute stroke management
4. Myasthenia gravis  
   Temporal lobe epilepsy
5. Polyneuropathies  
   Subarachnoid hemorrhage
6. Acute and chronic dysimmune and neuropathies  
   Alzheimer disease
7. Carpal and cubital tunnel syndromes  
   Idiopathic generalized epilepsies
8. Brain tumors  
   Parkinson’s disease
9. Peripheral facial palsy (Bell-paresis)  
   Venous thrombosis of the brain
10. Acute meningitis  
    Intracerebral hemorrhage
11. Phobic postural vertigo (Brandt)  
    Focal epilepsies
12. Herpes simplex encephalitis  
   Primary prevention of stroke
13. Radiculopathies of neck and lumbar regions  
   Clinical symptoms of multiple sclerosis
14. Motorneuron disorders (MND)  
   Diagnosis of Multiple Sclerosis (MS)
15. Trigeminal and postherpetic neuralgia  
   Main pathologies of the spinal cord (conus and cauda syndromes siringomyelia, myelitis)
16. Characteristic clinical symptoms of the carotid and vertebral arteries  
   Differential diagnosis of short unconsciousness
17. Neurological complications of skull and brain trauma  
   Status epilepticus
18. Migraine and other primary headaches  
   Urinary incontinence
19. Traumatic injuries of the spinal cord  
   Diseases with cognitive decline
20. Meningeoma  
   Acute and chronic alcohol-related neurological disorders
21. Hydrocephalus  
   Neurotubes and neuroborreliosis
22. Secondary prevention of stroke  
   Neurological complications of AIDS
23. Neurofibromatosis (M. Reclinghausen)  
   Paraneoplastic neurological disorders
23. Symptoms of increased intracranial pressure  
   Focal dystonias
24. Creutzfeldt-Jakob disease (CJD)  
   Frequent vascular brainstem syndromes (Locked-in, Weber, Wallenberg, basilar artery occlusion)
25. Spinal cord tumors  
   Wilson’s disease
26. Peripheral neuropathies  
   Sleep apnoea syndrome. Narcolepsia
27. Huntington’s disease  
   Restless leg syndrome

Participants
Dr. Ács Péter (ACPNAOA.PTE), Dr. Faludi Béla (FABHAEE.PTE), Dr. Kovács Norbert (KONFAAO.PTE), Dr. Sebők Ágnes (SEASAAP.PTE)
OAK-NHA  INTERNAL MEDICINE: NEPHROLOGY, HYPERTENSION

Course director:  DR. TIBOR JÓZSEF KOVÁCS, associate professor
2nd Department of Internal Medicine

3 credit • semester exam • Clinical module • spring semester • recommended semester: 10
Number of hours/semester: 14 lectures + 28 practices + 0 seminars = total of 42 hours
Course headcount limitations (min.-max.): 2 – 100
Prerequisites:  OAP-BPR completed + OAK-EAB parallel

Topic

The importance of nephrology and hypertension is growing among the subspecialties of internal medicine. The topic of this curriculum is to introduce into classical nephrology (nephrotic syn., acute glomerulonephritides, urinary tract infections, hereditary kidney disease etc.) and hypertension. We also focus on the complications of diabetes, hypertension and peripheral arterial diseases which are leading causes of end stage renal failure all over the world.

Conditions for acceptance of the semester

The attendance of the lectures and practices is compulsory. The maximum permitted number of absences is 3 lectures and 3 practices.

Mid-term exams

Making up for missed classes

The maximum permitted number of absences is 3 lectures and 3 practices. Each further missed practice has to be made up for during the semester period.

Reading material

- Obligatory literature
- Literature developed by the Department
- Notes
  NOTES in nephrology and hypertension for medical students (http://aok.pte.hu/en/egyseg/dokumentumok/270)
- Recommended literature

Lectures

1  The classification of renal diseases. Examination of the kidney 1.  
   Dr. Wittmann István
2  The classification of renal diseases. Examination of the kidney 2.  
   Dr. Wittmann István
3  Acute glomerulonephritis. Rapidly progressive glomerulonephritis.  
   Dr. Wittmann István
4  Proteinuria and atherosclerosis.  
   Dr. Wittmann István
5  Nephrotic syndrome.  
   Dr. Wittmann István
6  IgA nephropathy.  
   Dr. Kelényi Gáborné
7  Renal involvement in systemic diseases: SLE, HUS (haemolytic uraemic syndrome), Henoch-Schönlein syndrome.  
   Dr. Molnár Gergő Attila
8  Diabetic nephropathy.  
   Dr. Wittmann István
9  Hypertension and the kidney, atheromatous renovascular disease.  
   Dr. Kovács Tibor József
10  Acute and chronic renal tubulointerstitial nephritis.  
    Dr. Laczky Boglárka
11  Electrolyte and acid-base disturbances.  
    Dr. Sebők Judit
12  Acute renal failure.  
    Dr. Kovács Tibor József
13  Chronic renal failure.  
    Dr. Csiky Botond
14  Angiology.  
    Dr. Wittmann István
Practices

1. Case history taking, physical examination of renal patients 1.
2. Case history taking, physical examination of renal patients 2.
3. The tests evaluating renal function 1.
4. The tests evaluating renal function 2.
5. How to evaluate the results of renal imaging procedures?
6. Examination of patients with rapidly progressive glomerulonephritis.
8. Indications/contraindications of renal biopsy 2.
9. Examination of patients with IgA nephropathy.
10. The differential diagnosis of oedema.
13. Diagnosis and treatment of primary and secondary forms of glomerulonephritis.
15. Early diagnosis, treatment, follow-up of diabetic nephropathy 1.
17. Examination of patients with microalbuminuria.
18. Examination of patients with microalbuminuria.
19. Diagnosis and treatment of hypertension in renal patients.
20. Diagnosis and treatment of hypertension in renal patients.
21. Follow-up of renal patients.
22. Diagnosis, treatment of urinary tract infection, pyelonephritis.
23. Inherited kidney diseases 1.
25. Examination of patients with chronic renal failure.
27. Peritoneal dialysis, haemodialysis.

Seminars

Exam topics/questions

The evaluation of renal diseases.
The differential diagnosis of hematuria.
The differential diagnosis of proteinuria.
The differential diagnosis of oedema.
The methods suitable to measure glomerular function.
The methods suitable to measure tubular function.
The imaging techniques in nephrology.
Indications/contraindications of renal biopsy.
Acute glomerulonephritis.
Rapidly progressive glomerulonephritis.
Nephrotic syndrome.
Asymptomatic diseases - the importance of screening.
Urinary tract infection, acute and chronic pyelonephritis.
Acute and chronic tubulointerstitial nephritis.
Analgesic nephropathy.
Follow-up of renal diseases.
Hypertension and the kidney.
Diabetic nephropathy.
Renal involvement in systemic diseases: SLE, vasculitides, atherosclerosis, HUS.
Acute renal failure.
Chronic renal failure.
Peritoneal dialysis.
Haemodialysis.
Inherited kidney diseases.
Participants
Dr. Bekő Viktória (OKBFAA.A.JPTE), Dr. Csiky Botond (CSBMAAO.PTE), Dr. Gyimesi Tamás (GYTGAAO.PTE), Dr. Kovács Tibor József (KOTMABO.PTE), Dr. Laczy Boglárka (LABFAAO.PTE), Dr. Máté Judit (MAJFADO.PTE), Dr. Molnár Gergő Attila (MOGFABO.PTE), Dr. Sági Balázs (SABFAAO.PTE), Dr. Sebők Judit (SEJFAAO.PTE), Dr. Vas Tibor (VATFACO.PTE), Dr. Wittmann István (WIILAAO.PTE)
Topic

The aim of this course is to aid the students in understanding the coherences of the phenome-genome from a molecular genetic point of view with the involvement of the new, post-genomic approach. Its goal is to introduce the specific characteristics of a basic group of genetic disorders and to discuss major elements of genetic counselling along with the related legal and ethical aspects. During the course, the attention of the audience will be directed towards the available and rapidly developing modern molecular methods and their adequate and relevant applications in diagnostics and research as well as towards the advantages, limitations and potential risks of genetic tests for an individual.

Conditions for acceptance of the semester

Written exam

Mid-term exams

Making up for missed classes

None.

Reading material

- Obligatory literature
  The basis is the topics of the lectures.

- Literature developed by the Department

- Notes

- Recommended literature
  Further readings:
  - Nelson Textbook of Paediatrics
  - Emery and Mueller: Elements of Medical Genetics

Lectures

1  Introduction to medical genetics: history of genetics, Human Genome Project, databases (OMIM, HapMap, Orphanet), variability of the human genome, SNP, susceptibility genes.  Dr. Melegh Béla

2  Metabolomic, DTC-s, next generation methods, new paradigm, 10th anniversary of the Human Genome Project, ENCODE Project.  Dr. Melegh Béla

3  Characteristics of mendelian inheritance; polygenic inheritance, pleiotropic e., incomplete dominance, codominance, epistasis, construction of pedigree, basic types of mendelian inheritance, consanguinity. Genetic counselling.  Dr. Hadzsiev Kinga

4  Syndromes  Dr. Hadzsiev Kinga

5  New generation molecular examination methods I: next generation sequencing.  Dr. Berenténé Dr. Bene Judit Ágnes

6  New generation molecular examination methods I: array CGH.  Dr. Czakó Márta

7  Non-mendelian inheritance; mitochondrial and trinucleotid extension diseases, uniparental disomy.  Dr. Halmainé Dr. Komlósi Katalin

8  Ciliopathies.  Dr. Halmainé Dr. Komlósi Katalin

9  Inherited eye diseases.  Dr. Hadzsiev Kinga

10 Diseases of the connective tissue, inborn errors of metabolism. Inherited disorders of the skin and skeletal system.  Dr. Hadzsiev Kinga
11 Neurogenetics I
   Dr. Hadzsiev Kinga
12 Neurogenetics II
   Dr. Hadzsiev Kinga
13 Inherited diseases with intellectual disability.
   Dr. Hadzsiev Kinga
14 Rare diseases; genomic disorders, syndrome identification.
   Dr. Hadzsiev Kinga

Practices
Seminars
Exam topics/questions

Coospace system.
The detailed knowledge of the following anomalies is required:
cystic fibrosis, Duchenne and Becker muscular dystrophy, myotonic dystrophy, Angelman syndrome,
Prader-Willi syndrome, Down syndrome /Edwards syndrome /Patau syndrome, Fragile X syndrome,
Hemophilia A and B, Huntington disease, Klinefelter syndrome, Turner syndrome /Triplet X syndrome, phenylketonuria, Rett syndrome,
neurofibromatosis, DiGeorge syndrome /spectrum,
Cri du Chat syndrome.
The knowledge of the following anomalies is required:
mucopolysaccharidoses, biotinidase deficiency, Galactosemia, hypothyroidism, maple syrup urine disease, Lesch-Nyhan syndrome,
Williams syndrome.
Mitochondrial diseases:
MELAS (mitochondrial encephalopathy with lactic acidosis and stroke-like episodes)
LHON (Leber’s hereditary optic neuropathy)
maternally inherited deafness
maternally inherited diabetes mellitus
Participants
Dr. Melegh Béla (MEMABO.PTE)
OAK-PS2  Psychiatry 2

Course director:  DR. SÁNDOR FEKETE, professor
Department of Psychiatry and Psychotherapy

3 credit • semester exam • Clinical module • spring semester • recommended semester: 10

Number of hours/semester:  14 lectures + 28 practices + 0 seminars = total of 42 hours
Course headcount limitations (min.-max.):  5 – 50  Prerequisites:  OAK-PS1 completed

Topic
To acquire the knowledge and skills of clinical psychiatry in the general practice

Themes:
- The essential psychopathological symptoms and syndromes
- The treatment of the ill patient’s emotional responses
- Psychological first aid and psychiatric emergencies in crisis and stress situations
- Exploration, evaluation of the psychiatric patients
- Biological and psychological therapeutic interventions
- Prevention and postvention of psychiatric disorders
- Psychiatric care and mentalhygienic activity in the general practice (Psychiatric interview in Hungarian)

Practices (first and second semesters)
- Psychiatric evaluation (interview, psychiatric history, mental status examination) /2 x 2 hrs/
- Anxiety disorders (amiety, phobias, obsessive compulsive disorder, panic disorder) /2 x 2 hrs/
- Conditions which mimic physical disease (somatisation disorders, conversion disorder, hypochondriasis, somatoform pain disorder) /2 x 2 hrs/
- Psychosomatic disorders /2 x 2 hrs/
- Psychosexual disorders/dysfunction and paraphilia /2 hrs/

Practices:
- Observation, description and evaluation of the patients’ behaviour

Conditions for acceptance of the semester

Mid-term exams

Making up for missed classes

According to the Code of Studies and Examinations

Reading material
- Obligatory literature
- Literature developed by the Department
- Notes
- Recommended literature


Lectures
0  Personality disorders
   Dr. Fekete Sándor
0  Affective disorders I. - classification of depressive disorders
   Dr. Fekete Sándor
0  Affective disorders II. - classification of bipolar disorders
   Dr. Fekete Sándor
0  Schizophrenia spectrum disorders
   Dr. Fekete Sándor
0  Delusive and other psychotic disorders
   Dr. Herold Róbert
0  Substance-related and addictive disorders I. - alcohol addiction
   Dr. Fekete Sándor
0  Substance-related and addictive disorders II. - drug addictions
   Dr. Fekete Sándor
Gerontopsychiatry
Dr. Fekete Sándor

Organic mental disorders
Dr. Fekete Sándor

Dementia (neurocognitive disorders)
Dr. Fekete Sándor

Child and adolescent psychiatry
Dr. Tényi Tamás

Mental retardation
Dr. Tényi Tamás

Biological therapies - psychopharmacology
Dr. Fekete Sándor

Psychosocial rehabilitation (group therapies, social therapies, self-help groups)
Dr. Fekete Sándor

Practices

Delusional disorders II.

Dementia III.

Delusional disorders I.

Biological therapies II.

Organic psychiatric disorders IV.

Affective disorders I.

Affective disorders II.

Affective disorders IV.

Dementia I.

Mental retardation II.

Eating disorders II.

Organic psychiatric disorders I.

Dementia II.

Mental retardation I.

Biological therapies I.

Dementia IV.

Schizophrenia III.

Eating disorders I.

Alcohol related disorders I.

Schizophrenia IV.

Affective disorders III.

Organic psychiatric disorders II.

Schizophrenia II.

Alcohol related disorders IV.

Alcohol related disorders II.

Alcohol related disorders III.

Organic psychiatric disorders III.

Schizophrenia I.

Seminars

Exam topics/questions

II. semester
1. Delusive, schizoid and schizotyp personality disorders
   The examination of cognition
2. Narcissistic, borderline, hysteric and antisocial personality disorders
   Acute and chronic drug-related mental disorders
3. Avoidant, dependent and obsessive personality disorders
   The complex treatment of schizophrenia
4. Classification and etiology of mood disorders
   The most important mental disorders in childhood
5. The symptomatology and treatment of depressive disorders
   Cannabis and cocaine related mental disorders
6. The symptomatology and treatment of manic disorders
   Classification and treatment of alcohol related mental disorders
7. Cyclothymia and dysthymia
   Diagnosis and treatment of pathological alcohol intoxication
8. Classification and symptoms of organic mental disorders
   Non-pharmacological treatment of mood disorders (ECT, light-therapy, sleep-deprivation, TMS)
9. Mental disorders caused by organic brain injury (lobe syndromes)
   ADHD and conduct disorders
10. Psychopathological symptoms caused by somatic and neurological disorders
    Neurobiological background of psychopharmacological treatment
11. Depression and psychosis in elderly
    Complex treatment of alcohol addiction
12. Classification, symptomatology and treatment of eating disorders
    Complex treatment of alcohol withdrawal
13. Classification and etiology of mental retardation
    Complex treatment of mood disorders
14. Antipsychotic medication - indication, effects and side-effects
    Etiology, symptomatology and treatment of Korsakow syndrome
15. Antidepressants - indication, effects and side-effects
    Group psychotherapy and self-helps groups in psychiatry
16. Agitated behaviour in elderly - etiology, symptomatology and treatment
    Treatment of alcohol related hallucinations
17. Etiology, symptomatology and treatment of Alzheimer dementia
    Complex treatment of bipolar disorder
18. Epidemiology and etiology of schizophrenia
    Opiates related mental disorders
19. Classification and prognosis of schizophrenia
    Biological and psychological factors of sedatives related addiction
20. Symptomatology and differential diagnosis of schizoaffective psychosis
    Psychostimulant related mental disorders
21. Delusional disorders
    Anxiolitics and sedatives in psychiatry
22. Etiology, symptomatology and treatment of vascular dementia
    Mood-stabilisers
23. Classification and differential diagnosis of dementias
    Types, effects and side-effects of psychopharmacons

Participants
Dr. Gáti Ágnes (GAAHAAE.PTE), Dr. Herold Róbert (HERMAAO.PTE), Dr. Kovács Attila (KOAMAAO.PTE), Dr. Osváth Péter (OSPMAAO.PTE), Dr. Simon Mária (SIMTAC0.PTE), Dr. Tényi Tamás (TETGAAO.PTE), Dr. Vörös Viktor (VOVFAAO.PTE)
INTERNAL MEDICINE: PULMONOLOGY

Course director: Dr. Veronika Márk-Sárosi, clinical head physician
1st Department of Internal Medicine

2 credit • semester exam • Clinical module • spring semester • recommended semester: 10

Number of hours/semester: 14 lectures + 14 practices + 0 seminars = total of 28 hours
Course headcount limitations (min.-max.): 5 – 90
Prerequisites: OAP-BPR completed + OAP-KO2 completed + OAP-GT2 completed

Topic
The aim of the seminar is to demonstrate the clinical pictures of the frequent respiratory diseases and to teach the differential diagnostic procedures applied on the field of the respiratory medicine. The lectures are dedicated to introduce the most important respiratory diseases and their diagnosis and therapy. During the course we present the invasive and the noninvasive diagnostic methods at the bedside. The case reports presented in the ward illustrate the usual diagnostic and therapeutic procedures. We ensure to fulfil the practices prescribed in the lecture book.

Conditions for acceptance of the semester
More than 2 absences of practice is not accepted

Mid-term exams
Making up for missed classes
It is a question of agreement.

Reading material
- Obligatory literature
- Literature developed by the Department
- Notes
- Recommended literature

Lectures
1  Pneumonia. Abscess pulm. Bronchiectasia
   Dr. Balikó Zoltán
2  Lung cancer
   Dr. Balikó Zoltán
3  Lung cancer-treatment
   Dr. Balikó Zoltán
4  Asthma bronchiale
   Dr. Ruzsics István
5  COPD and emphysema pulm.
   Dr. Szilágyiné Dr.Kacso Anita Harmat
6  Mycobacterium tuberculosis infection
   Dr. Ruzsics István
7  Interstitial lung diseases
   Dr. Ruzsics István
8  Diseases of the pleura and mediastinum
   Dr. Ruzsics István
9  Pulmonary hypertension
   Dr. Balikó Zoltán
10 Obstructive sleep apnoe syndrome
    Dr. Balikó Zoltán
11 Pulmonary embolism
    Dr. Ruzsics István
12 Respiratory failure
    Dr. Ruzsics István
13 Differential diagnosis of haemoptysis
    Dr. Ruzsics István
Practices

1. Lung function tests I.
2. Lung function tests II.
3. Examination of pleural fluid
4. Allergy in the respiratory medicine: tuberculin test, PPD result evaluation, skin prick test, etc.
5. Intensive care in pulmonology (blood gas values, blood sampling for gas measurement), NIV
6. Bronchoscopy I.
7. Bronchoscopy II.
8. Practice in the ward: patients with COPD
9. Practice in the ward: patients with asthma bronchiale
10. Practice in the ward: patients with pulmonary embolism
11. Practice in the ward: patients with lung cancer
12. Practice in the ward: patients with pneumonia
13. Practice in the ward: patients with respiratory failure
14. Practice in the ward: patients with haemoptysis

Seminars

Exam topics/questions

1.) Imaging techniques: indications of CT, MRI and isotope methods.
3.) Mediastinoscopy, pleuroscopy, VATS and the percutaneous needle biopsy. Techniques and indications.
4.) Differential diagnosis of the pleural fluid.
5.) Differential diagnosis and treatment of the haemoptysis.
6.) Differential diagnosis of the dyspnoea.
8.) Pharmacospirometry, the bronchial provocation tests.
9.) Execution of the blood gas analysis. Evaluation of the results.
10.) Definition of the chronic obstructive lung diseases. Classification, epidemiology and pathogenesis.
11.) Therapy of COPD, prevention and prognosis.
12.) Definition, classification, pathogenesis and pathology of asthma bronchiale.
13.) Symptoms, differential diagnosis and prognosis of asthma bronchiale. The technique and evaluation of the result of the allergy test.
14.) Guideline of the treatment of asthma bronchiale.
15.) Treatment of the acute asthma attack.
16.) Etiology and treatment of cases with community acquired pneumonia treated at home or treated in the hospital.
17.) Classification, etiology and treatment of the nosocomial pneumonia.
18.) Pulmonary abscess, bronchiectasis and cystic fibrosis.
19.) Technique and evaluation of the tuberculin test. The interferon gamma test.
20.) Epidemiology, etiology and the natural course of pulmonary tuberculosis.
22.) The extrapulmonary tuberculosis. Manifestations and treatment of diseases caused by nontuberculotic Mycobacteria.
23.) The most frequent fungal infections of the lung.
24.) Epidemiology, clinical symptoms and treatment of pulmonary embolism.
25.) Symptoms and causes of the pulmonary oedema (left heart failure, ARDS) and the principles of the therapy.
26.) Classification, symptoms, diagnosis and therapy of pulmonary hypertension.
27.) Epidemiology, pathogenesis, symptoms and diagnostic methods of lung cancer.
28.) Histologic subgroups of the lung cancer. Basic principles and therapeutic consequences of lung cancer staging. The importance of the histology regarding the appropriate therapy of non small cell lung cancer.
29.) Paraneoplastic syndromes of the lung cancer.
30.) Diseases of the pleura, diaphragma and the mediastinum.
31.) Classification, diagnosis and therapy of the interstitial lung diseases.
32.) Clinical manifestation, diagnosis and therapy of hypersensitive pneumonitis.
33.) Epidemiology, pathogenesis, symptoms and signs and therapy of Boeck sarcoidosis.
34.) Aetiology, symptoms and therapy of the pneumothorax.
35.) Forms, causes, diagnosis and treatment of the respiratory failure. Non invasive mechanical ventilation.
36.) Obstructive sleep apnoe syndrome; symptoms, diagnosis and treatment.
Participants
Dr. Illés Miklós Balázs (ILMFAAO.PTE), Dr. Matancic Marianna (MAMIABO.PTE), Dr. Ruzsics István (RUIFAAO.PTE), Dr. Szabó Mariann (SZMGAAO.PTE), Dr. Szilágyiné Dr.Kacsó Anita Harmat (KAFAQLO.PTE), Dr. Vigh Éva (VIEFADO.PTE), Márné Dr. Sárosi Veronika (SAVMAAO.PTE)
OAK-ST2 Obstetrics and Gynaecology 2

Course director: DR. JÓZSEF BÓDIS, professor
Department of Obstetrics and Gynaecology

3 credit • semester exam • Clinical module • spring semester • recommended semester: 10

Number of hours/semester: 14 lectures + 28 practices + 0 seminars = total of 42 hours

Course headcount limitations (min.-max.): 5 – 120

Prerequisites: OAK-ST1 completed

Topic

During this semester, all aspects of gynaecology are discussed: anatomy of female genital tract; physiology of menstrual cycle; gynaecological bleeding abnormalities; benign and malignant tumours; gynaecological infections; congenital anomalies of genital tract; contraception; examination of infertile couple; assisted reproduction; physiology of postmenopause; diagnostic tools and therapeutic opportunities in gynaecology.

The purpose of this teaching program is to give a general basic knowledge in the field of gynaecology.

This program makes students capable of recognizing gynaecological tumours, infections, and other abnormalities and choosing the proper management. The program ensures the opportunity to insert new information.

Conditions for acceptance of the semester

Absences less than 20% of practices;

Semester examination

Mid-term exams

Making up for missed classes

Absences due to medical reason: extra practices organized during the hours of duty services.

Reading material

- Obligatory literature
- Literature developed by the Department
  Content of the practices and the lectures
- Notes
- Recommended literature
  Subject of lectures – lecturers’ hand-out
  www.merck.com/mmpe/sec18.html
  www.acog.org
  www.fmpnotebook.com/OB.htm
  www.obgyn.net/

Lectures

1. Diseases of the vulva and vagina / Congenital anomalies of the genital tract
   Dr. Farkas Bálint

2. Infertility I
   Dr. Kovács Kálmán András

3. Infertility II
   Dr. Rácz Sándor Attila

4. Assisted reproductive techniques
   Dr. Kovács Kálmán András

5. Contraception
   Dr. Farkas Bálint

6. Malignant disease of the cervix / Malignant disease of the uterus
   Dr. Papp Szilárd

7. Gynaecological bleeding abnormalities
   Dr. Tamás Péter

8. Prolapsus of the uterus, Urinary incontinence
   Dr. Koppán Miklós Endre
9 The menopause and climacteric
   Dr. Gőcze Péter
10 Endometriosis
   Dr. Bódis József
11 Gestational trophoblastic neoplasm
   Dr. Gőcze Péter
12 Praemalignant disease of the cervix / Benign diseases of the uterus
   Dr. Tamás Péter
13 Gynaecological endoscopies
   Dr. Koppán Miklós Endre
14 Benign and malignant tumours of the ovary
   Dr. Gőcze Péter

Practices
1 Diagnostic methods. Making a gynaecological diagnosis
2 Diagnostic methods. Making a gynaecological diagnosis
3 Vaginal smear, hormonal cytodiagnosis, BBT chart, examination of the cervical mucus
4 Vaginal smear, hormonal cytodiagnosis, BBT chart, examination of the cervical mucus
5 The evaluation of female infertility
6 The evaluation of female infertility
7 Abnormal bleeding during reproductive decades
8 Abnormal bleeding during reproductive decades
9 Gynaecological infections
10 Gynaecological infections
11 The significance of laparoscopy and hysteroscopy in gynaecology
12 The significance of laparoscopy and hysteroscopy in gynaecology
13 Malposition of the genital tract
14 Malposition of the genital tract
15 Praemalignant and malignant disease of the cervix
16 Praemalignant and malignant disease of the cervix
17 Gynaecological ultrasound examinations
18 Gynaecological ultrasound examinations
19 Climacterium femininum. Hormonal therapy in gynaecology
20 Climacterium femininum. Hormonal therapy in gynaecology
21 Benign tumours of the uterus
22 Benign tumours of the uterus
23 Gynaecological operations
24 Gynaecological operations
25 Ovarian tumours. Complex therapy of ovarian carcinoma
26 Ovarian tumours. Complex therapy of ovarian carcinoma
27 Contraception, tubal cautery
28 Contraception, tubal cautery

Seminars
Exam topics/questions
1. Classification of amenorrhea, diagnostic and therapeutic possibilities.
   Diagnosis, pathogenesis, and treating options of genital fistulas
2. Intersexuality and gonadal dysgenesis
   Benign and malignant tumors of the vagina (diagnosis and management of VAIN)
3. Determination of the ovarian functions regarding ovulation.
   Screening, and treating options for premalignant conditions of the uterine cervix
   Diagnostical and operative hysteroscopy
5. Treatment of infectious diseases of the vulva and vagina.
   Hyperandrogen conditions, PCO-syndrome.
6. Congenital abnormalities of the uterus (diagnosis and therapy).
   Germ cell tumors of the ovaries.
7. Prerequisites and possible complications of the use of IUD.
   Classification and therapy for cervical cancer.
8. Postmenopausal bleeding disorders.  
   Types and indications for hysterectomy.
9. Gestational trophoblastic neoplasia (invasive mole, choriocarcinoma). Diagnosis and therapy.  
   Salpingo-oophoritis and its differential diagnosis.
10. Symptoms, diagnosis and therapy of uterine fibroids.  
    Endometrial cancer. Symptoms, diagnosis, histologic types and staging.
11. The classification, symptoms and staging of ovarian cancer.  
    The role of ultrasound in the diagnosis of gynecologic diseases.
12. The definition of menopause, symptoms and late complications.  
    The role of HPV in the pathogenesis of gynecologic malignancies; the HPV vaccination.
13. Up to date contraceptive methods.  
    Sexually transmitted diseases (STD).
    Pathomechanism, classification, and diagnosis of endometriosis.
15. Uterine prolapse. Symptoms and diagnosis.  
    The complex therapeutic options for ovarian cancer.
    The therapy of endometriosis.
17. Classification of female infertility.  
    Acute abdominal catastrophe in gynecology.
18. Management of female infertility (ovulation induction and AIH)  
    Precancerous, and malignant diseases of the vulva.
19. Female urine incontinence.  
    Benign tumors of the ovaries. Classification, diagnosis and therapy.
20. Physiology of adolescence and menopause.  
    Signs, symptoms, clinical appearance and therapy of hydatidiform mole.
    Tumor markers of various malignant ovarian cancers. Diagnosis and therapy of borderline ovarian tumors.
22. Genetic characteristics and therapeutic options of gynecologic tumors.  
    The role of laparoscopy in gynecology (diagnosis and therapy).
    Hormonal substitution in menopause. Indication, contraindications, and side effects.
24. Treatment options for infertility (IVF, ICSI), Ovarian hyperstimulation-syndrome (OHSS).  
    Indications and contraindications of oral contraceptive pills; potential complications.

Participants
Dr. Bódis József (BOJHAAE.PTE), Dr. Farkas Bálint (FABFACO.PTE), Dr. Gőcze Péter (GOPMAAO.PTE), Dr. Kovács Kálmán András (KOKFAFO.PTE), Dr. Papp Szilárd (PASFACO.PTE), Dr. Rácz Sándor Attila (RASFAAO.PTE), Dr. Tamás Péter (TAPMAAO.PTE)