### **REQUIREMENTS**

Semmelweis University, Faculty of General Medicine – single, long-cycle medical training programme

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

Semmelweis University, Faculty of General Medicine, Department of Internal Medicine and

Hematology

Name of the subject: Belgyógyászat

in English: Internal Medicinein German: Innere Medizin

Credit value: 8
Semester: 11-12

(as defined in the curriculum)

Total number of classes		practical lessons: 32	seminars:
per week: 40			

Type of subject: <u>compulsory</u> optional elective

Academic year: 2023-24

Language of instruction, for optional or elective subjects: English

Course code: AOKBHK785\_SA

(In the case of a new subject, this cell is filled in by the Dean's Office, following approval)

Course coordinator: Dr. Masszi Tamás

Place of work, phone number: Department of Internal Medicine and Hematology, +36-1-375-7364

**Position:** Head of the Department

Date and number of habilitation: 2010.06.07., száma: 305

Objectives of the course and its place in the medical curriculum:

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

Semmelweis University, Department of Internal Medicine and Hematology 1088 Budapest, Szentkirályi u. 46.

### Competencies acquired through the completion of the course:

The primary objective of the course is the symptom-based and patient-oriented education of internal medicine. Students become familiar with the diagnostics and treatment of the most common disorders.

Besides the above mentioned, **integrative medicine**, the holistic approach to medicine is also taught. This means the presentation of the coordinated patient care between internal medicine subspecialities and other related professionals and the illustration of the complexicity of real life cases. **Differential diagnosis** also requires utilization of knowledge aquired from different specialties in the diagnostic phase of a case. With this complex program we emphasize the practical importance of internal medical approach and pursuit and teach its application in the real world.

### Prerequisites for course registration and completion:

Internal Medicine II., Orvosi képalkotás, Pulmonológia, Mellkassebészet

Conditions for concurrent course registration and permission thereof in the case of a multi-

### semester subject:

N/A

## Student headcount conditions for starting the course (minimum, maximum) and method of student selection:

Students are registered in the NEPTUN System in rotations.

### **Detailed course description:**

(Theoretical and practical instruction must be broken down into lessons (weeks), numbered separately. Please provide the names of lecturers in both types of lessons, indicating guest lecturers. This information is not to be attached separately. CVs of guest lecturers, however, must be attached.) Activities should include the following subjects: general survey of hospital/department organization, examination of patients in the Medical Department, with special emphasis to case history taking and full physical examination.

The students should gain practice in patient documentation, problem-oriented medical record keeping, taking of pulse, blood pressure. of patients, making 12-lead ECG.

Participate in the preparation of diagnostic and therapeutic plan for patients.

Be present at invasive and semi-invasive interventions (taps of abdominal and chest fluid, preparation of bone marrow smear etc.).

To spend time at the outpatient department.

To practice basic laboratory techniques needed in bedside diagnosis (urinalysis, stool examination, use of dip sticks etc.).

To be on night duty once during the period.

Consultations in gastroenterology, diabetes, hematology, endocrinology, cardiology, sonography, X-ray, ECG etc.

Watch endoscopy performed.

See the intensive coronary care unit.

Regular consultations with the doctor responsible for the student.

All these activities should be carefully supervised by members of the medical staff.

The students should also practice communication with patients and their relatives, while giving them relevant medical information on the disease but avoiding conflicts with medical confidentiality.

Students should take an active part in medical consultations concerning their patients, as well as in the medical conferences in the department.

# Related subjects due to interdisciplinary fields (both compulsory and elective) and potential overlaps between subjects:

Knowledge acquired during the study of the non-invasive subjects of the previous years is integrated.

# Attendance requirements; conditions under which students can make up for absences and the method of absence justification:

According to the Study and Examination Regulations, students are required to participate on at least 75% of all practices

### Form of assessment in the study period:

(including the number, topics and scheduling of oral and written tests, their share in the overall evaluation, make-up tests and improvement tests)

There is no intermediate formal assessment.

## Number and type of assignments for individual work and the deadline for submission: $N\!/\!A$

### Requirements to obtain the teacher's signature:

According to the Study and Examination Regulations, students are required to participate on at least 75% of all practices

**Type of assessment:** (comprehensive examination, end-term examination, term-grade, term-grade on a three-grade rating scale, coursework project, no examination)

Comprehensive examination

### **Examination requirements:**

(list of examination topics, subject areas of tests / examinations, lists of mandatory parameters,

figures, concepts and calculations, practical skills and the optional topics for exam-equivalent coursework projects, their criteria of completion and assessment)

The final exam consists of two parts:

- 1. practical part: complex patient examination
- 2. theoretical part: 3 items from the predetermined topic list

The topic list below shows the topics valid in the 2022-23 academic year, the list is being revised, and has not yet been finalized at the time of submitting this document. The 2023-24 list will be available to students on the usual forums (website, moodle) at the beginning of the final year period.

### **CARDIOLOGY**

Heart failure. (Left heart failure, right heart failure)

Mitral stenosis and regurgitation. Mitral valve prolapse.

Aortic stenosis and regurgitation.

Tricuspid valve stenosis and regurgitation. Pulmonary valve stenosis and regurgitation.

Rheumatic fever.

Ischemic heart disease. Angina pectoris.

Acute myocardial infarction.

Arrhythmias (Supraventricular arrhythmias. Ventricular arrhythmias. Heart block.)

Cardiomyopathies.

Arterial hypertension.

Diseases of the aorta.

Peripheral vascular disease.

**PULMONOLOGY** 

Obstructive lung disease.

Bronchial asthma.

Acute bronchitis

Chronic bronchitis.

Infiltrative diseases of the lung.

Neoplastic diseases of the lung.

Diseases of the pleura and mediastinum.

Sarcoidosis

### **ENDOCRINOLOGY**

Hypopituitarism.

Syndromes of anterior pituitary hyperfunction.

Disorders of the posterior pituitary

Diabetes mellitus. (Type 1 DM. Type 2 DM. Coma)

Diabetic complications. Treatment of diabetes mellitus.

Hypoglycemic disorders. Pancreatic islet cell tumors.

Adrenocortical hypofunction.

Cushing's syndrome.

Mineralocorticoid excess states.

The disorders of the adrenal medulla.

Hyperthyreoidism.

Hypothyroidism.

Thyroiditis.

Sporadic and endemic goiter.

Hyperparathyroidism.

Hypoparathyroidism.

The carcinoid syndrome.

The disorders of lipid metabolism.

Obesity.

Disorders of purine metabolism. Gout.

Amenorrhea. Hirsutism. Hypogonadism in males. Gynecomasthia

Osteoporosis

### HAEMATOLOGY

The classification and differential diagnosis of anemias.

Aplastic anemia.

Hypochrome anemias.

Megaloblastic anemias.

Hemolytic anemias.

Myelofibrosis.

Chronic myeloproliferativ diseases (Essential thrombocythemia. Polycythemia vera. Chronic myelogenous leukemia.)

Chronic lymphocytic leukemia.

The acute leukemias.

Myelodysplastic syndromes.

Hodgkin's lymphoma.

Non-Hodgkin's lymphoma.

The paraproteinemias. Multiple myeloma

Multiple myeloma.

Bone marrow transplantation

Amyloidosis.

Thrombocytopenia. ITP. Purpura Henoch-Schönlein

The thrombophylias. Factor V Leiden. Antiphospholipid syndrome

The hemophilias.

Antithrombotic therapy.

**IMMUNOLOGY** 

The immune deficiencies.

Allergic diseases.

Rheumatoid arthritis.

Systemic lupus erythematosus.

Sjögren's syndrome.

Polymyositis, dermatomyositis.

Progressive systemic sclerosis.

The vasculitides.

Osteoporosis.

### GASTROENTEOROLOGY

Acute abdominal catastrophes.

Gastrointestinal hemorrhage.

Dysphagia, heartburn, gastrointestinal reflux.

Achalasia. Cancer of the oesophagus.

Gastritis.

Ulcer of the stomach. Duodenal ulcer.

Cancer of the stomach.

Irritable colon syndrome.

Crohn's disease.

Ulcerative colitis.

Ischemic colitis. Diverticulitis.

Cancer of the colon.

Malabsorption and maldigestion.

Acute hepatitis. Fulminant hepatic failure.

Chronic hepatitis. Drug induced liver disorders.

Alcohol related liver disease. Cirrhosis of the liver.

Tumors of the liver.

Primary biliary cirrhosis.

Cholelithiasis. Cholecystitis.

Acute pancreatitis.

Chronic pancreatitis.

The tumors of the pancreas.

**NEPHROLOGY** 

Acute renal failure.

Chronic renal failure.

Acute glomerulonephritides

Chronic glomerulonephritides

Renal involvement in systemic diseases.

Interstitial diseases of the kidney.

Urinary tract infections. Pyelonephritis.

Nephrotic syndrome

Renal neoplasms.

Obstructive uropathy. Nephrolithiasis.

Drug-induced nephropathy.

**INFECTIONS** 

Fever of unknown origin.

Nosocomial infections.

Bacteremia, septicemia.

Herpes virus infections.

Infectious mononucleosis.

Cytomegalovirus infections.

Lyme disease.

Brucellosis.

Tuberculosis.

Candidiasis.

Helminthic diseases.

Amebiasis.

Giardiasis.

Malaria.

Pneumocystis infections.

Antimicrobial therapy. The principles of antibiotic treatment.

Pneumonia.

Pericarditis. Acute myocarditis.

Infective endocarditis.

Osteomyelitis.

HIV infection and AIDS.

Thrombophlebitis of the deep veins.

Thrombophlebitis of the superficial veins. Erysipelas 4

### **MISCELLANEOUS**

Initial evaluation of the patient with poisoning or drug overdose.

Principles of treatment of poisoning.

Methemoglobinemia.

Ethanol poisoning.

Barbiturate poisoning.

Methanol poisoning.

Lead poisoning.

Digitalis overdose.

Salicylate overdose.

The differential diagnosis of thoracic pain.

The differential diagnosis of abdominal pain.

The differential diagnosis of diarrhea.

The differential diagnosis of jaundice.

The paraneoplastic syndromes.

Oncologic emergencies.

### Method and type of grading:

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

Final exam (5 scale grade)

Each course is concluded by a bedside practical skill exam followed by clinical oriented oral exam. During the exam the students are required to answer questions based on the knowledge acquired during practical sessions and by reading the compulsory chapters of the theoretical curriculum, by elaborating on 3 themes of the titles above.

List of course books, textbooks, study aids and literature facilitating the acquisition of knowledge to complete the course and included in the assessment, precisely indicating which requirement each item is related to (e.g., topic by topic) as well as a list of important technical and other applicable study aids:

Continuously updated materials available on the website of the Department and on Moodle.
Oxford Handbook of Clinical Medicine 10 <sup>th</sup> Ed., Weatherall, Ledingham, Warrel, 2020
Harrison's Principles of Internal Medicine 21st Ed., McGraw-Hill, 2022
Bates' Guide to Physical Examination and History Taking. 12th Ed., Wolters Kluwer, 2016
Signature of habilitated instructor (course coordinator) announcing the course:
Signature of the director of the host institution:
Date of submission: