



Universitat de Lleida

DEGREE CURRICULUM

DIGESTIVE SYSTEM DISEASES

Coordination: PIÑOL FELIS, MARIA CARMEN

Academic year 2023-24

Subject's general information

Subject name	DIGESTIVE SYSTEM DISEASES			
Code	100565			
Semester	PRIMER QUADRIMESTRE			
Typology	Degree	Course	Character	Modality
	Bachelor's Degree in Medicine	4	COMPULSORY	Attendance-based
Course number of credits (ECTS)	7			
Type of activity, credits, and groups	Activity type	PRALAB	PRAULA	TEORIA
	Number of credits	0.2	1.2	5.6
	Number of groups	8	4	1
Coordination	PIÑOL FELIS, MARIA CARMEN			
Department	MEDICINE AND SURGERY			
Important information on data processing	Consult this link for more information.			

DIGESTIVE SYSTEM DISEASES 2023-24

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Learning objectives

Competence 90. Recognize, diagnose and guide the management of the main pathologies of the digestive system

Objectives:

- The student will be able to know the main pathologies of the abdomen and digestive system.
- The student will be able to interpret the diagnostic procedures used.
- The student will be able to formulate the various medical-surgical therapeutic options.

Competence 126. Pathological anatomy of the different devices and systems

Objectives:

- Acquire the bases, concepts and the anatomopathological vocabulary necessary to understand the pathophysiology, semiology, evolution and treatment of diseases of the digestive system.
- Being able to understand and use a pathological diagnostic report.
- Understand the importance of Pathological Anatomy in the process of reasoning and medical diagnosis of digestive pathology.
- Be aware of how fundamental the clinical-pathological correlation is in diseases of the digestive system.

Competence 127. Biochemical, cytogenetic and molecular biology markers applied to clinical diagnosis

Objectives:

- Know and know how to apply the concepts specified in the theoretical program that are established in the topics Celiac Disease, hereditary CRC, Sd. of polyposis and metabolic diseases of the liver.
- Know how to use the concepts related to these thematic contents to guide the most appropriate genetic

counselling of the aforementioned pathologies.

Competence 139. Pharmacology of the different devices and systems

Objectives:

- Integration of previous knowledge, especially of physiology, biochemistry, cell and molecular biology.
- Projection of the aforementioned knowledge towards the treatment of patients with chemical substances, that is, drugs.
- Knowledge of the language and concepts of Pharmacology.

Competence 155. Knowing how to properly use the various drugs

Objectives:

- Knowledge of the most significant drugs and the main drug groups available to the doctor.
- Upon completion of the subject, students must be able to assess the pharmacokinetic and pharmacodynamic aspects that condition the therapeutic use of the drugs studied.
- Scientific criteria and rationality in the prescription of medicines.

Competences

CG7. Understand and recognize the normal structure and function of the human body, at the molecular, cellular, tissue, organic and systems levels, in the different stages of life.

90) Recognize, diagnose and guide the management of the main pathologies of the digestive system

126) Pathological anatomy of the different devices and systems

127) Biochemical, cytogenetic and molecular biology markers applied to clinical diagnosis

139) Pharmacology of the different devices and systems

155) Know how to use the various drugs properly

Other competences that are not of the subject, but are of the degree

Other competences that are not part of the degree

Subject contents

1. THEORETICAL CLASSES (TC):

- **CT-1: Anatomical review. Malformations, trauma, infections and tumors. Dr. Villalobos (Surg, 1 hour).**

Know the surgical anatomy of the abdominal wall, its topography and its functions. Describe surgical incisions of the abdominal wall in relation to their anatomy. Identify and differentiate alterations in the normal anatomy of malformations of the abdominal wall (the anterior and posterior walls of the diaphragm and the floor of the perineum) and know their symptoms. Propose and understand immediate therapy and definitive therapeutic options. To know the traumatism of the abdominal wall without involvement of intra-abdominal viscera and to propose the treatment. Identify the hematoma of the anterior rectus muscles and describe its particularities. Correctly define and guide the treatment of infectious pathology of the navel. Identify and guide the treatment of the most frequent and important tumors of the abdominal wall. Prepare a clinical history of each of the pathologies of the abdominal wall: main

malformations, trauma, infections and tumors. Know the peritoneum, the peritoneal cavity and the retroperitoneum. Know the surgical anatomy of the inguino-crural region.

- CT-2: Hernial pathology 1. Dr. Villalobos (Surg, 1 hour).

Identify the superficial inguinal orifice and the deep inguinal orifice. Describe Fruchaud's quadrilateral. Know how to perform an abdominal exploration in surgery. Define what an abdominal wall hernia is and describe where it can occur. Identify training mechanisms and their impact. Know how to classify the different abdominal wall hernias according to their location in: inguinal, indirect and direct, crural, umbilical, epigastric or other.

- CT-3: Hernial pathology 2. Dr. Villalobos (Surg, 1 hour).

Know the clinic. Describe complications such as incarceration, or strangulation. Know how to make the differential diagnosis. Know the treatment, and the different types of techniques: open and laparoscopic.

- CT-3 BIS: Hernial pathology 3. Dr. Villalobos (Surg, 1 hour). Know the complications of surgery. Define what is an eventration and an evisceration. Know how to classify them. Know the clinic. Know how to make the diagnosis and differential diagnosis. Know the different surgical techniques and know how to follow them up.

- CT-4: Esophageal pathology. Dr. Tarragona (A-P, 1 hour).

Methodology of the morphological study of the esophagus-gastrointestinal tract. (Cytology, biopsy and surgical specimen). Congenital anomalies. Tracheoesophageal fistula. Define histological lesions of Achalasia, Scleroderma, reflux esophagitis and Barrett's esophagus. Know the esophageal tumors.

- CT-5: Esophageal surgical pathology 1. Dr. Santamaria (Surg, 1 hour).

Know the anatomy and embryology of the esophagus. Know how to classify esophageal tumors (benign/malignant). Know the incidence, etiopathogenesis and clinic. Know how to establish the diagnosis and prognosis. Know how to perform TNM staging and make the therapeutic decision according to it (Tumor Committee). Know the surgical treatment (operative technique). To be able to recognize postoperative complications and know how to treat them. Know the postoperative follow-up.

- CT-6: Esophageal pathology 2 Motor dysphagia. Dra. Planella (Digestive Med, 1 hour).

Pathophysiology of esophageal motility. Dysphagia. Types according to location (oropharyngeal and esophageal) and cause (motor and mechanical). Diagnosis (manometry, TEGD and endoscopy). Manometry (method, indications, clinical utility). Achalasia. Scleroderma.

- CT-7: Diaphragmatic pathology. Dra. Salvador (Surg, 1 hour).

Know the surgical anatomy of the diaphragm. Define diaphragmatic pathology. Know the different types of diaphragmatic pathology: functional, structural, infectious, or tumoral. Know what a diaphragmatic hernia is and how they are classified. Know the clinic. Identify the complementary tests that allow reaching the diagnosis. Know its complications. Know how to make the differential diagnosis. Know the treatment and the different surgical techniques. Know how to perform postoperative follow-up. Know what gastroesophageal reflux is and what its etiology is. Know what a hiatal hernia is. Know how it is classified and what its clinic is. Know how to make the diagnosis and what is the surgical treatment, when medical treatment fails, in terms of techniques and indications.

- CT-8: Gastric Pathology. Dr. Tarragona (A-P, 1 hour).

Know the histology of gastritis. Know the morphology of Helicobacter pylori. Explain the macro and microscopic pathological findings of peptic ulcer. Know the types of gastric tumors.

- CT-9: Gastritis. Functional digestive disorders. Dr. Planella (Digestive Med, 1 hour).

Define and classify gastritis. Describe the manifestations of chronic non-erosive (nonspecific) gastritis. Determine gastric secretion patterns and gastrin levels. Indicate its effects on the production of intrinsic factor and its consequences. Point out the relationship with pernicious anemia and other autoimmune diseases. Establish the relationship with gastric cancer. Indicate the therapeutics. Recognize the concept of dyspepsia and its social importance, and etiopathogenesis. Recognize the clinical forms of functional dyspepsia. Indicate medical treatment

options.

- CT-10: Peptic ulcer. Upper gastrointestinal bleeding. Dr. Planella (Digestive Med, 1 hour).

To know the role of Helicobacter Pylori infection in gastroduodenal pathology. Describe the clinical manifestations of peptic ulcer. Expose the complications of peptic ulcer. Use appropriate diagnostic tests. Plan the medical therapeutic scheme. Classify and list the main causes of upper gastrointestinal bleeding. Describe the clinical syndrome. Make an initial assessment: identification, magnitude, and activity of bleeding. Know the measures of hemodynamic resuscitation. Explain the diagnostic methodology. Formulate the pertinent therapeutic recommendations: pharmacological and endoscopic

- CT-11: Gastric surgical pathology. Dr. Salvador (Surg, 1 hour).

Know the surgical anatomy of the stomach (vascularization and lymphatic system). Know how to classify gastric tumors (benign/malignant). Know the incidence, etiopathogenesis and clinic. Know how to make the diagnosis and know the prognosis. Know how to perform TNM staging and treatment according to stage (Tumor Committee).

- CT-11 BIS: Gastric surgical pathology. Dr. Salvador (Surg, 1 hour).

Know the surgical treatment and the different techniques according to the location. Know the postoperative complications and the treatment of these. Know how to perform postoperative follow-up and discharge recommendations. Know the surgical treatment of gastric ulcer (when medical treatment fails).

- CT-12: Pathology of the small intestine. Dr. Tarragona (A-P, 1 hour).

Know the histopathological changes of malabsorption, as well as the different syndromes and diseases that occur with malabsorption. Explain the histopathological features of Whipple's disease and similar conditions. Know the types of tumors of the small intestine.

- CT-13: (13a and 13b) Malabsorptive diseases. Dr. Planella (Digestive Med, 2 hours).

Recognize the clinical manifestations of MSS. Malabsorptive. Identify the analytical alterations of the me. Malabsorptive. Explain the diagnostic tests of EMS. Malabsorptive. Describe the etiology, clinical picture, diagnosis and specific therapy of the main malabsorptive diseases: celiac disease, tropical sprue, disaccharidase deficiency, short bowel syndrome, bacterial overgrowth syndrome, eosinophilic gastroenteritis, hypogammaglobulinemic enteropathy, abetalipoproteinemia, Whipple's disease, immunoproliferative disease of the small intestine. Describe the histological findings of malabsorptive diseases. List the causes of proteinopriva enteropathy. Expose the clinical features of intestinal lymphangiectasia.

- CT-14: Inflammatory bowel pathology. Dr. Tarragona (A-P, 1 hour).

Define the histopathology and make the differential diagnosis between ulcerative colitis and Crohn's disease. Learn about other types of colitis.

- CT-15: (15a and 15b) Chronic inflammatory bowel disease (Crohn's disease and ulcerative colitis). Dr. Planella (Digestive Med, 2 hours).

Delimit the concept of idiopathic chronic inflammatory bowel disease (ICDM) and define the basic characteristics of the two most important entities: Crohn's disease and ulcerative colitis. Know the epidemiology of the MIIC. List the etiopathogenic factors involved in the production of MIIC. Recognize extraintestinal and local clinical manifestations. Describe local and systemic complications. Know the most appropriate diagnostic methods. Establish the differential diagnosis. Determine the evolutionary prognosis. Formulate medical-surgical treatment options.

- CT-16: Polyps and Polyposis Sme. Dr. Planella (Digestive Med, 1 hour).

List the classification of colorectal polyps. Know the clinic, the diagnostic procedure and the endoscopic therapeutics. Describe the main characteristics of malignancy of polyps and relate the polyp-cancer sequence. To express the usefulness of the follow-up of patients with polyps for the early diagnosis of colorectal cancer. Recognize the main syndromes of hereditary and non-hereditary intestinal polyposis.

- CT-17: Surgical pathology of the small intestine and appendix. *Dr. Mestres (Surg, 1 hour).*

Know how to identify the pathology of the small intestine. Know the anatomy and physiology of the small intestine. Know the surgical nomenclature. Know how to identify congenital pathology: atresias, intestinal malrotation, intussusception or intussusception, Meckel's diverticulum. Know what intestinal fistula is, as well as its clinic and treatment. Identify short bowel syndrome. Know benign and malignant intestinal tumors (adenocarcinoma, carcinoid tumor, GIST tumor). Know the appendiceal tumors (carcinoid, adenocarcinoma and mucinous cystadenocarcinoma or appendiceal pseudomyxoma). Know the anatomy of the appendix and its anatomical locations. Define what acute appendicitis is. Know what their frequency and mortality are. Identify the etiopathogenesis. Know the different pathological forms. Know the pathophysiology. Know what the clinic is and what are the classic signs of the examination. Know the different complementary explorations. Know the different clinical forms of presentation depending on the appendicular location and the age of the patient. Know how to make the differential diagnosis. Know the concept of appendicular plastron. Know the complications and surgical treatment. Know the scheme of action, placement of drains and use of postoperative antibiotics. Know the different open and laparoscopic surgical techniques

- CT-18: Benign surgical pathology of the colon. *Dr. Escoll (Surg. 1hour).*

Know the anatomy of the colon, especially arterial and venous vascularization, vulnerable points and lymphatic drainage. Know the physiology of the colon. Know how to identify benign diseases of the colon. Know the clinic and surgical treatment of ulcerative colitis. Know the clinic and surgical treatment of Crohn's disease. Know what ischemic colitis is. Know how to identify the etiopathogenesis of colon diverticulosis, as well as know acute diverticulitis, the Hinchey classification and its treatment. Know what is colon volvulus, colon angiodysplasia, colon pseudobstruction or Ogilvie syndrome and Hirschsprung's disease.

- CT-19: Colon Cancer I. *Dr. Escoll (Surg. 1 hour).*

To know the incidence, epidemiology and etiopathogenesis of colon cancer. Identify risk factors for CRC. Know how to perform CCR screening. Know the location of CRC and the routes of dissemination. Know the clinic of the CCR. Know how to make the diagnosis of CRC: clinical history and physical examination; tumor markers; tumor study; extension study; the RCC; stage and TNM classification.

- CT-20: Colon Cancer II. *Dr. Escoll (Surg. 1 hour).*

To know the surgical treatment of CRC: bases of treatment and laparoscopic surgery; right and left hemicolectomy, sigmoidectomy, lymphadenectomy, urgent surgeries (colon stent, Hartmann's intervention, ileostomy and mucous fistula. Know the complications in the postoperative period. Identify poor prognostic factors based on pathological anatomy.

- CT-21: Rectal cancer. *Dr. Mestres (Surg. 1 hour).*

Know how to identify the characteristics of rectal cancer. Review the anatomy of the rectum. Know what Total Mesorectal Excision (ETM) is. Know how to make the diagnosis of rectal cancer. Know the surgical treatment of rectal cancer: Lower anterior resection (RAB), abdominoperineal amputation (AAP) or Miles' intervention, Endoscopic Transanal Microsurgery (TEM). To know the neoadjuvant in rectal cancer. Know the complications of rectal cancer.

- CT-22: Anorectal malformations. Anorectal injuries. Foreign bodies. Infectious anal pathology: anorectal abscesses and fistulas. Pilonidal cyst. Anorectal prolapse. Haemorrhoids. Anus fissure. cancer. *Dr. Mestres (Surg, 1 hour).*

Describe the main anorectal malformations, classify and propose surgical therapeutic options according to their efficacy, efficiency and effectiveness and according to the sequelae and subsequent quality of life. Formulate emergency treatment and describe the definitive therapeutic options for anorectal injuries, with their morbidity and mortality and sequelae. Propose the treatment of intrarectal foreign bodies. Know the acute ano-perineal pathology and know how to make the differential diagnosis and guide the treatment. Describe the anatomical variants of anorectal abscesses and fistulas, acute and chronic symptoms, diagnosis, therapeutic options, prognosis, complications and sequelae. Diagnose pilonidal cyst in acute and chronic phase. Know how to diagnose and classify rectal prolapse. Know their pathophysiology and therapeutic options, morbidity and prognosis.

- CT-23: Anorectal malformations 2. Anorectal injuries. Foreign bodies. Infectious anal pathology: anorectal abscesses and fistulas. Pilonidal cyst. Anorectal prolapse. Haemorrhoids. Anus fissure. cancer. Dr. Mestres (Surg. 1 hour).

Know the classification of hemorrhoids, describe the symptoms, make the differential diagnosis and propose therapeutic options; Know how to be critical of these options. Diagnose a fissure of the anus, understand its pathophysiology and correctly guide its treatment. Know how to diagnose cancer. Propose therapeutic options according to their morbidity, sequelae and prognosis. Describe causes of pelvic floor pathology. Know how to make the differential diagnosis and describe the clinic of the different pathologies, as well as the diagnostic tests necessary to arrive at the diagnosis. Guide the treatment of the different pathologies of the pelvic floor.

- CT-24: Acute abdomen I. Dr. Escoll (Surg. 1 hour).

Define acute abdominal pain and differentiate it with acute abdomen. Know how to make a clinical history of directed abdominal pathology. Know the physiopathogenesis of abdominal pain. Know how to perform abdominal exploration by quadrants, as well as its differential diagnosis. Know the characteristics of abdominal pain. Know how to identify the associated symptoms. Know how to perform the physical examination and rule out SIRS and sepsis. Know the special surgical signs of abdominal exploration (McBurney, Murphy, Blumberg, etc.). Know the syndromic diagnosis (inflammatory, obstructive, ischemic or traumatic pathology). Assess examples of abdominal pathology in simple abdominal radiology

- CT-25: Urgent esophagogastric pathology. Dr. Salvador (Surg. 1 hour).

Know the esophageal traumas and know what their etiology is, where they are located, what is the clinic, how they can be diagnosed and what is the treatment. Know how to identify esophageal perforation. Describe Boerhaave syndrome. Know the complications of duodenal ulcer (perforation, hemorrhage and pyloric stenosis) and the different surgical techniques: pyloroplasty, antrectomy, and gastroenteroanastomosis. Know what a gastric volvulus and a bezoar are (definition, clinic, diagnosis and surgical treatment).

- CT-26: Intestinal occlusion. Dr. Rufas (Surg. 1 hour).

Define intestinal occlusion. List the different causes and know the most frequent. Explain the pathophysiology. Know the classification according to the form of presentation, location, intensity and pathogenesis. Identify your clinic. Know the complementary explorations. Know how to make a therapeutic plan, Know the surgical treatment. Define intestinal pseudobstruction. Know how to classify it. Define paralytic ileus. Know its causes and the clinic it presents. Know how to make the diagnosis. Assess the therapeutic attitude. Identify surgical treatment. Define O'Gilvie syndrome: Identify the causes. Know the clinic. Know how to make the diagnosis. Assess the therapeutic attitude. Know the surgical treatment. Know how to make the differential diagnosis between intestinal occlusion and intestinal pseudobstruction. Biliary ileus occlusion. Bezoar occlusion.

- CT-27: Intestinal ischemia. Dr. Rufas (Surg. 1 hour).

Know the intestinal vascularization. Define mesenteric ischemia. Know how to make the differential diagnosis between the different types of acute arterial mesenteric ischemia (embolism, thrombosis and non-occlusive) and chronic. Know the incidence and epidemiology. Identify risk factors. Know the clinic. Know how to perform diagnostic assessment and therapeutic management. Know the surgical treatment. Know how to assess evolution and results. Define ischemic colitis. Know the incidence and risk factors. Identify the clinic. Know how to perform diagnostic assessment and therapeutic management. Know the surgical treatment, its evolution and the results.

- CT-28: Abdominal trauma. Dr. Escartin/Jara (Surg. 1 hour).

Know the different types of abdominal trauma (open and closed). Know how to assess the mechanisms of production and the different types of injuries. Know how to manage the patient, the surgical indications and know how to identify the different treatments according to the affected organ.

- CT-29: Portal hypertension. Gastrointestinal bleeding due to rupture of esophagogastric varices. Dr. Huelin (Digestive Med, 1 hour).

Enunciate the concept of portal hypertension. Describe the clinical consequences of portal hypertension. To determine the methodology for evaluating patients with portal hypertension. Expose the hemodynamic classification

and etiology of the various types of portal hypertension. Identify gastrointestinal bleeding due to rupture of esophageal varices. Design and plan the various alternatives for the medical treatment of portal hypertension hemorrhage: endoscopic and pharmacological treatment, esophageal tamponade and percutaneous intrahepatic portosystemic shunt (IPPD).

- CT-30: Alcoholic liver disease. Acute hepatitis. Chronic hepatitis. Dr. Tarragona (A-P, 1 hour).

Distinguish the spectrum of alcohol-induced liver diseases and discuss the main histological features of alcoholic hepatitis. List the main etiological agents of acute viral hepatitis. Know the histological findings that define acute viral hepatitis. Define the term chronic hepatitis and the most frequent causes. Distinguish between lobular hepatitis, portal hepatitis and periportal hepatitis. To know the different histological evolutionary phases of chronic liver disease and the role of liver biopsy in the follow-up of the disease.

- CT-31: Drugged and toxic hepatitis. Liver and alcohol. Dr. Huelin (Digestive Med, 1 hour).

Define the concept of toxic hepatitis. List the mechanisms of hepatotoxicity and the types of acute and chronic lesions that toxic and drug substances can produce. Know the most frequent liver toxicants. Describe the clinical and analytical manifestations. Recognize the pathogenesis of alcohol-induced liver diseases. To establish a clinical-pathological correlation of alcoholic liver disease. Describe the clinical and type of liver lesions that can cause chronic alcoholism: hepatic steatosis, acute alcoholic hepatitis and alcoholic liver cirrhosis. Know how to distinguish the different prognosis of each of the liver lesions caused by alcohol. Formulate therapeutic recommendations.

- CT-32: (32a and 32b) Acute hepatitis. Dr. Piñol (Digestive Med, 2 hours).

Know the characteristics of the etiological agents. List the transmission mechanisms. Describe the clinical manifestations. Know the concept of severe acute liver failure. Identify the analytical alterations accompanying acute hepatitis. Analyze the value of serological markers as an etiological diagnosis. Propose prevention and prophylaxis measures. Formulate therapeutic recommendations.

- CT-33: Chronic hepatitis. Dr. Piñol (Digestive Med, 1 hour).

Define the clinical concept. Classify according to etiology. Describe the clinical manifestations. To determine the natural history and prognosis of chronic hepatitis based on etiology and histological injury. To assess the role of liver biopsy in the diagnosis and follow-up of chronic hepatitis. Formulate therapeutic possibilities.

- CT-34: Liver cirrhosis. Liver tumors: Benign tumors; Malignant tumors (hepatocarcinoma and cholangiocarcinoma). Dr. Tarragona (A-P, 1 hour).

Define the concept of liver cirrhosis and the most important morphological types. List the main etiological agents of cirrhosis. Explain the meaning of regeneration nodule and fibrous septa. Know the most important benign tumors that can be found in the liver. Define the concept of hepatocellular carcinoma and cholangiocarcinoma, and explain the role of liver biopsy in their diagnosis.

- CT-35: Liver cirrhosis: etiology, clinic, diagnosis, complications and prognosis. Dr. Huelin (Digestive Med, 1 hour).

Define the concept of liver cirrhosis and its frequency in our environment. List the main causes. Describe the clinical manifestations and cutaneous signs of chronic liver disease. Know and interpret the accompanying analytical alterations. Expose the diagnostic methods. List and know the complications of cirrhosis: encephalopathy, gastrointestinal bleeding, ascites, bacterial infections (with special emphasis on spontaneous bacteremia and spontaneous bacterial peritonitis), hepatocarcinoma, gastrointestinal bleeding, Sme. Hepatorenal. To know the pathophysiological mechanisms of ascites and disorders of renal function. Know the pathogenesis of hepatic encephalopathy. To know the evolutionary prognosis and the follow-up of the patient with compensated and decompensated liver cirrhosis. Know the Child-Pugh classification and its usefulness.

- CT-36 (36a and 36 b): Hepatic cirrhosis: treatment. Metabolic diseases of the liver. Dr. Huelin (Digestive Med, 2 hours).

Formulate therapeutic recommendations for compensated and decompensated cirrhosis. Note the specific

therapeutic attitude of the patient with encephalopathy, as well as triggering factors. Indicate and prioritize therapeutic attitudes towards a cirrhotic patient with ascites. Define the concept of *refractory ascites*. Describe what LeVeen's *shunt* and paracentesis perfusions consist of and know their indications. Explain the concept of hepatorenal syndrome in chronic liver disease. Know the concept of *spontaneous bacterial peritonitis* and describe the possible mechanisms by which it occurs. List the germs most frequently involved. Identify the usual clinical manifestations and make the differential diagnosis with other similar processes. Establish the prognosis of the entity and determine the most appropriate therapeutic approach. Review the main indications for liver transplantation in this disease. Know the genetic alterations of hemochromatosis and Wilson's disease. Describe the clinic of each. List the diagnostic criteria and the therapeutic attitude. Establish early diagnosis for first-degree relatives. Recognize the hepatic involvement that can occur in the course of diseases due to porphyrin metabolism disorder.

- CT-37: Chronic cholestatic diseases of the liver. Vascular diseases of the liver. Hepatic fibrosis. Dr. Huelin (Digestive Med, 1 hour).

Define the concept of primary biliary cirrhosis (PBC). To enunciate the concept of primary sclerosing cholangitis (PSC). List and characterize the stages of primary biliary cirrhosis. Determine the clinical manifestations and complementary tests of CBP. Know the clinical, biological, histological and radiological characteristics of PSC. Establish the differential characteristics. Indicate the prognosis and treatment options of both entities. Define the frequency and etiopathogenesis of vascular diseases of the liver. Describe the general clinic, the diagnosis and the corresponding treatment. Indicate the clinical findings that most frequently lead to the diagnosis of liver fibrosis.

- CT-38: Digestive involvement in cystic fibrosis. Dr. Molero (Digestive Med, 2 hours)

Know the disease in general. Know the cause. Know the different potentially affected organs of the digestive system. Specific treatment approach according to digestive involvement. Current pharmacological treatment and expected evolution. Risk of neoplasia.

- CT-39: Biliary lithiasis. Dr. Escartín / Vela (Cir, 1 hour).

To know the frequency, geographical distribution and target patients of biliary lithiasis. (5F) Identify risk factors. Know the types of gallstones. Know the pathophysiology of biliary lithiasis. Know the clinic of symptomatic vesicular lithiasis. Know what biliary colic is, what your physical exam is, what Murphy's signature is. Know the complementary examinations to be able to make the diagnosis. Know the complications: acute and chronic cholecystitis, choledocholithiasis, cholangitis, vesicular hydrops, enterobiliary fistula, biliary ileus, and porcelain gallbladder. To know the treatment of biliary lithiasis by laparoscopic cholecystectomy. Knowing what it is is considered minimally invasive surgery. Know its advantages and its possible applications to biliary pathology. Know how to describe the technique of cholecystectomy.

- CT-40: Special forms of chronic pancreatitis: incipient pancreatitis, groove pancreatitis and autoimmune pancreatitis i Non-surgical aspects of acute cholangitis. Dr. Molero (Digestive Med, 2 hours)

Know the disease in general. Know the cause. Know the different potentially affected organs of the digestive system. Specific treatment approach according to digestive involvement. Current pharmacological treatment and expected evolution. Risk of neoplasia.

Identify the elements of diagnostic suspicion. Diagnostic criteria. Differential diagnosis. Assess severity. Know the possible etiology causing acute cholangitis. Know how to plan the initial non-surgical treatment and know how to design the non-surgical resolutive treatment. Know the possibilities of endoscopic interventionism. Radiological interventionism. Recurrent acute cholangitis.

- CT-41: Choledocholithiasis. Dr. Escartín / Vela (Surg, 1 hour).

Know what choledocholithiasis is and what its incidence is. Identify preoperative and intraoperative diagnostic methods. Know the types of treatment of choledocholithiasis and what is the time to perform it during the evolution of the disease. Know conventional open surgery, choledochoscopy, papilotomy and endoscopic sphincterotomy. Know the protocols of action against cholelithiasis and suspected choledocholithiasis. Know the results of the different technical options.

- CT-42: Acute pancreatitis. Dr. Rodríguez (Digestive Med, 1 hour).

Define the concept. Explain the etiopathogenesis. Describe the clinic and expose the associated complications. Identify accompanying laboratory alterations. Know how to use diagnostic imaging tests. Formulate therapeutic recommendations.

- CT-43: Chronic pancreatitis. Dr. Rodríguez (Digestive Med, 1 hour).

Define the concept of chronic pancreatitis. List the possible aetiologies of this disease. Explain the usual clinical course, as well as the most frequent complications. Describe the analytical, functional examinations and the most relevant radiological alterations that allow the diagnosis of this pathology. Indicate the bases of medical treatment with special emphasis on exocrine pancreatic insufficiency.

- CT-44: Complications of acute and chronic pancreatitis. Dr. Molero (Digestive Med, 2 hours)

Know the recommendations for control after acute pancreatitis: reassess the etiology, monitor collections, evaluate exocrine and endocrine function. Identify and treat gastric emptying compromise. Identify the Syndrome of ductal disconnection, know the evolution and treatment modalities. Vascular complications: identification and treatment. Define the concept of recurrent pancreatitis, identify the causes and propose treatments.

List possible complications of chronic pancreatitis. Know the recommendations of ambulatory surveillance. Know how to diagnose a pseudocyst and associated complications, make the differential diagnosis (cystic neoplasm, encapsulated necrosis) and propose surveillance or interventionism. Identify and propose the appropriate therapeutic modality of the involvement of the bile duct, intestinal tract, or the main pancreatic duct. To evaluate the diagnostic methodology for the identification and treatment of arterial and venous vascular complications: hemorrhage and thrombosis. Suspect bacterial overgrowth and osteoporosis. Internal fistulas – pancreatic ascites. Identify risk factors for developing pancreatic cancer. Postsurgical complications, comorbidities, mortality.

- CT-45: Acute and chronic pancreatitis. Surgical treatment. Dr. Escartín/Vela (Surg, 1 hora).

Know how to define complications according to Atlanta 2. Know the objectives of surgical treatment. Know how to identify the criteria to indicate surgery, as well as the time of this. Know the drainage techniques and technical options: closed procedure, open procedure, retroperitoneal translumbar approach, retroperitoneal endoscopy. Define chronic pancreatitis. Know the types of treatment: medical, denervation, endoscopic and surgical decompression. Know the treatment of the pseudocyst. Know the indications of pancreas transplantation and the different types of gland and islets.

- CT-46: Benign liver tumors; Liver abscesses. Hydatid cyst. Dr. Muriel (Surg, 1 hour).

Know the different types of liver tumors and the criteria on which they are based to classify them into benign and malignant. Know the different types of liver abscesses (pyogenic and amoebic), their diagnosis and treatment, both medical and surgical. Know the biology of the echinococcus granulosus, the formation of the hydatid cyst, its clinical implications, its diagnosis and the current therapeutic options.

- CT-47: Malignant liver tumors: Liver metastases. Dr. Escartín / Vela (Surg, 1 hour).

Know the different types of liver tumors and the criteria on which they are based to classify them into benign and malignant, as well as the surgical indications of each and the current techniques of liver resection.

- CT-48: Malignant liver tumors: Hepatocarcinoma and intrahepatic cholangiocarcinoma Dr. Escartín / Vela (Surg, 1 hora).

Know the nomenclature and classification of cholangiocarcinoma. Know its location, epidemiology and risk factors. Know how to identify gallbladder neoplasia, what is its epidemiology, how to make the diagnosis and what is its clinic. To know the prognosis and guide the therapeutic management of cholangiocarcinoma and gallbladder neoplasia. Know the surgical and palliative treatment.

- CT-49: Digestive transplants. Dr. Escartín / Jara (Surg, 1 hour).

Know the indications of liver transplantation, as well as the contraindications, the logistics of the donor and the liver recipient. Know the results and complications

- CT-50: Tumors of the bile ducts and ampulla of Vater. Pancreas Pathology: Acute and chronic pancreatitis.

Carcinoma. Dr. Tarragona (A-P, 1 hour).

Know and describe the most frequent tumors that are done in gallbladder and ampulla of Vater. List the etiological factors of acute pancreatitis and know the morphological appearance of the lesion. Explain the concept of chronic pancreatitis. Know the histological characteristics, as well as the clinical and prognostic implications of pancreatic adenocarcinoma.

- CT-51: Bile duct neoplasm. Dr. Muriel (Surg, 1 hour).

Know the incidence, epidemiology, etiology of pancreatic neoplasia. Identify the sign of Courvoisier Terrier. Know the tumor markers. Know how to make the diagnosis and know the imaging methods. Know the different types of treatment: palliative and resective. Identify the surgical requirements for its removal.

- CT-52: Neoplasm of the pancreas and spleen. Dr. Muriel (Surg, 1 hour).

Know surgical techniques, surgical complications, survival and prognostic factors. Know the palliative treatments. Know cystic tumors and pancreatic IPMN. Know its classification and know how to make the differential diagnosis.

- CT-53: Summary of Hepatobiliopancreatic pathology. Dr. Escartin (Surg, 1 hour).

Know the different types of liver tumors and the criteria on which they are based to classify them into benign and malignant, as well as the surgical indications of each one and the current techniques of liver resection.

I-A.2 Medical Digestive Clinical Case Seminars (SeDigMed):

Groups of 20 students. 3 seminars of 2 hours each. Through interactive workshops with presentation of clinical histories of practical cases and discussion by students, it is intended that they acquire skills in diagnostic methodology, differential approaches and therapeutic approaches.

Seminar 1 on functional digestive disorders and peptic ulcer. Dr. Piñol (2 hours).

Discuss 4 cases of functional dyspepsia and/or peptic ulcer. Perform the differential diagnosis. Organize a diagnosis and treatment plan. Use complementary examinations appropriately. Distinguish between complicated and uncomplicated peptic ulcer. Identify ulcer and duodenal on endoscopic images. Develop a treatment plan.

Seminar 2 on Chronic Diarrhea or Lower Gastrointestinal Hemorrhage (LGH) Dr. Piñol (2 hours).

Discuss 4 cases of chronic diarrhea or LGB. Perform the differential diagnosis. Use complementary examinations appropriately. Identify the malabsorptive pattern in intestinal transit, and expose the diagnostic value of intestinal biopsy. Organize a diagnosis and treatment plan.

Seminar 3 on chronic hepatitis and liver cirrhosis. Dr. Piñol (2 hours).

Discuss 4 cases with persistently elevated hypertransaminasemia and/or decompensated cirrhosis. Differentiate between its possible causes. Use complementary examinations appropriately. Determine in a liver biopsy the presence of: persistent chronic hepatitis, active chronic hepatitis and cirrhosis with activity. Administer treatment. Use in various combinations endoscopy, ultrasound, CT, paracentesis, laboratory tests, to diagnose: SBP, hepatocarcinoma, varicose vein hemorrhage, spontaneous bacteremia. Develop a treatment plan for each situation.

Methodology

To achieve the objectives and acquire the assigned skills, the following activities will be scheduled:

- Theoretical classes. (CT)

These will be carried out with all the students and are not compulsory. Their purpose is to provide an overview of the thematic content, highlighting those aspects that will be useful in their training as doctors.

- Seminars. (Sem)

These will be carried out with the whole group or with groups of 1/4 of the students, those marked as such are

mandatory, and must be carried out with the corresponding group. The purpose of the seminars is for students to apply theoretical concepts and face real clinical cases so that diagnostic and therapeutic concepts can be discussed. Active student participation is essential. These sessions also allow a more in-depth approach to certain topics considered fundamental. The seminars include the activities of discussion groups, case discussions, video - forums, etc. and simulations (roleplaying).

- Virtual activities. (Av)

These activities will be carried out through the UdL Virtual Campus (Sakai). Taking advantage of this space, students will do different activities related to the preparation of thematic content, the application of concepts, teamwork and completion of assignments.

Evaluation

The final grade will be the sum of the different aspects evaluated and according to the following considerations:

Evaluation	Theory 80% final grade	Continuous evaluation	20%
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A total final grade of 5 is needed to pass the subject, considering the minimum of the theoretical evaluation to be able to compute the sum.

CONTINUOUS EVALUATION 20%: (Not second-change)

The score of this evaluation (2.0) does not count if the minimum of the final theoretical evaluation is not achieved.

Seminar evaluation (represents 20% final grade)

Only the area of knowledge of Medical Digestive will conduct active seminars. In general, the continuous evaluation in each seminar will take into consideration: the quality of the individual works of the files, the work and the quality of the clinical cases presented and the active participation.

The area of knowledge of Medical Digestive will carry out 3 seminars of clinical cases. The teaching material will be available on the Sakai platform. The support material is common to each group for the same seminar. But each group is assigned different cases, one case for each of the seminars. Each student must present their resolved case for comment at the seminar. The evaluation of the seminars will be carried out jointly, and a score out of 10 will be issued (this figure represents 20% of the continuous evaluation).

FINAL THEORETICAL EVALUATION 80%: (second-chance examination)

Conceptual and theoretical knowledge will be evaluated throughout the course through a test-type exam. The result obtained in these exams will constitute 80% of the final grade.

In order to pass the subject, a grade equal to or greater than 5 must be obtained in the global block of Digestive.

Overall, provided that the minimum requirements of the theoretical evaluation of the Digestive block have been exceeded, the grade of the continuous evaluation may be added to the resulting grade obtained.

Not meeting the requirements discussed previously, will mean a failure in the quarterly call, although the note of that part that has been equal to or greater than 5 will be saved, without the need to present again to the two subjects in the July second-chance.

The theoretical evaluation of the Digestive block will be carried out at the end of the first semester, on January 25, 2024. The total or partial second chance of the materials will take place on June 28, 2024

Type of exam:

Test type exam of the theoretical activity taught, both in lecture format and in seminar format.

Sixty-eight questions of five answers each and with only one valid. Every four questions answered incorrectly discount one correct. The number of questions will be as follows: 68 questions (34 medical and 34 surgical parts). The two blocks include the corresponding questions of Anatomy-Pathology (4 in the medical part and 4 in the surgical part)

The exercise will score out of 10 if all the answers are correct.

The two parts of the subject are comparable in terms of teaching weight, and the minimum to pass the exam will be as already mentioned of 5, but this requirement can only contemplate the following situations: minimum 5 of the medical part and minimum 5 of the surgical part, or 6 of the medical part and 4 of the surgical part and other equidistant values between the latter ranges or vice versa (compensatory average).

Once these criteria have been applied, if the final grade obtained is not equal to or greater than 5, but has a value between 4 and 4.9, it will be considered a fail, and therefore this matter must be recovered to the second-chance period of July, although the grade of part equal to or greater than 5 will be saved, without having to present again from the two parts of the subject to the second-chance examen of July.

Evaluation period: The date of the exam will be 28.06.24, at 12 hours and will last 1 hour 30 minutes.

SECOND-CHANCE EXAMINATION:

The exam of second chance of all or part of the theoretical subject will be on 28.06.24, at 12 noon and will last 1 hour 30 minutes maximum.

In the second chance of June-July the same evaluation criteria will be maintained, but in this call if the requirements are not met, the qualification will be of suspense and will suppose the registration of the whole subject again without saving any note of the two blocks.

The continuous evaluation (seminars) that will represent 20% of the final grade is not recoverable.

ALTERNATIVE EVALUATION

1. According to the current evaluation regulations
2. The subject will be evaluated by means of a written test type test that will include the theoretical evaluation of each of the parts of the subject and that will suppose 100% of the total grade and will be carried out on the date of examination of the subject. In total 68 test questions.
3. In order to pass the subject, a grade equal to or greater than 5 of each theoretical exam must be obtained. (See general criteria for compensatory average)

The second chance of the alternative evaluation will be carried out on the same day set in the exam period.

Bibliography

Además de les monografías y artículos de revistas que sobre temas concretos cada uno de los profesores recomendará, pueden utilizarse como una fuente de información básica, entre otros, los siguientes libros de texto, atlas y direcciones de internet:

Bibliografía (Anatomía Patológica Médica)

LIBROS DE TEXTO

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- Doerr W, Schumann G, Ule G. **Atlas de Anatomía Patológica**. Salvat, 1976

Bibliografía (Cirugía)

LIBROS:

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- JL Balibrea Cantero. Tratado de cirugía
- Cirugía de bolsillo. Balibrea cantero JL
- Fundamentos de Cirugía. Cristobal Pera
- Cirugía AEC. 2ª edición. Asociación española de cirujanos. P. Parilla y JI Landa
- Monografías de la asociación española de cirujanos www.aecirujanos.es/guias_clinicas_aec_tc.php
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- Asociación española de cirujanos. Coloproctología: 2000 Trullenque: Cirugia digestiva: 2002

INTERNET (DIRECCIONES):

- Asociación española de cirujanos.: www.aecirujanos.es/
- Videoteca de la asociación española de cirujanos: ww.aecirujanos.es/videotecaAEC.php
- Guías clínicas de la asociación nacional de cirujanos: www.aecirujanos.es/guias_clinicas_aec_tc.php
- Acceso a revistas y abstracts. PUB MED: <http://www.ncbi.nlm.nih.gov/>
- Acceso a Cochrane Library: www.update-software.com/clibplus/clibplus.asp
- Web de vídeos europea Estrasburgo. Websurg: www.websurg.com/virtual_university/
- Societat catalana de cirurgia: www.sccirurgia.org/

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- FAUCI, AS.; BRAUNWALD, E.; ISSELBACHER, KJ.; WILSON, JD.; MARTIN, JB.; KASPER, DL.; HAUSER SL.; LONGO DL.; editors. **Harrison principios de medicina interna**. Madrid: Interamericana, última edición.
- RODES TEIXIDOR J.; GUARDIA MASSÓ J.; editors. **Medicina Interna**. Barcelona: Masson, última edición.

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REVISTAS ESPECIFICAS

- Gastroenterologia i HePatología
- Revista Española de Enfermedades Digestivas
- Gastroenterology

- *Hepatology*