



DISCIPLINE SHEET

1.-Info about the program

FOUNDATION FOR DEVELOPMENT AND MANAGEMENT			
1.2-Faculty	FACULTY OF MEDICINE		
1.3-Departament	Clinical/Specialization Discipline		
1.4-Study domain	Health		
1.5-Study cycle	Bachelor		
1.6-Study program/ Calification	Medicine-English		

2.-Info about discipline

2.1- Name of the discipline		NOTIONS OF ULTRASOUND						
2.2-Course lecturer		-						
2.3-Seminary lecturer		Univ. Teaching Assistant STIRBU Daniel ,PhD(c),MD						
2.4-Year of study	IV	2.5 Semester	II	2.6 Evaluation type	Exam	2.7. Discipline regime	Content	DS
							Optional	DOP

3.-Total time (hours of didactic activity per semester)

3.1-Number of hours per week	1	3.2 -course	1	3.3- laboratory	1
3.4-Total hours of the curriculum	28	3.5 -course	14	3.6 -laboratory	14
Distribution of time					Hours
Study after manual, course support, bibliography and notes					15
Additional documentatin in the library, on the specialized electronic platforms and on the field					4
Training seminars/laboratories/projects, themes, papers,portofolios and essays					2
Tutoring					-
Examination					1
Other activities					-
3.7-Individual study hours	22				
3.8-Total hours per semester	50				
3.9-Credit number	2				

4.-Preconditions (if applicable)

4.1 Curriculum	Not the case
4.2. Learning Outcomes	Not the case

5.-Conditions (where applicable)



5.1.- of the course	Not the case
5.2-Seminar activities	Conditions for practical-applied learning, in a heuristic, problem-solving spirit

6. Learning outcomes

Knowledge	Understanding the basic physical principles of ultrasound (ultrasound, artifacts, resolution, attenuation). Knowledge of normal ultrasound anatomy for the main regions: abdominal, pelvic, thoracic, cardiac and vascular.
Skills	Correct use of the ultrasound probe and device parameters to obtain relevant images. Localization and identification of the main anatomical structures in real time on the ultrasound monitor. Application of a systematic ultrasound examination method for a specific region (e.g. full abdomen, thyroid, pelvis).
Responsibilities and autonomy	Basic interpretation of normal and pathological ultrasound images, under supervision. Recognizing situations in which it is necessary to refer the patient for further investigations or specialist consultation.

7.-Objectives of the discipline (resulting from the grid of specific skills accumulated)

7.1-General objective of the discipline	Providing the basics of nutrition
7.2-Specific objectives	<ol style="list-style-type: none"> 1.-Students will acquire the basics of modern nutrition and dietetics 2.-Students will form a necessary discernment in the judicious selection of foods based on the knowledge of the main food groups and their involvement in the diet. 3.-Students will be able to recognize eating disorders (bulimia, anorexia). Assessing caloric needs during exercise. 4.-Knowledge of the criteria for individualizing nutrition in recommending the most correct diet for different conditions

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8.1- Course	Teaching methods	Hours /week	Observations
1. Physical principles of ultrasound	Powerpoint presentation lecture	1	structured, interactive presentations
2. Biological effects of ultrasound		1	
3. The value and limits of ultrasound. Ultrasonographic terminology		1	
4. Ultrasound of the musculoskeletal system. Soft tissue ultrasound: thyroid gland and parathyroid glands		1	
5. Breast ultrasound		1	
6. Ultrasound topography of the abdomen. Standard		1	
7. Sections		1	
8. Liver ultrasound		1	
9. Ultrasound of the gallbladder and extrahepatic bile ducts		1	
10. Ultrasound of the pancreas and spleen		1	
11. Ultrasound of the kidneys and urinary tract		1	
12. Gynecological ultrasound		1	
13. Ultrasound of male genitalia		1	
14. Pregnancy ultrasound		1	
Bibliography			
1.- Sandra L. Hagen-Ansert - Textbook of Diagnostic Sonography, 9th Edition , Elsevier, 2023;			
2.- Carol M. Rumack & Deborah Levine- Diagnostic Ultrasound, Elsevier, 5th Edition, 2017;			
3.- Stephen Aylward, J. Alison Noble, Yipeng Hu, Su-Lin Lee, Zachary Baum, Zhe Min Simplifying Medical Ultrasound , Springer, 2022			
8.2-Seminary	Teaching methods	Hours /week	Observations
1. Physical principles of ultrasound	Powerpoint presentation lecture	1	structured, interactive presentations
2. Biological effects of ultrasound		1	
3. The value and limits of ultrasound. Ultrasonographic terminology		1	
4. Ultrasound of the musculoskeletal system. Soft tissue ultrasound: thyroid gland and parathyroid glands		1	
5. Breast ultrasound		1	
6. Ultrasound topography of the abdomen. Standard		1	
7. Sections		1	
8. Liver ultrasound		1	



9. Ultrasound of the gallbladder and extrahepatic bile ducts		1	
10. Ultrasound of the pancreas and spleen		1	
11. Ultrasound of the kidneys and urinary tract		1	
12. Gynecological ultrasound		1	
13. Ultrasound of male genitalia		1	
14. Pregnancy ultrasound		1	
Bibliography 1.- Stephen Aylward, J. Alison Noble, Yipeng Hu, Su-Lin Lee, Zachary Baum, Zhe Min Simplifying Medical Ultrasound , Springer, 2022			

9.-Corroborating/validating the contents of the discipline with the expectations of the representatives of the epistemic community, professional associations and employers representative of the field related to the program

The student is familiar with the application of research methods in order to identify and rank health problems. The student's training aims to familiarize and consolidate clinical knowledge and skills for the adequate, holistic management of the clinical case and to ensure the continuity of the medical act. The student's training aims to create an understanding of the role and functions of the human body, so that the future graduate can make correct decisions in providing medical care. The content of the discipline is in accordance with the requirements of the professional association and employers.

10.-Evaluation

Activity Type	10.1 -Evaluation criteria	10.2 -Evaluation methods	10.3 -Weight of the final grade
10.4-Course	–	–	–
10.5-Seminar	Adequate acquisition of the concepts presented and their correct understanding	Written exam, dealing with three topics from the course theme	100%
10.6-Minimum Performance Standard			
<ul style="list-style-type: none"> ▪—Meeting the minimum criteria of practical knowledge ▪—Correct resolution of at least 50% of the written exam topics ▪—Possession of minimal theoretical knowledge 			



Date: 05.05.2025	Signature of the discipline coordinator: -	Holder of the seminar activities: Univ. Teaching Assistant STIRBU Daniel , PhD(c), MD
Date of approval in the Department		
Signature of the Director of Department		

Reprezentant legal F.D.M.
Presedinte
Prof. Univ. Dr. POSTĂVARU Nicolae