

Degree in Nursing

Teaching: **MEDICINE AND SPECIALISED SURGERY**

SSD Course: MED/06, MED/09, MED/24, MED/18, MED/12, MED/17

Credits: 7

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Module: MEDICINE AND SPECIALISED SURGERY

SSD Course: Med/18 GENERAL SURGERY

Credits: 2

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Module: GASTROENTEROLOGY

SSD Course: MED/12

Credits: 1

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Module: ONCOLOGY

SSD Course: MED/06

Credits: 1

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Module: INFECTIOUS DISEASE

SSD Course: MED 17

Credits: 1

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Module: INTERNAL MEDICINE – SPECIALIST MEDICINE

SSD Course: MED 09

Credits: 1

Professor's Name: CELESTINO SARDU

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Module: UROLOGY

SD Course: MED / 24

Credits: 1

Professor's Name: Prof. Francesco Pinto

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PREREQUISITES

- Knowledge of the basic notions of human anatomy, human physiology and human pathology of the main diseases of international interest.
- Basic knowledge on the main pathologies of surgical interest
- innate and adaptive immune response, inflammatory and cancerous processes.

- Knowledge of the general principles of medical terminology.

LEARNING OBJECTIVES

Aim of the Teaching is:

- to provide students with knowledge on provide more in-depth knowledge on the main pathologies of surgical interest and in particular on organ transplants, ensuring that at the end of the course the student is able to describe the fundamental aspects of evaluation and preparation of the person to surgery and patient management also in the post-surgical period and in particular the post-transplantation period.
- provide students with knowledge on develop expertise and good knowledge in the field of gastroenterology nursing. In particular she/he will develop advanced skills for nursing intervention in various gastroenterology conditions.
- provide students with knowledge on the predisposing conditions and the clinical characteristics of the various neoplastic diseases in order to define a diagnostic procedure. The knowledge of prognostic and predictive factors linked to the characteristics related to the neoplasm and to the patient, will help to understand the strategy for the management of different tumors, taking into account the therapeutic options available in the various phases of the disease and their side effects in a risk/benefit assessment perspective in order to achieve useful skills for collaboration with other health figures in multidisciplinary professional teams.
- provide students with knowledge of main infectious diseases with specific regard to the basic principles of epidemiology, pathogenesis, clinical diagnosis and therapy, as well as primary and secondary prevention tools.
- provide students with knowledge on physiopathological and diagnostic bases of pathologies of greater interest and internal frequency are essential goals. In this context the teaching of nursing practice and of the best and optimal approach to the patient with multi-factoriality of risk and multi-pathologies will be decisive.
- main concepts of anatomy, physiology and pathophysiology of the male urinary and genital apparatus
- devices of common use in urological patients and describe the assistance given to the person carrying urostomies, urinary derivations, catheters and urological drainages.
- diagnostic reasoning and care planning, referring to scientific evidence, in relation to nursing assistance in the pre-intra-post-operative phases of the main urological interventions.

LEARNING OUTCOMES

(knowledge and understanding)

At the end of the course, the student will be able to:

- know on the management of the surgical patient and most of the diseases related to the surgical field.
- Recognize the main signs and symptoms related to the digestive system/apparatus;
- Knowing the main pathologies connected with the gastroenterological system and also understand and recognize the clinical and therapeutic problems;

- To be able to define the symptoms in situations of clinical urgency, which require the doctor's intervention;
- Knowing the main diagnostic procedures, either invasive or non-invasive, in gastroenterology;
- Enhance patient care as well as collaborate with the medical specialists by providing the diagnostic and therapeutic gastroenterological procedures.
- Know the classification of the main bacterial, viral and protozoan infections
- Describe the epidemiological principles of diseases, with special attention to the different geographical contexts
- Explain infection transmission mechanisms
- Understand the diagnostics for pathogens and immune response
- Know and describe the main therapeutic classes for prevention and treatment
- Describe isolation and infection control measures
- Know all the main phases of the pathophysiology of the major and most frequent diseases of Internal Medicine.
- Know the criteria of clinical diagnosis of the major and most frequent diseases of Internal Medicine.
- Know the criteria for instrumental diagnosis of the major and most frequent diseases of Internal Medicine.
- Know the criteria for laboratory diagnosis of the major and most frequent diseases of Internal Medicine.
- Know the pharmacological and therapeutic applications of the major and most frequent diseases of Internal Medicine.
- Know the combined nursing and medical management paths in the management of patients suffering from internal pathology.
- Know the main concepts of anatomy, physiology and pathophysiology of the male urinary and genital apparatus
- Knowing how to recognize the main male urological and genital pathologies, with particular attention to emergencies / emergencies
- Know the main urological surgical procedures and, consequently, have notions on pre-intra-post-operative nursing management
- Know the devices of common use in urological patients (urostomies, catheters, drainages etc)
- knowledge and understanding in this field of study that represents a post-secondary level and an aptitude to understand not only advanced textbooks, but also some cutting-edge themes in their own field of studies dealt with during the entire educational path, along with the more advanced research protocols.

Applying knowledge and understanding

At the end of the course the student will be able to:

- Describe the fundamental aspects of the pathological conditions envisaged by the program, in relation to the different clinical-assistance pathways.
- Make use of the acquired knowledge for further educational approaches in the gastroenterological field.
- Apply their knowledge and understanding in order to demonstrate a professional approach to their work, and possess adequate skills to both devise and support arguments and to solve problems in their field of study. In detail, students must be able to apply their

knowledge with a scientific and experimental method to the study of oncological pathologies and to the proper application to working procedures and experimental protocols in full autonomy and in collaboration with the medical staff.

- In-depth study of aspects related to his/her future professional activity.
- Use the knowledge acquired for the in-depth study of aspects relating to the specific field to which the student will dedicate himself in the professional activity.
- recognize the main urological pathologies and manage them from a nursing care point of view in the hospital environment (inpatient department and First Aid), long-term care and home care.

Communication skills

At the end of the course the student must be able to:

- *Communicate with the patient about his/her skills in the field of pathologies that require a surgical approach, with particular attention to patients with organ transplantation.*
- To use an accurate and proper scientific terminology;
- Education to support specialist and patient by using a specific scientific language and understand the health information privacy law.
- At the end of the course, students should have acquired an independent critical judgment ability, especially in the analytical and clinical capacity of the results, in order to be able to communicate information, ideas, problems and solutions to specialist and non-specialist interlocutors, in a perspective of interdisciplinary mediation.
- Know and correctly use the specific scientific terminology for infectious diseases;
- Have knowledge of the procedures to inform patients, contacts on transmission risks; as well as health authorities for mandatory notifications of infectious diseases.

Making judgements

At the end of the course the student must be able to:

- Assess the condition of a patient admitted to a general surgery or transplant department.
- Collect and interpret data deemed useful for integrating and applying knowledge to clinical reasoning related to the approach to the patient diagnosed with cancer, and its complications, formulating an independent judgment. This will make them independent even from the point of critical judgment on social, scientific or ethical issues related to them.
- Recognize the main urological pathologies and manage them, from a nursing point of view, in the hospital environment;
- To make evaluations and demonstrate competence related to the arguments studied.

COURSE SYLLABUS

1. *Digestive hemorrhages*
2. *Thyroid and parathyroid*
 - *goiters*
 - *benign and malignant thyroid tumors*
 - *hyperparathyroidism*

3. *Vascular accesses*

4. *Esophagus*

- *Achalasia, hiatal hernias*
- *gastroesophageal reflux disease*
- *benign and malignant neoplasms*

5. *Stomach and duodenum*

- *gastropathies of surgical interest*
- *gastric and duodenal ulcer*
- *gastric neoplasms*
- *pathology of the operated stomach*
- *hypertrophic pyloric stenosis*

6. *Small intestine, colon-rectum*

- *Meckel's diverticulum*
- *Crohn's disease*
- *intestinal ischemia*
- *neoplasms of the small intestine*
- *appendicitis*
- *ulcerative colitis*
- *diverticular disease of the colon*
- *polyps and polyposis*
- *colon and rectum cancer*
- *megacolon (Hirschsprung's disease)*

7. *Surgical treatment of obesity: main surgical techniques and post-operative assistance*

8. *Liver and biliary tract surgery*

9. *TRANSPLANT SURGERY: from donor to recipient of liver and kidney transplantation*

10. Review of anatomy, physiology and immunity of gastrointestinal system

11. **Critical approach to patients with symptoms and signs**

- abdominal pain
- dysphagia and other esophageal symptoms
- dyspepsia
- nausea and vomiting
- diarrhea
- intestinal gas
- fecal incontinence
- constipation
- gastrointestinal bleeding
- jaundice

12. **Esophagus**

- gastroesophageal reflux and its complications

- b. esophageal disorders caused by infection

13. Stomach and duodenum

- a. gastritis and peptic ulcer
- b. helicobacter pylori
- c. tumors of the stomach

14. Pancreas

- a. acute and chronic pancreatitis
- b. tumors of the pancreas

15. Biliary Tract

- a. gallstones disease
- b. sclerosing cholangitis and pyogenic cholangitis
- c. endoscopic and radiologic treatment of biliary disease (seminar)

16. Liver

- a. biochemical liver tests
- b. infections of the liver
- c. alcoholic liver disease
- d. non-alcoholic liver disease
- e. drug-induced liver disease
- f. cirrhosis and complications
- g. liver tumors
- h. liver transplantation
- i. liver biopsy and diagnosis of fibrosis (seminar)

17. Small and Large Intestine

- a. gut microbiota
- b. infectious diarrhea and intestinal protozoa
- c. celiac disease
- d. inflammatory bowel diseases
- e. tumors of large intestine
- f. gastrointestinal endoscopy procedure (seminar)

18. Psychosocial Factors in gastrointestinal disease

- a. Epidemiology of cancer and prevention
- b. Prognostic and predictive risk factors
- c. Carcinogenesis, cancer growth and proliferation, cancer immune tolerance
- d. Assessment and investigations of patients with cancer, including history, physical examination, laboratory and imaging techniques. Performance Status Evaluation (Karnofsky and ECOG scores)
- e. Tumour staging
- f. Principles of therapy of oncological diseases and clinical effects of therapeutic approaches used: Surgery, radiotherapy, cytotoxic approach (neoajuvant, adjuvant, metastatic and palliatives approaches), target therapy and immune anti-cancer agents. Drug resistance
- g. Management of medical emergencies and complications resulting from cancer or its treatment.

- i. General aspects on Infectious Diseases
- j. Infection and infectious disease
- k. The chain of transmission
- l. The body's defenses against infectious diseases
- m. Diagnostic procedure and guiding concepts of therapy, types of isolation
- n. Globalization and infectious diseases
- o. The Infectious syndromes (epidemiology, etiology, clinical, diagnostic and diagnostic and therapeutic aspects)
- p. Sepsis and endocarditis
- q. SIRS, sepsis, septic shock
- r. Acute respiratory syndrome
- s. Acute neurological syndrome
- t. Meningitis and infectious encephalitis
- u. Diarrheal syndrome
- v. Acute jaundice syndrome
- w. Febrile exanthematous syndromes
- x. Feverish syndromes returning from the tropics
- y. HIV infection / AIDS
- z. Viral hepatitis

19. Introduction to the pathophysiology of the main internist pathologies:

- a. acute and chronic heart failure, distirodism,
- b. acute and chronic respiratory failure, cardiac implantable devices. The pathophysiological aspects of each pathology will be treated with particular interest in clinical, instrumental and laboratory diagnostic pathways for each pathology. Finally, the pharmacological and interventional therapeutic process will be evaluated for each pathology treated, and the function of the nurse in the path of care of the affected patient.
- c. bases of anatomy of the urogenital apparatus and physiology of urination.
- d. Semeiotic bases of the urogenital system
- e. Symptoms and dysfunctions of the low urinary tract (retention and urinary incontinence)
- f. Complicated and uncomplicated urinary infections
- g. Urinary calculi, hydronephrosis.
- h. Main characteristics of tumors of the urogenital system
- i. Urological urgencies
- j. Bladder catheterization and other urinary drainages
- k. Urostomies: management and complications

COURSE STRUCTURE

The module of Medicine and Specialized Surgery is structured in 28 hours of frontal/interactive lessons.

The module of Gastroenterology is structured in 14 hours of face-to-face lectures that are divided in lessons of 2 hours based on academic timetable. The face-to-face lectures are theory lessons and seminars on the arguments discussed.

The module of Oncology is structured in frontal and interactive lessons with the aid of slides and continuous verification of knowledge, understanding and learning of the students.

The module of Infectious Disease is based on lectures with frontal teaching (14 hours), that includes theoretical lessons and supplementary seminars on the topics covered, working group, presentations of results of working groups.

The module of Internal Medicine is structured in 14 hours of lectures divided into lessons of 2 to 4 hours based on the academic calendar. Lectures will include theoretical lessons and supplementary seminars on the topics COVERED

The module of Urology includes 14 hours of lectures, divided into 2 or 4 hour lessons based on the academic calendar.

COURSE GRADE DETERMINATION

The exam of the Teaching of Medicine and Specialized Surgery is comprised of an exam of the modules of MEDICINE AND SPECIALIZED SURGERY, GASTROENTEROLOGY, ONCOLOGY, INFECTIOUS DISEASE, INTERNAL MEDICINE, UROLOGY, whose marks are an integral part of the Teaching.

The knowledge and ability to understand, the ability to apply knowledge and understanding, the autonomy of judgment and the communication skills of the student will weigh in the final score as follows 30%, 30%, 30% and 10%, respectively.

MEDICINE AND SPECIALIZED SURGERY EXAM: WRITTEN TEST: 28 multiple choice questions (only one correct answer out of a total of four for each question). Each candidate will have 35 minutes to complete the task. To be sufficient (minimum grade 18/30) the candidate must correctly answer a minimum of 17 questions (60%). Any candidate deemed sufficient for the written test can request an oral exam to improve the mark: in the event of failure to pass the oral exam it will be possible, if the committee deems it appropriate, to consider the candidate unsuitable despite passing the written test.

GASTROENTEROLOGY EXAM: The student learning will be assessed by 1 hour written exam consisting of 30 questions with multiple-choice answers. For each correct answer 1 point will be assigned. The student who reaches at least 18 correct answers will be able to access the oral exam. The oral exam includes a presentation by PowerPoint of a topic at will by the student; b) questions from the teacher on the topics developed in the program. The final vote out of thirty will be given by the vote of the written exam (maximum 10 points) plus the score acquired in the oral exam (maximum 20 points).

ONCOLOGY EXAM: Ongoing assessments and final evaluation of the integrated course will be carried out by means of written tests with multiple choice and/or open questions (30 in total) regarding the topics covered during the lessons. Marks will be expressed in thirtieths.

INFECTIOUS DISEASES EXAM: At the end of the course the students will be verified through a written exam consisting of 30 questions with multiple choice answers, for each correct answer a point will be assigned. The final score of the written test will be given by the sum of the partial scores assigned to each question answered correctly. To access the oral exam the student must reach a minimum of 18 points.

INTERNAL MEDICINE-SPECIALIST MEDICINE EXAM: The verification of the preparation of the students will take place with a written exam followed by an oral test. The written test will consist of 30 questions with multiple choice answers, for each correct answer a point will be assigned. The

final score of the written test will be given by the sum of the partial scores assigned to each question answered correctly. To access the oral exam the student must have totaled at least a minimum of 18 points.

UROLOGY EXAM: The verification of the preparation of the students includes a written test of admission to the oral exam, with 30 multiple choice questions and / or open questions. For each correct answer 1 point will be assigned. Students with an assessment equal to or greater than 18/30 will be admitted to the oral examination.

OPTIONAL ACTIVITIES

- Optional activities with frequency at the Department of Hepatobiliary Surgery and Transplantation of the Tor Vergata Hospital in Rome
- the student will mandatory take part in seminars that will be subject of the exam as indicated in the course syllabus.
- option to attend research internships, department internships and monographic courses.

The topics of the activities are not subject to examination. Acquisition of the hours allocated occurs only with a mandatory frequency of 100% and suitability is provided.

READING MATERIALS

1. COMPENDIO DI CHIRURGIA per le professioni sanitarie (Giuseppe Sica – Universitalia)
2. OXFORD HANDBOOK OF SURGICAL NURSING (Alison Smith)
3. Malattie dell'Apparato Digerente edizione 2019-2022 UNIGASTRO
4. Sleisenger & Fordtran's Gastrointestinal and Liver Disease Ed. Saunders
5. Oncology Nursing Society (ONS). **Core Curriculum for Oncology Nursing**, 6th Edition Ed.: Jeannine Brant. ISBN: 9780323595452
6. WHO-EU. Infections and infectious diseases A manual for nurses and midwives in the WHO European Region. WHO 2001 Disponibile gratis all'indirizzo:
http://www.euro.who.int/_data/assets/pdf_file/0013/102316/e79822.pdf
7. Scientific papers published by international journals on the topics covered will be made available.
8. Dennis L. Kasper, Anthony S. Fauci, Dan L. Longo. "Harrison. Principles of Internal Medicine. "Ambrosiana Publishing House. Distribution Zanichelli, 19th edition, 2016.
9. Lise M. Chirurgia per le professioni sanitarie. Padova: Ed.Piccin, Edizione IV, 2006, Volume 2
10. Urologia, Cosa sapere di, Bassi P, 2006, Cortina Editore, Padova
11. Manuale di Urologia e Andrologia, a cura del Collegio dei Professori di Urologia, 2010, Pacini Editore
12. The Nurse Practitioner in Urology 1st ed. 2016 Edition by Michelle Lajiness , Susanne Quallich, Springer Editor.