

COURSE DESCRIPTION: INTERNAL MEDICINE I (IM 0301)

1. GENERAL INFORMATION			
SCHOOL	SCHOOL OF HEALTH SCIENCES		
FACULTY	MEDICINE		
LEVEL OF EDUCATION	<i>Undergraduate</i>		
COURSE CODE	IM 0301	SEMESTER OF STUDY	6 th
COURSE TITLE	INTERNAL MEDICINE I		
COURSE TUTOR RESPONSIBLE	KONSTANTINOS P. MAKARITSIS ASSOCIATE PROFESSOR OF INTERNAL MEDICINE		
Co-Tutors	<p>Clinical Exercise G. Dalekos - S. Potamianos A. - Kapsoritakis - G. Vassilopoulos - I. Stephanidis - E. Rigopoulou - K. Makaritsis - K. Zachou - G. Ntaios - N. Gatselis - A. Bargiota - Ch. Katsiari - Th. Eleftheriadis -D. Bogdanos - N. Giannakoulas - A. Polyzos - A. Loukopoulos - A. Stefos - A. Michael - S. Gambeta - S. Golfopoulos - G. Filippidis - M. Palassopoulou</p> <p>Course Lectures G. Dalekos - S. Potamianos - A. Kapsoritakis - Z. Daniel - K. Gourgoulianis - E. Rigopoulou - K. Makaritsis - K. Zachou - G. Ntaios - N. Gatselis - D. Bogdanos</p>		
INTEGRATED TEACHING ACTIVITIES	WEEKLY TEACHING HOURS	ECTS Credits	
	8 (eight)	9.00 (nine)	
<i>The tutoring outline and the teaching methods used are described in detail in Chapter 4.</i>	1. LECTURES (4 hours per week) 2. CLINICAL EXERCISE (4 hours per week)		
COURSE TYPE <i>(Background, General Knowledge, Scientific Area, Skills Development)</i>	Scientific Area & Skills Development		
PREREQUISITE COURSES:	According to the Study Guide of the Medical School (Faculty) of the University of Thessaly.		
TEACHING AND EXAMINATION (test) LANGUAGE:	Greek (However, English as teaching language is offered, as this is often the case with foreign students who take the course in the student exchange program ERASMUS and the student exchange program of the Hellenic Medical Students' International Committee (HELMSIC).		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	YES		
COURSE INTERNET LINK (URL)	http://83.212.32.147/internalmedicine/index.php/en/pathology-i		
2. Learning Outcomes			

Describe the learning outcomes of the course and the specific knowledge, skills and abilities that students will acquire upon successful completion of the course.

- *Description of the Learning Outcome Level for each course of study in accordance with the European Qualifications Framework for Academic Education*
- *Descriptive Indicators of Levels 6, 7 & 8 of the European Lifelong Learning Qualifications Framework*

See the Summary Guide to Writing Learning Outcomes

The Internal Medicine I course is one of the core courses of the Medical School and implements important requirements from the students. Students are required to dedicate many hours in studying and understanding various diseases. It is also required to attend 4 hours per week of lectures as well as 4 hours per week of clinical practice in the wards of the University Internal Medicine Clinic, where a large number of patients are hospitalized suffering from various diseases and requiring appropriate treatment. The goal of teaching is to gain knowledge and experience in the main entities of Internal Medicine.

Goal

Internal Medicine I is taught in the 6th semester as part of the Internal Medicine course and is accompanied by Internal Medicine II which is offered in the 7th semester. The teaching of Internal Medicine I aims to get knowledge and gain experience in the Internal Medicine entities, e.g. Infections - Cardiovascular Diseases - Respiratory Diseases - Gastrointestinal Diseases - Liver Diseases - Biliary Diseases – Pancreatic Diseases.

Objectives

The objectives of the course can be specified as follows:

- Acquire systematic knowledge of the main disease entities (diseases and clinical syndromes). The student must become familiar with the definitions, epidemiology, pathogenesis, natural history, modes of invasion, symptoms, signs, laboratory and imaging findings, diagnosis, complications, prognosis, and treatment of individual diseases of Internal Medicine.
- Gain of experience by the patient's bed regarding the symptoms, signs, laboratory and imaging findings of specific diseases.
- Critical evaluation of the above mentioned findings for each patient and their implementation in the application of diagnosis and treatment.

Requirements

- In order for the medical student to attend the Internal Medicine I course efficiently, he/she must have knowledge of all courses of the previous five semesters. This applies irrespective of the requirements of the Study Guide of the Medical School that determine the prerequisite courses. However, the admission of the students to the course is made according to the regulations originating from the Study Guide of the Medical School. The knowledge of the previous courses corresponds to the normal educational procedure and leads to the maximum benefit of the student attending the Internal Medicine I course.
- A significant part of the acquired knowledge in the first five semester courses is closely related to the description of the diseases and conditions of the Internal Medicine I course. This knowledge is part of the Internal Medicine curriculum required for the successful completion of the Internal Medicine I course and is clearly described below.

Structure of the knowledge the student has to acquire in the Internal Medicine I course

- The knowledge that the student has to acquire in the Internal Medicine I course as described below is not adapted to a specific Internal Medicine textbook and the students can use various books of their choice. There are also reviews in each chapter of Internal Medicine prepared by the teaching professors of the Medical School, which can be used as an additional important aid for the student.
- The required knowledge is structured in four categories: very important, important, desirable and minimum. The stratification was done according to the following criteria: (1) the frequency of diseases in the Greek population, (2) their importance in understanding the broader fields of Internal Medicine,

(3) their utility as a tool irrespective of the specialty to be pursued by the student in the future and (4) overlap with other undergraduate clinical courses.

- This stratification was done to assist the students in their study and it should not be misinterpreted that only very important knowledge is sufficient for success. In fact, the important ones are no different from the very important ones or the other 2 categories and should be used only as an assistance studying guide by the student. The concept of desirable or minimum knowledge should not be taken as an optional acquisition of that knowledge, but as a focus on the most essential elements of the relevant chapters.

Skills - gaining experience

- Experience response is achieved by tutoring students in small groups under the guidance of a teacher. Teams are made to have the smallest possible number of students and in any case not to exceed nine (9). The clinical exercise takes place in patients' wards at the Internal Medicine Clinic in the University Hospital of Larissa. The patients have been pre-selected by the instructor and effort is made to include patients with a broad spectrum of diseases.

- In this clinical exercise the student comes into direct contact with real facts and gains experience in the following:

- Expands and improves its ability to take history, identify important data and evaluate them.

- Improves his ability in physical examination and gives him the opportunity to familiarize himself with a variety of objective findings as well as their evaluation.

- Learns to identify and organize patient problems as they arise from the history and physical examination and to enrich them based on the basic hematological, biochemical and radiological tests.

- Learns the process of differential diagnosis. This includes the possible diagnoses based on history, physical examination and basic tests, along with a diagnostic plan based on the necessary microbiological, hematological, biochemical, imaging and clinical tests. He also learns to evaluate the contribution of each test in the establishment of diagnosis.

- Acquires experience in the management and treatment of each patient according to the final diagnosis.

- The clinical practice steps followed by the students in order to reach a diagnosis are described below and are adjusted according to the special findings for each patient.

- Students (usually two) take a complete history of the patient and perform a complete physical examination. With the help of the instructor a critical evaluation of the history data as well as the findings of the physical examination is made. Thus students gain immediate experience of the main symptoms as described by the patient and evaluate them with regard to their onset, duration, intensity, quality and other characteristics. They also gain experience in physical examination, according to the course named Clinical Examination, which is offered in the 5th semester and includes the learning and evaluation of a complete physical examination.

- Based on the history, the findings of the clinical examination and the assistance of the instructor, the students list the patient's major problems and the main diagnostic possibilities.

- Then the findings of basic laboratory tests (complete blood count, ESR, urine tests, biochemical routine tests) are obtained and in conjunction with the findings from the history and physical examination might narrow the number of the possible diagnoses.

- The more advanced microbiological, hematological, biochemical, imaging and clinical tests required to investigate the patient are then discussed on the basis of diagnostic possibilities.

- If the results of such advanced investigation are available, they are evaluated with the assistance of the instructor and the students are led to the diagnosis of the patient's disease.

- Finally, as appropriate and if there is a definitive diagnosis, therapeutic options are discussed.

- The whole process of evaluating diverse findings and the consequent differential diagnosis are based on evidence-based medicine.

- Patient selection by the instructor is based on two criteria: (a) the lecture scheduled for the day and (b) the clinical significance of the patient's disease. Certainly the analytical process and depth of the evaluation increase with time. The cases selected should be common diseases and situations of great

clinical interest. The following is a *list of diseases or syndromes / symptoms* that the student should experience in order to contact at least one case of such a disease during the academic semester.

Diseases, or syndromes that the student must experience

- Prolonged fever (Fever of Undetermined Origin-FUO)
- Infectious diseases (eg, fever, infectious endocarditis, leptospirosis, meningitis, leishmaniasis, severe sepsis, etc.)
- Asthma
- Chronic Obstructive Pulmonary Disease (COPD)
- Pneumonia
- Pleuritis or pleural effusion
- Pulmonary embolism
- Heart failure – Atrial Fibrillation
- Coronary heart disease
- Pericarditis
- Arterial Hypertension - Stroke
- Upper or lower gastrointestinal bleeding
- Inflammatory bowel disease
- Jaundice
- Hepatitis
- Liver cirrhosis
- Ascites
- Acute cholecystitis or cholangitis
- Acute pancreatitis

General Competences

Taking into account the general competencies that the graduate must have acquired (as listed in the Diploma Supplement and listed below) to which / which of them does the course aim?

<i>Search, analyze and synthesize data and information, using the necessary technologies</i>	<i>Project planning and management</i>
<i>Adaptation to new situations</i>	<i>Respect for diversity and multiculturalism</i>
<i>Decision making</i>	<i>Respect for the natural environment</i>
<i>Independent work</i>	<i>Demonstrate social, professional and ethical responsibility and gender sensitivity</i>
<i>Teamwork</i>	<i>Exercising criticism and self-criticism</i>
<i>Working in an international environment</i>	<i>Promoting free, creative and inductive thinking</i>
<i>Working in an interdisciplinary environment</i>	
<i>Generation of new research ideas</i>	

The course aims to :

- Search, analyze and synthesize data and information, using the necessary technologies
- Decision making
- Independent work
- Teamwork
- Working in an interdisciplinary environment
- Promoting free, creative and inductive thinking

3. COURSE CONTENTS

The sum of knowledge described is the curriculum and syllabus.

1. Infectious diseases

1.1. Very important knowledge

- 1.1.1. The concept of pathogenic microorganisms, their infectious potency and opportunistic infections.
- 1.1.2. Bacterial classification and pathogenic mechanisms of bacterial infections (particularly entry and colonization, infiltration, proliferation, defense mechanisms bypass).
- 1.1.3. Clinical Disease Induction: Toxins, bacterial proliferation, organism reaction.
- 1.1.4. What are the groups (and subgroups where available) of antibacterial drugs (antibiotics)? What are their main mechanisms of action, what are the mechanisms of resistance and by which mechanisms does resistance develop?
- 1.1.5. The importance of bacterial susceptibility and evaluation of in vitro susceptibility tests. Importance of the patient's immune status and the location of the infection. Principles underlying the combined chemotherapy of infections.
- 1.1.6. Main groups of antibacterial drugs, modes of action, main side effects.
- 1.1.7. Clinical applications of individual antibiotics and antibiotic groups.
- 1.1.8. Virus classification and pathogenic mechanisms of viral infections (cell adhesion, entry into reproductive cells, dispersal)
- 1.1.9. What are the main antiviral drugs (other than antiretrovirals) and what are their main clinical signs?
- 1.1.10. General morphological classification of fungi. What are the main medications used in the treatment of systemic infections by fungi? What is their mechanism of action and the main clinical applications?
- 1.1.11. Pests (protozoa and helminths): Classification, pathogenic mechanisms of infection and immune response.
- 1.1.12. Infections in individuals with immune mechanisms disorders and in particular those with impaired humoral and cellular immunity.
- 1.1.13. Adult vaccines, (what they are, and what are the indications, contraindications, and complications) and passive immunization.
- 1.1.14. Chickenpox virus infections: Epidemiology, modes of transmission, pathogenesis, clinical presentation, and chickenpox complications. Pathogenesis, clinical presentation, specific localization and complications of zoster. Prevention and treatment of zoster virus infections.
- 1.1.15. Epstein Barr Infections: Epidemiology, mode of transmission, pathogenesis, clinical presentation, and in particular the clinical picture of infectious mononucleosis, laboratory findings, antibodies produced and diagnosis of the disease. The importance of the virus in the development of hematologic neoplasms.
- 1.1.16. Cytomegalovirus Infections: Epidemiology, modes of transmission, Cytomegalovirus monocyctosis syndrome, Cytomegalovirus infections in immunocompromised. Diagnosis and treatment of cytomegalovirus infections.
- 1.1.17. Influenza. Virological data (types of virus), epidemiology, modes of transmission, clinical presentation, complications, diagnosis, prevention and treatment of disease.
- 1.1.18. Retroviral infections and human immunodeficiency virus (HIV) infections: Virological data, modes of transmission and epidemiology, pathogenesis, clinical course of infection (acute syndrome, asymptomatic infection, early symptomatic infection). The latter includes neurological disease, secondary infections, neoplasms and other manifestations. Diagnosis (method and its application).
- 1.1.19. Pneumococcal infections. Microbiological data, pathogenesis, types of infections and correspondent clinical presentation and treatment.
- 1.1.20. Streptococcal infections. Microbiological data and classification of streptococci, epidemiology and description of clinical types of infections (scarlet fever, pharyngitis, erysipelas etc.). Complications and treatment.
- 1.1.21. Staphylococcal infections. Microbiological data, pathogenesis, susceptible populations, types of staphylococcal infections and treatment.
- 1.1.22. Infections by Gram Negative Intestinal Bacteria: Microbiological data and pathogenesis of related infections.

- 1.1.23. Infections by E. Coli: Epidemiology, clinical types of infection, diagnosis and treatment.
- 1.1.24. Non-typhoid salmonellosis. Microbiological data, epidemiology, clinical syndromes, diagnosis and treatment.
- 1.1.25. Brucellosis. Microbiological data, epidemiology, clinical syndromes, diagnosis and treatment.
- 1.1.26. Tuberculosis: Microbiological data, epidemiology, pathogenesis (innate and acquired immunity, initial lesion, post-primary tuberculosis). Description of the clinical presentation and course of primary and post-primary tuberculosis. Diagnosis of pulmonary tuberculosis. Tuberculin test (pathophysiological basis, evaluation). False negative tuberculin test and T cell anergy. Description of extra pulmonary forms of tuberculosis. Anti-tuberculous medications, principles that determine their administration and side effects. The Importance of BCG Vaccine and Chemoprophylaxis.
- 1.1.27. Leishmaniasis. Microbiological data and epidemiology, modes of transmission, clinical presentation and complications, diagnosis and treatment of visceral leishmaniasis.
- 1.2. Important knowledge
 - 1.2.1. Normal flora of the oral cavity and intestine
 - 1.2.2. Defensive mechanisms against infections
 - 1.2.3. Surface, physical and humoral barriers, non-specific immunity, specific immune mechanisms.
 - 1.2.4. Rubella: Epidemiological data, transmission modes, clinical picture and complications (especially in pregnant women), diagnosis, prophylaxis.
 - 1.2.5. Measles: Epidemiology, pathogenesis, modes of transmission, clinical picture and complications, diagnosis, treatment and prophylaxis.
 - 1.2.6. Mumps. Epidemiology, modes of transmission, clinical picture, complications, management and prevention.
 - 1.2.7. Infections by Neisseria meningitidis. Microbiological data, epidemiology, Neisseria meningitidis carrier stage and susceptible individuals, mode of transmission, pathogenesis, clinical syndromes, complications, treatment and prevention.
 - 1.2.8. Legionellosis. Microbiology and epidemiology data, transmission mode, clinical manifestations, diagnosis, treatment.
 - 1.2.9. Infections by intestinal Gram negative bacteria other than E. Coli: Which bacteria belong to this class and what infections do they cause?
 - 1.2.10. Pseudomonas infections. Epidemiological data, clinical syndromes, diagnosis and treatment.
 - 1.2.11. Shigellosis. Microbiological data, epidemiology and pathogenesis, clinical manifestations, treatment and prevention.
 - 1.2.12. Campylobacter infections: Microbiological data, transmission modes, clinical spectrum of events, diagnosis and treatment.
 - 1.2.13. Yersinia infections. Microbiological data, transmission modes, clinical spectrum of events, diagnosis and treatment.
 - 1.2.14. Clostridia infections. Microbiological data, epidemiology, pathogenesis, clinical picture, tetanus diagnosis and treatment as well as prophylaxis, especially in injuries. Pathogenesis, clinical syndromes depending on the causative factor, clinical picture, diagnosis and treatment of botulism. Food poisoning and colitis caused by Clostridium difficile.
 - 1.2.15. Mixed anaerobic infections. General characteristics of anaerobic infections in terms of penetration, pathogenesis and clinical manifestations. Clinical syndromes that cause or participate the anaerobic bacteria, diagnosis and treatment.
 - 1.2.16. Leptospirosis. Microbiological data, epidemiology, mode of transmission, spectrum of clinical syndromes, complications, diagnosis, treatment.
 - 1.2.17. Lyme disease. Microbiological data, epidemiology, mode of transmission, clinical manifestations in different disease stages, diagnosis and treatment.
 - 1.2.18. Mycoplasma infections. Microbiological data, epidemiology, spectrum of clinical syndromes, diagnosis and treatment.
 - 1.2.19. Amebiasis. Microbiological data, epidemiology, mode of transmission, spectrum of clinical syndromes, diagnosis by disease location, treatment.

- 1.2.20. Malaria. Microbiology data and parasite cycle. Pathogenesis and type of immunity to the parasite. Clinical syndromes, complications, diagnosis, treatment and prevention data.
- 1.2.21. Toxoplasmosis. Microbiology data, protozoan biological cycle, mode of transmission and pathogenesis of infections, spectrum of clinical syndromes (congenital toxoplasmosis, acquired toxoplasmosis in immunocompetent and immunosuppressed individuals), diagnosis and treatment.
- 1.2.22. Giardia lamblia infection: Microbiological data, epidemiology and susceptibility, clinical forms of infection, diagnosis and treatment.
- 1.3. Desired knowledge
- 1.3.1. Herpes simplex virus infections (types of virus, mode of transmission, pathogenesis, spectrum of clinical manifestations, treatment).
- 1.3.2. Adenoviruses: Virological data, mode of transmission, main clinical syndromes.
- 1.3.3. Enteroviruses: Virological data and groups of enteroviruses. Epidemiology, pathogenesis, transmission modes and major clinical syndromes.
- 1.3.4. Viral respiratory infections. Epidemiological data major groups of pathogenic viruses and clinical syndromes.
- 1.3.5. Diphtheria: Microbiological data, transmission modes, epidemiology, pathogenesis, clinical presentation and complications, prognosis, diagnosis, treatment, prophylaxis.
- 1.3.6. Anthrax: Microbiological data, epidemiology, clinical syndromes, prognosis, treatment.
- 1.3.7. Listeriosis: Microbiological data, epidemiology, transmission modes, description of clinical syndromes in pregnant and non-pregnant women, diagnosis, treatment.
- 1.3.8. Hemophilus Influenzae Infections. Microbiology, epidemiology, transmission, clinical syndromes, management and prevention.
- 1.3.9. Pertussis: Microbiological data, epidemiology and pathogenesis of infection. Mode of transmission, clinical picture and complications. Diagnosis, treatment, prophylaxis.
- 1.3.10. Typhoid fever: Definition, mode of transmission, epidemiology, clinical picture and course, complications, prognosis, diagnosis and treatment.
- 1.3.11. Cholera: Microbiology, epidemiology, transmission modes, clinical picture and complications, diagnosis, prognosis and treatment.
- 1.3.12. Actinomycosis. Microbiological data, pathogenesis and predisposing factors, clinical syndromes, diagnosis and treatment.
- 1.3.13. Nocardia infections: Microbiological data, transmission mode, susceptible individuals, clinical syndromes, prognosis and treatment.
- 1.3.14. Rickettsial infections. Rickettsia groups and epidemiology, clinical picture, prognosis and treatment of the main infections.
- 1.3.15. Chlamydial infections. Microbiology data and infections caused by C. Trachomatis.
- 1.3.16. Psittacosis. Microbiological data, epidemiology, transmission modes, clinical picture, diagnosis, treatment.
- 1.3.17. Candidiasis: Microbiological data, pathogenesis, clinical manifestations (local and systemic), diagnosis and treatment.
- 1.3.18. Aspergillosis: Etiology, pathogenesis, clinical syndromes, diagnosis and treatment.
- 1.3.19. Clinical infections by Pneumocystis Carinii (jiroveci): Etiology, epidemiology, pathogenesis, clinical manifestations, course, prognosis and treatment.
- 1.3.20. Intestinal Trematodes (Helminthic) infections: Parasitology data, main parasites and the infections they cause, treatment.
- 1.3.21. Echinococcosis. Parasitology data, cyst morphology, manifestations depending on the affected organs, complications of cyst rupture. Diagnosis and treatment of echinococcal cyst.
- 1.3.22. Cysticercosis: Description of disease development and clinical-laboratory manifestations.
- 1.3.23. Intestinal Nematodes (Helminthic) Infections. Parasitology data and rough description of the diagnosis and treatment of ascariasis, infections from ancylostoma duodenale, trichuris trichiura and enterobius vermicularis (oxyuriasis).
- 1.4. Basic knowledge

- 1.4.1. Vaccines: What are the vaccines and what infections do they cause.
- 1.4.2. Parvoviruses: What are parvoviruses and what is their significance.
- 1.4.3. Papovaviruses: Main Subgroups and Clinical Significance.
- 1.4.4. Rabies: Definition, epidemiology, mode of transmission, pathogenesis, clinical picture and prophylaxis.
- 1.4.5. Arboviruses: Modes of transmission, groups of induced clinical syndromes.
- 1.4.6. What infections do Moraxella cause?
- 1.4.7. Acinetobacterl Infections: Their Importance in Hospital Infections.
- 1.4.8. Tularemia: Microbiology data, modes of transmission, main clinical syndromes.
- 1.4.9. Plague: Microbiology, transmission, main clinical syndromes.
- 1.4.10. Cat scratch disease: Aetiology, epidemiology, clinical manifestations, diagnosis and treatment.
- 1.4.11. Leprosy: Modes of transmission, main clinical syndromes, diagnosis.
- 1.4.12. Q fever: Microbiology data, modes of transmission, clinical picture, diagnosis.
- 1.4.13. Histoplasmosis: Microbiology data, main clinical syndromes, diagnosis.
- 1.4.14. Coccidioidomycosis: Microbiology, main clinical features, diagnosis.
- 1.4.15. Blastomycosis: Microbiology data, main clinical syndromes, diagnosis.
- 1.4.16. Tissue nematodes infections: Thorough description of parasitology, mode of transmission and clinical manifestations of trichinosis and toxocariasis.
- 1.4.17. Filariasis: Epidemiological data and infections caused by filariae.
- 1.4.18. Trematodes Infections: Parasitology, epidemiology, pathogenesis, clinical manifestations of acute and chronic infection, diagnosis and treatment of schistosomal infections. Biliary and bile duct infections by trematodes.

4. TEACHING AND LEARNING METHODS - EVALUATION

METHOD OF TEACHING	<i>Direct lecture performance</i>	
<p>USE OF COMPUTER SCIENCE AND COMMUNICATION TECHNOLOGIES</p> <p><i>Use of Computer Science in Teaching, in Laboratory Education, in Communication with Students</i></p>	<p>Microsoft Power Point software is used to perform the lectures. The Library provides the necessary textbooks for the course. Students also have access to the international scientific databases (PubMed) available at the Library. All lectures are performed using a computer based Power Point. All course lectures are available at the Medical School and Department of Internal Medicine websites and Medical students have free access. CD-DVDs are also used in the teaching process. In addition, course instructors' emails are available and can be used for the communication between students and teachers, and students are encouraged to use this method of communication as well. Also information or announcements regarding the course are posted at the Medical School and Department of Internal Medicine websites with free access by Medical School students.</p>	
<p>TEACHING STRUCTURE</p> <p><i>The method and methods of teaching are described in detail. Lectures, Seminars, Laboratory Exercise, Field Exercise, Study & Analysis of Bibliography, Tutorial, Practice, Clinical Exercise, Art Workshop, Interactive Teaching, Educational Visits, Project Design,</i></p>	<p style="text-align: center;">Activity</p>	<p style="text-align: center;">Semester Workload</p>
	<p>1. LECTURES (4 hours per week) The Amphitheater of the University Hospital of Larissa is used for course lectures performances.</p>	<p>56 hours</p>
	<p>2. CLINICAL EXERCISE (4 hours per week)</p>	<p>56 hours</p>

<p><i>Writing / Writing Learning process</i></p> <p><i>The students' study hours for each learning activity are recorded as well as the non-instructional study hours so that the overall workload at semester level corresponds to ECTS standards .</i></p>	<p>The Clinical practice exercise is performed in the wards of the Internal Medicine Clinic of the University Hospital of Larissa, where students are trained by the patients' bed.</p>	
	<p>Total Course (... hours of work per credit unit)</p>	<p>114 hours Hours of workload per credit unit (ECTS): 114/ 9 = 12.66</p>
<p>EVALUATION OF STUDENTS</p> <p><i>Description of the evaluation process</i></p> <p><i>Assessment Language, Assessment Methods, Formative or Inferential, Multiple Choice Assessment, Short Answer Questions, Problem Development Questions, Problem Solving, Written Thesis, Report / Report, Oral Examination, Public Presentation, Practical, Laboratory, Laboratory Others Specify clearly defined assessment criteria and if and which are accessible to students.</i></p>	<p>- Student assessment is made by oral questions regarding patients' problems during clinical exercises and by written tests at the end of the semester. Students are assessed by their trainers at the end of the semester on their ability to provide the basic differential diagnosis of certain clinical and lab findings according to the main symptoms and signs of the patient. The assessment is graded as inadequate, moderate, good and very good. The students are also evaluated at the end of the semester with a written test. Exams are particularly demanding and it is usually necessary for the student to answer at least 70% of the questions correctly so that a passing grade can be achieved. Semester grades also take into account students' performance in clinical exercise. Written tests consist of Multiple choice or short-answer questions. The requirements by the students for the Internal Medicine I course are extremely high and because of that, Internal Medicine I course is one of the few courses having rated by nine (9) ECTS credits. The evaluation criteria are accessible by students at the course website : http://83.212.32.147/internalmedicine/index.php/el/pathology-i</p> <p><u>Tutor Evaluation</u></p> <p>A special questionnaire is available to the students at the end of the semester, so that students can evaluate each of their tutors, for both lectures given and clinical practice tutoring. Students are also encouraged to express their opinion on the overall educational process along with any proposed changes. The obtained data from the above questionnaire responses are given to Medical School Committee and are appropriately utilized aiming to the improvement of the educational process for the course.</p>	
<p>5. RECOMMENDED BIBLIOGRAPHY</p>		
<p>- Suggested Bibliography :</p> <p>1. <i>Cecil Essentials of Medicine</i> (Andreoli Thomas, Carpenter Charles, Griggs Robert) ISBN 978960372176-5 K. & N. LITSAS OE</p> <p>2. <i>Current Medical Diagnosis & Treatment</i> (Tierney Lawrence M., Saint Sanjay, Thompson Clinton E., Whooley Mary A.) ISBN 9789603998099 BROKEN HILL PUBLISHERS LTD</p>		

3. *Internal Medicine Mayo clinic*

(Thomas Habermann)

ISBN 978-960-6894-43-5 HAVALES A - HATZISSIMON K OE

4. *HARRISON'S Principles of Internal Mdicine*

(D. KASPER, E. BRAUNWALD, A. FAUCI, S. HAUSER, D. LONGO L. JAMESON)

ISBN 978-960-394 684-7 PARISIAN PUBLISHER

5. *Internal Medicine Notes*

a. *Infectious Diseases (N. Stathakis)*

b. *Biliary Pancreatic Diseases (G. Dalekos)*

c. *Gastrointestinal System Diseases (S. Potamianos)*

6. *Medical Bibliography on the Internet*

(PubMed and other bibliographic sources)

- Related scientific journals:

1. *The New England Journal of Medicine*

2. *The Lancet*

3. *Annals of Internal Medicine*

4. *JAMA Internal Medicine*