

## CdS Medicine and Surgery

4th year (2<sup>nd</sup> semester)  
A.Y. 2026-27

	COD:	Scientific Field Systemic Pathology II	TUTOR - Docente	ECTS -CFU
		Modules		
	MED/12	Gastroenterology	L. Baiocchi	1
	MED/12	Gastroenterology	L. Biancone	1
<b>COORDINATOR-Coordinatore:</b>	MED/12	Gastroenterology	E. Calabrese	1
Emmanuele A. Jannini	MED/13	Endocrinology and Medical Sexology (ENDOSEX)	A. Sansone	1
	MED/24	Urology	S. Germani	1
	MED/13	Endocrinology and Medical Sexology (ENDOSEX)	E. A. Jannini	1
	MED/13	Endocrinology and Medical Sexology (ENDOSEX)	D. Lauro	1
	MED/14	Nephrology	S. Manca	1
	MED/14	Nephrology	A.P. Mitterhofer	1
	MED/18	General Surgery	T.M. Manzia	1
	MED/24	Urology	R. Miano	1
	MED/49	Applied technical dietary sciences	D. Della Morte Canosci	1
			TOT	12

### SPECIFIC AIMS :

EN:

To achieve a systematic knowledge of the most relevant diseases affecting the different systems, from the nosographic, etiological, pathophysiological and clinical point of view, in the context of a unified and global vision of human pathology. To acquire the ability to critically evaluate and correlate clinical symptoms, physical signs and functional abnormalities with anatomic-pathological lesions.

GENERAL OBJECTIVES:

- A) Knowledge of the nosographic framework and the clinical presentation
- B) Knowledge of the essential pathogenetic steps
- C) Knowledge of the natural history of the disease and major complications
- D) Ability to diagnose the individual pathological conditions
- E) Knowledge of the principles of pathophysiological and therapy
- F) Ability to provide first-level medical assistance
- G) Ability to perform common medications
- H) Ability to critically read a scientific paper and understand the basic principles to plan a clinical research protocol.

## OBIETTIVI FORMATIVI:

IT:

Raggiungere una conoscenza sistematica delle malattie più rilevanti che colpiscono i diversi sistemi, dal punto di vista nosografico, eziologico, fisiopatologico e clinico, nel contesto di una visione unificata e globale della patologia umana. Acquisire la capacità di valutare criticamente e correlare sintomi clinici, segni fisici e anomalie funzionali con lesioni anatomopatologiche.

OBIETTIVI GENERALI:

- A) Conoscenza del quadro nosografico e della presentazione clinica
- B) Conoscenza dei passaggi patogenetici essenziali
- C) Conoscenza della storia naturale della malattia e delle principali complicazioni
- D) Capacità di diagnosticare le singole condizioni patologiche
- E) Conoscenza dei principi della fisiopatologia e della terapia
- F) Capacità di fornire assistenza medica di primo livello
- G) Capacità di eseguire farmaci comuni
- H) Capacità di leggere criticamente un articolo scientifico e comprendere i principi di base per pianificare un protocollo di ricerca clinica.

## PROGRAM - PROGRAMMA

EN:

Pathophysiologic; clinical and etiological classification, the key pathogenetic steps, clinical presentations and complications of individual diseases. Understanding the diagnostic procedures of the following diseases: autoimmune and viral chronic hepatitis, alcohol-induced liver damage, non-alcoholic-fatty-liver disease (NAFLD), hemochromatosis, Wilson disease, liver cirrhosis, hepatocellular carcinoma (HCC), gallstone disease, acute and chronic cholestasis, acute and chronic pancreatitis, acid-related upper GI tract diseases, drug-induced gastric disease, functional diseases of the GI tract, diverticular disease, celiac disease and malabsorption syndromes, pre-neoplastic and neoplastic diseases of GI tract, and inflammatory bowel diseases.

Module/o Gastroenterology and Hepatology

IT:

Fisiopatologia; classificazione clinica ed eziologica, i passaggi patogenetici chiave, le presentazioni cliniche e le complicanze delle singole malattie. Comprendere le procedure diagnostiche delle seguenti malattie: epatite cronica autoimmune e virale, danni epatici indotti dall'alcol, malattia epatica grassa non alcolica (NAFLD), emocromatosi, malattia di Wilson, cirrosi epatica, carcinoma epatocellulare (HCC), malattia dei calcoli biliari, colestasi acuta e cronica, pancreatite acuta e cronica, malattie del tratto gastrointestinale superiore correlate agli acidi, malattia gastrica indotta da farmaci, malattie funzionali del tratto gastrointestinale, malattia diverticolare, celiachia e sindromi da malassorbimento, malattie preneoplastiche e neoplastiche del tratto gastrointestinale e malattie infiammatorie intestinali.

PROGRAM- PROGRAMMA

Module/o Endocrinology and Medical Sexology

EN:

In agreement with the Educational goals (G.U. No. 155 of July 9, 2007 - DM 16 March 2007) of the Courses in medicine and surgery - LM-41, at the end of the course to student shall have acquired: "the knowledge of the pathophysiological, clinical and psychological aspects of (...) sexuality and its dysfunctions in terms of medical sexology", and the ability to recognize and manage the major endocrine and metabolic diseases, identifying the conditions that need the professional specialist.

Biology of seduction and copulation. Sexual orientation, gender identity, abnormalities of sexual differentiations and gender incongruences. Gender endocrinology and the basis of gender medicine. Systems Sexology.

Female sexual dysfunction (HSDD, vaginismus, dyspareunia, anorgasmia, PGAD). Male sexual dysfunction (HSDD, erectile dysfunction, premature/delayed/retrograde ejaculation). Paraphilic disorders. Contraception and STD prevention. Hypogonadism, gonadal diseases, infertility, and endocrine and metabolic diseases in pregnancy.

Endocrinology of gender-specific medicine and gender-specific differences of endocrine and metabolic diseases.

Psychoneuroendocrinology, disorders of the hypothalamus and pituitary (stress, puberty, growth, lactation, etc). Thyroid pathology (hypo and hyperthyroidisms, goiter, thyroiditis, cancer). Neurohypophysis (diabetes insipidus, SIADH), calcitropic hormones and bone metabolism.

Adrenal diseases (Addison, Cushing, CAI). Autoimmune endocrine diseases, MEN, neuroendocrine tumors, endocrine hypertension.

Thinness, metabolic syndrome, and obesity. Hypoglycemic disorders, diabetes. Other metabolic disorders (dyslipidemias, gut, aminoacidic disorders).

IT:

In accordo con gli obiettivi educativi (G.U. n. 155 del 9 luglio 2007 - DM 16 marzo 2007) dei Corsi di medicina e chirurgia - LM-41, al termine del corso lo studente deve aver acquisito: "la conoscenza degli aspetti fisiopatologici, clinici e psicologici di (...) sessualità e sue disfunzioni in termini di sessologia medica", e la capacità di riconoscere e gestire le principali malattie endocrine e metaboliche, identificando le condizioni che necessitano dello specialista professionista.

Biologia della seduzione e della copulazione. Orientamento sessuale, identità di genere, anomalie delle differenziazioni sessuali e incongruenze di genere. Endocrinologia di genere e le basi della medicina di genere. Sessuologia dei sistemi.

Disfunzione sessuale femminile (HSDD, vaginismo, dispareunia, anorgasmia, PGAD). Disfunzione sessuale maschile (HSDD, disfunzione erettile, eiaculazione precoce/ritardata/retrograda). Disturbi parafilici. Contraccezione e prevenzione delle MST.

Ipogonadismo, malattie gonadali, infertilità e malattie endocrine e metaboliche in gravidanza.

Endocrinologia della medicina specifica di genere e differenze specifiche di genere nelle malattie endocrine e metaboliche.

Psiconeuroendocrinologia, disturbi dell'ipotalamo e dell'ipofisi (stress, pubertà, crescita, lattamento, ecc.). Patologia tiroidea (ipotiroidismo e ipertiroidismo, bozzo, tiroidite, cancro). Neuroipofisi (diabete insipido, SIADH), ormoni calciotropi e metabolismo osseo.

Malattie surrenali (Addison, Cushing, CAI). Malattie endocrine autoimmuni, MEN, tumori neuroendocrini, ipertensione endocrina.

Magrezza patologica, sindrome metabolica e obesità. Disturbi ipoglicemici, diabete. Altri disturbi metabolici (dislipidemie, disturbi intestinali, disturbi aminoacidici).

PROGRAM- PROGRAMMA

Module/o Urology

EN:

To reach specific knowledge of the pathophysiologic and the clinical pictures of the main urological diseases. To overview the most updated surgical and medical urological therapies. To learn how to approach the urological patients and perform basic outpatient procedures.

Anatomy of the genitourinary tract. Diagnosis and management of urinary tract infection and sexually transmitted diseases, including cystitis, epididymitis, prostatitis, and urethritis. Diagnosis and management of haematuria. Testicular torsion. PSA screening. BPH. Diagnosis/staging/management of prostate cancer. Diagnosis/staging/management of bladder and upper urinary tract cancer. Diagnosis/staging/management of testicular cancer. Diagnosis/staging/management of renal cancer. Urologic trauma. Phymosis and paraphimosis. Vesicoureteral reflux. Hypospadias. Undescended testis. Hydrocele. Male infertility. Varicocele. Diagnosis and management of urinary incontinence. Diagnosis and management of impotence.

Diagnosis and management of renal, ureteric, and bladder calculi. Clinical practice: Medical history taking in Urology. Physical examination in Urology, including DRE. Testicular examination. Insertion of urethral catheter. Carry out and interpret urine analysis. Interpretation of: plain radiograph of kidney; ureter and bladder; urinary flow rate; CT of abdomen and pelvis; ultrasonography of the kidney, ureters and bladder; semen analysis.

IT:

Raggiungere una conoscenza specifica delle immagini fisiopatologiche e cliniche delle principali malattie urologiche. Fornire una panoramica delle terapie chirurgiche e urologiche mediche più aggiornate. Imparare come avvicinarsi ai pazienti urologici e eseguire procedure ambulatoriali di base.

Anatomia del tratto genitourinario. Diagnosi e gestione di infezioni urinarie e malattie sessualmente trasmissibili, tra cui cistite, epididimite, prostatite e uretrite. Diagnosi e gestione dell'ematuria. Torsione testicolare. Screening PSA. IPB. Diagnosi/stadio/gestione del cancro alla prostata. Diagnosi/stadio/gestione del cancro della vescica e delle vie urinarie superiori. Diagnosi/stadio/gestione del tumore ai testicoli.

Diagnosi/stadio/gestione del cancro renale. Trauma urologico. Fimosi e parafimosi. Reflusso vesicoureterale. Ipospadias. Testicolo non disceso. Idrocele. Infertilità maschile. Varicocele. Diagnosi e gestione dell'incontinenza urinaria. Diagnosi e gestione dell'impotenza.

Diagnosi e gestione dei calcoli renali, ureterici e vescicali. Pratica clinica: Inserimento della storia medica in Urologia. Esame fisico in urologia, inclusa l'esplorazione digito-rettale. Esame testicolare. Inserimento del catetere uretrale. Esecuzione e interpretazione dell'analisi delle urine. Interpretazione di: radiografia semplice del rene; uretere e vescica; flusso urinario; TAC di addome e bacino; ecografia del rene, degli ureteri e della vescica; spermogramma.

PROGRAM- PROGRAMMA

EN:

The course provides fundamental knowledge of the main kidney functions and renal diseases affecting the glomerular, tubular, interstitial, and vascular compartments. It covers the physiology and pathophysiology of kidney function, including fluid, electrolyte, and acid–base balance, with particular attention to the nephron as an anatomic-functional unit and to the structure and function of the glomerular filtration barrier. Students will acquire competencies in the diagnosis, classification, and clinical evaluation of acute kidney injury (AKI) and chronic kidney disease (CKD), including the recognition of their causes and complications, including rhabdomyolysis and contrast-induced nephropathy. Renal biopsy will be addressed, including indications, complications, and the fundamental principles of morphological assessment through light microscopy (LM), immunofluorescence (IF), and electron microscopy (EM). The course also includes diabetic nephropathy and end-stage renal disease (ESRD), with a focus on clinical evaluation and indications for renal replacement therapies, including dialysis and kidney transplantation. The program also covers clinical semiology in nephrology in normal and pathological conditions, nephrological history taking, the concept of clearance, and the glomerular filtration rate (GFR) in terms of definition, estimation, and measurement. Laboratory findings will be discussed, including urinalysis, albuminuria, and the albumin-to-creatinine ratio (ACR), as well as imaging techniques such as renal ultrasonography and scintigraphy. The course includes urinary tract infections, nephritic and nephrotic syndromes, rapidly progressive glomerulonephritis (RPGN), primary and secondary glomerular diseases and their classification, acute and chronic tubulointerstitial nephropathies, vascular nephropathies, renovascular hypertension and ischemic nephropathy, and cystic kidney diseases, including autosomal polycystic kidney disease. Finally, the course introduces the principles of renal replacement therapies and the basic elements of therapy in major renal diseases, including ACE inhibitors, SGLT2 inhibitors, diuretics, the main antihypertensive drugs, immunosuppressive therapies, and nephrotoxic drugs

Module/o Nephrology

IT:

Il corso fornisce le conoscenze fondamentali sulle principali funzioni renali e sulle patologie che interessano i compartimenti glomerulare, tubulare, interstiziale e vascolare. Vengono trattate la fisiologia e la fisiopatologia della funzione renale, con particolare riferimento all'equilibrio idro-elettrolitico e acido-base, con attenzione al nefrone come unità anatomico-funzionale e alla struttura e funzione della barriera di filtrazione glomerulare.

Gli studenti acquisiranno competenze nella diagnosi, classificazione e valutazione clinica dell'insufficienza renale acuta (AKI) e cronica (CKD), inclusa l'identificazione delle cause e delle complicanze, quali rhabdomiolisi e nefropatia da mezzo di contrasto. Verrà inoltre trattata la biopsia renale, con riferimento alle indicazioni, alle complicanze e ai principi fondamentali della valutazione morfologica mediante microscopia ottica (MO), immunofluorescenza (IF) e microscopia elettronica (ME). Il corso include anche la nefropatia diabetica e la malattia renale allo stadio terminale (ESRD), con particolare attenzione alla valutazione clinica e alle indicazioni alle terapie sostitutive della funzione renale, quali dialisi e trapianto renale.

Il programma comprende inoltre la semeiotica clinica nefrologica in condizioni normali e patologiche, l'anamnesi nefrologica, il concetto di clearance e il filtrato glomerulare (GFR) in termini di definizione, stima e misurazione. Verranno trattati gli esami di laboratorio, inclusi l'esame delle urine, l'albuminuria e il rapporto albumina/creatinina (ACR), nonché le tecniche di diagnostica per immagini, tra cui ecografia e scintigrafia renale. Ulteriori argomenti comprendono le infezioni delle vie urinarie, la sindrome nefritica e nefrosica, la glomerulonefrite rapidamente progressiva (RPGN), le glomerulopatie primitive e secondarie e la loro classificazione, le nefropatie tubulo-interstiziali acute e croniche, le nefropatie vascolari, l'ipertensione renovascolare e la nefropatia ischemica, e le malattie cistiche renali, inclusa la malattia policistica autosomica dominante.

Infine, il corso introduce i principi delle terapie sostitutive della funzione renale e gli elementi fondamentali di terapia nelle principali patologie renali, tra cui ACE-inibitori, inibitori SGLT2, diuretici, principali farmaci antipertensivi, terapie immunosoppressive e farmaci nefrotossici.

<p>PROGRAM- PROGRAMMA</p> <p>Module/o General Surgery</p>	<p>EN:</p> <p>Introduction to surgery. Knowing of the general criteria: pre-operative assessment of patients and major postoperative complications; Principles of clinical diagnostics, principles of diagnostic imaging; shock and general surgery techniques; the treatment of surgical wounds; anatomical and pathophysiological bases of the pathology of the abdominal wall; General information on liver transplantation, kidney, pancreas.</p> <p>Preoperative evaluation of the surgical patients; Principles of clinical diagnostics, principles of diagnostic imaging. Post-operative complications. Inguinal hernia, umbilical hernia, incisional hernia, hemorrhagic shock, acute abdomen. Benign and malignant tumors of the liver and biliary tract(etiology, signs and symptoms, diagnosis and treatment). Benign and malignant tumors of the pancreas (etiology, signs and symptoms, diagnosis and treatment). Gallbladder and bile duct stones (etiology, signs and symptoms, diagnosis and treatment). Acute and chronic pancreatitis (etiology, signs and symptoms, diagnosis, and treatment). Liver transplantation (indications, surgical techniques, complications).</p> <p>Kidney transplantation (indications, surgical techniques, complications). Principles of pancreas transplantation.</p> <p>IT:</p> <p>Introduzione alla chirurgia. Conoscenza dei criteri generali: valutazione preoperatoria dei pazienti e complicanze post-operatorie maggiori; Principi della diagnostica clinica, principi dell'imaging diagnostico; tecniche di shock e chirurgia generale; il trattamento delle ferite chirurgiche; basi anatomiche e fisiopatologiche della patologia della parete addominale; Informazioni generali su trapianto di fegato, rene, pancreas.</p> <p>Valutazione preoperatoria dei pazienti chirurgici; Principi della diagnostica clinica, principi dell'imaging diagnostico. Complicazioni post-operatorie. Ernia inguinale, ernia ombelicale, ernia incisionale, shock emorragico, addome acuto. Tumori benigni e maligni del fegato e del tratto biliare (eziologia, segni e sintomi, diagnosi e trattamento). Tumori benigni e maligni del pancreas (eziologia, segni e sintomi, diagnosi e trattamento). Cistifellea e calcoli dei dotti biliari (eziologia, segni e sintomi, diagnosi e trattamento). Pancreatite acuta e cronica (eziologia, segni e sintomi, diagnosi e trattamento). Trapianto di fegato (indicazioni, tecniche chirurgiche, complicazioni).</p> <p>Trapianto di rene (indicazioni, tecniche chirurgiche, complicazioni). Principi del trapianto di pancreas.</p>
<p>PROGRAM- PROGRAMMA</p>	<p>EN:</p> <p>To know the techniques and methods of semiotics and to define the state of health and risk of disease, according to the nutritional status. To know the indicators of nutritional risk predictors of disease. To know the role of diet in the prevention of chronic degenerative diseases. To know the principles of artificial nutrition: enteral and parenteral nutrition. To know the principles of nutrigenetics and nutrigenomics. Assessment of nutritional status and energy requirements. Principles of diet therapy. Nutrition and non-communicable diseases. Principles of nutritional genomics.</p>

Module/o Applied Techniques  
In Dietary Sciences

IT:

Conoscere le tecniche e i metodi della semiotica e definire lo stato di salute e il rischio di malattia, in base allo stato nutrizionale. Conoscere gli indicatori dei predittori di rischio nutrizionale delle malattie. Conoscere il ruolo della dieta nella prevenzione delle malattie croniche degenerative. Per conoscere i principi della nutrizione artificiale: nutrizione enterale e parenterale. Per conoscere i principi della nutrigenetica e della nutrigenomica. Valutazione dello stato nutrizionale e dei bisogni energetici. Principi della terapia dietetica. Nutrizione e malattie non trasmissibili. Principi della genomica nutrizionale.

TEXTBOOKS

EN:

Gastroenterology&Hepatology: Harrison's "Principles of Internal Medicine".

Endocrinology & Med Sexology: from the Merck Manual, professional edition (free download). For each, see related links:

<http://www.merckmanuals.com/professional/endocrine-and-metabolic-disorders>

TESTI DI RIFERIMENTO

<http://www.merckmanuals.com/professional/psychiatric-disorders/sexuality-gender-dysphoria-and-paraphilias/overview-of-sexual-behavior>

<http://www.merckmanuals.com/professional/psychiatric-disorders/sexuality-gender-dysphoria-and-paraphilias/gender-dysphoria-and-transsexualism>

<http://www.merckmanuals.com/professional/genitourinary-disorders/male-sexual-dysfunction/overview-of-male-sexual-function>

<http://www.merckmanuals.com/professional/gynecology-and-obstetrics/sexual-dysfunction-in-women/overview-of-female-sexual-function-and-dysfunction>

OTHERS: Whitehead S, Miell J: Clinical Endocrinology; Goodman HM Basic Medical Endocrinology, 4th Edition; Melmed S, Polonsky KS, Reed Larsen P, Kronenberg HM (eds) Williams Textbook of Endocrinology, 13th Edition; Jameson J: Harrison's Endocrinology, 3rd Edition Porst H, Reisman Y The ESSM syllabus of sexual medicine.

Diet Sci Tech: Didactic material will be provide to the student.

Nephrology: Harrison's "Principles of Internal Medicine" (Mother book). Harrison's "Nephrology" and "Acid Base Disorder".

Urology: Smith and Tanago's General Urology, Jack. W. McAninch, Tom. F. Lue, Editors; Eighteenth Edition, McGraw Hill – ISBN 978-0-07-163260-7.

General Surgery: Class Notes (Slides and notes collected during classrooms). Text Book of Surgery, XIX edition, Author: Sabiston, Editor: Elsevier-Saunders

	IT: Come sopra
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TEACHING METHODS	EN: Frontal lectures.
METODI DIDATTICI	IT: Lezioni frontali.

EXAM METHODS	EN: Oral exam takes place in every session scheduled by the CCL. The exam Commission is normally composed of one lecturer for each main subject area present in the Integrated Course. There are no practical exams.
MODALITA' DI VALUTAZIONE	IT: L'esame orale si svolge in ogni sessione programmata dal CCL. La Commissione d'esame è normalmente composta da un docente per ciascuna materia principale presente nel Corso Integrato. Non ci sono esami pratici.



EXAM COMMISSION	EN: The Coordinator, full Professors of the disciplines, Professors of similar disciplines, Specialists of the subject, compose the exam Commission of the Integrated Course.
	IT:

Il Coordinatore, i Professori ordinari delle discipline, i Professori di discipline simili, gli Specialisti della materia, compongono la Commissione d'Esame del Corso Integrato.

<b>L. Baiocchi</b>	Member
<b>L. Biancone</b>	Member
<b>E. Calabrese</b>	Member
<b>D. Della Morte Canosci</b>	Member
<b>S. Germani</b>	Member
<b>E. A. Jannini</b>	President
<b>D. Lauro</b>	Member
<b>S. Manca</b>	Member
<b>T.M. Manzia</b>	Member
<b>R. Miano</b>	Member
<b>A.P. Mitterhofer</b>	Member
<b>A. Sansone</b>	Member

## CONTACTS-CONTATTI

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PREREQUISITES-PREREQUISITI

EN:

IT:

The specific learning outcomes of the program are coherent with the general provisions of the Bologna Process and the specific provisions of EC Directive 2005/36/EC. They lie within the European Qualifications Framework (Dublin Descriptors) as follows:

**1. Knowledge and Understanding**

- Assess the physiologic principles which govern the function of the lymphoematopoietic and immune systems and the alterations induced by functional and structural abnormalities.
- Highlight the main aspects of hematologic, rheumatologic, allergic and infectious disorders focusing on the etiopathogenesis, diagnosis and therapy.
- Recognize the risk factors, populations at risk, relieving or exacerbating factors for any specific clinical case.
- Demonstrate knowledge about established and evolving medicine that is critical to the practice of the clinical and surgical interventions.
- Determine the major indications or contraindications for both medical and surgical therapeutic strategies.
- Identify the incidence and epidemiology of infectious diseases in order to understand their impact worldwide as well as in most affected countries.
- Recognize the importance of preventive medicine and emphasize the role of early intervention.
- Analyze a clinical case and provide an exhaustive explanation of the possible diagnostic hypothesis and appropriate therapeutic approaches.

**2. Applying Knowledge and Understanding**

- Apply the theoretical knowledge to the clinical setting, being able to recognize the general diagnostic aspects of the diseases.
- Evaluate the patient, emphasizing the findings obtained from the history, physical examination, and instrumental tests. If the mechanisms underlying these findings can be identified, the correct etiologic, anatomic, and physiologic diagnoses can usually be deduced.
- Predict a differential diagnosis based on given clinical data and provide suitable explanations of the underlying reasonings.

- Learn to interpret appropriate epidemiologic, laboratory and diagnostic studies.
- Learn the practical aspects of the investigation tests and how to perform them.

3. **Making Judgements**

- Recognize the importance of an in-depth knowledge of the topics consistent with a proper medical education.
- Identify the benefits and adverse effects of any diagnostic and therapeutic interventions.

4. **Communication Skills**

- Present the topics orally in an organized and consistent manner.
- Use of proper scientific language coherent with the topic of discussion.

5. **Learning Skills**

- Identify the possible use of the acknowledged skills in the future career.
- Assess the importance of the acquired knowledge in the overall medical education process.