



# UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Biomedicina, Neuroscienze e Diagnostica avanzata		
ACADEMIC YEAR	2016/2017		
MASTER'S DEGREE (MSC)	MEDICINE AND SURGERY		
INTEGRATED COURSE	SYSTEMATIC PATHOLOGY III - INTEGRATED COURSE		
CODE	13253		
MODULES	Yes		
NUMBER OF MODULES	2		
SCIENTIFIC SECTOR(S)	MED/12, MED/15		
HEAD PROFESSOR(S)	CAMMA' CALOGERO	Professore Ordinario	Univ. di PALERMO
	CRAXI ANTONIO	Professore Ordinario	Univ. di PALERMO
	ALMASIO PIER LUIGI	Professore a contratto in quiescenza	Univ. di PALERMO
OTHER PROFESSOR(S)	NAPOLITANO	Professore Associato	Univ. di PALERMO
	MARIASANTA		
	MANCUSO SALVATRICE	Ricercatore	Univ. di PALERMO
	CRAXI ANTONIO	Professore Ordinario	Univ. di PALERMO
	SIRAGUSA SERGIO	Professore Ordinario	Univ. di PALERMO
	ALMASIO PIER LUIGI	Professore a contratto in quiescenza	Univ. di PALERMO
	PETTA SALVATORE	Professore Associato	Univ. di PALERMO
CREDITS	6		
PROPAEDEUTICAL SUBJECTS	17453 - PATHOPHYSIOLOGY AND MEDICAL METHODOLOGY - INTEGRATED COURSE		
MUTUALIZATION			
YEAR	4		
TERM (SEMESTER)	1° semester		
ATTENDANCE	Mandatory		
EVALUATION	Out of 30		
TEACHER OFFICE HOURS	<b>ALMASIO PIER LUIGI</b> Monday 8:30 10:30 Piano terra Padiglione Cliniva Medica I <b>CAMMA' CALOGERO</b> Wednesday 12:00 15:00 clinica medica I, DIBIMIS, Palermo <b>MANCUSO SALVATRICE</b> Monday 12:00 14:00 Ematologia, Policlinico° piano Tuesday 12:00 14:00 Ematologia, Policlinico° piano Wednesday 12:00 14:00 Ematologia, Policlinico° piano Thursday 12:00 14:00 Ematologia, Policlinico° piano Friday 13:00 15:00 Ematologia, Policlinico° piano <b>NAPOLITANO MARIASANTA</b> Friday 9:00 12:00 UOC Ematologia <b>PETTA SALVATORE</b> Monday 15:00 16:00 Sezione di Gastroenterologia e Epatologia, Di.Bi.M.I.S. <b>SIRAGUSA SERGIO</b> Tuesday 16:00 18:00 Direzione dell'UO di Ematologia, Policlinico P. Giaccone		

**DOCENTE:** Prof. ANTONIO CRAXI- Sede CHIRONE

<b>PREREQUISITES</b>	Ultimate goal of the course is to obtain knowledge and understanding in the field of pathophysiology, clinical and medical treatment of the main digestive diseases, hepato-biliary and pancreatic and major hematological and hemostasis disorders, as well as knowledge of the aspects of functional and instrumental semiotics and clinical methodology specific field. prerequisite, as well all'avvenuto passing exams relating to courses listed as preparatory for the CI (17453 - Pathophysiology and medical methodology), is the proper knowledge of the concepts of human anatomy and histology, Biology and Genetics, Physiology, Pathology, Immunology, Microbiology and virology inherent in the educational objectives of the course.
<b>LEARNING OUTCOMES</b>	The student will need to: <ul style="list-style-type: none"> <li>• acquire knowledge and skills 'understanding regarding the morphology and function' of the gastrointestinal tract, liver, biliary tract and pancreas, and for the main hematological diseases and haemostasis</li> <li>• show ability 'to apply knowledge and understanding of the diseases in question, with adequate skills' communicative, patient management</li> <li>• show ability 'learning and practical application of physiology and pathophysiology techniques gastroenterological and haematological</li> </ul>
<b>ASSESSMENT METHODS</b>	Students at the end of C.I. will need to demonstrate: <ul style="list-style-type: none"> <li>- Ability 'to apply their knowledge and ability' to understand for a professional approach to clinical problems of gastroenterology and hematology interest, demonstrating adequate capacity 'to solve clinical problems in the above areas.</li> <li>- Ability 'to gather and interpret relevant clinical data and independently formulate diagnostic hypotheses most' likely</li> <li>- Ability 'to communicate information, data, and diagnostic and therapeutic solutions to other industry professionals</li> <li>- Capacity 'learning needed to undertake further studies independently.</li> </ul>
<b>TEACHING METHODS</b>	Teaching will be conducted through lectures and theoretical and practical training (Internship through exercises Department, in Outpatient and Diagnostic Services at. Discussions of clinical cases and simulation of diagnosis and treatment algorithms)

**DOCENTE:** Prof. CALOGERO CAMMA'- Sede HYPATIA

<b>PREREQUISITES</b>	Physiology, General Pathology,
<b>LEARNING OUTCOMES</b>	Knowledge and understanding. The student must have a good knowledge of the pathogenic mechanisms, clinical symptoms, diagnostic and therapeutic perspectives of the main diseases in the field of internal medicine-gastroenterology. Learning of these concepts will be evaluated through an interdisciplinary verification questionnaire (multiple choice test, at least 2 during the semester), followed by interactive correction of the questionnaire for a more appropriate analysis of potential cognitive learning errors. Capacity to apply knowledge and understanding Capacity to recognize the most common clinical scenarios of internal medicine /gastroenterology. Ability to assess the clinical dentistry implications of systemic disease. Capacity of a correct approach to the treatment of systemic diseases of internal medicine competence. The assessment of these skills will be carried out through an interview with the student and any subsequent practice test. Enable communication Capacity to expose the medical staff, the patient and family members who request the current and prognostic significance of the medical condition in question. Capacity & Learning. Capacity to update their medical and surgical knowledge, diagnostic and therapeutic consulting scientific publications present on the main databases (PubMed, Embase, Excerpta Medical) treasury of internal medicine, gastroenterology sector. Capacity to perform, using the specific knowledge acquired during the course, either master of 1 ° and 2 ° level, or advanced courses and specialty seminars.
<b>ASSESSMENT METHODS</b>	Test Type : Oral examination . The test is intended to assess whether the student have knowledge and understanding of the topics of the integrated teaching/running program, independent judgment, ability to apply their knowledge , discipline -specific language . Minimum number of questions: Students must answer at least three questions posed orally, which will cover all the topics of the integrated teaching / course program , with reference to the recommended texts . Evaluation and its criteria: The evaluation is on a scale of thirty, as shown in the diagram below. ECTS grades 30-30 cum laude, A – A+ Excellent 27-29, B, Very good 23-25, C, Good 21-23, D, Satisfactory 18-20, E, Sufficient 1-17, F, Fail
<b>TEACHING METHODS</b>	Frontal lessons and bedside teaching

**DOCENTE:** Prof. PIER LUIGI ALMASIO- Sede *IPPOCRATE*

<b>PREREQUISITES</b>	The student must have acquired, before attending the integrated course, knowledge about the following subjects: Human Anatomy, Histology and Embryology, Biochemistry, Biology and Genetics, Physiology, Microbiology, Immunology, Pathology, Clinical Pathophysiology
<b>LEARNING OUTCOMES</b>	<p>- The objective is the attainment of knowledge and understanding in the field of pathophysiology, clinical and medical and surgical treatment of the main digestive diseases, hepato-biliary and pancreatic and major hematological and hemostasis disorders.</p> <p>Secondary goal is also knowledge of the aspects of functional and instrumental semiotics and clinical methodology specific field.</p> <p>Learners at the end of the Integrated Course. They will have to demonstrate that they have achieved the following objectives:</p> <ul style="list-style-type: none"><li>- Ability to apply their knowledge and understanding in a manner that indicates a professional approach to clinical problems of gastroenterology and hematology interest, demonstrating adequate skills to solve clinical problems in the above areas.</li><li>- Ability to gather and interpret relevant clinical data and to formulate the most likely diagnostic hypotheses independently</li><li>- Ability to communicate information, data, and diagnostic and therapeutic solutions to other industry professionals</li><li>- Learning skills needed to undertake further studies independently</li></ul>
<b>ASSESSMENT METHODS</b>	<p>The examination is based on an oral exam. These are the criteria for evaluation.</p> <p>Excellent A - A + Excellent 30-30 laude Excellent knowledge of teaching content; the student demonstrates high analytic-synthetic capacity and is able to apply the knowledge to solve problems of high complexity</p> <p>Excellent B Very good 27-29 Excellent knowledge of teaching content and excellent properties of language; the student demonstrates analytical-synthetic capacity and able to apply the knowledge to solve problems of medium complexity and, in some cases, even high</p> <p>Good C Good 24-26 Good knowledge of teaching content and good properties of language; the student is able to apply knowledge to solve problems of medium complexity</p> <p>Discrete D Satisfactory 21-23 Good knowledge of teaching content, in some cases limited to the main topic; acceptable ability to use the specific language of the discipline and independently apply the knowledge acquired</p> <p>Sufficient E Sufficient 18-20 Minimal knowledge of teaching content, often limited to the main topic; modest ability to use the specific language of the discipline and independently apply the knowledge acquired</p> <p>Insufficient F Fail It does not have an acceptable knowledge of the main teaching content; very little or no ability to use the specific language of the discipline and independently apply the knowledge acquired</p>
<b>TEACHING METHODS</b>	The integrated course is organized into lectures (60 hours) and in theoretical and practical training (30 hours)

## MODULE GASTROENTEROLOGY

*Prof. ANTONIO CRAXI - Sede CHIRONE, - Sede CHIRONE*

### SUGGESTED BIBLIOGRAPHY

Manuale di Gastroenterologia / Unigastro, Coordinamento nazionale docenti universitari malattie dell'apparato digerente. - Edizione 2016-2018. - Roma: Editrice Gastroenterologica Italiana, [2016].  
Rugarli. Medicina Interna Sistemica. Sesta Edizione. Parte 3, parte 4 (dal capitolo 23 al capitolo 36)

<b>AMBIT</b>	50407-Formazione clinica interdisciplinare e medicina basata sulle evidenze
<b>INDIVIDUAL STUDY (Hrs)</b>	45
<b>COURSE ACTIVITY (Hrs)</b>	30

### EDUCATIONAL OBJECTIVES OF THE MODULE

The student must:

- acquire knowledge of the pathogenetic mechanisms that determine the digestive diseases and their evolution; know the pathophysiology of the gastrointestinal tract, liver, biliary tract and pancreas
- know how to apply this knowledge in the interpretation of the clinical pictures of patients with hepato-gastroenterology and pancreatic diseases
- acquire the clinical and technical knowledge related to diagnostics and gastroenterology therapy and the ability 'to apply them correctly
- acquire theoretical skills in laboratory and instrumental methods applied to the pathophysiology and clinical gastroenterology with particular emphasis on immunological techniques, the functional assessment techniques of the various digestive tracts, liver and gastroenterological diagnostic imaging
- evaluate the pathophysiological and clinical connections between digestive problems and problems of other organs and systems.

## SYLLABUS

Hrs	Frontal teaching
30	<p>1 hour Dysphagia and esophageal motor disease.</p> <p>1 hour hiatal hernia, gastroesophageal reflux disease.</p> <p>2 hours disorders Helicobacter pylori. acute and chronic gastritis. Gastropathies drug.</p> <p>1 hour Peptic Ulcer</p> <p>2 hours Celiac disease and malabsorption.</p> <p>2 hours Chronic diarrheal diseases and infectious etiology disendocrina.</p> <p>1 hour inflammatory bowel diseases (Crohn's disease) and their complications</p> <p>1 hour inflammatory bowel disease (ulcerative colitis) and their complications</p> <p>1 hour Constipation.</p> <p>2 hours acute viral hepatitis. Acute liver failure</p> <p>2 hours chronic viral hepatitis.</p> <p>2 hours Cirrhosis</p> <p>1 hour Hepatocarcinoma</p> <p>1 hour non-alcoholic steatosis and steatohepatitis.</p> <p>1 hour liver disease from alcohol. liver damage from drugs.</p> <p>2 hours hereditary hemochromatosis; Secondary liver siderosis. Wilson's disease and other genetic disorders of metabolism in liver involvement</p> <p>1 hour autoimmune liver diseases (primary biliary cirrhosis, sclerosing cholangitis)</p> <p>2 hours acute pancreatitis. chronic pancreatitis</p> <p>1 hour irritable bowel syndrome, constipation</p> <p>2 hours hereditary-metabolic hyperbilirubinemias</p> <p>1 hour liver transplant</p>
Hrs	Practice
10	<p>CLINICAL PRACTICE</p> <p>Internship with clinical exercises in the Department, bedside and in Outpatient and Diagnostic Services. Discussion of clinical cases and simulation of diagnosis and treatment algorithms.</p>

## MODULE GASTROENTEROLOGY

*Prof. PIER LUIGI ALMASIO - Sede IPPOCRATE, - Sede IPPOCRATE*

### SUGGESTED BIBLIOGRAPHY

Manuale di Gastroenterologia / Unigestro, Coordinamento nazionale docenti universitari malattie dell'apparato digerente. - Edizione 2013-2015. - Roma: Editrice Gastroenterologica Italiana, [2015].  
Rugarli. Medicina Interna Sistemica. Sesta Edizione. Parte 3, parte 4 (dal capitolo 23 al capitolo 36)  
Core curriculum. Gastroenterologia di Layos Okolicsanyi e Luigi Roncoroni. McGraw-Hill Education .

<b>AMBIT</b>	50407-Formazione clinica interdisciplinare e medicina basata sulle evidenze
<b>INDIVIDUAL STUDY (Hrs)</b>	45
<b>COURSE ACTIVITY (Hrs)</b>	30

### EDUCATIONAL OBJECTIVES OF THE MODULE

#### LEARNING OBJECTIVES OF MODULE

##### 1. Basic Educational Goals.

The student must:

- acquire knowledge of the morphology, and function of the gastrointestinal tract, liver, biliary tract and pancreas
- learn and apply the methods of physiology and gastrointestinal and hepatic pathophysiology

##### 2. Distinctive educational objectives of the course

The student must:

- acquire the knowledge of the pathogenic mechanisms that affect digestive diseases and their evolution; know the pathophysiology of the gastrointestinal tract, liver, biliary tract and pancreas
- know how to apply this knowledge to recognize the clinical pictures of patients with hepato-gastroenterology and pancreatic diseases
- acquire clinical and technical knowledge related to diagnostics approach and therapy and ability of a correct application
- acquire theoretic skills in laboratory and instrumental methods applied to the pathophysiology and clinical gastroenterology with particular emphasis on immunological techniques, functional assessment techniques of the various digestive tracts, liver and gastroenterological diagnostic imaging
- evaluate the pathophysiological and clinical connections between digestive problems and complications of other organs and systems.

## SYLLABUS

Hrs	Frontal teaching
1	Dysphagia and esophageal motor disease.
1	Hiatus hernia, gastroesophageal reflux disease.
2	Diseases due to Helicobacter pylori. Acute and chronic gastritis. Drug-induced gastropathies.
1	Peptic ulcer
2	Celiac disease and malabsorption.
2	Pathophysiology and classification of acute and chronic diarrhea
2	Inflammatory bowel diseases (Crohn's disease and ulcerative colitis) and their complications
1	Pathophysiology and classification of constipation
2	Acute viral hepatitis. Acute liver failure
2	Chronic viral hepatitis
2	Liver cirrhosis and its complications
1	Benign and malignant liver tumors
1	Steatosis and nonalcoholic steatohepatitis.
1	Liver disease from alcohol. Liver damage from drugs.
1	Hereditary hemochromatosis; Secondary liver siderosis. Wilson's disease and other genetic disorders of metabolism with liver involvement
1	Liver transplant
1	Autoimmune liver diseases (autoimmune hepatitis, primary biliary cholangitis, sclerosing cholangitis)
2	Acute pancreatitis. Chronic pancreatitis
Hrs	Practice
15	Internship through exercises with Patients admitted to our Department, in Outpatient and Diagnostic Services. Discussion of clinical cases and simulation of diagnosis and treatment algorithms

## MODULE GASTROENTEROLOGY

*Prof. SALVATORE PETTA - Sede HYPATIA, - Sede HYPATIA*

### SUGGESTED BIBLIOGRAPHY

MANUALE UNIGASTRO

<b>AMBIT</b>	50407-Formazione clinica interdisciplinare e medicina basata sulle evidenze
<b>INDIVIDUAL STUDY (Hrs)</b>	45
<b>COURSE ACTIVITY (Hrs)</b>	30

### EDUCATIONAL OBJECTIVES OF THE MODULE

Test Type : Oral examination . The test is intended to assess whether the student have knowledge and understanding of the topics of the integrated teaching/running program, independent judgment, ability to apply their knowledge , discipline -specific language . Minimum number of questions: Students must answer at least three questions posed orally, which will cover all the topics of the integrated teaching / course program , with reference to the recommended texts . Evaluation and its criteria: The evaluation is on a scale of thirty, as shown in the diagram below. ECTS grades 30-30 cum laude, A – A+ Excellent 27-29, B, Very good 23-25, C, Good 21-23, D, Satisfactory 18-20, E, Sufficient 1-17, F, Fail

## SYLLABUS

Hrs	Frontal teaching
2	Liver function and mechanisms of acute and chronic liver damage
2	viral hepatitis
2	alcohol related liver disease, autoimmune disease, DILI
2	gastroesophageal reflux, peptic disease Hp infection
4	liver cirrhosis, epidemiology natural course, diagnosis, prognosis and treatment
2	Complication of liver cirrhosis and treatment
2	acute and chronic diarrhea and irritable bowel disease
4	IBD: Crohn disease and ulcerative colitis
2	celiac disease
2	Jaundice and gallbladder disease
2	Primary biliary cirrhosis and sclerosing cholangitis
2	Hepatocellular carcinoma and cholangiocarcinoma
2	acute and chronic pancreatitis

## MODULE BLOOD DISEASES

*Prof. SERGIO SIRAGUSA - Sede CHIRONE, - Sede CHIRONE*

### SUGGESTED BIBLIOGRAPHY

Core Curriculum Ematologia 2ed. Autore: Gianluigi Castoldi, Vincenzo Liso - Edizione 2014, The McGraw-Hill Education Companies

<b>AMBIT</b>	50407-Formazione clinica interdisciplinare e medicina basata sulle evidenze
<b>INDIVIDUAL STUDY (Hrs)</b>	45
<b>COURSE ACTIVITY (Hrs)</b>	30

### EDUCATIONAL OBJECTIVES OF THE MODULE

Transmission and assessment of the necessary knowledge of Haematology, from the basic life sciences to the most advanced therapeutic procedures, considering that from a scientific point of view, the haematology lies between the basic biomedical research and more advanced clinical research.

Students will attend real clinical cases, aiming to the description of the most frequent haematologic pathologies.

The blood will be presented in its peculiarities of tissue, to be known from the morphological and functional point of view.

## SYLLABUS

Hrs	Frontal teaching
2	Physiology of haematopoietic cells
1	Bone marrow failure
2	Myeloproliferative neoplasm Ph negative
1	Chronic Myeloid Leukemia
1	Myelodysplastic syndrome
2	Hyporegenerative anemias
2	Haemolytic anemias and related disorders
2	Platelet disorders
2	Coagulation
1	Bleeding disorders
1	Thrombophilia
3	Plasmacells disorders (Myeloma and related diseases)
2	Lymphoproliferative diseases
2	Non Hodgkin lymphomas (aggressive and indolent)
1	Hodgkin lymphoma
1	Acute Myeloid leukemia
1	Acute Lymphoid Leukemia
1	General approach at the hematological treatment
1	Stem Cells Haemotopoietic transplantation
1	Haematological cell transfusion: general concept
Hrs	Practice
3	Haematological clinical signs and symptoms
5	clinical scenarios: discussion
4	Therapy: practical approach
Hrs	Workshops
3	cells morphology

## MODULE BLOOD DISEASES

*Prof.ssa MARIASANTA NAPOLITANO - Sede HYPATIA, - Sede HYPATIA*

### SUGGESTED BIBLIOGRAPHY

EMATOLOGIA DI MANDELLI - a cura di Giuseppe Avvisati - Piccin  
MALATTIE DEL SANGUE E DEGLI ORGANI EMATOPOIETICI - Castoldi e Liso - Mac Graw Hill

<b>AMBIT</b>	50407-Formazione clinica interdisciplinare e medicina basata sulle evidenze
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## SYLLABUS

Hrs	Frontal teaching
1	Hemopoiesis
1	Stem cell disease: bone marrow failure
2	Ph- negative Myeloproliferative neoplasms (Polycythaemia Vera, Essential Thrombocythemia, Primary Myelofibrosis)
1	Chronic myeloid leukaemia
2	The myelodysplastic syndroms
1	Anemia for reduced production
2	Haemolytic anaemia
1	Platelet disorders: thrombocytopenia and abnormalities of platelet functions
1	Normal haemostasis
1	Inherited and acquired bleeding disorders
1	Heritable and acquired thrombophilia
2	Plasma cells dyscrasias (MGUS, Smouldering and Symptomatic Multiple Myeloma)
2	Plasma cells dyscrasias (Amyloidosis, Waldenstrom' disease)
1	Lymphoproliferative disorders (Chronic lymphocytic leukaemia, Hairy cell Leukaemia)
1	Hodgkin' disease
1	Aggressive Non Hodgkin lymphoma
1	Indolent non Hodgkin lymphoma
2	Acute myeloid leukaemia
2	Acute lymphoblastic leukaemia
1	Chemotherapy and treatment strategy: assessment of the response (minimal residual disease, complete, partial and molecular remission)
1	Autologous and allogenic stem cell transplantation
2	Clinical blood transfusion
Hrs	Practice
3	Lymphadenopathy, splenomegaly, bleeding manifestations
5	Haematologic diseases: case reports



## MODULE BLOOD DISEASES

*Prof.ssa SALVATRICE MANCUSO - Sede IPPOCRATE, - Sede IPPOCRATE*

### SUGGESTED BIBLIOGRAPHY

EMATOLOGIA DI MANDELLI - a cura di Giuseppe Avvisati - Piccin  
MALATTIE DEL SANGUE E DEGLI ORGANI EMATOPOIETICI - Castoldi e Liso - Mac Graw Hill

<b>AMBIT</b>	50407-Formazione clinica interdisciplinare e medicina basata sulle evidenze
<b>INDIVIDUAL STUDY (Hrs)</b>	45
<b>COURSE ACTIVITY (Hrs)</b>	30

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Students will attend real clinical cases, aiming to the description of the most frequent haematologic pathologies.

The blood will be presented in its peculiarities of tissue, to be known from the morphological and functional point of view.

## SYLLABUS

Hrs	Frontal teaching
1	Hemopoiesis
1	Stem cell disease; bone marrow failure
2	Ph-negative Myeloproliferative neoplasms (Polycythaemia Vera, Essential Thrombocythaemia, Primary Myelofibrosis)
1	Chronic myeloid leukaemia
2	The myelodysplastic syndromes
1	Anaemia for reduced production
2	Haemolytic anemia
1	Platelet disorders: thrombocytopenia and abnormalities of platelets functions
1	Normal haemostasis
1	Inherited and acquired bleeding disorders
1	Heritable and acquired thrombophilia
2	Plasma cells dyscrasias (MGUS, Smouldering and Symptomatic Multiple Myeloma)
2	Plasma cells dyscrasias (Amyloidosis, Waldenstrom' disease)
1	Lymphoproliferative disorders (Chronic lymphocytic leukaemia, Hairy cell Lekaemia)
1	Hodgkin' disease
1	Aggressive Non Hodgkin lymphoma
1	Indolent non Hodgkin lymphoma
2	Acute myeloid leukaemia
2	Acute lymphoblastic leukaemia
1	Chemotherapy and treatment strategy: assessment of the response (minimal residual disease, complete, partial and molecular remission)
1	Autologous and allogenic stem cell transplantation
2	Clinical blood transfusion
Hrs	Practice
3	Lymphadenopathy, splenomegaly, bleeding manifestations
5	Haematologic diseases: case reports
3	Blood film examination
4	Therapy in Haematology (blood transfusion, protocols of chemotherapy)