Diagnostic, therapeutic and care processes (6 ECTS)

- **Clinical pharmacology (3 ECTS)**

General principles of pharmacology: Definition of pharmacologically active compound (active principle), objective assessment of risk / benefit ratio, therapeutic efficacy and toxicity of a molecule; The role of the nurse in pre-registration trials and in Phase IV post-marketing; branded, not-branded (generic), over the counter and diagnostic drugs. Concept of bioequivalence; main pharmaceutical and galenic forms;

Presentation of a leaflet, drug indications, relative and absolute contraindications. Routes of drug administration; side effects and adverse events as a cause of hospitalization; definition of: allergy, idiosyncrasy, tolerance, physical and psychic dependence, mutagenicity and teratogenicity in respect with drug therapy.

Main concepts of drug pharmacokinetics: mechanisms of absorption; bioavailability: topic and systemic therapies or for diagnostic purposes. Drug-binding to plasma proteins: plasma half-life and dose rate.

Distribution (and re-distribution) of drugs in biological fluids in the prediction of the duration of drug effect. Drug metabolism, induction and inhibition of drug metabolism: effect of dietary components; influence of genetic polymorphisms. Bioactivation of pro-drugs; clearance.


For each class of drugs the student should know and recognize side effects, the route of administration, the main dietary and drug-drug interactions.

- Main drugs used for treating depression, anxiety-based syndromes (adherence to therapy) and neurodegenerative disorders. Therapy of pain according to the OMS classification (opioids, NSAIDs and adjuvants); Main antiemetic drugs; Drug treatment of major respiratory diseases (asthma and COPD); short- and long-acting bronchodilators and anti-inflammatory (topical and systemic steroids), xanthines, mucolytics. Issues related to the use of pulmonary delivery devices for topic use. Drugs for cough relief.

- The therapy for reduction of cardiovascular risk factors: antihypertensive (main active principles). Drugs used in pregnancy; antidiabetics (main drugs for the management of type 1, 2, and gestational diabetic patients); treatment of micro and macrovascular complications. Anti hyper-uricemic; anti-dislipidemic (secondary prevention of cardiovascular events in risk patients). Indications and main gaols of the antiplatelet and anticoagulant therapy (aspirin and anticoagulants). Role of the nurse in the management of the patient treated with anticoagulants. Drugs of the ischemic cardiomyopathies: drugs for the management of the acute attack (nitroglycerine as reference compound) and for the secondary prevention. Heart and renal failure: ACEi, sartans, diuretics and positive inotropic (digitalis and not digitalis) drugs. Main drugs used as anti-arrhythmic.

Treatment of gastrointestinal disorders: antiaciids and prokinetics, laxatives and anti-diarrheal: main drug-drug and drug-dietary component interactions. Drugs used for the hyper-secretory syndromes and for eradication of Helicobacter Pylory;--Therapy of acute and chronic inflammatory diseases:
main representative of non-steroidal and steroidal classes of drugs; Main regimens of treatment of hormonal therapy for contraception and osteoporosis;


• Food science and nutrition (1 ECTS)


• Radiology and radioprotection (1 ECTS)


• Nursing applied to diagnostic, therapeutic and care processes (1 ECTS)

Definitions and aims of professional processes, care pathways, care figures and diagnostic-therapeutic pathways. Management according to processes: advantages and methods of valuation. Development and representation of care pathways:
  - diagrams of flow
  - matrix of responsibilities
  - phases of care pathway development
  - choice of Health Problems
  - forming job team
  - identifying appropriate professional interventions and their indicators
- analysis of process
- description of care pathway
- criteria of admission, discharge and control of process
- valuation of application and results of care pathway

Illustrations of PDTA applied to Health Priority Problems concerning the care of patient and his/her family in order to ensure the appropriate realization of diagnostic procedures, pharmacological treatments and diet indications.
Clinical nursing in medicine (9 ECTS)

- **Internal medicine (4 ECTS)**


**Disorders of the Cardiovascular system**


**Disorders of the respiratory system.**


**Disorders of the gastrointestinal system.**


**Disorders of the endocrine system.**


**Disorders of the kidney and urinary tract.**

- **Applied hygiene (2 ECTS)**

  Aetiology, epidemiology and general/specific prevention of tetanus, diphtheria, pertussis, hepatitis A, B, C (topic integrated with the infectious diseases module), measles, mumps, rubella, varicella, poliomyelitis, tuberculosis (topic integrated with the infectious diseases module), influenza (topic integrated with the infectious diseases module), diseases due to the Human Papilloma Virus (HPV), invasive bacterial diseases and meningitides (topic integrated with the infectious diseases module), malaria, elements of epidemiology and prevention of hospital-acquired infections (topic integrated with the infectious diseases module), food hygiene, food-borne infections and modes of preservation of foods, generalities on aetiological factors, epidemiology and prevention of the main cardio-vascular and oncologic diseases.

- **Infectious diseases (1 ECTS)**

  Infectious diseases are the only communicable diseases. A student nurse must know the major diseases most frequently encounter in their profession and in particular diseases that are an occupational risk such as hepatitis virus, HIV or tuberculosis.

  During the course will be studied the clinical, epidemiological, and especially the mode of transmission and therefore prevention of infectious diseases.

  Nosocomial infections (the leading cause of death for patients hospitalized) are discussed with the role of all health personnel in transmission and prevention.

- **Clinical nursing in medicine (2 ECTS)**

  **CARDIOVASCULAR PROBLEMS**
  
  **The context of care**
  The multi-professional team in cardiology: responsibility and competence of the nurse.
  **The problems seen with cardiac**
  Analysis of the main physical problems, psychological and social.
  The assessment of functional status: analysis of the main stairs in the literature to support nurse
  **Diagnostic and therapeutic services: acquisition and development of intellectual abilities**
  Drug therapy in cardiology: responsibility and competence of the nurse
  The risk in clinical cardiology: what strategies
  Responsibility for nursing competence:
  ✓ standard 12-lead ECG
  ✓ second Holter ECG dynamic
  ✓ holter blood pressure and cardiac Doppler ultrasound
  ✓ ecotransesofageo
  ✓ VCG and PTCA
Coronary artery disease in the acute and post acute:
Ischemic heart disease: analysis of clinical pathway-care: nursing skills and responsibilities.
The assumption of the patient: nursing assessment Nursing Outcomes Classification NOC results.
Analysis of nursing diagnoses more commonly found
The main NIC Nursing Intervention Classification.
The therapeutic education for the prevention of complications / recurrence.

Heart failure:
Heart failure: The network of social and health services: the chronic model care, medicine initiative
Analysis of clinical pathway-care: nursing skills and responsibilities.
The assumption of the patient: nursing assessment Nursing Outcomes Classification NOC results.
Analysis of nursing diagnoses more commonly found
The main NIC Nursing Intervention Classification.
The therapeutic education for the prevention of complications / recurrence.

Hypertension:
Hypertension: WHO and hypertension: analysis of the key recommendations.
The assumption of the patient: nursing assessment Nursing Outcomes Classification NOC results.
The therapeutic education for the prevention of complications / recurrence.

Acute pulmonary edema:
EPA: taking charge of the assisted nursing assessment Nursing Outcomes Classification NOC results.
Nursing diagnoses and collaborative problems more common.
The main NIC Nursing Intervention Classification

RESPIRATORY PROBLEMS
The multi-professional team in pneumology: responsibility and competence of the nurse.
The assessment of functional status: analysis of the main stairs in the literature to support nurse

Diagnostic and therapeutic services: acquisition and development of intellectual abilities
Drug therapy in pulmonary medicine: responsibilities and competences of the nurse
The risk of clinical pneumology: what strategies
Responsibility for nursing competence:
✓ O₂ therapy
✓ pulmonary function tests
✓ noninvasive ventilatory support BPAP CPAP
✓ Blood Gas (EGA)
✓ Thoracentesis
✓ Lung Steel

COPD and bronchial asthma:
Analysis of clinical pathway-care: nursing skills and responsibilities.
The assumption of the patient: assessment Nursing Outcomes Classification NOC results.
Analysis of nursing diagnoses more commonly found
The main NIC Nursing Intervention Classification
Support in the liberation of the airways
Management of intolerance to physical activity
management of anxiety
Prevention and treatment of nutritional deficiency risk
Therapeutic education for the prevention of complications and management of therapeutic regimen
Education for prevention and therapeutic management of asthma attack

Pneumonia:
The assumption of the patient: nursing assessment Nursing Outcomes Classification NOC results.
Analysis of nursing diagnoses more commonly found
The main NIC Nursing Intervention Classification
Prevention interventions in subjects at risk

**Pulmonary embolism:**
The assumption of the patient: nursing assessment Nursing Outcomes Classification NOC results.
Analysis of nursing diagnoses and collaborative problems more commonly found
The main NIC Nursing Intervention Classification
Prevention interventions in subjects at risk

**GASTROINTESTINAL PROBLEMS**
The multi-professional team in gastroenterology: responsibility and competence of the nurse.
The assisted with gastrointestinal problems
Analysis of the main physical problems, psychological and social.
The assessment of functional status: analysis of the main stairs in the literature to support nurse
Diagnostic and therapeutic services: acquisition and development of intellectual abilities
The risk of clinical gastroenterology: what strategies?
Responsibility for nursing competence:
paracentesis

**Liver cirrhosis:**
Analysis of clinical pathway-care: nursing skills and responsibilities.
The assumption of the patient: nursing assessment Nursing Outcomes Classification NOC results.
Analysis of nursing diagnoses more commonly found
The main Nursing Intervention Classification
The therapeutic education for the prevention of complications

**Inflammatory bowel disease:**
Analysis of clinical pathway-care: nursing skills and responsibilities.
The assumption of the patient: nursing assessment Nursing Outcomes Classification NOC results.
Analysis of nursing diagnoses more commonly found
The main Nursing Intervention Classification
The therapeutic education for the prevention of complications

**Acute pancreatitis and chronic pancreatitis:**
The assumption of the patient: nursing assessment Nursing Outcomes Classification NOC results.
The therapeutic education for the prevention of complications

**KIDNEY /ENDOCRINOLOGICAL PROBLEMS**
The multi-professional team in nephrology and endocrinology responsibilities and competences of the nurse.
The problems seen with nephrology and endocrinology
Analysis of the main physical problems, psychological and social.
The assessment of functional status: analysis of the main stairs in the literature to support nurse
Diagnostic and therapeutic services: acquisition and development of intellectual abilities
Drug therapy in nephrology and endocrinology: responsibility and competence of the nurse
insulin therapy]
The risk in clinical nephrology and endocrinology: what strategies
Responsibility for nursing competence:
hemodialysis
peritoneal dialysis
glucose monitoring
Management of microvascular complications

**Acute and chronic renal failure**
Analysis of clinical pathway-care: nursing skills and responsibilities.
The assumption of the patient: nursing assessment Nursing Outcomes Classification NOC results.
Analysis of nursing diagnoses more commonly found
The main Nursing Intervention Classification
The therapeutic education for the prevention of complications

**Diabetes mellitus type I and II:**
Analysis of clinical pathway-care: nursing skills and responsibilities.
The assumption of the patient: nursing assessment Nursing Outcomes Classification NOC results.
Analysis of nursing diagnoses more commonly found
The main Nursing Intervention Classification
The therapeutic education for the prevention of complications

**Hyper/hypo thyroidism:**
Analysis of clinical pathway-care: nursing skills and responsibilities.
The assumption of the patient: nursing assessment Nursing Outcomes Classification NOC results.
Analysis of nursing diagnoses more commonly found
The main Nursing Intervention Classification
The therapeutic education for the prevention of complications

**INFECTIONOUS PROBLEMS**
The multi-professional team responsibility and expertise in infectious disease nurse.
The problems seen with infectious
Analysis of the main physical problems, psychological and social.
The assessment of functional status: analysis of the main stairs in the literature to support nurse
Diagnostic and therapeutic services: acquisition and development of intellectual abilities
Drug therapy in infectious diseases: responsibility and competence of the nurse
The risk of clinical infectious diseases: what strategies
Responsibility for nursing competence:
  - liver biopsy
  - protective insulation
  - escretao levy for Koch's bacillus

**Acquired immunodeficiency syndrome**
Analysis of clinical pathway-care: nursing skills and responsibilities.
The assumption of the patient: nursing assessment Nursing Outcomes Classification NOC results.
Analysis of nursing diagnoses more commonly found
The main Nursing Intervention Classification
The therapeutic education for the prevention of complications

**Viral Epatitis:**
Analysis of clinical pathway-care: nursing skills and responsibilities.
The assumption of the patient: nursing assessment Nursing Outcomes Classification NOC results.
Analysis of nursing diagnoses more commonly found
The main Nursing Intervention Classification
The therapeutic education for the prevention of complications

**Tuberculosis:**
Analysis of clinical pathway-care: nursing skills and responsibilities.
The assumption of the patient: nursing assessment Nursing Outcomes Classification NOC results.
Analysis of nursing diagnoses more commonly found
The main Nursing Intervention Classification
The therapeutic education for the prevention of complications.
Clinical nursing in surgery (7 ECTS)

- Clinical nursing in surgery (2 ECTS)


Pre operative nursing care:
Pre operative nursing assessment: nutritional state, respiratory state, cardiovascular state, risk of infection, psychosocial factors spiritual and cultural beliefs.
Main nursing diagnoses and collaborative problems in the pre and post operative
Pre operative education: deep breathing, mobility, pain treatment, coping strategies
Bowel preparation, Skin preparation, Pre operative fasting.
Pre-anesthetic administration of drugs, antibiotic prophylaxis and antithrombotic. Person transfer to the operating sector.
Operating sector organization: background and path planning; Standard equipment of operating room; Operating room team
Skills of the nurse assigned to operating room and anesthetist attending and skills of the nurse assigned to surgical instrumentation
Environmental controls in order to maintain asepsis
Prevention of positioning injury during the surgery. Risk factors for chemical, physical, microclimatic, default devices, ionizing radiation, injury, burnout .
Personal protective equipment

Operative nursing care:
Operative nursing assessment
Clinical risk management in surgery: pre-operative, operative and post-operative check list
Targets of safety.
Anesthesia methods and nursing skills: local anesthesia, sedation, total anesthesia, epidural anesthesia, spinal anesthesia.
Management of pre-operative, operative and post-operative complications: nausea, vomit, hypoxia, anaphylaxis, hyperthermia.

Post-operative nursing care:
After operation ward acceptance
Surgical wound directions. Drainage thypes and directions
Pain: valuation scales and treatment

Nursing care plan to breast surgery subjected person:
Pre-hospitalization; Hospitalization;
Pre-operative, operative and post-operative care plan
Removal surgery and breast reconstructive surgery methods
Treatment of main post-operative complications like lymphedema. Treatment of surgery ipsilateral arm. Therapeutic education and follow up.

Nursing care plan to digestive surgery subjected person:
Major malignant, benign and inflammatory colon and rectum diseases
Pre-hospitalization.
Pre-operative, operative and post-operative care plan
Nursing diagnosis
Nursing treatment of main complications. Therapeutic education and follow up.
Nursing care plan to gastric and esophageal surgery subjected person:
Major malignant, benign and inflammatory stomach and esophagus diseases
Pre-operative, operative and post-operative care plan
Surgery and main complications
Early and late dumping syndrome.
Main surgery and nursing care for obesity
Malnutrition.

Care plan to chest surgery subjected person:
Lung abscess. Lung cancer
Pre-operative, operative and post-operative care plan
Chest drainage directions. Positioning

Care plan to endocrine surgery subjected person:
Pancreas
Thyroid and parathyroid
Adrenal
Pre-operative, operative and post-operative care plan
Nursing treatment of main post-operative complications

Care plan to orthopedic surgery subjected person:
Pre-operative, operative and post-operative care plan to person subjected to:
Hip prothesis knee prothesis Arthroplasty and Osteosynthesis
Amputation Trans-skeletal traction Cast and external fixators

Care plan to enterostomy subjected person:
Enterostomy types
Surgical directions
Complications. Ostomy and devices care
Post-operative administration and diet plan
Nursing diagnosis
Closure of stoma and intestinal recanalization

Pain:
“Hospital without pain” was created in 2001
Main targets of ”Hospital without pain”
Pain valuation scales and treatment

Hospital discharge:
Planning within 72 hours of discharge
Types of discharge. Definition of protected discharge. Definition of difficult discharge. Risks of an unplanned discharge.
Nursing in chronic care and disability (6 ECTS)

- **Geriatrics (2 ECTS)**

The biology of aging, including the main theories of aging, the study of longevity and the specific role of genes and environment.

The comprehensive assessment of elderly patients; definition of disability; hospital services and home care for the elderly.

The pharmacology of aging (pharmacokinetics and pharmacodynamics).

The aging of cardiovascular system and cardiovascular diseases: ischemic heart disease; heart failure; atrial fibrillation; hypertension. In particular, the course will address the specificity of symptoms, diagnosis and therapeutic approach to the elderly patient.

The cerebrovascular diseases and degenerative brain diseases: in particular ischemic and hemorrhagic stroke; dementia; delirium, depression, Parkinson’s disease; the course will address the specificity of symptoms, diagnosis and therapeutic approach to the elderly patient.

Immobilization and its complications in the elderly, with particular emphasis on pressure ulcers.

Malnutrition in the elderly.

Urinary incontinence: transient and persistent urinary incontinence.

- **Medical oncology (1 ECTS)**

Evidence based nursing (4 ECTS)

- **Medical statistics (1 ECTS)**


- **Research methodology in nursing (2 ECTS)**


- **Nursing in health care (1 ECTS)**

  Analysis of the Community / areas and tools for the analysis of the Community (health profiles - spatial profile, anthropological,profile psychological profile, access to services, etc.); concepts of “systems and network”;
- Interaction person-family-community (family as an open system in interaction with the environment, roles, social status, social support and individual well-being);
- Evidence-Based Prevention and health education (from the needs analysis to planning and evaluation of educational interventions); Design, implementation and evaluation of health education interventions aimed at the individual and the community;
- Research activities in the community context (fields, methods and tools for research in the community);
- The epidemiological investigation;
- The vaccination schedule, multi-ethnic issues.
Perinatal and pediatric nursing (4 ECTS)

- **Pediatrics (1 ECTS)**


- **Pediatric nursing (2 ECTS)**


- **Obstetric care (1 ECTS)**