

**MEDICAL UNIVERSITY - PLOVDIV**  
**MEDICAL FACULTY**

**SYLLABUS**  
**IN**  
**GASTROENTEROLOGY**

**Approved by the Department Council № 49 on May, 25<sup>th</sup> 2022**

**Confirmed by the Faculty Council – Protocol №7/13.07.2022**

## Syllabus

Discipline	Final exam /semester/	Auditorium classes				ECTS non-auditorium classes	ECTS total	Academic hours in years and semesters	
		Total	Lectures	Practices	ECTS			V <sup>th</sup> year	
								IX	X
II <sup>nd</sup> part ID Gastroenterology	X	210	60	150	7.0	4.0	11.0*	2/5	2/5

**\*For the whole module Internal Diseases Part II**

**DISCIPLINE:**

Gastroenterology - II<sup>nd</sup> part of Internal Diseases

**TYPE OF DISCIPLINE ACCORDING TO THE UNIFORM STATE REQUIREMENTS:**

Mandatory

**LEVEL OF QUALIFICATION:**

Master's Degree

**FORMS OF TRAINING:**

Lectures, practices, self preparation

**YEAR OF TRAINING:** V<sup>th</sup> course

**DURATION OF TRAINING:**

English educated students - 2 semesters - IX and X semester

The education is hold in 3 cycles of 10 weeks, during the two semesters.

**ACADEMIC HOURS:**

English educated students – each cycle of 10 weeks – 20 h lectures, 50 h practices.

For the three cycles, total /IX-X semesters/ - 60h lectures, 150h exercises

**TECHNICAL EQUIPMENT APPLIED IN THE TRAINING:**

Multimedia presentations, schedules, slides on diagnostics and treatment of the different diseases of the gastrointestinal system, liver, bile ducts and the pancreatic gland, training in abdominal ultrasound, blind liver biopsy, thin needle aspiration biopsy, upper and lower endoscopy.

**FORMS OF EVALUATION:**

Current control – a test at the beginning of the cycle of exercises in gastroenterology and hepatology, checking of knowledge during practices, oral examination, a test at the end of the cycle of exercises.

Final control – a test, a clinical case, an oral exam for calculation of the final mark.

**EVALUATION CRITERIA:**

A mean ongoing assessment for each cycle of 10 weeks

**ASPECTS OF EVALUATION CRITERIA:**

Assessment of the theoretic preparation for the exercise, acquired skills in managing the patient, participation in practices and when discussing on patients, tests and clinical cases.

**SEMESTER EXAM:**

Yes / test, clinical case, oral examination /

**STATE EXAM:**

Yes / written and oral exam /

**LECTURER:**

Ass. Prof. Daniel Doykov

**DEPARTMENT:**

II<sup>nd</sup> Department of Internal Diseases

## **ANNOTATION**

Diseases of the gastrointestinal tract, hepatobiliary system and the pancreas. Main nosologic units. Etiology, pathogenesis, classifications. Clinical signs, clinical forms, diagnosis, differential diagnosis of the diseases of the gastrointestinal tract, hepatobiliary system and the pancreas. Treatment principles. Dietary regimens. Drug therapy. Conservative treatment of the complications. Consensuses for the treatment of the main nosologic units.

## **BASIC AIMS OF THE DISCIPLINE**

The main task of the discipline – acquiring of knowledge and skills in the diagnostics and treatment of the diseases of the gastrointestinal tract, hepatobiliary system and the pancreas.

Assimilation of knowledge and skills, necessary for the examination of patients with gastrointestinal diseases, applying the main physical methods, establishment of diagnosis and prescribing of therapy, estimation of the disease prognosis. Getting familiar to the indications and possibilities of the basic paraclinical methods for investigation and confirmation of the diagnosis.

## **EXPECTED RESULTS**

Acquisition of knowledge in the etiology, pathogenesis, clinical signs, differential diagnosis and treatment of the diseases of the gastrointestinal tract, hepatobiliary system and the pancreas.

Acquisition of practical skills in the diagnostics and treatment of the diseases of the gastrointestinal tract, hepatobiliary system and the pancreas.

## LECTURES IN GASTROENTEROLOGY

WEEK	LECTURE
1 week	Diseases of the esophagus – 2h
2 week	Gastritis – chronic gastritis – 2 h
3 week	Ulcer disease of the stomach and the duodenum – 2 h
4 week	Gastric cancer – 2 h
5 week	Enterocolitis– 2h
6 week	Ulcerative colitis. Crohn disease - 2 h
7 week	Chronic hepatitis – 2 h
8 week	Liver cirrhosis – 2 h
9 week	Gallstone disease – 2 h
10 week	Pancreatitis. Pancreatic cancer – 2 h

## EXERCISES IN GASTROENTEROLOGY

WEEK	EXERCISES
1 week	1. Examination of a gastroenterologic patient. Main symptoms – 3 h 2. Examination of the stomach. GORD. Acute gastritis – 2h
2 week	1. Chronic gastritis – 3 h 2. Chronic gastritis - treatment – 2 h
3 week	1. Ulcer disease of the stomach and the duodenum – clinical signs, complications – 3 h 2. Ulcer disease of the stomach and the duodenum – 2 h
4 week	1. Stomach cancer. Early diagnostics – 3 h 2. Functional disorders of the stomach – 2 h
5 week	1. Enteritis – 3 h 2. Enteropathies /Spru/. Crohn disease – 2 h
6 week	1. Chronic colitis. Ulcerative colitis – 3 h

	<b>2. Large bowel cancer – 2 h</b>
<b>7 week</b>	<b>1. Examination of the liver –3 h</b> <b>2. Chronic hepatitis – 2 h</b>
<b>8 week</b>	<b>1. Liver cirrhosis – clinical signs, complications – 3 h</b> <b>2. Liver cirrhosis – treatment – 2 h</b>
<b>9 week</b>	<b>1. Gall - stone disease – 3 h</b> <b>2. Chronic inflammation of the gall bladder – 2 h</b>
<b>10 week</b>	<b>1. Chronic pancreatitis – 3 h</b> <b>2. Pancreatic gland and bile ducts cancer – 2 h</b>

## **COURSE OF LECTURES IN GASTROENTEROLOGY AND HEPATOTLOGY**

### **Lecture № 1- 2 hours**

#### **DISEASES OF OESOPHAGUS. DISEASES OF STOMACH. GASTRITIS**

Definition of the term gastritis. Classification of gastritis. The Sydney System. Histomorphology of acute and chronic gastritis. Etiology and pathogenesis of gastritis. Clinical signs of gastritis. Clinical forms (according to severity). Chronic gastritis of the corpus (type A). Chronic gastritis of the antrum (type B). Special forms of gastritis. Diagnostics and differential diagnosis of gastritis.

### **Lecture № 2- 2 hours**

#### **TREATMENT OF GASTRITIS**

Functional examination of stomach. Treatment of gastritis – acute and chronic. Etiological treatment of gastritis. Special features of the treatment of chronic gastritis of the corpus (chronic gastritis type A) and chronic gastritis of the antrum (chronic gastritis type B). Substitutional therapy.

### **Lecture № 3- 2 hours**

#### **ULCER DISEASE**

Definition of the term ulcer disease and peptic ulcer. Classification of ulcer disease. Etiology of the disease: endogenic and exogenic factors. Pathogenesis: acido-peptic theory – aggressive factors, cellularity and stomach secretion in ulcer disease of the stomach (UDS) and ulcer disease of the duodenum (UDD). Cellular mechanisms of stomach secretion. Pathogenic significance of *H. pylori* in UDS and UDD. Mucous barrier and recurrent diffusion of H<sup>+</sup> conceptions. Protective mechanisms of the stomach mucosa. Clinical picture of the ulcer disease of the stomach and the duodenum. Conservative treatment of the ulcer disease.

### **Lecture № 4 - 2 hours**

#### **STOMACH CANCER. EARLY DIAGNOSIS**

Definition of the term early cancer. Frequency and social significance of the disease. Etiology and pathogenesis. Pathology and classification of stomach cancer. Clinical picture of the early stomach cancer. Endoscopic signs and types of the early stomach cancer. X-ray diagnostics of the early and the advanced stomach cancer. Immuno-diagnostics – tumor markers and their significance. Differential diagnosis. Differential diagnosis between the benign and malignant stomach ulcer. Prophylaxis. Conservative treatment.

**Lecture № 5 - 2 hours**

**ENTEROCOLITIS**

Definition of the term acute and chronic enterocolitis. Etiology: predisposition and causative factors. Pathogenesis – significance of prostaglandin's and leucotriens. Pathological changes. Classification of the chronic non-specific enterocolitis. Clinical features of chronic enterocolitis. Diagnosis. Coprological and microbiological tests. Diagnostic tests. X-ray examination of the small intestine. Treatment of enterocolitis.

**Lecture № 6 - 2 hours**

**ULCERATIVE COLITIS**

Definition of the term ulcerative colitis. Etiology and pathogenesis. Basic theories. Immune factors. Pathologic anatomy. Forms of the disease according to localisation of the process. Clinical signs. Clinical forms. Basic syndromes. Diagnosis and differential diagnosis. Complications: local and general. Treatment. Diet. Salazopyrin and 5-ASA deviates. Corticotropin, corticosteroids, immune suppressers, etc.

**Lecture № 7 – 2 hours**

**CHRONIC HEPATITIS**

Definition of the term chronic hepatitis. Classifications. Etiology. Viral markers. Pathogenesis. Pathogenesis of the chronic viral hepatitis. Histopathology of chronic hepatitis. Histological forms. Chronic viral hepatitis. Clinical features of chronic hepatitis. Chronic autoimmune hepatitis. Diagnosis and differential diagnosis of chronic hepatitis. Treatment: diet, drug therapy of chronic hepatitis.

**Lecture № 8 – 2 hours**

**LIVER CIRRHOSIS**

Definition of the term liver cirrhosis. Classifications. Etiology. Pathogenesis of liver cirrhosis. Macroscopic and histomorphological features. Clinical signs of micro- and macronodular cirrhosis. Laboratory manifestations. Instrumental methods of examination. Treatment of liver cirrhosis. Dietary regimen. Drug therapy. Treatment of the complications.

**Lecture № 9 – 2 hours**

**GALLSTONE DISEASE**

Definition of the term cholelithiasis and choledocholithiasis. Etiology. Pathogenesis of cholesterol and bilirubin cholelithiasis. Clinical signs. Clinical forms. Development and complications of cholelithiasis. Choledocholithiasis. Evolution and complications. Diagnostics of cholelithiasis and choledocholithiasis. Instrumental methods. Treatment of

gallstone disease. Dietary regimen. Drug therapy. Endoscopic methods of treatment of chole- and choledocholithiasis.

**Lecture № 10 – 2 hours**

**PANCREATITIS. BILE DUCTS' AND PANCREATIC CANCER**

Definition of the term pancreatitis. Marseille's classification of pancreatitis. Etiology and pathogenesis. Clinical picture. Clinical syndromes. Complications of pancreatitis. Diagnosis and differential diagnosis of pancreatitis. Treatment of chronic pancreatitis: dietary, substitutional and symptomatic. Pancreatic cancer.

**PRACTICAL EXERCISES  
IN GASTROENTEROLOGY AND HEPATOLOGY**

**Exercise №1 - 3 hours**

**Examination of a patient with gastrointestinal disease. Basic symptoms in gastroenterology** - Examination of a patient, a brief oral exam

**Exercise № 2 - 2 hours**

**Examination of the stomach. Acute gastritis** - Examination of a patient, a brief oral exam, de-monstration of upper GI endoscopy

**Exercise № 3 - 3 hours**

**Chronic gastritis** - Examination of a patient, a brief oral exam, demonstration of upper GI endo-scopy

**Exercise № 4 - 2 hours**

**Treatment of gastritis** - Examination of a patient, prescription of therapy, a brief oral exam, pre-paration of a dietary regimen

**Exercise № 5 - 3 hours**

**Ulcer disease of the stomach and the duodenum – clinical signs, complications** - Examination of a patient, a brief oral exam, demonstration of upper GI endoscopy

**Exercise № 6 - 2 hours**

**Ulcer disease of the stomach and the duodenum – treatment** - Examination of a patient, a brief oral exam, prescription of therapy, preparation of a dietary regimen

**Exercise № 7 - 3 hours**

**Stomach cancer. Early diagnosis** - Examination of a patient, a brief oral exam, demonstration of upper GI endoscopy

**Exercise № 8 - 2 hours**



**Functional diseases of the stomach** - Examination of a patient, a brief oral exam, preparation of a dietary regimen

**Exercise № 9 - 3 hours**

**Enterocolitis** - Examination of a patient, a brief oral exam, prescription of therapy, preparation of a dietary regimen

**Exercise № 10 - 2 hours**

**Disorders of the small intestine (Celiac disease). Cronn disease** - Examination of a patient, a brief oral exam, demonstration of lower GI endoscopy

**Exercise № 11 - 3 hours**

**Ulcerative colitis** - Examination of a patient, a brief oral exam, demonstration of lower GI endoscopy, prescription of therapy, preparation of a dietary regimen

**Exercise № 12 - 2 hours**

**Colorectal cancer** - Examination of a patient, a brief oral exam, demonstration of lower GI endoscopy

**Exercise № 13 - 3 hours**

**Examination of the liver** - Examination of a patient, demonstration of abdominal ultrasonography

**Exercise № 14 - 2 hours**

**Chronic hepatitis** - Examination of a patient, a brief oral exam, prescription of therapy, preparation of a dietary regimen, demonstration of abdominal ultrasonography, or blind needle biopsy, if available

**Exercise № 15 - 3 hours**

**Liver cirrhosis – clinical signs, complications** - Examination of a patient, a brief oral exam, evacuation of ascites by abdominal paracentesis

**Exercise № 16 - 2 hours**

**Liver cirrhosis – treatment. Liver cancer** - Examination of a patient, a brief oral exam, prescription of therapy, preparation of a dietary regimen

**Exercise № 17 - 3 hours**

**Gallstone disease** - Examination of a patient, a brief oral exam, demonstration of abdominal ultrasonography, preparation of a dietary regimen, prescription of therapy

**Exercise № 18 - 2 hours**

**Chronic cholecystitis** - Examination of a patient, a brief oral exam, demonstration of abdominal ultrasonography

**Exercise № 19 - 3 hours**

**Chronic pancreatitis** - Examination of a patient, a brief oral exam, preparation of a dietary regimen, prescription of therapy

**Exercise № 20 – 2 hours**

**Bile ducts' and pancreatic cancer** - Examination of a patient, a brief oral exam, demonstration of abdominal ultrasonography, or thin needle biopsy, if available

TEXTBOOKS:

1. Clinics and Therapy of Internal Diseases – Dimitrakov and Auth., part II p. 289 – 410, Plovdiv, Polygraphia, 1998, ISBN 954-9529-23-1  
Chapter „Diseases of the Gastrointestinal Tract, Hepatobiliary System and The Pancreas – Iv. Stanchev” – translated in English by E. Cholakova
2. “Clinics and Therapy of Internal Diseases – Nephrology, Endocrinology, Gastroenterology – Dimitrakov and Auth., 2006
3. Oxford Handbook of Gastroenterology and Hepatology, authors Stuart Bloom, George Webster, Daniel Marks; publisher – OXFORD UNIVERSITY PRESS
4. Manual of tests in Gastroenterology;
5. Course of lectures

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**CONSPECTUS IN GASTROENTEROLOGY**  
**V<sup>th</sup> medical course**

1. Diseases of the esophagus – achalasia, hiatal hernias, cancer of the esophagus.
2. Gastroesophageal reflux disease / GERD/. Functional /non-ulcer dyspepsia.
3. Gastritis. Acute and special forms. Acute gastritis.
4. Chronic gastritis.
5. Ulcer disease – etiology and pathogenesis.
6. Ulcer disease of the stomach.
7. Ulcer disease of the duodenum.
8. Ulcer disease – treatment.
9. Complications of ulcer disease.
10. Stomach cancer.
11. Enterocolitis.
12. Crohn disease.
13. Chronic ulcerative colitis.
14. Irritable bowel syndrome.

15. Diverticular disease of the large bowel.
16. Cancer of the rectum and the large bowel.
17. Chronic hepatitis – classification, etiology and pathogenesis.
18. Chronic hepatitis –clinical signs, diagnosis and treatment.
19. Chronic autoimmune hepatitis.
20. Liver cirrhosis – classification, etiology and pathogenesis.
21. Liver cirrhosis – clinical signs, complications, diagnosis, differential diagnosis.
22. Liver cirrhosis – treatment.
23. Primary biliary cirrhosis.
24. Liver cancer.
25. Gallstone disease – etiology, pathogenesis, clinical signs.
26. Gallstone disease – complications, diagnosis, differential diagnosis, treatment.
27. Cholangitis and cholangiohepatitis.
28. Cancer of the gall bladder and the extrahepatic bile ducts.
29. Hepatic /liver/ encephalopathy. Hepatic coma.
30. Pancreatitis. Chronic pancreatitis.
31. Pancreatic cancer.