



# UNIVERSITÀ DEGLI STUDI DI PALERMO

|                                |                                                                                                                                                                                                                                                                                                                  |                                 |                  |
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| <b>DEPARTMENT</b>              | Scienze e Tecnologie Biologiche, Chimiche e Farmaceutiche                                                                                                                                                                                                                                                        |                                 |                  |
| <b>ACADEMIC YEAR</b>           | 2021/2022                                                                                                                                                                                                                                                                                                        |                                 |                  |
| <b>MASTER'S DEGREE (MSC)</b>   | HUMAN FEEDING AND NUTRITION SCIENCES                                                                                                                                                                                                                                                                             |                                 |                  |
| <b>INTEGRATED COURSE</b>       | METABOLIC SYNDROME AND GASTRO-INTESTINAL SYSTEM DISEASES AND FOOD ALLERGY                                                                                                                                                                                                                                        |                                 |                  |
| <b>CODE</b>                    | 20998                                                                                                                                                                                                                                                                                                            |                                 |                  |
| <b>MODULES</b>                 | Yes                                                                                                                                                                                                                                                                                                              |                                 |                  |
| <b>NUMBER OF MODULES</b>       | 2                                                                                                                                                                                                                                                                                                                |                                 |                  |
| <b>SCIENTIFIC SECTOR(S)</b>    | MED/12, MED/04                                                                                                                                                                                                                                                                                                   |                                 |                  |
| <b>HEAD PROFESSOR(S)</b>       | VASTO SONYA                                                                                                                                                                                                                                                                                                      | Professore Associato            | Univ. di PALERMO |
| <b>OTHER PROFESSOR(S)</b>      | VASTO SONYA                                                                                                                                                                                                                                                                                                      | Professore Associato            | Univ. di PALERMO |
|                                | CELSA CIRO                                                                                                                                                                                                                                                                                                       | Ricercatore a tempo determinato | Univ. di PALERMO |
| <b>CREDITS</b>                 | 9                                                                                                                                                                                                                                                                                                                |                                 |                  |
| <b>PROPAEDEUTICAL SUBJECTS</b> |                                                                                                                                                                                                                                                                                                                  |                                 |                  |
| <b>MUTUALIZATION</b>           |                                                                                                                                                                                                                                                                                                                  |                                 |                  |
| <b>YEAR</b>                    | 2                                                                                                                                                                                                                                                                                                                |                                 |                  |
| <b>TERM (SEMESTER)</b>         | 1° semester                                                                                                                                                                                                                                                                                                      |                                 |                  |
| <b>ATTENDANCE</b>              | Not mandatory                                                                                                                                                                                                                                                                                                    |                                 |                  |
| <b>EVALUATION</b>              | Out of 30                                                                                                                                                                                                                                                                                                        |                                 |                  |
| <b>TEACHER OFFICE HOURS</b>    | <p><b>CELSA CIRO</b><br/> Wednesday 10:00 - 12:00 Piazza delle cliniche 2, 90127, Palermo</p> <p><b>VASTO SONYA</b><br/> Monday 10:00 - 11:30 Dipartimento Stebicef, parco d'Orleans, Edificio 16, piano primo<br/> Wednesday 10:00 - 11:30 Dipartimento Stebicef, parco d'Orleans, Edificio 16, piano primo</p> |                                 |                  |

**DOCENTE:** Prof.ssa SONYA VASTO

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| <b>PREREQUISITES</b>      | The ultimate goal of the integrated course is to achieve knowledge and understanding in the field of pathophysiology and medical therapy. Essential prerequisite to have basic knowledge related to the courses of Pathophysiology, Anatomy and Human, Biology and Genetics, Immunology, Microbiology and Virology inherent to the educational objectives of the course                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>LEARNING OUTCOMES</b>  | The student will:<br>- acquire knowledge and understanding skills in relation to metabolic pathology and morphology and functionality of the gastrointestinal tract.<br>- show ability to apply knowledge and understanding of the pathologies in question, with adequate communication skills                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>ASSESSMENT METHODS</b> | <p>Learners at the end of the C.I. will have to demonstrate their ability to apply their knowledge and understanding for a professional approach to clinical problems of gastroenterological interest and metabolic syndrome.</p> <p>Test Tipology: Oral Test. The test aims at assessing whether the student possesses knowledge and understanding of the subjects of the integrated teaching / course program, autonomy of judgment, ability to apply acquired knowledge, specific disciplinary language.</p> <p>Minimum number of questions: The student will have to answer a minimum of three oral questions, which will cover all the topics of the integrated course / course, with reference to the suggested texts.</p> <p>Valuation and Policies: The evaluation is in thirty-five, as shown in the diagram below.</p> <p>Excellent<br/>30- 30 and praise excellent knowledge of subjects, excellent language skills, good analytic ability, the student is able to apply knowledge to solve the problems proposed;<br/>very good<br/>26-29 - Good command of subjects, full language skills, the student is able to apply knowledge to solve the proposed problems.</p> <p>Good<br/>24-25 - Basic Knowledge of Key Arguments, Discrete Language Properties, with limited ability to apply knowledge to the problem solving themselves.</p> <p>Satisfactory<br/>21-23 - He does not fully master the main subjects of the teaching but possesses knowledge, satisfying language skills, poor ability to apply the acquired knowledge independently.</p> <p>Enough<br/>18-20 - Minimum basic knowledge of the main topics of teaching and technical language, little or no ability to apply the acquired knowledge.</p> <p>Insufficient<br/>She does not have an acceptable knowledge of the contents of the topics taught in teaching.</p> |
| <b>TEACHING METHODS</b>   | The lessons will be carried out through lectures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

## MODULE GASTROENTEROLOGY

*Prof. CIRO CELSA*

### SUGGESTED BIBLIOGRAPHY

Malattie dell'Apparato Digerente. Unigastro. Ed. 2019-2022.

|                               |                                         |
|-------------------------------|-----------------------------------------|
| <b>AMBIT</b>                  | 50516-Discipline della Nutrizione Umana |
| <b>INDIVIDUAL STUDY (Hrs)</b> | 102                                     |
| <b>COURSE ACTIVITY (Hrs)</b>  | 48                                      |

### EDUCATIONAL OBJECTIVES OF THE MODULE

Teaching of Gastroenterology goals are to enable the student acquisition of knowledge fundamental ( theoretical and practical)of gastroenterological diseases that allow them to critically evaluate the relevant nutritional approach in relation to the various pathological conditions of man

## SYLLABUS

| Hrs | Frontal teaching                                                          |
|-----|---------------------------------------------------------------------------|
| 3   | Gastro-esophageal reflux disease: anatomy, physiology and pathophysiology |
| 2   | Gastroesophageal reflux disease: diagnosis and nutritional approach       |
| 3   | Role of nutrition in Eosinophilic esophagitis                             |
| 3   | Dyspepsia and acute and chronic gastritis                                 |
| 4   | Celiac disease                                                            |
| 4   | Gluten-free diet and naturally gluten-free foods                          |
| 4   | Malnutrition, maldigestion and malabsorption                              |
| 3   | Inflammatory bowel disease (IBD)                                          |
| 3   | Nutritional approach to IBD                                               |
| 3   | Colorectal cancer                                                         |
| 3   | Irritable Bowel Syndrome and low-FODMAP diet                              |
| 3   | Acute pancreatitis                                                        |
| 3   | Diagnosis and nutritional approach of chronic pancreatitis                |
| 3   | Cholelithiasis and choledocholithiasis                                    |
| 4   | Non-alcoholic fatty liver disease                                         |
| 3   | Acute and chronic viral hepatitis                                         |
| 3   | Acute and chronic alcohol hepatitis                                       |
| 3   | Liver cirrhosis                                                           |
| 3   | Liver cirrhosis: complications and nutritional approach                   |

**MODULE**  
**GASTRO-INTESTINAL SYSTEM PATHOLOGY**

*Prof.ssa SONYA VASTO*

**SUGGESTED BIBLIOGRAPHY**

Robbins e Cotran: Le basi patologiche delle Malattie ed. Elsevier

|                               |                                              |
|-------------------------------|----------------------------------------------|
| <b>AMBIT</b>                  | 20989-Attivit Formative Affini o Integrative |
| <b>INDIVIDUAL STUDY (Hrs)</b> | 51                                           |
| <b>COURSE ACTIVITY (Hrs)</b>  | 24                                           |

**EDUCATIONAL OBJECTIVES OF THE MODULE**

Acquisition of the skills necessary to understand the etiopathogenetic mechanisms of gastrointestinal diseases and alterations of structures, functions and control mechanisms at various levels of integration.

**SYLLABUS**

| <b>Hrs</b> | <b>Frontal teaching</b>                                                                                                                                                                                                                  |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4          | Bases of innate and acquired immune response: antigenic recognition and lymphocyte activation, major histocompatibility complex                                                                                                          |
| 4          | Hypersensitivity reactions. Regional immunity and specialized immune responses in epithelial and immunologically privileged tissues and inflammation.<br>Immunological tolerance and autoimmune diseases (Chron disease, celiac disease, |
| 2          | Gastrointestinal tract diseases (oral cavity, esophagus, stomach, small and large intestine, appendix and anus) hernia, diverticula, scleroderma, reflux disease (GERD)                                                                  |
| 4          | Barret's esophagus, ulcers, gastritis, inflammatory bowel disease (IBD). The role of calprotectin                                                                                                                                        |
| 4          | Carcinogenesis and oncogenic food risk.K-colon                                                                                                                                                                                           |
| 2          | Food allergies and intolerances                                                                                                                                                                                                          |
| 2          | Regressive processes of cells induced by food factors                                                                                                                                                                                    |
| 2          | Food factors with protective action                                                                                                                                                                                                      |