

CLINICAL CENTER RESIDENCY I (ML0135)

1. language

English.

2. course contents

Coordinator: Prof. MARCO RAFFAELLI

Year Course: 4

Semester: 1

UFC: 13

Modules and lecturers:

- FROM DIAGNOSIS TO CLINICAL CARE I (ML000116) - 3 ufc - ssd MED/09

Proff. Erica De Candia, Giovanni Gambassi, Geltrude Mingrone

- GENERAL SURGERY I (ML0140) - 2 ufc - ssd MED/18

Proff. Francesco Ardito, Carmela De Crea, Marco Raffaelli

- GENERAL SURGERY II (ML0139) - 1 ufc - ssd MED/18

Proff. Alberto Biondi, Fausto Rosa

- GENERAL SURGERY PROFESSIONAL TRAINING (ML0141) - 2 ufc - ssd MED/18

Proff. Alberto Biondi, Laura Lorenzon, Valerio Papa, Francesco Pennestri', Fausto Rosa

- INFECTIOUS DISEASES II (ML0137) - 1 ufc - ssd MED/17

Proff. Simona Di Giambenedetto, Giancarlo Scoppettuolo

- INFECTIOUS DISEASES PROFESSIONAL TRAINING (ML0138) - 1 ufc - ssd MED/17

Proff. Antonella Cingolani, Katleen De Gaetano Donati, Simona Di Giambenedetto, Mothanje Barbara Patricia Lucia, Rita Murri, Giancarlo Scoppettuolo

- INTERNAL MEDICINE PROFESSIONAL TRAINING (ML0145) - 1 ufc - ssd MED/09

Proff. Giuseppe De Matteis, Silvia Giovannini, Michele Impagnatiello, Luca Miele, Giovanni Pecorini,

- MEDICAL AND SURGERY PHARMACOLOGY (ML0143) - 1 ufc - ssd BIO/14

Prof. Cesare Mancuso

- OCCUPATIONAL PSYCHOLOGY (ML0142) - 1 ufc - ssd M-PSI/06

Prof. Marco Di Nicola

3. BIBLIOGRAPHY

Harrison's principles of internal medicine, McGraw Hill, 20th Edition

Sabiston Textbook of Surgery, Elsevier, 21st Edition

Current Medical Diagnosis and Treatment 2023, Lange – McGraw Hill

Current Diagnosis and Treatment Surgery, Lange – McGraw Hill, 14th Edition
Endocrine Surgery Comprehensive Board Exam Guide, Textbook, Springer 2021; Editors: AL Shifrin, M Raffaelli, GW Randolph, O Gimm
Abnormal Psychology, S. Nolen-Hoeksema, B Marroquín, McGraw Hill, 7th Edition
Goodman & Gilman's The Pharmacological Basis of Therapeutics. McGraw Hill. 13th Edition Further bibliography will be suggested to students during the classes

4. LEARNING OBJECTIVES

Knowledge and understanding – The integrate course is finalized to the acquisition of the following knowledge and understanding:

- *Clinical presentation, basic physiology, key physical findings, differential diagnoses, diagnostic workup, medical and surgical management of the diseases and clinical conditions*
- *Appropriate use of diagnostic techniques, findings interpretation and integration into patient management*
- *Fundamental principles of pharmacology and drug use in different clinical scenarios*
- *Fundamental principles of medical and surgical patient management*
- *Basic clinical and surgical skills, by the participation in clinical activities in the medical and surgical wards and in the operating theatre*

Applying knowledge and understanding – Students will be instructed on how to master clinical reasoning to synthesize data toward a prioritized differential diagnosis, working diagnosis, and therapeutic plan.

Making judgements – The students will develop abilities on how to make judgments and take decisions when facing the integrated clinical care and management of patients in different clinical scenarios. The students will then develop the ability to strategize the approach to get to a conclusive diagnosis or to the choice of different therapeutic strategies.

Communication skills – The students will acquire the skills to illustrate clinical cases and to communicate care processes and clinical decisions. The students will also learn how to present and contextualize risks and benefits of the different diagnostic techniques and therapeutic approaches.

Learning skills – The students will start to understand how to consolidate and extend medical knowledge, balancing evidence from textbooks, articles as well as by using online platforms, programs and web-based applications.

5. prerequisites

Essential prerequisite is background knowledge of anatomy, biochemistry, microbiology, physiology and pathophysiology, with particular regard to endocrine, gastrointestinal and circulatory systems and to blood cells.

6. TEACHING METHODS

The course will consist of traditional classroom lectures, case-based learning, interactive learning, E-learning and self-study along with autonomous and tutor-guided professional training in the

diverse clinical units.

Knowledge and understanding – During classroom presentation of clinical case will help students to understand the diseases and the clinical reasoning basing on updated evidences and integrated approaches. Professional training will allow student to participate in clinical activities in the medical and surgical wards and in the operating theatre with the primary aim to acquire basic clinical skills

Applying knowledge and understanding – Either in class but even more specifically during the professional training, the students will be introduced to real clinical scenario and invited to apply acquired knowledge to clinical practice.

Making judgements – Either in class but even more specifically during the professional training, the students will be asked to start to participate in the clinical decision making at every step in the diagnostic and therapeutic management of the most common clinical scenarios.

Communication skills – The students will be stimulated to discuss real clinical cases using the most appropriate scientific language.

Learning skills – Beyond the classroom teaching and the professional training, the students will be stimulated to take any opportunity for a more in-depth and systematic study of any of the relevant didactic content

7. OTHER INFORMATIONS

In addition to formal classes, teachers are available to meet students to answer questions related to Course topic and to furnish further teaching materials.

8. METHODS FOR VERIFYING LEARNING AND FOR EVALUATION

The final exam will consist of a multiple-choice questions evaluation (test items) based on topics of all teaching modules. Multiple choice will be preferably based on clinical scenarios. Items to be administered during the final test will address topic related to the content of each module and the number of items for each discipline will be proportional with the number of CFU/hours administered during the course. In order to pass the final exam, students must pass/reach a minimum score for all the module.

9. program

Internal Medicine I and II

- Swollen ankle and painful legs – case scenario to discuss about peripheral angiopathy and neuropathy in diabetes

- Fatigue and splenomegaly – case scenario to discuss about splenomegaly and hyperviscosity/polycythemia

- Confused about clear guidelines - case scenario to discuss about modern patients and EBM

- Deteriorating liver function after bariatric surgery – case scenario to discuss about complex biological systems

- Should I bypass or rejuvenate my duodenum? – case scenario to discuss about recent advancements for diabetes

- Hyperglycemia while in the hospital - case scenario to discuss about stress hyperglycemia

- Liver transplantation and coagulation

- Skin hyperpigmentation and ferritin increase – case scenario to discuss about hemochromatosis

- Catastrophic syndrome with hypercoagulation and hyperfibrinolysis – case scenario to discuss about DIC
- Pro-thrombotic mutations and pill prescription
- 55-year old woman with shock and labile blood pressure
- 45-year old woman with hypertension, fatigue and altered mental status
- 39-year old woman with palpitations, abdominal pain and vomiting
- 65-year old woman with weakness, dark urine and dysphagia
- 48-year old man with fever, chills, myalgia and rash
- 76-year old woman with nausea, diarrhea and acute kidney failure

Pharmacology

- Drugs used for the treatment of gastrointestinal diseases.
- Gastric antisecretory drugs: proton pump inhibitors; H receptor antagonists; prostaglandin analogs
- Antiemetic agents. Dopamine receptor antagonists; 5-HT receptor antagonists; NK receptor antagonists.
- Traditional Nonsteroidal anti-inflammatory drugs and COX-2 selective inhibitors. Aminosalicylates.
- Biological drugs: anti-TNF monoclonal antibodies; anti-integrin monoclonal antibodies; anti-IL-12 and -IL-23 monoclonal antibodies.
- Antiplatelet agents. Acetylsalicylic acid. P2Y₁₂ receptor antagonists. Phosphodiesterase inhibitors. Glycoprotein IIb/IIIa inhibitors.
- Pharmacotherapy of diabetes mellitus. Insulins. Sulfonylureas; meglitinides; GLP-1 receptor agonists, DPP-4 inhibitors. Biguanides. Thiazolidinediones; SGLT2 inhibitors

Occupational psychology

- Eating disorders (ED): classification and diagnostic issues
- Therapeutic projects for ED: psychopharmacology, rehabilitation and psychotherapy The pathway to bariatric surgery for obese patients
- The aggressive patient in the Emergency
- Department The risk of suicide in the patient with medical pathology Addictions

General surgery I and II

- Surgical patient evaluation: principles
- Surgery of the thyroid gland (surgical anatomy, hyperthyroidism, nodular goiter, thyroid cancer)
- Surgery of the parathyroid glands (surgical anatomy, primary, secondary and tertiary hyperparathyroidism)
- Surgery of the adrenal glands (surgical anatomy, Cushing's syndrome, primary hyperaldosteronism, pheochromocytoma, adrenal incidentaloma, adrenocortical carcinoma)
- Neuroendocrine tumors of the gastro-entero-pancreatic tract
- Surgery for obesity and related disorders (including diabetes)
- Presentation and management of the gastrointestinal bleeding

- *Presentation and management of the acute pancreatitis*
- *Presentation and management of chronic pancreatitis*
- *Presentation and management of bile duct and gallbladder stones*
- *Presentation and management of pancreatic tumors*
- *Presentation and management of esophageal disorders (surgical anatomy, functional benign disorders, esophageal tumors)*
- *Surgery of the stomach (surgical anatomy, gastric tumors)*
- *Surgery of the small intestine (surgical anatomy, tumors)*
- *Surgery of the colon and rectum (surgical anatomy, tumors of the colon and rectum)*
- *Disease of the anus (surgical anatomy, pelvic floor disorders, hemorrhoids, anal fissures and ulcers, ano-rectal fistulas and abscess, anal tumors)*
- *Hernia and other lesions of the abdominal wall*
- *Surgical innovation, mentoring and tutoring*

Infectious disease II

- *HIV infection and management of HIV+ patients*
- *Hepatitis*
- *Tuberculosis Meningoencephalitis*
- *Gastro-intestinal infections*
- *Intestinal parasitosis*
- *Infections of venous accesses*