

CHART OF DISCIPLINE/ SYLLABUS

1. Study Program Data

1.1 High Education Institute	
1.2 Faculty	
1.3 Department	VII. INTERNAL MEDICINE II
1.4 Study Domain ¹⁾	License
1.5 Cycle Studies ²⁾	License
1.6 Study programme/ Qualification	

2. Course Data

2.1. Course/Department	Clinical Abdominal Echography							
2.2 Course tutor	Prof. Dr. Alina Popescu							
2.3 Practical activity tutors	-							
2.4. Year of study	3	2.5 Semester	6	2.6 Assessment	Colocvium	2.7 Course rank	Content ³⁾	DS
							Mandatory /Compulsory ³⁾	DO

3. Duration/Estimated Time (number of hours/ semester of teaching activity)

3.1 Number of hours/ week	1	3.2 lecture/course	1	3.3 laboratory	0
3.4 Total hours of curriculum	14	3.5 lecture/course	14	3.6 laboratory	0
Time distribution for course activities					
Study support- manuals, lectures, references and notes					20
Additional documentation – library, dedicated platforms from domain					10
Documentation for seminars/ practical activity/ projects, themes, portfolios and essays					4
Tutoring					
Assessment					2
Other activities					
3.7 Total number of hours for individual study	34				
3.8 Total number of hours per semester	50				
3.9 Number of credits ⁵⁾	2				

4. Preconditions (if applicable and requested)

4.1 Courses- studied curriculum/ rules for attending the course	Anatomy, Physiology, Physio- pathology
4.2 Practical activities/seminars/projects studied curriculum, basic skills/ rules for attending the course	Not applicable

5. Condition (if applicable and requested)

5.1 Courses	<ul style="list-style-type: none"> Mobile phones will be shut down during classes, telephone conversations are not tolerated during the course, nor do students leaving the classroom for personal phone calls; The students are not allowed to be late for the courses as it proves to be disruptive to the educational process; The attendance at the course is compulsory, with a maximum of 30% of the total absences being accepted.
5.2 Laboratory/practical activity/ project	-

6. Key competencies and basic skills

<ol style="list-style-type: none"> 1. Knowing the terminology used in ultrasound 2. Knowing the normal ultrasound aspect of the abdominal organs 3. Knowing the main pathological ultrasound aspects of the abdominal organs 4. The ability to explain the ultrasound changes as well as their clinical significance in a given condition; 5. Formulation of diagnostic assumptions based on the ultrasound changes; 6. Designing an investigation plan in the context of specific ultrasound changes 7. Designing a therapeutic plan in the context of specific ultrasound changes;
<ol style="list-style-type: none"> 1. Preoccupation for professional development by active participation in the course and internship; 2. Involvement in scientific research activities by participating to writing papers, studies, specialized articles; 3. Effective use of information and communication resources and assisted training (Internet portals, specialized software applications, databases, on-line courses, etc.) both in international languages;

7. Disciplines/Course objectives (based on the key competences)

7.1 Disciplines/Course general objectives	Abdominal ultrasound courses and internships have as main objective the familiarization of students with basal notions of general ultrasound.
7.2 Disciplines/Course specific objectives	Abdominal ultrasound courses and internships have as main objective the familiarization of students with basal notions of general ultrasound, with the normal and pathological ultrasound aspect of the abdominal organs, as well as with the positive and differential diagnosis of digestive, renal, hematologic diseases using ultrasound.

8. Content

Content			
8.1 Course	Teaching method	Number of hours	Notification
1. Physics of ultrasound. Ultrasound examination technique.	INTERACTIVE COURSE	1	<ul style="list-style-type: none">• Lectures with structured, interactive Powerpoint presentations, accompanied by a rich and suggestive iconography of ultrasound films, available on the Moodle e-learning platform of the university.• The lectures are revised and supplemented with the latest information available. Each course presents the educational objectives at the beginning and ends with summarizing the notions presented.
2. Notions of ultrasound anatomy		1	
3. Ultrasound in diffuse liver diseases		1	
4. Ultrasound in benign liver tumors		1	
5. Ultrasound in malignant liver tumors		1	
6. Cystic liver lesions		1	
7. Ultrasound of the gall bladder		1	
8. Normal and pathologic pancreas		1	
9. Ultrasound of the kidney, urinary bladder and of the adrenal glands		1	
10. Ultrasound of the spleen, lymph nodes and large vessels		1	
11. Ultrasound of the digestive tube		1	
12. Ultrasound in emergency		1	
13. Contrast enhanced ultrasound		1	
14. Notions of elastography		1	
Mandatory reading: 1. Course of abdominal ultrasound for students. Roxana Sirli, Ioan Sporea, Editura „Victor Babeș” Timișoara, 2016 e-book, available: http://www.umfl.ro/data_files/documente-atasate-sectiuni/2213/curs_20eco_20eng.pdf			
Optional reading:			

Ecografia abdominala in practica clinica. I Sporea, Cristina Cijevschi Prelipcean, in colaborare cu Mirela Danila, Alina Popescu, Roxana Sirli. Editura Mirton Timisoara 2010,

2. Abdominal ultrasound in clinical practice. Ioan Sporea, Cristina Cijevschi Prelipcean, Editura „Victor Babeș” Timisoara, 2017. E-book disponibilă: http://www.umft.ro/data_files/documente-atasate-sectiuni/3642/eco_20sporea_20ebook.pdf

3. Ultrasound Atlas of Clinical cases. Sporea I (editor) (Popescu A, Sirli R, Danila M, Bende F, Mare R, Ghiuchici AM, Moga T Editura „Victor Babeș” Timisoara, http://www.umft.ro/data_files/documente-atasate-sectiuni/7039/ultrasound_20atlas_20of_20clinical_20cases.pdf

4. Atlas of Abdominal Ultrasound Images. Sporea I (editor) (Popescu A, Sirli R, Danila M, Bende F, Mare R, Ghiuchici AM, Moga T). Editura „Victor Babeș” Timisoara, 2020. http://www.umft.ro/data_files/documente-atasate-sectiuni/6958/atlas_20of_20abdominal_20ultrasound_20images-18_20mai.pdf

8.2 Seminars/ Laboratory/practical activity/ projects	Teaching-learning, methods	Number of hours	Notification
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			

Mandatory references:

Optional references:

9. Correlations between the content of the course and the requirements of the professional field and relevant employers

Ultrasound identification of abdominal organs
Recognizing the normal or pathological appearance of the abdominal organs.
Integrating the ultrasound in the clinical context of the patient

10. Assessment

Activity	10.1 Assessment criteries	10.2 Assessment methods	10.3 Percentage of the final grade
10.4 Course	<i>Knowledge for Note 5:</i> Ultrasound Identification of Abdominal Organs <i>Knowledge for Note 10:</i> Recognizing the normal or pathological appearance of the abdominal organs. Integrating the ultrasound aspect in the clinical context of the patient	<i>Continuous rating:</i> seminar, case studies <i>The final exam</i> consists of a written essay and recognition and description of 5 US images	10% 90%
10.5 Practical activity/ seminar	-	-	-
10.6 Minimum performance standard-basic knowledge			
Knowledge of terminology related to ultrasound and ultrasound identification of abdominal organs			

Date 10.11.2022	Signature of the course holder Prof. Dr. Alina Popescu	Signature of the laboratory/seminar holder
Signature of the Head of Discipline Prof. Dr. Roxana Sirbu		
Date of approval in the Department	Signature of the Head of Department Conf. Dr. Viviana Ivan	

Notes:

- 1) Domeniul de studii - *se alege una din variantele: Licență/ Masterat/ Doctorat (se completează conform cu Nomenclatorul domeniilor și al specializărilor/ programelor de studii universitare în vigoare)*;
- 2) Ciclu de studii - *se alege una din variantele: Licență/ Master/ Doctorat*;
- 3) Regimul disciplinei (conținut) - *se alege una din variantele: DF (disciplină fundamentală)/ DD (disciplină din domeniu)/ DS (disciplină de specialitate)/ DC (disciplină complementară) - pentru nivelul de licență; DAP (disciplină de aprofundare)/ DSI (disciplină de sinteză)/ DCA (disciplină de cunoaștere avansată) - pentru nivelul de masterat*;
- 4) Regimul disciplinei (obligativitate) - *se alege una din variantele: DI (disciplină obligatorie)/ DO (disciplină opțională)/ DFac (disciplină facultativă)*;
- 5) Un credit este echivalent cu 25 – 30 de ore de studiu (activități didactice și studiu individual).

*nr de ore de studiu individual (punctul 3.7.)= nr total ore (nr credite X 25) minus nr. ore din planul de învățământ (punctul 3.4) – ore alocate pentru examinări. Aceste ore se împart între

Studiul după manual, suport de curs, bibliografie și notițe	
Documentare suplimentară în bibliotecă, pe platformele electronice de specialitate și pe teren	
Pregătire seminarii/ laboratoare/ proiecte, teme, referate, portofolii și eseuri	
Tutoriat	

- 6) Pentru specializările și/sau disciplinele a căror tematică se regăsește în bibliografia de rezidențiat, aceasta devine obligatorie.