



Degree Programme in Medicine and Surgery (Roma)
Academic Year 2026/2027

INTEGRATED COURSE (I.C.): INTERNAL MEDICINE AND SURGICAL CLINIC

NUMBER OF CFU (ECTS credits): 13

SSD (Academic Discipline Code): MEDS-24/C, MEDS-01/A, MEDS-08/C, MEDS-09/A, MEDS-06/A, MEDS-05/A

COORDINATOR OF THE I.C.: [Prof. Cinzia Ciccacci](#)

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MODULE 1: General, clinical and pediatric nursing sciences

NUMBER OF CFU (ECTS credits): 1

SSD (Academic Discipline Code): MEDS-24/C

LECTURER: Prof. [Lucia Filomeno](#)

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MODULE 2: Medical Genetics

NUMBER OF CFU (ECTS credits): 2

SSD (Academic Discipline Code): MEDS-01/A

LECTURERS:

Prof. [Cinzia Ciccacci](#) (1 ECTS)

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Prof. [Andrea Latini](#) (1 ECTS)

e-mail: andrea.latini@unicamillus.org

MODULE 3: Applied Dietary Technical Sciences

NUMBER OF CFU (ECTS credits): 1

SSD (Academic Discipline Code): MEDS-08/C

LECTURER: Prof. [Raffaele Conte](#)

e-mail: raffaele.conte@unicamillus.org

MODULE 4: Medical Oncology

NUMBER OF CFU (ECTS credits): 2

SSD (Academic Discipline Code): MEDS-09/A

LECTURERS: Prof. [Giuseppe Di Lorenzo](#) (1 ECTS)

e-mail: giuseppe.dilorenzo@unicamillus.org

Prof. [Alberto Bongiovanni](#)

e-mail: alberto.bongiovanni@unicamillus.org

MODULE 5: General Surgery
NUMBER OF CFU (ECTS credits): 2
SSD (Academic Discipline Code): MEDS-06/A
LECTURER: Prof Michele Grieco
e-mail: michele.grieco@unicamillus.org

MODULE 6: Internal Medicine
NUMBER OF CFU (ECTS credits): 5
SSD (Academic Discipline Code): MEDS-05/A
LECTURERS: Prof. [Prof.ssa Veronica Ojetti](mailto:veronica.ojetti@unicamillus.org) (4ECTS)
e-mail: veronica.ojetti@unicamillus.org
Prof [Giuseppe Ferdinando Colloca](mailto:giuseppe.colloca@unicamillus.org) (1ECTS)
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PREREQUISITE COURSES

None required.

PREREQUISITES

For the integrated course in Internal Medicine and Surgical Clinic, previous knowledge and skills in the following subjects are required: human anatomy, histology and embryology, physiology and pathophysiology, general pathology, biology and genetics, biochemistry and molecular biology. Basic knowledge are required on the principles of biology and immuno-biology of tumors, of the cellular and molecular pathogenetic mechanisms that lead from neoplastic transformation and growth to invasion and metastasis.

LEARNING OBJECTIVES

The integrated course of Internal Medicine and surgical Clinic aims to provide students with multidisciplinary knowledge regarding the management of patients with complex, acute, and chronic conditions, to complete the professional profile as a future doctor. Students will learn about the clinical picture, prevention of complications, management of the diseases, hereditary risk, and precision therapies. Finally, combining applied dietary sciences and nursing allows for the planning of targeted nutritional interventions and the coordination of a personalized care plan.

EXPECTED LEARNING OUTCOMES

By the end of the course, students will know/be able to:

DD 1: Knowledge and understanding

General, clinical and pediatric nursing sciences

- Describe the patient assessment, the function and the right use of central venous vascular access, of tracheostomy, of bladder catheter, of nasogastric tube and oxygen therapy

Medical Genetics

- Understand and use the right genetic terminology
- Understand the different types of genetic testing
- Describe the aspects and characteristics of genetic counseling
- Understand the characteristics of stem cells and their potential applications
- Describe the characteristics of multifactorial inheritance
- Acquire notions relating to the transmission and diagnosis of genetic diseases: sudden cardiac death, Cystic fibrosis, Angelman Syndrome, Prader-Willy syndrome, Myotonic dystrophy, Huntington Disease,

Applied Dietary Technical Sciences

- Recognize and distinguish nutritional deficiency and excess,
- Identify the main conditions affecting nutritional status,
- Understand the criteria used to assess healthy and pathological subjects, from traditional anthropometric parameters to modern body composition assessment.

Medical Oncology

- Understand the epidemiology and risk factors of cancer
- Understand the differences between primary and secondary cancer prevention
- Understand the principles of histopathological classification and, if applicable, molecular classification of individual neoplastic diseases
- Understand the staging, surgical, radiation, and medical treatments for both the initial stage of the disease and metastatic disease

General Surgery

- Describe the clinical presentation, diagnostic work-up and treatment principles of the main diseases of the digestive tract (esophagus, stomach, small and large bowel, colon-rectum) and of the abdominal wall (hernias, eventrations)
- Describe the clinical presentation, diagnostic work-up and treatment principles of hepato-biliary-pancreatic diseases
- Describe the clinical presentation, diagnostic work-up and treatment principles of the main endocrine surgical diseases (thyroid, breast, bariatric surgery)
- Recognize the surgical emergencies arising within each of these areas (e.g. complicated diverticulitis, acute cholecystitis) and understand their diagnostic and therapeutic management

Internal Medicine

- Understand the main pathophysiological and therapeutic mechanisms of pathologies in the elderly
- Describe the mechanisms of multifactoriality
- Demonstrate knowledge of the therapeutic principles relating to the treatment of the main pathologies of the elderly

DD 2: Applying knowledge and understanding

General, clinical and pediatric nursing sciences

- Understand, explain and use the central vascular devices, the tracheostomy, the bladder catheter, the nasogastric tube and use the oxygen therapy.

Medical Genetics

- Examine pedigrees, clinical and molecular genetic data useful for genetic counseling and learn about the main types of genetic tests and their correct use.
- Understand and explain the characteristics, the transmission and diagnosis of different types of genetic diseases.

Applied Dietary Technical Sciences

- Apply nutritional assessment methods to clinical cases, interpreting body composition data to identify alterations in muscle and adipose tissue and their relevance to the individual's nutritional status.

Medical Oncology

- Apply oncological knowledge to the clinical assessment of patients, integrating medical history, physical examination, laboratory findings and imaging studies to contribute to the diagnosis and staging of the main neoplastic diseases.
- Apply knowledge of cancer treatment, understanding the main indications and approaches to systemic anticancer therapies and supportive care, and evaluating their principal benefits, adverse effects and clinical implications.

General Surgery

- Integrate surgical knowledge with internal medicine and the other disciplines acquired during the first five years of the course to manage patients with complex digestive, hepato-biliary-pancreatic or endocrine surgical conditions
- Apply appropriate diagnostic and therapeutic strategies, including in urgent/emergency presentations, to patients with digestive, HPB or endocrine surgical disease
- Select the appropriate diagnostic tests and treatment pathway (medical vs. surgical) based on the clinical presentation

Internal Medicine

- assess and manage patients with common and complex medical conditions
- Integrate clinical history, physical examination, laboratory findings and imaging results to identify diagnostic hypotheses and develop appropriate diagnostic and therapeutic strategies, taking into account the patient's clinical condition and individual characteristics.

DD3: Making judgements

General, clinical and pediatric nursing sciences

- Acquired the ability to synthesize and correlate different topics, and critically use the knowledge acquired on the techniques presented in classes (central venous devices, tracheostomy, bladder catheter, nasogastric tube, oxygen therapy).

Medical Genetics

- Acquired the ability to synthesize and correlate different topics, and critically use genetic tests for the molecular diagnosis of genetic diseases.

Applied Dietary Technical Sciences

- apply nutritional assessment methods to clinical cases, interpreting body composition data to identify alterations in muscle and adipose tissue and their relevance to the individual's nutritional status.

Medical Oncology

- possess the ability to 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.
- Demonstrate to be independent even from the point of critical judgment on social, scientific or ethical issues related to cancer. Describe with a scientific language clinical cases in which the typical characteristics of the elderly patient are present.

General Surgery

- Critically integrate surgical findings with data from internal medicine and other specialties to formulate an independent diagnostic and therapeutic judgement in patients with complex surgical presentations

- Evaluate the risks and benefits of surgical versus conservative management in digestive, HPB and endocrine surgical conditions, including their emergency presentations
- Prioritize clinical problems in patients with multiple, overlapping digestive, hepato-biliary or endocrine surgical conditions

Internal Medicine

- Interpret clinical information and formulate independent diagnostic and therapeutic decisions in patients with acute and chronic medical conditions
- Evaluate the benefits and risks of different diagnostic and treatment options, prioritise clinical problems
- Apply evidence-based reasoning while considering patient safety and individual needs.

DD4: Communication skills

General, clinical and pediatric nursing sciences

- Acquired the ability to synthesize and correlate different topics, and critically use the knowledge acquired on the techniques presented in classes (central venous devices, tracheostomy, bladder catheter, nasogastric tube, oxygen therapy).

Medical Genetics

- Acquired the ability to synthesize and correlate different topics and critically use genetic tests for the molecular diagnosis of genetic diseases.

Applied Dietary Technical Sciences

- apply nutritional assessment methods to clinical cases, interpreting body composition data to identify alterations in muscle and adipose tissue and their relevance to the individual's nutritional status.

Medical Oncology

- have learned appropriate scientific language for the purpose of correct and rigorous communication, describing the necessary diagnostic steps in oncology and the main therapeutic opportunities, using correct terminology

General Surgery

- Describe, using correct surgical and scientific terminology, the clinical case, diagnostic reasoning and therapeutic plan of a patient with a digestive, HPB or endocrine surgical condition

Internal Medicine

- Describe with a scientific language clinical case in which the typical characteristics of the elderly patient are present.

DD5: Learning skills

- At the end of the course, the student will have acquired skills and appropriate learning methods for deepening and enhancing their competencies in the field of internal medicine, surgical clinic, medical oncology, medical genetics, dietary and nursing sciences, including consultation of scientific literature.

SYLLABUS

Syllabus General, clinical and pediatric nursing sciences

- Nursing Management of Vascular Access Devices: Principles of vascular access management Central Venous Catheters (CVCs), Peripherally Inserted Central Catheters (PICCs), Totally Implantable Venous Access Devices (Port-a-Cath), Assessment, maintenance, dressing, flushing, and prevention of catheter-related complications and infections
- Nursing Management of Tracheostomy: Tracheostomy assessment and routine care, Airway management and secretion clearance, Tracheal suctioning, Prevention and early recognition of tracheostomy-related complications, Patient safety and education
- Urinary Catheterization and Catheter Care: Indications and principles of urinary catheterization, Insertion and removal of indwelling urinary catheters, Catheter maintenance and monitoring, Prevention of catheter-associated urinary tract infections (CAUTIs), Patient education and management of complications
- Nasogastric Tube Management: Indications and contraindications for nasogastric tube placement; Nasogastric tube insertion and removal; Verification of correct tube placement, Management of enteral feeding and medication administration, Prevention and recognition of complications
- Oxygen Therapy and Respiratory Care: Principles and indications of oxygen therapy, Assessment and monitoring of oxygenation, Oxygen delivery devices and appropriate device selection, Safe administration and titration of oxygen therapy, Recognition and prevention of oxygen therapy-related complications

Syllabus Medical Genetics:

- Genetic counseling
- Genetic testing, techniques used, and prenatal diagnosis
- Stem cells and gene therapy
- Family history of sudden cardiac death and related conditions
- Multifactorial inheritance and personalized medicine: complex diseases, study approaches and risk profiles. Pharmacogenetics
- Atypical mechanisms of inheritance: diseases caused by genomic imprinting defects: Angelman syndrome and Prader-Willi syndrome. Beckwith-Wiedemann syndrome
- Dynamic mutation diseases: Microsatellites and expansion mechanisms. Classification of dynamic mutation pathologies. Myotonic dystrophy, Huntington's disease, Fragile-X syndrome
- Cystic Fibrosis and Pathologies related to the CFTR gene. Clinical aspects, genotype-phenotype correlation
- Genetic Oncology: Susceptibility genes to hereditary forms and Genetic Tests

Syllabus Applied Dietary Technical Sciences

- Evaluation of nutritional status
- Body composition assessment: evaluation of muscle mass, adipose tissue and fat-free mass.
- Assessment methods: anthropometric and clinical parameters, including BMI and body weight, with of their applications and limitations.
- Advanced assessment techniques: instrumental and analytical approaches, such as NMR-based methods and DEXA.

Syllabus Medical Oncology:

- Biological Bases of Solid Tumors
- Clinical Approach to the Oncology Patient; Clinical and Pathological Staging. The Concept of Prognosis
- Principles of Neoplasm Therapy: Chemotherapy, Targeted Therapy, and Immunotherapy • Main Toxicities of Oncological Treatments
- Oncological Emergencies
- Methodology of Clinical Studies

- Breast Cancer, Histopathological Classification, Staging, Adjuvant and Neoadjuvant Chemotherapy, Hormonal Treatment;
- Breast Cancer, Treatment of Metastatic Disease;
- Lung Tumors, Epidemiology, Diagnostic Framework, and Treatment
- Bladder Cancer, Epidemiology, Incidence and Mortality, Risk Factors, Initial Signs and Symptoms, Histology, Staging, and Treatment;
- Kidney Cancer, Epidemiology, Incidence and Mortality, Risk Factors, Initial Signs and Symptoms, Histology, Staging, and Treatment;
- Malignant Melanoma, Diagnosis, Staging, and Treatment;
- Colorectal Carcinoma, Epidemiology, Surgical Treatment, Adjuvant Treatment, and Treatment of the Metastatic Phase;
- Prostate Cancer, Epidemiology, Diagnosis, Surgical, Radiotherapeutic, and Medical Treatment
- Testicular Neoplasia, Epidemiology, Diagnosis, Surgical, Radiotherapeutic, and Medical Treatment

Syllabus: General Surgery

- Abdominal Wall Pathology: Inguinal, Femoral, Umbilical and Incisional Hernias, Surgical Indications and Techniques
- Esophageal and Gastric Surgery: GERD and Hiatal Hernia, Achalasia, Peptic Ulcer Disease and its Surgical Complications, Gastric Cancer
- Small Bowel Surgery: Mechanical Bowel Obstruction, Mesenteric Ischemia, Surgical Management of Crohn's Disease
- Colorectal Surgery: Diverticular Disease, Acute and Complicated Diverticulitis, Colorectal Cancer, Ischemic and Infective Colitis, Surgical Management of Inflammatory Bowel Disease
- Acute Appendicitis, Diagnosis and Surgical Management
- Stoma construction and care
- Gallstone Disease and its Complications: Acute Cholecystitis, Choledocholithiasis, Acute Cholangitis
- Acute and Chronic Pancreatitis, Surgical Indications and Complications
- Pancreatic Neoplasms, Diagnosis, Staging and Surgical Treatment
- Primary and Secondary Liver Tumors, Diagnosis and Surgical Treatment
- Thyroid Nodules and Thyroid Cancer, Diagnostic Work-up and Surgical Indications
- Breast Disease, Benign and Malignant, Surgical Management
- Bariatric Surgery, Indications and Principal Surgical Techniques for the Treatment of Obesity
- Approach to the Acute Abdomen: Clinical Assessment and Differential Diagnosis, Diagnostic Work-up (Laboratory and Imaging), Criteria for Surgical versus Medical Management, Integration of Findings from Digestive, HPB and Endocrine Surgical Emergencies
- Perioperative Surgical Care: Preoperative Risk Assessment and Optimization in Patients with Comorbidities, Antibiotic and Venous Thromboembolism Prophylaxis, Recognition and Management of Postoperative Complications (Surgical Site Infection, Anastomotic Leak, Postoperative Fever)
- Nutrition in the Surgical Patient: Preoperative Nutritional Assessment and Optimization, Enteral and Parenteral Nutrition Support after Major Digestive Surgery, Principles of Early Postoperative Refeeding and Enhanced Recovery

Syllabus: Internal Medicine

- Cardiovascular pathologies (heart failure with normal or low ejection fraction, angina)
- Respiratory diseases (COPD – pneumonia)
- Gastro-enteric pathologies (upper and lower GI bleeding, pancreatitis, cholangitis, acute diverticulitis, ischemic colitis, infective colitis and Clostridium difficile)
- Inflammatory bowel disease
- Hypertension
- Stroke
- Liver cirrhosis

- Dysmetabolic (obesity and metabolic syndrome)
- Renal failure
- Abdominal pain
- Anemia
- Aging: demographic aspects in Italy, Europe, and the world
- Principles of biology and physiology of aging
- Evidence-based medicine and geriatric medicine as a complex medicine
- Chronic diseases, multiple pathologies, and disability
- The concept of active life expectancy
- Geriatric syndromes
- Frailty
- Multidimensional geriatric assessment
- Brain aging, cognitive disorders in the elderly
- Sarcopenia
- Osteoporosis

COURSE STRUCTURE

The course consists of 130 hours of classroom-based teaching, divided in 10 hours each of General, clinical and pediatric nursing sciences and Applied Dietary Technical Sciences, 20 hours each of Medical Genetics , Medical oncology, and General Surgery , 50 hours of internal Medicine .

The professors use educational tools such as organized presentations in PowerPoint files with explanatory diagrams, illustrations, and images to describe the module contents. Videos and animations will be used for the integration of the processes discussed in class. Interactive lessons are scheduled. Simulations are planned for the Nursing Sciences module The lessons will be conducted in English. Attendance is mandatory

COURSE GRADE DETERMINATION

The exam consists of a written test and an oral examination. To be admitted to the oral examination, students must obtain a minimum score of 18/30 on the written test. The final grade will be based on a weighted average of the grades obtained in the written and oral exam.

The exams will be assessed according to the following criteria:

Fail	Significant gaps and/or inaccuracies in knowledge and understanding of the topics; limited analytical and synthesis skills; argumentation absent or frequently incorrect.
18–20	Barely sufficient knowledge and understanding of the topics, with possible imperfections; sufficient analytical, synthesis, and judgement skills.
21–23	Routine knowledge of the topics; correct analytical and synthesis skills with coherent logical argumentation.
24–26	Fair knowledge and understanding of the topics; good analytical and synthesis skills; rigorously expressed argumentation.
27–29	Complete knowledge of the topics; considerable analytical and synthesis skills; good independent judgement.
30–30L	Excellent level of knowledge and understanding. Considerable analytical, synthesis, and independent judgement skills. Original argumentation expressed with full command of specialized terminology.

OPTIONAL ACTIVITIES

None

READING MATERIALS

Lecture notes and teaching materials provided by the lecturer.
Selected scientific articles and clinical guidelines provided during the course.

General, clinical and pediatric nursing sciences:

Nursing science "Smeltzer, S. C., Bare, B. G., Hinkle, J. L., & Cheever, K. H. (2010). Brunner Suddarth: infermieristica medico chirurgica 6e—Volume 1 and 2. Ambrosiana. Retrieved from https://universita.zanichelli.it/brunner6e_v1

Medical Genetics:

-Medical Genetics by Jorde et al. Elsevier Edition. Pdf of the lessons and scientific articles will be provided by the Teacher.

Applied Dietary Technical Sciences

-Manual of Dietetic Practice, 7th Edition, Mary Hickson (Editor), Kate Maslin (Editor), Linda Wedlake (Editor), Duane Mellor (Editor), Adrian Brown (Editor)

Medical Oncology:

-National and International guidelines released from AIOM/ESMO/ASCO Societies DeVita, Hellman, and Rosenberg's Cancer:
-Principles & Practice of Oncology. Ed: Lippincott Williams and Wilkins. 12th Edition 2022 ISBN: 978-1975184742 John E. Niederhuber.
-Abeloff's Clinical Oncology. Ed Elsevier. 6th Edition ISBN: 978-0323476744/

General Surgery:

- Sabiston Textbook of Surgery. 22 edition. 2025

Internal Medicine:

-HARRISON 's Principles of Internal Medicine 21th edition (1 st and 2nd volume)