

MEDICINE

Coordinator of the course: Prof. Ana LLEO  
 Year/semester: second years/first semester  
 ECTS: 9

INTEGRATED COURSE	MODULE	SSD	PROFESSOR (Milan office)	ECTS	HOURS
Medicine	Internal medicine	MED/09	Leo Ana* Brunetta Enrico	4	60
	Clinical and Paediatric General Nursing Sciences	MED/45	Mandrini Sonia	3	45
	Clinical biochemistry and clinical molecular biology	BIO/12	Monari Marta Noemi	1	15
	Diagnostic imaging and radiotherapy	MED/36	Chiti Arturo Martina Sollini Ciro Franzese	1	15

**COURSE OBJECTIVES:**

The course aims to provide the student with the necessary knowledge to:

- describe the assessment approach used for evaluating the typical signs and symptoms of the main diseases of the cardiovascular, respiratory, renal and urinary, metabolic and gastrointestinal systems using the ABCDE approach.
- interpret the data collected and identify the main health issues and/or risks of the person suffering from cardiovascular, respiratory, renal and urinary, metabolic, gastrointestinal diseases using the ABCDE approach.
- define expected outcomes correlated and/or possibly correlated to identified disease-specific health issues and/or risks
- be able to choose and describe evidence-based treatment and preventive nursing interventions according to the characteristics of the person, the expected outcomes, the available resources
- know the biological principles and main applications of diagnostic imaging and radiotherapy methods. Recognise the possible risks to patients and

**MODULE: MEDICINE MED/09**

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**SUGGESTED READING:**

- Brunner Suddarth. "Infermieristica medico-chirurgica" di Janice L. Hinkle, Kerry H. Cheever.
- teaching material (slides)

**CONTENT:**

**1. INTERNAL MEDICINE AND SEMIOTICS**

- understand the importance of anamnesis, physical examination and the clinical methodology essential in the approach to the patient.

**2. CARDIOVASCULAR DISEASES**

- BASIC ELECTROCARDIOGRAPHY: Principles of electrocardiography, Interpretation of an ECG.
- HEART FAILURE
  - pathophysiology of the cardiovascular system,
  - the mechanisms underlying heart failure,
  - clinical presentation
  - basic principles of therapy.
  - acute pulmonary oedema
- VALVULOPATHIES
  - pathophysiology of the cardiovascular system,
  - mechanisms underlying major heart valve disease
  - clinical presentation
- ACUTE CORONARY SYNDROME
  - pathophysiological mechanisms underlying ischaemic disease
  - recognise possible clinical presentations
  - understand the diagnostic and therapeutic pathway
  - management of patient
- MYOCARDITIS, ENDOCARDITIS AND PERICARDITIS
  - pathophysiology of myocarditis/endocarditis/pericarditis
  - know the possible clinical presentations
  - key diagnostic and therapeutic pathways.
- ARRHYTHMIA
  - main cardiac arrhythmias: atrial fibrillation, ventricular tachycardia
  - clinical presentation
  - related electrocardiographic alterations.
- HYPERTENSION
  - criteria for the diagnosis of hypertension and its classification;
  - main causes of high blood pressure and their frequency;
  - effects of hypertension on organs and tests useful to demonstrate complications;

**2. KIDNEY DISEASES**

**- ACUTE KIDNEY FAILURE**

- pathophysiology of the urinary apparatus.

- Evaluation and revaluation
- Care at home

## 2. CLINICAL CARE MANAGEMENT OF PATIENTS WITH KIDNEY DISEASE

- Assessment of patient with kidney disease, nephrotic syndrome, urinary tract infections
- Care objectives
- Treatment of acute and chronic complications (dialysis)
- Expected outcomes
- Care interventions to activate self-care behaviours (rehabilitation programme, facilitating adherence to treatment, factors that may hinder self-care behaviours)
- Evaluation and revaluation
- Care at home (user and caregiver needs).

## 3. CLINICAL CARE MANAGEMENT OF PATIENTS WITH DISEASES OF THE GASTROINTESTINAL SYSTEM

- Assessment of the patient with hiatal hernia, peptic ulcer, diverticula, pancreatitis, inflammatory bowel disease (Crohn's disease, ulcerative colitis)
- Care objectives
- Treatment of acute and chronic complications
- Expected outcomes
- Care interventions to activate self-care behaviours
- Evaluation and revaluation
- Care at home (user and caregiver needs).

**MODULE: CLINICAL BIOCHEMISTRY AND CLINICAL MOLECULAR BIOLOGY BIO/12**

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**SUGGESTED READING:** Material provided by the professor

**LEARNING OBJECTIVES:** understand the main laboratory tests useful in clinical practice.

**CONTENT**

1. **VENOUS SAMPLING**
  - Venous sampling what is needed for pre-analysis to guarantee results
  - understand the different types of sampling test tubes and how to choose them based on their characteristics
  - explain the main pre-analytical problems that may interfere with subsequent laboratory analysis
  - how to choose the tube type in relation to the test, how to ensure correct pre-analysis
2. **INFLAMMATION**
  - understand the main mechanisms involved in the acute and chronic inflammatory process
  - which laboratory tests can help understand the inflammatory process
3. **BLOOD AND HAEMATOPOIETIC ORGANS**
  - learn how to distinguish the main diseases related to white blood cells and red blood cells
  - relate the interpretation of laboratory results to clinical practice in order to assess the patient.
4. **MAIN COAGULATION TESTS**
  - understand the coagulation cascade and the tests available to study problems related to haemostasis and thrombotic risk
  - know the molecular events behind clot formation and the fibrinolytic system
  - understand the basics of the classification of haemostasis disorders, laboratory tests for patient assessment
5. **THE HEART**
  - laboratory tests that can be used in the evaluation of the myocardium
  - laboratory tests for the evaluation of myocardial ischaemia
  - tests for monitoring congestive heart failure
6. **THE RESPIRATORY SYSTEM**
  - the role of gases in the assessment of the patient with pulmonary disease
  - analysis of pleural effusion
  - the significance of bronchoalveolar lavage
  - tests that can be used to assess foetal lung maturity
  - venous and arterial blood gas
7. **THE GASTROINTESTINAL TRACT AND AUTOIMMUNE DISEASES**
  - laboratory tests for assessing patients with gastrointestinal disorders