



UNIVERSITY OF  
**PATRAS**  
ΠΑΝΕΠΙΣΤΗΜΙΟ ΠΑΤΡΩΝ

# Faculty of Medicine

## Clinical Training Manual

February 2023

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## Introduction

University of Patras (UPatras), Faculty of Medicine aims to assure quality in basic and clinical medical education.

The **Clinical Training Manual (CTM)** serves as a reference guide for clinical placements and training. The purpose of this manual is to explain how academic clinical training activities are supported and organized at UPatras, to assist both students and clinical instructors throughout their clinical training activities.

The aim of the UPatras CTM is to:

1. Ensure that the medical students are aware of their responsibilities in learning and in relation to patients' rights
2. Ensure that UPatras medical students are effectively supervised during their clinical placement
3. Ensure compliance with national and EU accrediting agencies and licensing requirements

To achieve these aims, the following have been specifically detailed in the CTM

- The structure of UPatras clinical program, including educational goals and learning objectives
- The roles and responsibilities of each participant in the UPatras medical education program with particular focus on the clinical affiliates
- The learning environment and opportunities required for the medical students to achieve competency
- Process and responsibilities of organizing clinical placements within the medical school and hospital
- Internal Quality Assurance – evaluation of effectiveness of clinical placements
- Selection process of those involved in clinical instruction

Clinical training at UPatras:

- Is mandatory for all students of the Faculty of Medicine.
- Takes place primarily during years 5 to 6 of medical studies
- Has a duration according to the European and International guidelines that corresponds to the year and course of study.

### ***Vision, aim and objectives of clinical training***

The overall objectives of the clinical training of medical students are:

- To familiarize students with the structure, the function and the capacities of the healthcare system
- To familiarize and introduce the students to the healthcare system

- To develop clinical skills and successfully combine them with their theoretical knowledge
- To demonstrate and develop communication skills and teamwork
- To apply practical skills in real-life healthcare environments
- To develop professionalism in their daily clinical practice
- To establish the concept of clinical training during medical undergraduate studies
- To create an environment of mutual collaboration and develop ongoing relations between the Faculty of Medicine and the collaborating healthcare sites
- Finally, to equip medical graduates with all necessary practical skills to pursue their postgraduate endeavors

## **Mission, Vision and Values**

The training at the Faculty of Medicine of the University of Patras aims to provide comprehensive, scientific, and ethical education to healthcare professionals based on the timeless Hippocratic principle of respecting the patient, who is the ultimate recipient of the quality of medical education. The Department of Medicine at the University of Patras aspires to impart to the student, above all, the ethical values that govern the practice of medicine and to provide them with the necessary scientific knowledge to meet the demands of the constantly evolving and challenging environment of Medical Science. Additionally, its purpose is to instill an academic mindset and provide the opportunity for anyone interested to acquire the knowledge needed to enter the field of Academic Medicine as a researcher and educator.

Objectives of the Undergraduate Program of the Medical Department: To achieve the above general objectives, the undergraduate program has incorporated educational processes that encourage active learning, critical thinking, clinical experience acquisition, as well as an approach to fundamental concepts of modern biotechnology. These general objectives are further specialized into the following ten points, concerning the skills and qualities that the graduate of the Medical Department of the University of Patras must have:

- Understanding that medical practice requires scientific knowledge on one hand, and a humanitarian approach to patient care on the other.
- Adherence to high ethical and academic standards in medical practice.
- Serious and in-depth knowledge of the structure, function, and development of the human body, spanning various levels of analysis from molecular to behavioral.
- Serious and in-depth understanding of disease etiology and pathogenesis mechanisms and their significance in disease manifestation, alongside solid knowledge of pharmacological foundations of therapy.
- Ability to obtain a thorough medical history, perform a comprehensive physical examination, prioritize and solve problems recognized through these processes. Excellent knowledge of diseases posing immediate life-threatening risks to patients, common diseases, as well as rare conditions. Awareness of the limits of one's knowledge and the need for assistance when necessary.
- Understanding the impact of the environment on health and the medical profession's responsibility for disease prevention, providing knowledge to propose effective approaches to problems related

to occupational diseases, behavioral disorders, and broader social health issues in our country.

- Awareness that medicine requires continuous education and the ability to self-learn and evaluate personal performance using appropriate sources and methods. Continuous improvement of healthcare provision through learning and integrating innovative diagnostic and therapeutic practices.
- Willingness and ability.
- Ability to function efficiently as a member of a clinical or research team.
- Ability to function efficiently in a variety of service delivery settings, from community clinics to university hospitals.
- Interest in basic and applied research, and the fundamental knowledge enabling engagement with it when desired.
- Finally, recognition of the physician's high responsibility to society as a whole and to the state.

## **General Information**

Clinical Training of medical students is the cornerstone of the UPatras medical curriculum, where the multiplicity of activities in clinics of the University Hospital are selected to constitute unique learning environments for our medical students

The UPatras Faculty of Medicine has the ultimate and final right to evaluate the student's overall academic accomplishments within the clinical training program. The Faculty of Medicine will determine whether or not: 1) a student is able to advance to the next level within the medical curriculum, 2) a student fails or passes, 3) remediation is required, whenever necessary, and 4) the student has fulfilled all necessary requirements to be granted a Doctor of Medicine (MD) degree.

The University Hospital demonstrates a continuing commitment to medical education and furnishes the necessary infrastructure to facilitate a successful clinical training program: integrating medical students into the health care team, providing access to the library and other ancillary facilities and supervising involvement with patients.

# UPatras Medical Students Clinical Training

An essential feature of the clinical training consists of in-depth contact with patients. Students take histories, examine the patient, propose diagnostic and therapeutic plans, record their findings, present cases, perform minor procedures under supervision, attend all scheduled lectures and conferences, participate in rounds with their peers and teachers, maintain a patient log and study extensively about their patients' diseases. In surgical departments, attendance in the operating room is required. In special departments (eg. prenatal and postpartum clinics, endoscopy units, etc.), attendance is mandatory; patients they are assigned to must be followed through their different procedures.

A physician, nurse or other health care provider must be present in the room while students examine patients. This is especially true for examinations of intimate body areas. Student orders in the chart or electronic medical records must be authorized and countersigned by a physician. Minor procedures may be performed on patients after adequate instruction has been given and certification documented in the Student Logbook as permitted by hospital policy and governmental regulations. Students working in hospitals are protected by liability insurance, which is carried by UPatras. Students must become familiar with the electronic medical record or patients' charts and know where to locate its individual components. Students are responsible for patient workups and might also write daily progress notes as stipulated by the UPatras clerkship curriculum and hospital policy.

Students are expected to be on duty throughout the hospital workday, Monday through Friday. Evening, weekend, and holiday on-call schedules may be the same or less than those for the resident team to which the student is assigned, depending on the requirements of the UPatras curriculum. Student duty hours must take into account the effects of fatigue and sleep deprivation on students' education. Medical students are not required to work longer hours in patient care than residents. Allowing for some modifications at different hospitals and for different cores, the average workday or week should consist of approximately 50% patient care activities, 20% conferences, lectures and/or preceptor sessions and about 30% academic time. . (Academic time is used for students to prepare for case presentations, reports, etc.).

Students are given protected academic time for self-study and exam preparation before final exams. While all clerkship directors must comply with this policy, they do have the option of allowing additional time off for study.

Students are assigned to small groups (5-6 students) for their rotations. Within the department, these groups may be further subdivided.

Exposure to both common conditions, as well as more complex cases is achieved by:

- Evaluating the daily and weekly patient assignments
- Encouraging resident shadowing
- Rotation in inpatient, outpatient, special and emergency departments

Although the core of the student's educational experience is with the patients that they are assigned to, they will derive considerable benefit from exposure to other students' patients and by being present when attending's or consultants see their own patients. Students must record the patients they see into their logbook and have the encounter/procedure signed by the clinical instructor. The Course Coordinator reviews the patient encounter log continuously and when completing the final clerkship evaluation form.

All students should be exposed to as many clinical situations as possible. Students shadow their clinical instructor, assist them and prepare for the acquisition of the duties of a resident. Their clinical instructor should record and sign student attendance and involvement in key clinical experiences. Students are expected to follow up at least one patient every week from admission to discharge. Together with the supervising doctor, they record admission data, perform physical examination, evaluate laboratory and imaging findings, pose a diagnostic path, assess and prioritize the different problems of the patient, discuss about further diagnostic and therapeutic choices, present the patient during clinical rounds, update the daily report, and assist in the preparation of discharge documentations (patient confidentiality at all times is preserved). Students should follow each patient daily on a daily basis, be fully informed of the patients' progress and actively participate with their team members in the performance of various practical skills. It is important that all fields are completed as requested, including skills or clinical conditions confirmation.

Students must remain compliant to guidelines by not using any patient identifiers, such as names, initials, date of birth, medical record numbers, pictures and others. The rationale is that students need to develop the clinical competencies required for graduation during their clinical years. These competencies are assessed in various ways: by faculty observation during rotations, by communication skills assessments, by completion of assignments. In order to develop many of these competencies and meet the objectives required for graduation, the school needs to ensure that each student sees enough patients and an appropriate mix of patients during their clinical terms.

One of the competencies that students must develop during their clinical training involves documentation. Documentation is an essential and important feature of patient care and learning how and what to document is an important part of medical education. Keeping an individual student Logbook becomes a student training exercise in documentation. The seriousness and accuracy with which students maintain and update their Logbook will be part of their assessment during the core rotations. All of these features of documentation – seriousness, accuracy, conscientiousness and honesty – are measures of professional behavior. Students should log only encounters with real patients, and not simulated patients, case presentations, etc.

During their clinical training, all students are supervised by their clinical instructors, who note down their observations in the individual student logbook. Student evaluation is described and completed in the logbook, including student attendance, performance of clinical skills, and essential course content observed and practiced. This is confirmed and signed by the clinical instructor of the respective department. The Clinical Course coordinators inspect the Logbook during and after each clinical training period.



## Student Assessment

Students are assessed throughout their clinical training. Logbooks document student competence in mandatory clinical skills, in association with a defined clinical competency roadmap.

The Clinical Instructors and Department Clerkship Coordinators review and assess students' logbooks as part of their final assessment.

During the course of training they can comment on the completeness of the logbook and also ascertain whether students are seeing a good mix of patients. Insufficient entries may impact the grade students receive. Students are responsible to answer questions about the entries in their log. The clinical faculty and departments can use data in the students' logs to assess the quality of the program and the extent to which it offers students an appropriate clinical experience.

By collecting, collating and analyzing logs from all students, UPatras is able to review the patient log of every clinical student, to identify those students that have gaps in their clinical experience according to the criteria and objectives defined by the Division Chairs and Course Coordinators for each course. The students identified and point out the deficiencies in their clinical experience. Students will then be asked to remediate this deficiency.

## The Logbook

The Logbook is a paper log used to document the competence of students in mandatory patient encounters, clinical skills and procedures (**Appendix**) shows an example of a Clerkship Logbook.. Students must be certified in writing by a physician to perform these procedures. The certification needs to be done only once and can be done on any service during any rotation. Once certified, students can continue to perform these procedures without additional documentation but always under supervision. All procedures performed by medical students must be done under faculty supervision.

Following completion of their clinical training and the logbook, the student submits the logbook to the School Administration for evaluation by the academic clinical course coordinators. To confirm completion of the clinical training, the logbook has to be sufficiently completed, the number of absences for each course should be within allowed limits and the minimum successful grade should be achieved in each respective course.

### ***Clinical Instructors Role in Student Logbook Monitoring***

The individual student logbook, as defined by each clinical training course, aims to provide brief instructions on the learning objectives, expected outcomes and level of clinical exposure required.

### **Essential parts of the logbook include:**

#### ***History, Physical examination, Clinical skills, Essential course content***

Students should be exposed to competencies and trained on clinical skills to a maximum possible degree. In addition, students should exhibit competence level in situations commonly encountered in the different clinical departments. Please rate student level according and sign.

### **Student Attendance and Evaluation**

Attendance is mandatory for students, unjustified absences are not allowed and the clinical instructor signs the attendance sheet of every student logbook routinely. Students that are absent systematically, violate occupational rules or misconduct should be reported to the hospital coordinators.

### **Student training**

Depending on the year of study and course content, students are expected to be exposed to competencies and trained on clinical skills to a maximum possible degree. Individual student logbooks provide a detailed description of learning objectives for each course of clinical training and fields that require completion by the clinical instructors.

### **Following and observing**

Actions performed by the student, such as obtaining medical history, following patients or shadowing residents, performing various skills and being exposed to core clinical content, should be completed in the respective entry and evaluated accordingly as described in the student logbook. The clinical instructors need to confirm and sign all relevant entries.

### **Evaluating Students**

The Role of the Clinical Instructor is also essential in the final assessment and evaluation of every student that has rotated through the department. As such, it is imperative that they complete and confirm all relevant entries.

### **Feedback**

All clinical instructors are asked to provide feedback at the end of the clinical rotations period.

## Clinical Training Curriculum

The innovative six-year curriculum at the Faculty of Medicine, University of Patras is fully integrated both horizontally (***systems-based***) and vertically (***spiral-design***)

***Horizontal integration*** brings together the various disciplines (e.g. Anatomy, Histology, Embryology, Physiology, Biochemistry) for each module, whereas vertical integration is aimed at bringing together basic and clinical sciences, to break the traditional divide between preclinical and clinical studies. As such, the knowledge presented in the basic sciences is placed in clinical context, as well as in context of professional practice. The overall aim is to enhance the acquisition of knowledge, skills, attitude, values and professionalism in our students. The interdisciplinary units in the Foundations of Medicine phase of the curriculum use a multidisciplinary, systems-based, horizontally integrated approach to teach the normal structure and function of the body, along the continuum from molecules-to-cell to entire functional systems. During this process, students are also introduced to basic clinical skills, and abnormalities in structure and function, when appropriate. The disciplines (Cell & Molecular Biology, Biochemistry) and (Anatomy, Histology-Embryology, Physiology, Biochemistry) are integrated and organized into modules based on foundational concepts or on organ systems. The teaching of communication skills is also fully integrated alongside and introduction to the demands of professional practice and care.

***Vertical integration*** is achieved by the early introduction to clinical skills, thinking and clinical reasoning. Each module is closed with a session designed to reinforce the basic knowledge acquired and integrate that knowledge with its clinical significance. Clinicians present clinical association lectures and interactive sessions. Students are introduced to clinical thinking by applying their basic science knowledge to solve clinical problems and case-based sessions.

The reformed Structure and Function curriculum at UPatras engages multiple ***active and cooperative learning strategies***. ***Innovated and web-based educational resources*** have been tightly intercalated in the revised Structure & Function program. In the functional component, interactive anatomy, histology and embryology programs are regularly applied to provide insight into three-dimensional associations. In the structural component, virtual labs allow students to gain the experience of practical experiment without bench work in an interactive platform. Digital labs as a simulated model of the wet lab parallel our intensive integration of using high fidelity simulators for the physiology, pathophysiology, semiology and surgery practical sessions, among others. Simulation as one of the most prominent innovations in medical education over the last decade is a pivotal component of the structure & functional practical sessions.

The UPatras Medical Curriculum is designed to also facilitate the development of primary ***competencies*** in our students. The clinical years of the UPatras curriculum aim to transform students who have learned basic sciences into students who can deal with patients and their problems in a hospital or outpatient milieu. To do this, numerous new clinical skills, professional behaviors and considerable medical knowledge must be added to that which the student has previously acquired, which is based on the learning objectives of their clinical courses and the clinical competencies roadmap of the Faculty of Medicine.

## Clinical Training Spiral

Medical education lasts for six years (twelve semesters) and is conducted at two levels: theoretical and practical. The theoretical teaching takes place in the first four years (eight semesters). The teaching of core courses begins with the study of basic (preclinical) branches of science in the 1st and 2nd years, as well as an introduction to clinical medicine through the course of clinical skills. The courses in the 2nd and 3rd years serve as the bridge between basic sciences and clinical medicine, focusing on the pathogenesis and nature of various diseases, as well as the study of anatomical, histological, and functional alterations observed in these diseases. Although these years emphasize the theoretical training of students in terms of physiological and pathological structure and function, efforts are made to integrate theoretical knowledge with clinical practice through the resolution of simple clinical problems and discussions in small student groups (tutorials).

Next is the integrated teaching of systems during the 6th and 7th semesters, which unifies the knowledge of basic sciences with clinical medicine through the teaching of pathophysiological mechanisms, clinical manifestations, and therapeutic interventions for diseases (progressively structured knowledge).

**Clinical Training** in the 5th and 6th years forms the final turn of curriculum spiral, with the translation of knowledge and skills into practice, during clinical clerkships. It is almost exclusively hospital-based training. The active participation of students in the real conditions of daily medical practice within hospitals as well as in outpatient clinics, and their involvement in the hospital's daily duty, constitute their best preparation for future medical practice and, generally, their scientific and social development. This also enhances their understanding of the pivotal role of the medical profession for the community, through familiarity with the range of activities from primary to tertiary health care.

The overall objectives of the clinical training of medical students are:

- To familiarize students with the structure, function and capacities of the healthcare system
- To develop clinical skills and successfully combine them with their theoretical knowledge
- To demonstrate and develop communication skills and teamwork
- To apply practical skills in real-life healthcare environments
- To develop professionalism in their daily clinical practice
- To establish the concept of clinical training during medical undergraduate studies
- To create an environment of mutual collaboration and develop ongoing relations between the Faculty of Medicine and the collaborating healthcare sites
- Finally, to equip medical graduates with all necessary practical skills to pursue their postgraduate endeavors

## Outcome Objectives

### Medical Knowledge

1. Apply the multidisciplinary body of basic sciences to clinical analysis and problem solving using:
  - The knowledge of normal structure, function, physiology and metabolism at the levels of the whole body, organ systems, cells, organelles and specific biomolecules including embryology, aging, growth and development.
  - The principles of normal homeostasis including molecular and cellular mechanisms.
  - The etiology, pathogenesis, structural and molecular alterations as they relate to the signs, symptoms, laboratory results imaging investigations and causes of common and important diseases.
2. Incorporate the impact of factors including aging, psychological, cultural, environmental, genetic, nutritional, social, economic, religious and developmental on health and disease of patients as well as their impact on families and caregivers.
3. Utilize the important pharmacological and non-pharmacological therapies available for the prevention and treatment of disease based on cellular and molecular mechanisms of action and clinical effects. Identify and explain factors that govern therapeutic interventions such as clinical and legal risks, benefits, cost assessments, age and gender.
4. Apply the theories and principles that govern ethical decision making in the management of patients. v. Evaluate and apply clinical and translational research to the care of patient populations.

### **Clinical Skills**

1. Communicate effectively with patients, their families and members of the health care team.
2. Obtain a comprehensive and/or focused medical history on patients of all categories.
3. Perform physical and mental status examinations on patients of all categories appropriate to the patient's condition.
4. Document pertinent patient health information in a concise, complete and responsible way.
5. Select appropriate investigations and interpret the results for common and important diseases and conditions.
6. Recognize and communicate common and important abnormal clinical findings.
7. Develop a problem list and differential diagnosis based on the history, physical findings and initial investigations.
8. Apply effective problem solving strategies to patient care.
9. Perform routine and basic medical procedures.
10. Provide patient education for all ages regarding health problems and health maintenance.
11. Identify individuals at risk for disease and select appropriate preventive measures.
12. Recognize life threatening emergencies and initiate appropriate primary intervention.
13. Outline the management plan for patients under the following categories of care: preventive, acute, chronic, emergency, end of life, continuing and rehabilitative.
14. Continually reevaluate management plans based on the progress of the patient's condition and appraisal of current scientific evidence and medical information.

### **Professional Behavior**

1. Establish rapport and exhibit compassion for patients and families and respect their privacy,

dignity and confidentiality.

2. Demonstrate honesty, respect and integrity in interacting with patients and their families, colleagues, faculty and other members of the health care team.
3. Be responsible in tasks dealing with patient care, faculty and colleagues including health- care documentation.
4. Demonstrate sensitivity to issues related to culture, race, age, gender, religion, sexual orientation and disability in the delivery of health care.
5. Demonstrate a commitment to high professional and ethical standards.
6. React appropriately to difficult situations involving conflicts, nonadherence and ethical dilemmas.
7. Demonstrate a commitment to independent and lifelong learning including evaluating research in healthcare.
8. Demonstrate the willingness to be an effective team member and team leader in the delivery of health care.
9. Recognize one's own limitations in knowledge, skills and attitudes and the need for asking for additional consultation.
10. Participate in activities to improve the quality of medical education, including evaluations of courses and clerkships.

# UPatras Clinical Training Clerkships

## 9<sup>th</sup> & 10<sup>th</sup> Semester

- [Internal Medicine \(Clinical Training - Cardiology/Nephrology\)](#)
- [Neurology \(Clinical Training - Neurosurgery\)](#)
- [Obstetrics & Gynaecology](#)
- [Paediatrics](#)
- [Psychology \(Clinical Training\)](#)
- [Surgery \(Clinical Training I\)](#)

## Internal Medicine (Clinical Training - Cardiology/Nephrology)

**Semester** 9th & 10th

**Hours** Teaching 0 hours, Laboratory 0 hours, Tutorial 0 hours , Clinical Training 35 hours (per week)

### Teachers

- GOUMENOS DIMITRIS (Professor)
- THOMOPOULOS KONSTANTINOS (Professor)
- LIOSSIS STAMATIS-NICK (Professor)
- SPIRIDONIDIS ALEXANDROS (Professor)
- HABEOS IOANNIS (Professor)
- MOUZAKI ATHANASIA (Professor)
- NIKOLOPOULOU VASILIKI (Professor)
- DAVLOUROS PERIKLIS (Professor)
- MARANGOS MARKOS (Professor)
- MAKATSORIS THOMAS (Associate Professor)
- SOLOMOU-LIOSI ELENA (Associate Professor)
- CHEILADAKIS JOHN (Associate Professor)
- DAOUSIS DIMITRIOS (Associate Professor)
- ASSIMAKOPOULOS STELIOS (Associate Professor)
- TRIANTOS CHRISTOS (Associate Professor)
- KARKOULIAS KIRIAKOS (Assistant Professor)

## Description

The aim of the course is to educate the students of the 5th year in the conduct of clinical practice and acquire the necessary knowledge, skills and attitudes needed in postgraduate medical practice.

Students are distributed to the pathological sections according to the program of the Secretariat of the Internal Medicine Department under the responsibility of faculty members

who have been determined. The main objective is to train the student of the 5th year to take a medical history and be able to make proper physical examination. The student must be familiar with the concept of hospitalization cause, of the disease and medical history and of the conduct of a detailed clinical examination. As has become clear from the previous years, a lot of practice is needed in the approach of the patients and their problems but also in the physical examination. The techniques and skills needed for a proper clinical examination can only be obtained with clinical practice. Therefore, the students are given the opportunity for the above, as they may be repeated even in the same patient on a daily basis. Most health problems can be solved by careful medical history taking and physical examination. If there is any problem, the student can request the help of the doctors of the clinic. Students are, also exposed to the way to approach diseases (and differential treatment). The simultaneous study of books on physical examination and Internal Medicine given, will lead to better understanding of the pathophysiology of diseases.

The student is trained to present clearly, briefly and comprehensively the patient to the group. Efforts should be made to expose the student to as many patients and diseases as possible. At the same time the student is given the opportunity to develop the ability to work with all the members of the medical team.

During the visit the students gain theoretical training on cases hospitalized in the clinic. The trainers make references to the condition of the patient examined and questions that link theory with clinical practice in order to cause concern and better assimilation of knowledge.

Under the guidance of the medical personnel, students learn how to make some therapeutic and diagnostic operations such as blood tests, electrocardiogram and blood sugar measurement.

Clean medical coat and decorous behavior is necessary at the Hospital. Students should avoid informing patients, that they attend, on the progress of the clinical, laboratory examinations and to refer them to the relevant doctors. Clinical notes contain confidential information and it is important to protect the confidentiality of the patient.

## **Tutorials**

The students know the topics of the course in advance. The topics are presented by faculty members and students are adequately prepared to participate actively in the discussion. The presence of all the students is compulsory. Students should also attend all the training events in the clinic obligingly (grand rounds, conferences).

## **Call**

Students will be on call in the external call of the clinic until 10 pm. The call is determined by the educational team in which the student belongs. On call trainee doctors and the students are given the opportunity to examine upfront patients admitted to the Hospital. The student participates in the activities of the call group actively.

## **Attendance**

During the exercise the presence of the student is required (two absences for serious reasons are allowed). During clinical practice the student remains at the clinic.



## Neurology (Clinical Training - Neurosurgery)

**Semester** 9th & 10th

**Hours** Teaching 0 hours, Laboratory 0 hours, Tutorial 0 hours , Clinical Training 35 hours (per week)

### Teachers

- ELLOUL JOHN (Professor)
- CHRONI ELISABETH (Professor)
- CONSTANTOYANNIS CONSTANTINE (Professor)
- PANAGIOTOPOULOS VASSILIOS (Associate Professor)

### Description

1. Complete physical examination of the Nervous System and evaluation of pathological findings.
2. Familiarization of the students with regular neurological diseases (vascular stroke, Parkinson's, epilepsy, muscular diseases, multiple sclerosis, etc.) and with special "neurological" tests and Neurology emergencies.

On the last day of the second month students are orally examined to determine whether they are able to examine a patient with neurological problems and evaluate any neurological finding. At failure they repeat one, two or three weeks of the clinical training and they are examined again.

### Neurosurgery curriculum

#### A. Patients with hemiparesis

1. Convincing spinal cord damage

#### B. Patients with consciousness disorder

1. Introduction – waking consciousness disorders
2. Intracranial hypertension – intracranial tumours
3. Subarachnoid bleeding ( Aneurysm – vasculature)

#### C. Patients with motor disorders

1. Surgical treatment of extrapyramidal diseases.

#### Trauma lessons

**February 2023 - Faculty of Medicine**

1. Head trauma
2. Intracranial hypertension – Traumatic Brain Injury

## Obstetrics & Gynaecology

**Semester** 9th & 10th

**Hours** Teaching 0 hours, Laboratory 0 hours, Tutorial 0 hours , Clinical Training 35 hours (per week)

### Teachers

- ADONAKIS GEORGE (Professor)
- GEORGOPOULOS NEOKLIS (Professor)
- KAPONIS APOSTOLOS (Associate Professor)
- Androutsopoulos Georgios (Associate Professor)
- MICHAEL GEORGE (Assistant Professor)

### Description

Students' labour starts at 08:30 am and ends at 03:00 pm. Students' practice is aimed at acquiring experience concerning obstetrics and gynaecology patients of all ages and familiarizing with a wide spectrum of obstetric and gynaecologic diseases, focusing on the most frequently met. Students are distributed at the units of the Clinic, where under the instruction of the managing doctors obtain a history and examine inpatients and patients visiting the ambulatory, discuss about the differential diagnosis and follow up the laboratory tests and management of patients. Students obligingly attend the ward round performed daily by the supervisors of the units and the ward round performed by the Clinic Director/Professor every Thursday. During the ward round, students present the cases and they should be aware of the disease course, the results of paraclinical tests and the administered medication.

They also obligingly attend the rest educational activities of the Clinic:

- Tuesday 14:00-15:00: Lectures by prominent speakers
- Wednesday 12:00-13:00: Oncology Council
- Thursday 14:00-15:00: Literature review

The assessment of students concerning Obstetrics – Gynaecology is accomplished with a multiple choice test during the 7th semester. On degree students are examined orally by the Teaching Staff of the Clinic.

## Paediatrics

**Semester** 9th & 10th

**Hours** Teaching 0 hours, Laboratory 0 hours, Tutorial 0 hours , Clinical Training 35 hours (per week)

## Teachers

- KARATZA AGGELIKI (Professor)
- DIMITRIOU GABRIEL (Professor)
- CHRYSIS DIONISIOS (Professor)
- SINOPIDIS XENOFON (Associate Professor)

## Description

Fifth year students, as well as sixth year students, are trained in Clinical Paediatrics for six weeks per academic year at the Paediatric Clinic of the University of Patras.

## Prerequisite knowledge

Students attend the clinical training on the supposition that they have achieved passing score on the exams of the curriculum taught concerning Paediatrics during the Integrated Learning Program.

## Goals of clinical training

1. The acquisition of knowledge concerning Paediatrics that is essential for every doctor regardless of his/her future medical specialty.
2. The accumulation, organizing and listing of the information concerning normal psychosomatic development and disease in children of any age group (neonates, toddlers, school-age children and adolescents). This training goal includes the following skills and knowledge:
  - Ability to obtain a detailed pediatric history
  - Ability to perform a detailed physical examination and assess the developmental stage of children
  - Ability to document the information mentioned above in the form of a typical history or a problem oriented history
  - Ability to combine and analyze information in order to perform the differential diagnosis
  - Ability to draw up a plan for treating cases, based on the factual administration of diagnostic techniques
  - Ability to concisely present the clinical information during the presentation of medical cases
  - Acquisition of knowledge concerning the basics (not focusing on details) about treating several cases, mainly the most common of them
  - Review of the pathophysiology of several diseases and the impact of disease on child development

## Students' obligations for the achievement of learning goals

During the first day of clinical training students get separated into groups and the schedule concerning the training of each group at several Units of the Paediatric Clinic is announced. The daily presence of students at the Clinic is obligatory.

Students obtain detailed history, perform plenary physical examination, assess the psychomotor development, perform differential diagnosis and draw up a plan for the diagnosis and treatment of the cases of which they are in charge within the wards, the ordinary postnatal ward, the neonatal intensive care unit for premature newborn infants and the ambulatory services- either on call or on a regular basis- of the Paediatric Clinic (ambulatory service for premature newborn infants, Paediatric Allergology, Paediatric Endocrinology, Paediatric Pulmonology). Students follow up the disease course of patients they are responsible for, if that is possible. The students' obligations concerning the clinical training are staged depending on the year of studies (5th or 6th) and their interests.

The process of teaching, supervision and assessment of students is the responsibility of the Teaching Staff of the Paediatric Clinic but it is also estimated by all the specialists of the Clinic. Students should collaborate closely with the resident doctors who also participate in their training.

During the clinical training, students are separated into groups - each one supervised by a member of the Teaching Staff of the Clinic (tutor). The members of each group meet regularly, at least once a week. Trainees daily attend specialized, adapted to their level of education, lectures concerning common problems of Paediatric Practice. They also attend the scientific programme of the Clinic (lectures by invited speakers, medical case presentations, literature reviews) and participate in the whole procedure. The attendance of the educational programme of the Clinic is obligatory.

Upon completion of the clinical training students take a written test and their performance is assessed.

## Psychology (Clinical Training)

**Semester** 9th & 10th

**Hours** Teaching 0 hours, Laboratory 0 hours, Tutorial 0 hours , Clinical Training 35 hours (per week)

### Teachers

- GOURZIS PHILIPPOS (Professor)
- MARANGOS MARKOS (Professor)
- ALEXOPOULOS PANAGIOTIS (Panos) (Associate Professor)

### Description

The skills listed correspond to the Consensus statement elaborated recently by the Hellenic College of Academic Psychiatry, in an attempt to harmonize the university undergraduate psychiatric education.

### Reading Material

*I. Skills to be acquired during clinical practice related to the:*

1. Therapeutic relationship
2. Collecting of information
3. Evaluation of information
4. Provision of information
5. Therapeutic process
6. Learning process
7. Ability to work and co-operate in a group
8. Recording of information

*II. Attitudes to be acquired during clinical practice regarding:*

9. General medical practice
10. Therapeutic relationship with patients and patients' relatives.
11. Psychiatry as a medical specialty

## **Surgery (Clinical Training I)**

**Semester** 9th & 10th

**Hours** Teaching 0 hours, Laboratory 0 hours, Tutorial 0 hours , Clinical Training 35 hours (per week)

**Teachers**

- KEHAGIAS IOANNIS (Professor)
- MAROULIS IOANNIS (Professor)
- GLIATIS IOANNIS (Professor)
- VOGIATZIS GREGORIOS (Professor)
- FLIGKOU FOTEINI (Associate Professor)
- SKROUBIS GEORGE (Associate Professor)
- PANAGOPOULOS ANDREAS (Associate Professor)
- KOKKALIS ZINON (Associate Professor)
- Karydis Nikolaos (Assistant Professor)

## **Description**

The clinical training of students in Surgery is taking place both in the 5th and 6th year and lasts 8 weeks in the 5th year (including the clinical training in anesthesiology - intensive monitoring and Orthopaedics) and 6 weeks in the 6th year.

The main objective of the clinical training of students of the 5th year, is at the end of the training to feel that they are able to undertake the access and identification procedure of the surgical problem of a patient.

The practical application of achieving this goal which will also be the culmination of

undergraduate surgical education of the student, will be in the responsibility of an assistant that the student will take during the clinical training in the 6th year.

Achieving this goal is a bidirectional concept and it is based on the effort of both the trainer and the trainee. The instructor is academically obliged to help the student in order to be able to handle scientifically well and responsibly the problem of the patient. This procedure is performed on one hand with lessons- discussions in small groups referred to the most common surgical problems (diagnostic approach, differential diagnosis and therapeutic approach are taught) and on the other hand by applying the above to clinical practice, namely to the patients hospitalized in the clinic, with various surgical problems.

The process of this interactive educational effort, in order to achieve the above objective, is based on a specific training program, which has theoretical and practical parts.

### **A. Theoretical part**

Courses focused on the clinical problems of hospitalized patients in the Surgery Clinic:

1. Upper – lower digestive system bleeding
2. Fluids - electrolytes
3. Ileum
4. Colon cancer
5. Liver- biliary – pancreatic cancer
6. Investigation of thyroid nodule
7. Surgical treatment of the clinically severe obesity
8. Jaundice
9. Acute surgical abdomen
10. Breast lumps investigation
11. Hypovolaemic shock
12. Embolism – limbs thrombosis
13. Acute pancreatitis
14. Surgical treatment of type II diabetes and metabolic syndrome
15. Solid organ transplantations
16. Acute thorax

B. Practical part, that aims to:

1. Physical examination, proper learning and execution.
2. The collection of reliable information and data from patients with skillful efficient and effective manner.
3. The writing of a form of a medical history with diagnostic plan, choice of laboratory tests and choice of therapeutic methods

### **Reading Material**

The clinical training is mandatory and in accordance with the decision of the Department, only two justified absences are allowed.

- Students' arrival time is 8:00 p.m. From 8:00 p.m. to 8:30 p.m. they watch both departments of their clinic. Students of the 6th year and the interns are collecting blood samples, scheduling examinations on patients and preparing the medical history of the patient for the morning round.
- 9.00-10.30: Watch and participate in the clinical visit in both of the departments of the clinic with the department head, the interns and the students of the 6th year. In this clinical visit the students of the 5th year will be taught physical examination in specific surgical diseases and the preoperative preparation and postoperative monitoring.
- 11-13.00: The students with the students of the 6th year and with the interns participate in medical history taking and in the clinical examination of new patients.
- 13.00-14.00: Lesson.
- Then, the students watch in both departments of the clinic the interns and the students of the 6th year preparing patients to be operated the following day.

At the end of the course only the students on call stay in the clinic. Student participation in the call of the clinic is considered to be mandatory. Specifically there are 2 students of the 5th year in the general call and 2 of them in the internal call, according to a program drawn up at the beginning of the two months period. The call is mandatory and students on duty must remain in the hospital until 11p.m. in the general call and by 9 in the internal call.

The students' presence is mandatory in the advanced courses of the clinic that are taking place once a month, in the Auditorium of the Hospital.

### **Educational objectives in clinical training of the students of the 5th year in Orthopaedics.**

The student must be able to:

1. Recognize the clinical presentation of emergency orthopaedic cases and manage them appropriate.
2. Apply casts, dressings, and splints and to know their usage and complications.
3. Recognize the clinical signs of orthopaedic soft tissues, joints and bone infections. He/she must be able to start immediate therapy and order the appropriate laboratory and imagine tests.
4. Interpret and understood the radiological signs of fractures and degenerative diseases in orthopaedics.
5. Perform a thorough clinical examination and comprehensive history taking for orthopaedic diseases in the past. To explain the problem to the patient and his or her relatives. To cooperate with the rest medical and nursery stuff of the clinic.
6. Attend basic surgical procedures in the OR and discuss the approach and management with the consultants.
7. Actively participate in the on call rota at the A & E Department under the supervision of specialist registrars and consultants.

8. Participate in the regular outpatient office of the clinic where he/she will be able to examine the patients, interpret the x-rays and to follow up the patients who have been operated.

### **Educational objectives of the clinical training in Intensive Care of the students of the 5th year**

During the practice in the Intensive Care Unit the students will acquire basic knowledge in the following subjects:

1. Support of the airway in critically ill patients and practice in advanced cardiopulmonary resuscitation.
2. Forms of oxygen- therapies.
3. Assessment of priorities for therapeutic interventions in patients with multiple problems.
4. Monitoring (namely continuous monitoring and recording of vital functions): respiratory, circulatory, CNS, renal function etc.
5. Assessment of critically ill patients and treatment planning per system:
  - Respiratory
  - Cardio - circulatory
  - CNS (Traumatic brain injury treatment, Glasgow Comma Scale(GCS), ICP monitoring , Analgesia, Sedation)
  - kidney (and acid-base balance disorders)
  - Liver, biochemical disorders
  - Infection, Sepsis, Antibiotic treatment
  - Gastrointestinal (includes diet and gastroprotection)
6. Systems of assessment of critically ill patients (scoring systems, such as APACHE-II, SOFA, SAPS, TISS etc)
7. Triage and criteria for introduction to the ICU.
8. Ventilation mechanism (invasive and noninvasive)
  - Indications – Contra-indications
  - Methods
  - Respirators
  - Weaning
9. Metabolic and electrolyte disorders
10. Addressing the multiple trauma patient in the ICU with or without concomitant traumatic brain injury
11. Systemic inflammatory response and sepsis
12. Disinfection, prevention and treatment of infection
13. Patient with brain death in the ICU – organ donors and recipient
14. Technological issues: Respirators, Electrical safety, Ultrasounds etc.

### **Exercise evaluation**

At the end of the clinical training the students of the 5th year are graded by the trainers.



- [Anaesthesiology / Intensive Care \(Clinical Training\)](#)
- [Andrology \(Clinical Training\)](#)
- [Cardiology \(Clinical Training\)](#)
- [Cardiothoracic Surgery \(Clinical Training\)](#)
- [Clinical Training In Radiology](#)
- [Dermatology \(Clinical Training\)](#)
- [Endocrinology \(Clinical Training\)](#)
- [Gastroenterology \(Clinical Training\)](#)
- [Haematology \(Clinical Training\)](#)
- [Immunohaematology \(Clinical Training\)](#)
- [Infections Diseases \(Clinical Training\)](#)
- [Internal Medicine \(Clinical Training\)](#)
- [Microbiology \(Clinical Training\)](#)
- [Nephrology \(Clinical Training\)](#)
- [Neurosurgery \(Clinical Training\)](#)
- [Obstetrics – Gynaecology \(Clinical Training\)](#)
- [Oncology \(Clinical Training\)](#)
- [Ophthalmology \(Clinical Training - Elective\)](#)
- [Ophthalmology \(Clinical Training\)](#)
- [Orthopaedics \(Clinical Training\)](#)
- [Otorinolaryngology \(Clinical Training\)](#)
- [Paediatrics \(Clinical Training\)](#)
- [Pathology \(Clinical Training\)](#)
- [Pneumonology \(Clinical Training\)](#)
- [Radiobiology - Radiation Oncology \(Clinical Training\)](#)
- [Rheumatology \(Clinical Training\)](#)
- [Rhinology \(Clinical Training - Elective\)](#)
- [Surgery \(Clinical Training II\)](#)
- [Urology \(Clinical Training\)](#)

## Anaesthesiology / Intensive Care (Clinical Training)

**Semester** 11th & 12th

**Hours** Practical Training 25 hours per week (for 2 weeks)

### Teachers

- FLIGKOU FOTEINI (Associate Professor)
- ARETHA DIAMANTO (Associate Professor)

### Description

The goal of this course is to familiarize students with the therapeutic approach of critically ill patients in the Intensive Care Unit. Students participate in the medical morning report, ward rounds and the therapeutic management following small groups of doctors, approaching systematically patients who invariably suffer from multiple organ failure.

Particular emphasis is placed on the comprehension of the following pathophysiological disorders and problems, which are expected to be treated in the Intensive Care Unit, such as:

- Acute respiratory failure
- Chronic respiratory failure
- Cardiovascular shock
- Systemic Inflammatory Response Syndrome and sepsis
- Multiple Organ Dysfunction Syndrome
- Multiple-trauma management
- Head and brain injury
- Diagnostic approach to the febrile patient in the Intensive Care Unit

## Andrology (Clinical Training)

**Semester** 11th & 12th

**Hours** Practical Training 25 hours per week (for 2 weeks)

### Teachers

- ATHANASOPOULOS ANASTASIOS (Professor)
- LIATSIKOS EVAGGELOS (Professor)
- GIANNITSAS KONSTANTINOS (Associate Professor)

### Description

February 2023 - Faculty of Medicine

Clinical Training Manual

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The significant evolution of Urologic subspecialties and the accumulation of knowledge through the contemporary scientific progress led to the edition of the textbook of Andrology.

The daily requirement of teaching at the School of Medicine of the University of Patras, concerning undergraduate students, resident physicians and students attending the postgraduate studies programme of the Urologic clinic necessitated the publishing of ANDROLOGY.

At the first part of male sexual dysfunction knowledge arranged in logical sequence is presented, systematically approaching the condition of erectile dysfunction from the anatomical structure of the area concerning embryology and neurophysiology to the medical and surgical treatment. In particular chapters the condition of priapism, Peyronie's disease, and endocrinopathy are presented. In a separate chapter the clinical and laboratory investigation of sexual dysfunction is also presented in detail.

At the second part of subfertility curriculum includes elements of embryology, normal spermiogram, elements of immunobiology, endocrinopathies related to subfertility, cryptorchidism, testicular torsion, genital tract infections, obstructive azoospermia, normal biopsy and biopsies typical of subfertility syndromes and surgical techniques for rehabilitation. Finally, the up to date evolution and different techniques concerning in vitro fertilization and assisted natural conception are presented. Allowing that sexual dysfunction is a condition concerning the couple and not just the male, the last part of the course is on female sexual dysfunction.

Male sexual dysfunction:

1. Anatomy of genital tract
2. Embryology
3. Male erectile dysfunction-Sexual dysfunction
4. The normal sexual function
5. Prerequisites for normal erectile function
6. Physical examination-medication
7. Particular diagnostic tests concerning sexual dysfunction
8. Categories of erectile dysfunction
9. Peyronie's disease
10. Priapism
11. Treatment of sexual dysfunction

Male subfertility:

1. Elements of embryology
2. The normal spermiogram
3. Elements of immunobiology for the comprehension of possible parameters concerning male subfertility
4. Causes of male subfertility
5. Cryptorchidism
6. Testicular torsion
7. Genital tract infections
8. Obstructive azoospermia
9. Testicular biopsy

10. Cirsocele
11. Microsurgery
12. Endocrine assessment of the subfertile male
13. Classification of male subfertility based on the spermogram
14. Obstruction of the deferent ducts of the testis
15. Toxic causes or factors affecting spermatogenesis
16. Assisted - reproduction techniques
17. Female sexual dysfunction

## Cardiology (Clinical Training)

**Semester** 11th & 12th

**Hours** Practical Training 25 hours per week (for 2 weeks)

### Teachers

- DAVLOUROS PERIKLIS (Professor)
- CHEILADAKIS JOHN (Associate Professor)
- Papafakis Michail (Assistant Professor)

### Description

The training in the Cardiology Department has as primary aim the teaching of basic knowledge and the application of therapeutics in direct collaboration with the medical staff, so that the students in relatively limited time to get basic experience in treating cardiac patient. In today's barrage of information, with the application of new diagnostic and therapeutic interventions, physicians of Cardiology are trying for the complete presentation of the wide range of heart diseases and conformation of opinion in accordance with the guidelines of international companies of Cardiology based on proven scientific basis. For the success of this effort theoretical training on the part of the learner is required but also their active participation in various activities of the clinic.

The clinical training program includes:

1. Daily presence as early as 8.15 a.m. when report and discussion of the cases of the Cardiology Unit and Stroke Units are taking place.
2. Attendance at all programmed morning training courses.
3. Integration in the Clinic's program, participation in the various routine obligations and in the daily visits under the supervision of the hospital curators.
4. Electrocardiogram and arrhythmias lessons on Tuesday and Thursday and coronary disease lessons on Wednesday. These courses are available in the form of power point.
5. Medical history taking and physical examination courses next to the patient to understand the symptoms and signs of the cardiovascular system.
6. Theoretical and written tests every Friday.

Finally, the parallel visit of the trainee in the Haematodynamic and Echocardiography lab, in

order to obtain more detailed information, is permitted.

## Cardiothoracic Surgery (Clinical Training)

**Semester** 11th & 12th

**Hours** Practical Training 25 hours per week (for 2 weeks)

### Teachers

- [KOLETSIS EFSTRATIOS \(Associate Professor\)](#)
- [CHAROKOPOS NIKOLAOS \(Associate Professor\)](#)

## Clinical Training In Radiology

**Semester** 11th & 12th (elective)

**Code** MED\_1174

**Hours** Seminar Lectures 2,5x2 Clinical Training 35x2

### Teachers

- KARNABATIDIS DIMITRIOS (Professor)
- KALOGEROPOULOU CHRISTINA (Professor)
- SOLOMOU AIKATERINI (Professor)
- ZAMPAKIS PETER (Associate Professor)
- KATSANOS KONSTANTINOS (Associate Professor)
- SPIROPOULOU DESPOINA (Assistant Professor)

## Description

### ECTS Credits

4

### Course Type

Skills Development

### Prerequisite Courses

No

### Teaching and Assessment Language

Greek

### The Course is Offered to Erasmus Students

Yes (in greek)

### Course Webpage (url)

<https://eclass.upatras.gr/courses/MED1155/>

### Course Content

Clinical Training in Radiology (elective) is part of the sixth year of undergraduate studies, in the 11th and 12th semesters and has a duration of 2 weeks. Small groups of up to five students are rotated through all Radiology departments. Students follow the full program of the Laboratory. They familiarize with all diagnostic radiology procedures but also with the therapeutic procedures of interventional radiology – neuroradiology.

Additionally, in association with the academic staff of the Laboratory, students follow the procedure of medical reporting and learn to interpret the imaging study findings in the context of the clinical picture and medical history of the patient. Students also attend the educational activities of the department, which include morning lectures and meetings with physicians of various specialties.

Students also attend a series of lectures on the basic principles of imaging modalities and also on radiation protection issues. In order to familiarize with emergency cases, students must spend on-call time once in the Radiology department

## **Teaching and Learning Methods - Assessment**

### **Teaching Method**

Seminars, Clinical Training - Job shadowing

### **Use of Information and Communication Technologies**

Multimedia presentations in seminars  
Support of the Learning process by means of the e-class electronic platform

### **Teaching Organization**

#### ***Teaching Method Semester Workload***

Seminars	5
Clinical Training	70

### **Student Assessment**

Comprehensive assessment of the student participation in the procedures of the Clinical Radiology Laboratory

## **Scope**

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### **Learning Outcomes**

The activities on this clinical training offer students the opportunity to develop their basic knowledge of modern diagnostic and therapeutic Radiology, but mainly to develop skills in making decisions about the choice of the appropriate imaging examination, according to the clinical scenario. This knowledge and skills are essential in all contemporary medical specialties, because all physicians use diagnostic methods of radiology in the care of their

patients

### **General Abilities**

- Searching, analysis and synthesis of facts and information, as well as using the necessary technologies
- Adaptation to new situations
- Decision making
- Autonomous (Independent) work
- Group work
- Work in a interdisciplinary environment
- Promotion of free, creative and inductive thinking

## **Dermatology (Clinical Training)**

**Semester** 11th & 12th

**Hours** Practical Training 25 hours per week (for 2 weeks)

### **Teachers**

- GEORGIOU SOPHIA (Professor)
- PASMATZI EFSTATHIA (Professor)

### **Description**

1. Learning how to take dermatological history and how to do physical examination of the skin and its components.
2. Recognition of elementary skin lesions and understanding of their pathogenetic mechanisms.
3. Familiarity with the clinical picture of dermatologically and sexually transmitted diseases and their treatment.
4. Update on the basic principles of modern diagnostic techniques in immunohistopathology, molecular biology, immunology, biomechanics, photobiology and allergology of the skin.

On the last day of the exercise the students take exams, which will include practical (at bedside) and theoretical part.

## **Endocrinology (Clinical Training)**

**Semester** 11th & 12th

**Hours** Practical Training 25 hours per week (for 2 weeks)

## Teachers

- HABEOS IOANNIS (Professor)

## Description

The students are practiced in small groups in endocrinology, metabolism and diabetes. The exercise is done daily during all working hours at the outpatient clinic of the Endocrine Unit. Emphasis is placed on history taking, physical examination and diagnosis in collaboration with the students. Also the treatment is determined and the therapeutic decisions are justified. After the end of the outpatient clinic students' visit with the doctors of the Department, who are responsible for the estimates of hospitalized patients, patients in the clinic of the University Hospital of Patras with problems of the endocrine system. In parallel students attend classes of the Endocrine Unit, which are taking place on a regular basis to educate and inform physicians of the Department, as well as the patients' clinicopathologic discussion in the auditorium of the University Hospital of Patras organized by the Department of Internal Medicine.

## Gastroenterology (Clinical Training)

**Semester** 11th & 12th

**Hours** Practical Training 25 hours per week (for 2 weeks)

## Teachers

- THOMOPOULOS KONSTANTINOS (Professor)

## Description

Students during their attendance for 2 weeks in the Gastroenterology Clinic are trained as follows:

- Medical history taking.
- Clinical examination of the hospitalized patients.
- Teaching in and out of the Hospital on the main problems related to Gastroenterology.
- Rotating attendance to the regular clinics of the Gastroenterology Department.
- Rotating attendance to the Endoscope Program.

## Haematology (Clinical Training)

**Semester** 11th & 12th

**Hours** Practical Training 25 hours per week (for 2 weeks)

## Teachers



## Description

The aim of clinical practice in Haematology is to familiarize students with the diagnosis and treatment of routine hematological diseases.

Students attend clinical activities of the Haematology clinic, the transplantation, and the clinical evaluation of haematological patients. Also, they are involved in the operation of the external haematology clinic and attend regular blood tests (estimate peripheral blood, myelogram, etc). During their training they participate in educational activities of the Haematology clinic and they are trained based on clinical cases in small groups. Finally, they participate in the literature update of doctors - members of the Haematology Clinic.

## Immunohaematology (Clinical Training)

**Semester** 11th & 12th

**Hours** Practical Training 25 hours per week (for 2 weeks)

### Teachers

- **MOUZAKI ATHANASIA (Professor)**

## Reading Material

INTRODUCTORY COURSE: The immune system of humans.

LESSONS 1-4: The cells of immune system – Types, functions, interaction, immunological tolerance.

LESSON 5: Antibodies – Types, functions.

LESSON 6: The HLA system.

LESSON 7: Hypersensitivity tests.

LESSONS 8, 9: Dysfunction of the immune system – Autoimmune diseases, cancers.

LESSON 10: Immunology of transfusions.

LESSON 11: The immune system & HIV/AIDS.

LESSONS 12-14: Immunomodulation – interventions in molecular and cellular level, antibody therapy, artificial antigens (peptides), bone marrow and haematopoietic cells.

At the end of each session students receive bibliography. At the end of the course the students deliver a homework that focuses on a topic chosen from a specific list proposed by the instructor.

## Infectious Diseases (Clinical Training)

**Semester** 11th & 12th

**Hours** Practical Training 25 hours per week (for 2 weeks)

### Teachers

- MARANGOS MARKOS (Professor)
- AKINOSOGLOU KAROLINA (Associate Professor)
- ASSIMAKOPOULOS STELIOS (Associate Professor)

### Description

The aim of this exercise is to train students in diagnosis, differential diagnosis and treatment of ordinary inpatient and outpatient infections, as well as the major specific infections (AIDS, hepatitis, tuberculosis, etc.). During the clinical practice students attending the outpatient clinic of Infectious Diseases and the advisory visit of Infectious Diseases specialists in various clinics of the Hospital. They also attend educational events (Courses and literature informing) of the Department of Infectious Diseases of Internal Medicine Clinic.

### Internal Medicine (Clinical Training)

**Semester** 11th & 12th

**Hours** Teaching 0 hours, Laboratory 0 hours, Tutorial 0 hours , Clinical Training 35 hours (per week)

### Teachers

- GOUMENOS DIMITRIS (Professor)
- THOMOPOULOS KONSTANTINOS (Professor)
- LIOSSIS STAMATIS-NICK (Professor)
- SPIRIDONIDIS ALEXANDROS (Professor)
- HABEOS IOANNIS (Professor)
- MOUZAKI ATHANASIA (Professor)
- NIKOLOPOULOU VASILIKI (Professor)
- DAVLOUROS PERIKLIS (Professor)
- MARANGOS MARKOS (Professor)
- MAKATSORIS THOMAS (Associate Professor)
- SOLOMOU-LIOSI ELENA (Associate Professor)
- CHEILADAKIS JOHN (Associate Professor)
- DAOUSIS DIMITRIOS (Associate Professor)
- AKINOSOGLOU KAROLINA (Associate Professor)
- ASSIMAKOPOULOS STELIOS (Associate Professor)
- TRIANTOS CHRISTOS (Associate Professor)
- KARKOULIAS KIRIAKOS (Assistant Professor)

### Description

The purpose of this course is to train the students of the 6th year in the exercise of clinical practice and in the acquisition of the necessary knowledge, skills and attitudes needed for the postgraduate medical practice. During the six weeks of exercise, the students are incorporated in the nursing-education units of the Internal Medicine Clinic for 4 weeks and then in the Hematology Unit of Internal Medicine Clinic for 2 weeks.

Students are acting as assistants. They take over patients that are hospitalized and are responsible for writing the medical history of the patients. Students have to monitor the daily progress of their patients and actively participate with their group members in the diagnostic and therapeutic access of these patients.

After consultation and with the guidance of doctors in the team, the responsible for the patient student conduct therapeutic and diagnostic procedures. These include blood sampling, taking arterial blood, chest puncture, puncture of ascites fluid, placing nasogastric catheter, bladder catheterization, etc.

Students must have full and daily updates on the progress of their patients and they should be able to accurately report the status of patients to the attending physician of the team when requested.

## **Call**

Students are on call at the external call of the nursing unit to which they belong. The working hours are 3pm-10pm on weekdays and 8am-10pm on holidays. From the start of the call they are presented to the team members that are in charge and they assign them appropriate tasks. During the call the students are in constant contact with the responsible doctors on call, and they refer to them as for the settlement of the delegated tasks. They must also be constantly accessible by doctors on call, who must know where their students are and what they deal with. Students should also be on duty on 1-2 internal calls.

Students attend and actively participate in the educational process, as scheduled by the clinic in which they incumbent.

## **Microbiology (Clinical Training)**

**Semester** 11th & 12th

**Hours** Practical Training 25 hours per week (for 2 weeks)

### **Teachers**

- PALIOGIANNI FOTINI (Professor)
- KOLONITSIOU FEVRONIA (Associate Professor)

## **Description**

Basic methods used in a clinical laboratory are analyzed to the students and they are given the

chance to perform on their own the most common methods in the laboratory of the hospital that are useful for any physician regardless of the specialty that he/she will exercise, and they have also the opportunity to evaluate the results.

## **Nephrology (Clinical Training)**

**Semester** 11th & 12th

**Hours** Practical Training 25 hours per week (for 2 weeks)

### **Teachers**

- GOUMENOS DIMITRIS (Professor)
- PAPACHRISTOU EVAGGELOS (Assistant Professor)

### **Description**

Active participation of students in the daily schedule of the Nephrology Clinic (medical history taking, physical examination, daily visits with physicians in clinics).

Training next to the hospitalized patients. In the clinic are hospitalized patients suffering from:

- Water and electrolytes disorders
- Acid-base balance disorders.
- Arterial hypertension.
- Acute renal failure.
- Diseases of the glomerulus (glomerulonephritis).
- Diabetes mellitus and kidney damage.
- Systemic diseases with renal involvement.
- Kidney transplantation.
- Vascular problems in Haemodialysis.
- Problems in peritoneal dialysis.

Students are also trained in the basic principles of methods of renal function replacement (haemodialysis and peritoneal dialysis)

Students attend clinical training classes in the Renal Centre and at the end of their training they write a paper on a subject assigned.

## **Neurosurgery (Clinical Training)**

**Semester** 11th & 12th

**Hours** Practical Training 25 hours per week (for 2 weeks)

## Teachers

- CONSTANTOYANNIS CONSTANTINE (Professor)
- PANAGIOTOPOULOS VASSILIOS (Associate Professor)

## Description

- Physical examination of surgical patients with central and peripheral nervous system diseases
- Imaging
- Medical case discussion

## Obstetrics – Gynaecology (Clinical Training)

**Semester** 11th & 12th

**Hours** Teaching 0 hours, Laboratory 0 hours, Tutorial 0 hours , Clinical Training 35 hours (per week)

## Teachers

- ADONAKIS GEORGE (Professor)
- GEORGOPOULOS NEOKLIS (Professor)
- KAPONIS APOSTOLOS (Associate Professor)
- Androutsopoulos Georgios (Associate Professor)
- MICHAEL GEORGE (Assistant Professor)

## Description

Students' labour starts at 08:30 am and ends at 03:00 pm. Students' practice is aimed at acquiring experience concerning obstetrics and gynaecology patients of all ages and familiarizing with a wide spectrum of obstetric and gynaecologic diseases, focusing on the most frequently met. Students are distributed at the units of the Clinic, where under the instruction of the managing doctors obtain a history and examine inpatients and patients visiting the ambulatory, discuss about the differential diagnosis and follow up the laboratory tests and management of patients. Students obligingly attend the ward round performed daily by the supervisors of the units and the ward round performed by the Clinic Director/Professor every Thursday. During the ward round, students present the cases and they should be aware of the disease course, the results of paraclinical tests and the administered medication.

They also obligingly attend the rest educational activities of the Clinic:

- Tuesday 14:00-15:00: Lectures by prominent speakers
- Wednesday 12:00-13:00: Oncology Council
- Thursday 14:00-15:00: Literature review

The assessment of students concerning Obstetrics – Gynaecology during the 11th and 12th semester is accomplished with a multiple choice test. On degree students are examined orally by the Teaching Staff of the Clinic.

## **Oncology (Clinical Training)**

**Semester** 11th & 12th

**Hours** Practical Training 25 hours per week (for 2 weeks)

### **Teachers**

- Koutras Angelos (Professor)
- MAKATSORIS THOMAS (Associate Professor)

### **Description**

Regarding the elective clinical training of the Oncology Department, students are actively involved in the clinical activities of the Oncology Department. Specifically, they are involved in medical history taking and clinical examination of outpatient. In addition, they participate in the visit in the Day Care and monitor, under supervision, oncology patients hospitalized in other clinics of the University Hospital. Students also participate actively in the differential diagnosis of patients, in the educational activities of the Department and participate in the literature update. Finally, the evaluation is done by an oral examination by the faculty members of the oncology department.

## **Ophthalmology (Clinical Training)**

**Semester** 11th & 12th

**Hours** Teaching 0 hours, Laboratory 0 hours, Tutorial 0 hours , Clinical Training 35 hours (per week)

### **Teachers**

- GEORGAKOPOULOS CONSTANTINOS (Professor)

### **Description**

Mandatory clinical training during the 6th Year of studies for 2 weeks.

## **Ophthalmology (Clinical Training - Elective)**

**Semester** 11th & 12th

**Hours** Practical Training 25 hours per week (for 2 weeks)

**Teachers**

- GEORGAKOPOULOS CONSTANTINOS (Professor)

**Description**

Clinical training for 2 weeks, as an optional course during the 6th Year of studies.

**Orthopaedics (Clinical Training)**

**Semester** 11th & 12th

**Hours** Practical Training 25 hours per week (for 2 weeks)

**Teachers**

- GLIATIS IOANNIS (Professor)
- PANAGOPOULOS ANDREAS (Associate Professor)
- KOKKALIS ZINON (Associate Professor)

**Description**

The student during this class should be able to:

1. Recognize the clinical presentation of emergency orthopaedic cases and managed them appropriate.
2. Apply casts, dressings and splints and to know their usage and complications.
3. Recognize the clinical signs of orthopaedic soft tissues, joints and bone infections. He/she must be able to start immediate therapy and order the appropriate laboratory and imagine tests.
4. Interpret and understood the radiological signs of fractures and degenerative diseases in orthopaedics.
5. Perform a thorough clinical examination and comprehensive history taking for orthopaedic diseases in the past. To explain the problem to the patient and his or her relatives. To cooperate with the rest medical and nursery stuff of the clinic.
6. Attend basic surgical procedures in the OR and discuss the approach and management with the consultants.
7. Actively participate in the on call rota at the A & E Department under the supervision of specialist registrars and consultants.
8. Participate in the regular outpatient office of the clinic where he/she will be able to examine the patients, interpret the x-rays and to follow up the patients who have been operated.

9. Attend the clinical exercise courses dealing with the clinical examination of the orthopaedic patient and the management of commonest orthopaedic injuries and diseases.

## Reading Material

### Weekly program of the clinical exercise class

**1<sup>st</sup>**

**WEEK**

#### MONDAY

1. Ankle joint and foot disorders
2. Radiological exercise I: **Orthopaedic Traumatology**

#### TUESDAY

1. Neurological examination of upper limb and cervical spine
2. Radiological exercise II: **Orthopaedic diseases**

#### WEDNESDAY

1. Pelvis and hip
2. Emergency situations in Orthopaedics

#### THURSDAY

1. Anatomy & pathophysiology of muscles, tendons and ligaments: Overuse Syndromes
2. Rehabilitation of patients with motor deficits (Spine centrum – Rehab Unit)

#### FRIDAY

1. Shoulder and Elbow
2. Bone defects – distractive osteogenesis (Ilizarov)

### **2<sup>nd</sup> WEEK**

#### MONDAY

1. Knee
2. Compression neuropathies of peripheral nerves

#### TUESDAY

1. Neurological examination of lower limb and Lumbar Spine
2. Conservative fracture treatment (splints, casts, taping)

#### WEDNESDAY

1. Wrist and hand
2. Cartilage injuries

#### THURSDAY

1. Management of the multiple-injured patient (Damage Control Orthopaedics)



2. Rehabilitation of patients with spine injuries (Spine Centrum – Rehab Unit)

FRIDAY

1. Walking-motion analysis
2. Evaluation – oral exams

## Otorhinolaryngology (Clinical Training)

**Semester** 11th & 12th

**Hours** Teaching 0 hours, Laboratory 0 hours, Tutorial 0 hours , Clinical Training 35 hours (per week)

### Teachers

- NAKSAKIS STEFANOS (Professor)
- MASTRONIKOLIS NIKOLAOS (Professor)
- DANIILIDIS VASSILIOS (Professor)

### Description

Sixth year students attend the Otorhinolaryngology Clinic for 2 weeks (compulsorily). It is the responsibility of the Teaching Staff of Otorhinolaryngology Clinic to train the students and goal of the practical training is to allow students to become more experienced concerning both practical and theoretical issues regarding the specialty. Courses in Otorhinolaryngology emergencies, Head and Neck oncology and the diagnostic approach to patients are held. Students compulsorily attend the ward round performed by the doctors of the ENT Clinic on a daily basis and participate in the whole diagnostic and therapeutic procedure. Students attend the ambulatory, participate in operations, are trained at the Units and the Laboratories of the Clinic (Neuro-otology – Nystagmography, Audiometer – Tympanometer, Logotherapy, Endoscopic ENT). During the clinical training students are allowed one absence maximum. Goal of the training is to familiarize students with examination and diagnostic techniques concerning the specialty of Otorhinolaryngology.

Curriculum includes:

- Otoscopy
- Laryngoscopy
- Rhinoscopy
- Flexible endoscopy
- Audiometry
- Tympanometry
- Nystagmography
- Evoked Potentials

## Paediatrics (Clinical Training)

## Semester 11th & 12th

**Hours** Teaching 0 hours, Laboratory 0 hours, Tutorial 0 hours , Clinical Training 35 hours (per week)

### Teachers

- KARATZA AGGELIKI (Professor)
- DIMITRIOU GABRIEL (Professor)
- CHRYSIS DIONISIOS (Professor)
- SINOPIDIS XENOFON (Associate Professor)
- FOUZAS SOTIRIOS (Associate Professor)
- Gkentzi Despoina (Assistant Professor)

### Description

Fifth year students, as well as sixth year students, are trained in Clinical Paediatrics for six weeks per academic year at the Paediatric Clinic of the University of Patras.

### Prerequisite knowledge

Students attend the clinical training on the supposition that they have achieved passing score on the exams of the curriculum taught concerning Paediatrics during the Integrated Learning Program.

### Goals of clinical training

1. The acquisition of knowledge concerning Paediatrics that is essential for every doctor regardless of his/her future medical specialty.
2. The accumulation, organizing and listing of the information concerning normal psychosomatic development and disease in children of any age group (neonates, toddlers, school-age children and adolescents). This training goal includes the following skills and knowledge:
  - Ability to obtain a detailed pediatric history
  - Ability to perform a detailed physical examination and assess the developmental stage of children
  - Ability to document the information mentioned above in the form of a typical history or a problem oriented history
  - Ability to combine and analyze information in order to perform the differential diagnosis
  - Ability to draw up a plan for treating cases, based on the factual administration of diagnostic techniques
  - Ability to concisely present the clinical information during the presentation of medical cases
  - Acquisition of knowledge concerning the basics (not focusing on details) about treating several cases, mainly the most common of them

Febrile

- Review the pathophysiology of several diseases and the impact of disease on child development

#### Students' obligations for the achievement of learning goals

During the first day of clinical training students get separated into groups and the schedule concerning the training of each group at several Units of the Paediatric Clinic is announced. The daily presence of students at the Clinic is obligatory.

Students obtain detailed history, perform plenary physical examination, assess the psychomotor development, perform differential diagnosis and draw up a plan for the diagnosis and treatment of the cases of which they are in charge within the wards, the ordinary postnatal ward, the neonatal intensive care unit for premature newborn infants and the ambulatory services - either on call or on a regular basis- of the Paediatric Clinic (ambulatory service for premature newborn infants, Paediatric Allergology, Paediatric Endocrinology, Paediatric Pulmonology). Students follow up the disease course of patients they are responsible for, if that is possible. The students' obligations concerning the clinical training are staged depending on the year of studies (5th or 6th) and their interests.

The process of teaching, supervision and assessment of students is the responsibility of the Teaching Staff of the Paediatric Clinic but it is also estimated by all the specialists of the Clinic. Students should collaborate closely with the resident doctors who also participate in their training.

During the clinical training, students are separated into groups – each one supervised by a member of the Teaching Staff of the Clinic (tutor). The members of each group meet regularly, at least once a week. Trainees daily attend specialized, adapted to their level of education, lectures concerning common problems of Paediatric Practice. They also attend the scientific programme of the Clinic (lectures by invited speakers, medical case presentations, literature reviews) and participate in the whole procedure. The attendance of the educational programme of the Clinic is obligatory.

Upon completion of the clinical training students take a written test and their performance is assessed.

## **Pathology (Clinical Training)**

**Semester** 11th & 12th

**Hours** Practical Training 25 hours per week (for 2 weeks)

#### **Teachers**

- TZELEPI VASILIKI (Associate Professor)

## **Pneumonology (Clinical Training)**

**Semester** 11th & 12th

**Hours** Practical Training 25 hours per week (for 2 weeks)

### **Teachers**

- KARKOULIAS KIRIAKOS (Assistant Professor)

### **Description**

The course takes place in the context of clinical exercises of the 6th year, in small groups, with patients from the Clinic of Pneumonology.

## **Radiobiology - Radiation Oncology (Clinical Training)**

**Semester** 11th & 12th

**Hours** Practical Training 25 hours per week (for 2 weeks)

### **Teachers**

- SPIROPOULOU DESPOINA (Assistant Professor)

### **Description**

The aim of this course is to present the main mechanisms of action of ionizing radiation in cells and organisms, and methods of protection against the use of ionizing radiation in medicine.

The course includes:

- The action of ionizing radiation on cell.
- Repair of radiation injury.
- Radiosensitivity of normal tissues and tumors.
- Radiosensitising and Radioprotective substances.
- Applications of radiobiology in radiotherapy.
- Radiation protection.

## **Rheumatology (Clinical Training)**

**Semester** 11th & 12th

**Hours** Practical Training 25 hours per week (for 2 weeks)

## Teachers

- LIOSSIS STAMATIS-NICK (Professor)
- DAOUSIS DIMITRIOS (Associate Professor)

## Description

The elective course of Rheumatology is taught in small groups of students (1-5 members) during the 5th year and lasts two weeks.

Its aim is to familiarize the student with the clinical picture and the treatment of patients with diseases of the skeletal system. Emphasis is placed on medical history taking and physical examination of the skeletal system, as embodied in full physical examination of the patient. Students participate in the discussion of treatment decisions.

The course takes place at the outpatient Rheumatology Clinic and concerns scheduled appointments of patients (Monday - Thursday) and participation in training courses of the Department (Friday). After the daily outpatient clinic, an educational visit to patients of the University Hospital follows on a daily basis. For these patients has been asked Rheumatology assessment by therapists.

## Rhinology (Clinical Training - Elective)

**Semester** 11th & 12th

**Hours** Practical Training 25 hours per week (for 2 weeks)

## Teachers

- NAKSAKIS STEFANOS (Professor)
- MASTRONIKOLIS NIKOLAOS (Professor)
- DANIILIDIS VASSILIOS (Professor)

## Description

Sixth year students choose to attend the Rhinology Clinic for 2 weeks. It is the responsibility of the Teaching Staff of Rhinology Clinic to train the students and goal of the practical training is to allow students to become more experienced concerning both practical and theoretical issues regarding the specialty. Courses in Otorhinolaryngology emergencies, Head and Neck oncology and the diagnostic approach to patients are held. Students compulsorily attend the ward round performed by the doctors of the ENT Clinic on a daily basis and participate in the whole diagnostic and therapeutic procedure. Some hard-to-diagnose medical cases are chosen to be approached by students. Later these medical cases are discussed. Students attend the ambulatory, participate in operations, are trained at the Units and the Laboratories of the Clinic (Neuro-otology – Nystagmography, Audiometer – Tympanometer, Logotherapy, Endoscopic ENT).

During the clinical training students are allowed one absence maximum. Upon completion of the clinical training students are assessed by the instructors

## Surgery (Clinical Training II)

**Semester** 11th & 12th

**Hours** Teaching 0 hours, Laboratory 0 hours, Tutorial 0 hours , Clinical Training 35 hours (per week)

### Teachers

- KEHAGIAS IOANNIS (Professor)
- MAROULIS IOANNIS (Professor)
- SKROUBIS GEORGE (Associate Professor)
- Karydis Nikolaos (Assistant Professor)

### Description

Basic principle in the education of the students of the 6th year during their clinical practice in surgery is the assignment of full clinical responsibility to students. They participate in all clinical and educational concentrations of the Clinic and are encouraged to express opinions and questions. Each student is responsible for two to three patients, and processes under supervision full preoperative and postoperative monitoring, while there is an effort for regular participation in surgery. In this way, together with the discussions of the cases that are taking place in the Department and in the Clinic, it is believed that the student during clinical training obtains a complete picture of the treatment of the most common surgical diseases.

The participation of the students in the Clinic call is considered mandatory. Specifically, 2 students of the 6th year are in the general call and 2 of them in the internal call, according to the program drawn up at the beginning of the two months period. Mandatory is the eve of the students in the general call until 23.00 and until 21.00 in the internal call. During the call the training is related to the overall treatment of surgical emergency incident.

Two absences are allowed during the clinical practice. Beyond these the clinical training is repeated.

At the end of the clinical training the students of the 6th year are assessed by their instructors.

Mandatory is the presence of students in advanced courses of the clinic that are taking place once a month, in the auditorium of the Hospital.

- 08.00- 08.30 Blood sampling
- 08.30- 09.00 Patients examination, preparation for visit
- 08.00-14.00 Surgery (except from Wednesday)
- 09.00-10.30 Nursing visit

- 10.30- 11.30 Department backlog processing
- 11.30- 12. 30 Patient hospitalization, medical history taking
- 12.30- 13.00 Brake
- 13.00- 14.00 5th year lessons Surgery cases preparation for the following day
- 17.30- 19.30 Afternoon educational visit (doctors on call) Discussion for the complications of the week (Wednesday)

## **Urology (Clinical Training)**

**Semester** 11th & 12th

**Hours** Practical Training 25 hours per week (for 2 weeks)

### **Teachers**

- ATHANASOPOULOS ANASTASIOS (Professor)
- LIATSIKOS EVAGGELOS (Professor)
- GIANNITSAS KONSTANTINOS (Associate Professor)

### **Description**

During the clinical training of students on the responsibility of the Teaching Staff and all the members of the Urological Clinic, a particular learning process is carried through concerning both practical and theoretical aspects of the specialty.

Theoretical courses concerning urologic emergencies, urologic oncology, diagnostic approach to the urologic patient and imaging techniques are held. Students are practically trained and get familiarized with endourologic procedures (catheterization – cystoscopy – endoscopic surgery) and post-operative care and assessment of patients.

Trainees accept the responsibility to assist with the care of patients, participate in the whole diagnostic and therapeutic procedure and present cases during daily ward rounds. They attend the ambulatory, participate in operations, get trained at particular units and laboratories, and have the opportunity to participate in research protocols. During the two-week training each trainee has to go on-call twice from 2:00 pm till 8:00 pm. Groups of eight students are constituted during the trimesters of the 6th Year.

## **Appendix: Individual Student Logbooks – Example**



**UNIVERSITY OF PATRAS FACULTY OF  
MEDICINE**

**DEPARTMENT OF PEDIATRICS**

**HEAD: PROFESSOR G. DIMITRIOU**



**TRAINING LOGBOOK FOR MEDICAL STUDENTS IN  
'PEDIATRICS'**

**STUDENT'S NAME:**

**STUDENT'S ID:**

**TRAINING START DATE:**

**TRAINING END DATE:**

**TRAINING SUPERVISOR:**

**Introduction:**

The training of fifth-year and sixth-year students in Vascular Surgery includes the active participation and observation of clinical and educational activities of the clinic for four (4) and six (6) weeks respectively, as described in the Study Guide of the University of Patras Faculty of Medicine. During this time each student should complete the training logbook in collaboration with the training supervisor. Once the training logbook has been submitted for evaluation by the training coordinator and deemed satisfactory the student may take the final examination.

**Contents:**

1. Clinical skills
2. Case recording
3. Medical operations

**1. CLINICAL SKILLS  
(TO BE ACQUIRED IN THE COURSE OF TRAINING)**

<b>Clinical Skill</b>	<b>Date</b>	<b>Signature of Training Supervisor</b>	<b>Remarks</b>
Medical history acquisition			
Clinical examination of the thorax			
Clinical examination of the abdomen			
Cardiovascular clinical examination			
Neurological examination			
General clinical examination of a child (signs of dehydration, respiratory distress, meningeal signs)			
Psychomotor development			
Developmental curve assessment			
Newborn clinical examination			

## **2. RECORDING AND ANALYSIS OF CLINICAL CASES DURING TRAINING**

**Indicative list (at least 15 cases to be evaluated by the training supervisor for each student)**

1	Gastroenteritis and dehydration
2	Anemia
3	Developmental dystrophy
4	Meningitis, Encephalitis
5	Periconchial/Conchial Cellulitis
6	Eczema
7	Upper respiratory tract infection
8	Asthma crisis
9	Pneumonia
10	Nephrotic syndrome
11	Urinary tract infection
12	Febrile convulsions
13	Epilepsy
14	Respiratory distress syndrome
15	Neonatal jaundice
16	Neonatal sepsis
17	Juvenile Diabetes
18	Short stature
19	Atopic dermatitis
20	Fever of unknown origin

## INCIDENT REPORT FORM

<b>Patient demographic data</b>	
<b>Reason for admission</b>	
<b>Medical history (individual, perinatal, family, social)</b>	
<b>Objective examination by systems/SBD</b>	

<b>Differential diagnosis</b>	
<b>Laboratory tests</b>	
<b>Disease course</b>	
<b>Diagnosis and final outcome</b>	

**Remarks by the Training Supervisor:**

### 3. MEDICAL OPERATIONS (required number in brackets)

	Date	Supervis or signature	Date	Supervis or signature	Date	Superviso r signature
Observation of nasogastric tube placement (2)						
Measurement of Vital Signs (3)						
Blood gas interpretation (3)						
Electrolyte interpretation (3)						
Chest X-ray interpretation (3)						
Ventilators in Units - basic principles (2)						
Phototherapy equipment - basic principles (2)						
Incubators - basic principles (2)						
Observation of lumbar puncture and principles of technique (2)						
Observation of suprapubic aspiration (2)						
Observation of venipuncture - blood collection in						

child & neonate (3)						
Observation of venipuncture - serum in child & neonate (3)						
Observation of venipuncture of skull (1)						
Neonatal resuscitation in the delivery room (3)						