Semmelweis University, Faculty of Medicinee – single, long-cycle medical training - Osztatlan általános orvos képzés
Name of the host institution (and any contributing institution):
Belgyógyászati és Onkológiai Klinika

Name of subject: Belgyógyászat I. (anyagcsere, endokrinológia, gasztroenterológia, nefrológia)
in English: Internal Medicine I (Metabolism, Endocrinology, Gastroenterology, Nephrology)
in German: Innere Medizin I (Stoffwechsel, Endokrinologie, Gastroenterologie, Nephrologie)

Credit value: 7
Semester: 7th semester, 8th semester
(in which the subject is taught according to the curriculum)

Hours per week	Lecture	Practical lesson	Seminar
7.0	2.0	5.0	0.0

Hours per semester	Lecture	Practical lesson	Seminar
0.0	0.0	0.0	0.0

Type of course:
obligatory

Academic year:
2025/26

Language of instruction (for optional and elective subjects):
angol

Course code:
AOKBOK784_1A
(in the case of a new course, to be completed by the Dean’s Office, following approval)

Course coordinator name: Dr. Takács István (igazgató)
Course coordinator location of work, telephone availability: Department of Internal Medicine and Oncology, Semmelweis University, Tel: 06-1-459-1500/51520
Course coordinator position: professor, department head
Course coordinator Date and number of habilitation: 2011, 328 (Semmelweis University)

Objective of instruction and its place in the curriculum:

The primary objective of the course in internal medicine for fourth-year students, who have been

acquired the basic skills of physical examination, is the symptom-based and patient-oriented education

of various segments of internal medicine. Internal medicine I comprises endocrinology, metabolic disorders, nephrology and gastroenterology. Students become familiar with the diagnostics and the treatment of the most common disorders of these disciplines.

Method of instruction (lecture, group work, practical lesson, etc.):

lectures, case discussions, bedside practices and consultations

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Competencies acquired through completion of course:

Education of internal medicine commences in third year by teaching propedeutics, and finishes in the final year - providing a backbone for medical education. Our major objective throughout this period is the integration of the knowledge provided by preclinical and clinical subjects into our curriculum. By the time of graduation, our students – the future doctors – should have up-to-date theoretical and practical knowledge, as well as an ability to make appropriate interpersonal relationship with patients, relatives and medical personnel that together, provides the basis of independent medical decisions.

Course outcome (names and codes of related subjects):
AOKGY1960_1A, AOKBHK1118_2A, AOKNEU963_1A, AOKSPR763_1A, AOKGRI966_1A

Prerequisites for course registration and completion: (CODE):

Internal Medicine Propedeutics

Pharmacology and Pharmacotherapy II

Pathology II

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

Not applicable.

The number of students required to start the course (minimum, maximum), student

selection method:

Based on student registration in Neptun, in six blocks throughout the year.

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

During a 5-week block practice, students spend 14 days in the department, through 4 weeks.

Students are assigned into groups (14-15 students / group) for the case discussions that are held in

rotation, resulting in fewer students learning about a given topic at a time. Bedside practices are also

held in small groups (7-8 students/group).

Within the daily schedule, there are lectures for the entire block of students (35-40 students), and case

discussion practices in rotation and bedside practices for small groups of students. Every day ends

with a consultation.

Exams are held on the fifth, final week.

Schedule:

Schedule:

	Monday	**Tuesday**	**Wednesday**	**Friday**
8:15-9:45	Case discussion	Case discussion	Case discussion	Case discussion
10:00-12:15	Bedside practice	Bedside practice	Bedside practice	Bedside practice
13:15-14:00	Lecture	Lecture	Lecture	Lecture
14:15-15:00	Lecture	Lecture	Lecture	Lecture
15:15-15:45	Consultation	Consultation	Consultation	Consultation

Week #1

	MONDAY	**TUESDAY**	**WEDNESDAY**	**FRIDAY**

8:15-9:45	**8:00-8:20** Introduction **8:30-10:00** S27 Tislér A S210 Folhoffer A S22 Kövesdi A	S26 Reismann P S211 Hagymási K S23 Tóth M / Tőke J	S29 Pethő Á S110 Hegyi P S21 Szücs N /Tőke J	S28 Studinger P S25 Horváth V S24 Horváth Cs
10:00-12:15	**10:30-12:15** bedside practice	bedside practice	bedside practice	bedside practice
13:15-14:00	D9 Kempler P	N17 Tislér A	G20 Miheller P	E2 Takács I
14:15-15:00	E1 Igaz P	G18 Iliás Á	G22 Hritz I	N14 Studinger P
15:15-16:00	Consultation	Consultation	Consultation	Consultation

Week #2

	MONDAY	**TUESDAY**	**WEDNESDAY**	**FRIDAY**
8:15-9:45	S22 Kövesdi A S27 Tislér A P S210 Folhoffer A	S23 Tóth M / Tőke J S26 Reismann P S211 Hagymási K	S21 Szücs N /Tőke J S29 Pethő Á S110 Hegyi P	S24 Horváth Cs S28 Studinger S25 Horváth V
10:00-12:15	bedside practice	bedside practice	bedside practice	bedside practice
13:15-14:00	N13 Pethő Á	E3 Lakatos PA	N15 Ledó N	D10 Horváth V
14:15-15:00	D11 Tabák Á	E4 Reismann P	E5 Tóth M	G21 Mihály E
15:15-16:00	Consultation	Consultation	Consultation	Consultation

Week #3

	MONDAY	**TUESDAY**	**WEDNESDAY**	**FRIDAY**
8:15-9:45	S210 Folhoffer A S22 Kövesdi A S27 Tislér A	S211 Hagymási K S23 Tóth M / Tőke J S26 Reismann P	S110 Hegyi P S21 Szücs N /Tőke J S29 Pethő Á	S25 Horváth V S24 Horváth Cs S28 Studinger P
10:00-12:15	bedside practice	bedside practice	bedside practice	bedside practice
13:15-14:00	E6 Igaz P	G23 Hagymási K	G19 Székely H	E8 Horváth Cs

14:15-15:00	G24 Hegyi P	E7 Tőke J	N16 Cseprekál O / Wagner L	D12 Barna I
15:15-16:00	Consultation	Consultation	Consultation	Consultation

Week #4

	MONDAY	**TUESDAY**	**WEDNESDAY**	**FRIDAY**
8:15-9:00	S17 Pethő Á S15 Nagy G S11 Bakos B /Szili B	S19 Ledó N S212 Gellért B S12 Tóth M	RETAKE (optional)	HOLIDAY
9:15-10:00	S11 Bakos B /Szili B S17 Pethő Á S15 Nagy G	S12 Tóth M S19 Ledó N S212 Gellért B		
10:15-11:00	S15 Nagy G S11 Bakos B /Szili B S17 Pethő Á	S212 Gellért B S12 Tóth M S19 Ledó N	RETAKE (optional)	
12:15-13:00	S16 Kollár R S111 Horváth M S13 Mészáros Sz	S18 Studinger P S112 Mihály E S14 Reismann P / Sumánszki Cs	RETAKE (optional)	
13:15-14:00	S13 Mészáros Sz S16 Kollár R S111 Horváth M	S14 Reismann P / Sumánszki Cs S18 Studinger P S112 Mihály E	RETAKE (optional)	
14:15-15:00	S111 Horváth M S13 Mészáros Sz S16 Kollár R	S112 Mihály E S14 Reismann P / Sumánszki Cs S18 Studinger P	RETAKE (optional)	
15:15-16:00	Consultation	Consultation		

Week #5

	MONDAY	**TUESDAY- FRIDAY**
		oral exam (9:00-13:30)
08:00-09:00	written exam	

Endocrinology and metabolic diseases

Lectures:

1. E1 Introduction to endocrinology. Diseases of the hypothalamus. (Igaz P)

2. E2 Thyroid disorders – symptoms, diagnosis and treatment. (Takács I)

3. E3 Thyroid nodules and cancer. (Lakatos PA)

4. E4 Secondary endocrine hypertension (primary aldosteronism, pheochromocytoma). (Reismann P)

5. E5 Glucocorticoid deficiency and overproduction: Addison's disease and Cushing's syndrome, iatrogenic Cushing's syndrome. (Tóth M)

6. E6 Diseases of the pituitary. (Igaz P)

7. E7 Disorders of the gonads. (Tőke J)

8. E8 Disorders of calcium metabolism. (Horváth Cs)

9. D9 Introduction to diabetology. Causes and diagnosis of blood glucose disorders. (Kempler P)

10. D10 Glucose control in diseases of carbohydrate metabolism. (Tabák Á)

11. D11 Managing diabetic patients and their complications. (Horváth V)

12. D12 Obesity, management and treatment of patients with lipid metabolism disorders. (Barna I)

Case discussions:

1. S21 Diagnosis, treatment and follow-up of patients with pituitary adenoma and hypopituitarism. (90' Szücs N / Tőke J)

2. S22 What to do in case of altered TSH, examination of thyroid disorders. (90' Kövesdy A)

3. S23 Examination of cortisol overproduction and deficiency, follow-up and management of patients with Cushing's syndrome and adrenocortical insufficiency (90' Tóth M / Tőke J)

4. S24 Diagnosis and treatment of osteoporosis. (90' Horváth Cs)

5. S25 Managing diabetes mellitus – diet and treatment. (90' Horváth V)

6. S26 Purine, iron, copper and other rare metabolism disturbances. (90' Reismann P)

7. S11 Thyroid nodules, examination of thyroid cancer, radioiodine treatment. (45' Szili B / Bakos B)

8. S12 Options of neuroendocrine tumour treatment, endocrine paraneoplastic syndromes. (45'

Lakatos P.)

9. S13 Examination and treatment of hyper- and hypocalcaemia (45’ Mészáros Sz)

10. S14 Thyroid ultrasound (45’ Sumánszki Cs / Reismann P)

11. S15 Managing and follow-up of diabetic patients, complications. (45’ Nagy G)

12. S16 Obese patient, metabolic syndrome, when to treat elevated cholesterol. (45’ Kollár R)

Nephrology

Lectures:

1. N13 Glomerular diseases. (Pethő Á)

2. N14 Tubulointerstitial and cystic kidney diseases. (Studinger P)

3. N15 Electrolyte disorders. (Ledó N)

4. N16 Renal transplantation. (Wagner L)

5. N17 Introduction to nephrology. Differential diagnostics of renal diseases. (Tislér A)

Case discussions:

1. S27 A young female patient with acute kidney injury and liver dysfunction. (90’ Tislér A)

2. S28 Approach to a patient with glomerulonephritis. (90’ Studinger P)

3. S29 Dialysis treatment. (90’ Pethő Á)

4. S17 Management of a patient with chronic kidney disease. (45’ Pethő Á)

5. S18 Vascular disorders of the kidneys, kidney stones and urinary tract infection. (45’ Studinger P)

6. S19 Hematuria and proteinuria during pregnancy. (45’ Ledó N)

Gastroenterology

Lectures:

1. G18 Introduction to gastroenterology (Iliás Á)

2. G19 Disorders of the esophagus and the stomach. Disorders of the small bowel, malabsorption and maldigestion. (Horváth M)

3. G20 Inflammatory bowel diseases. (Miheller P)

4. G21 Diseases of the large bowel. Functional GI disorders. (Mihály E)

5. G22 Gastrointestinal bleeding. (Hritz I)
6. G23 Management of a patient with acute liver failure. (Hagymási K)
7. G24 Disorders of the pancreas. (Hegyi P)

Case discussions:

1. S110 Management of a patient with a pancreatic disease. (90’ Erőss B)
2. S211 Approach to a patient with acute abdominal pain. (90’ Hagymási K)
3. S210 Approach to a patient with an abnormal liver function test. (90’ Folhoffer A)
4. S212 Differential diagnosis and management of obstructive jaundice. (45’ Patai Á)
5. S111 Approach to a patient with swallowing difficulty. (45’ Gellért B)
6. S112 Celiac disease. Differential diagnosis of diarrhea (45’ Mihály E)

Other courses with overlapping topics (obligatory, optional, or elective courses) in interdisciplinary areas. To minimalize overlaps, topics should be coordinated. Code(s) of courses (to be provided):
AOKGRI966_1A

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

According to the rules of the University, students are required to participate on at least 90% of all sessions. This is evaluated through QR codes on lectures and attendance sheets signed by tutors on case discussions and bedside practices.

In case of illness or unforeseen special circumstances of the student, retake is feasible based on an individual agreement with the course coordinator (Studinger.peter@semmelweis.hu), with the permission of the course director. Retake is also feasible for 2 weeks in July, after exam week of the last block.

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

Personal discussion of topics covered throughout the day during afternoon consultations

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

Not applicable

Requirements for the successful completion of the course:

Participation on at least 90% of all sessions. At the end of the course, after the student has taken his/her attendance sheet to the secretariat, the Course Director grants credits to students in the Neptun system

Type of assessment:
terminal examination

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

On the first day of the exam week, students take a 60-min written exam which is comprised of 12-15 open-ended questions. The written exam provides 50 points: 20 points from endocrinology and metabolic disorders, 15 points from nephrology and 15 points from gastroenterology.

After the written exam, during the following days, a bedside, patient-oriented oral exam is taken. Oral exam is comprised of physical examination of a patient, interpretation of physical findings and discussion of diagnostic and therapeutic approach to the patient's endocrine / metabolic / renal / gastroenterological medical condition.

There is not any topic list for the written or the oral part of the exam. A sample written exam is provided to students on Moodle to help preparation.

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

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

Written and oral exams provide 50-50 points, respectively. Score-to grade conversion is as follows:

90-100: excellent (5), 80-89: good (4), 70-79: average (3), 60-69 pass (2), <60 fail (1).

In case a student’s written score is < 10 points, the oral exam can provide maximum 60 points.

There is not any possibility of an offered grade. Retake of any (written or oral) part of the exam is feasible on the exam week of any subsequent block or on the extracurricular exam week (late August). In case of a failed exam, the student can decide whether to retake the written part, the oral part or both parts of the complex exam.

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

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List of coursebooks, 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; possibility of individual or group student consultation, if available:
Online resources:

Required	pdf.nem
Title	Internal Medicine I.
Link	Moodle

Printed resources:

Required	pdf.nem
Author	Lynn S. Bickley
Title	Bates’ Guide to Physical Examination and History Taking. 12th Ed
Publisher	Wolters Kluwer
Year of publication	

Required	pdf.nem
Author	Feather – Randall – Waterhouse
Title	Kumar and Clark’s Clinical Medicine
Publisher	Elsevier
Year of publication	

Required	pdf.nem
Author	4. Jameson – Fauci – Kasper – Hauser – Longo – Loscalzo
Title	Harrison’s Principles of Internal Medicine
Publisher	McGraw-Hill Education
Year of publication	2022

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

Signature of the director of the host institution:

Date of submission:
