[Medicinski fakultet u Rijeci]

Curriculum
2022/2023

[Za kolegij]

Physiology and Pathophysiology III

Study program:	**Medical Studies in English (R)** [Sveučilišni integrirani prijediplomski i diplomski studij]
Department:	**[Katedra za fiziologiju, imunologiju i patofiziologiju]**
Course coordinator:	**prof. dr. sc. Trobonjača Zlatko, dr. med.**
Year of study:	**3**
ECTS:	**10**
Incentive ECTS:	**0 (0.00%)**
Foreign language:	**Possibility of teaching in a foreign language**

Course information:

The basic aim of this course is to enable the students to acquire knowledge about the physiological mechanisms of the gastrointestinal and hepatobiliary system, the metabolism and regulation of body temperature, and the morphological and functional structure of the endocrine system. Also, the aim of this course is to enable the students to acquire knowledge about the pathophysiological mechanisms and impaired functioning of the gastrointestinal and hepatobiliary system, basic and specific metabolic disorders and endocrinopathies. Encouraging horizontal and vertical integration of knowledge on natural courses of physiological and etiopathogenetic processes will contribute to the understanding of the specificity of the etiological factor activity, i.e. the mechanism of origin, course, and local and systemic consequences of different diseased states.

The course is performed in the winter semester at the third year of study, in the form of lectures (34 teaching hours), seminars (45 teaching hours), and practicals (25 teaching hours), which totals 10 ECTS credits. A) Lectures are a form of classes that provide an introduction and an overview of a thematic unit that is taught in more detail on seminars and practicals. B) Seminars and C) practicals are a form of classes where students actively review and critically discuss physiological and pathophysiological mechanisms (of certain morphological and functional units), which are then explained at the molecular, microenvironmental, organic, systemic and whole-organism level. Active participation of students in the curriculum program is further achieved by D) studying natural integrators of etiopathogenetic events, the so-called etiopathogenetic clusters, E) performing practicals in the laboratory and on computer programs that simulate pathological conditions and provide clinical correlates of certain diseases, and F) performing presentations of certain teaching unit content (PowerPoint presentations).

Class attendance and student participation in all forms of classes are compulsory in accordance with the Law and the Statute of the Faculty of Medicine in Rijeka. Accordingly, student attendance at lectures, seminars, and practicals will be regularly checked. Only justifiable absences due to, for example, illness will be acceptable within the limits allowed and according to the Ordinance on Studies.

The student is obligated to prepare in advance the predefined material that is being discussed on seminars and practicals. The teacher/course coordinator continuously evaluates student participation throughout seminars and practicals (demonstrated knowledge, the ability to correlate morphological, ultrastructural, biochemical and/or functional factors into a complete image of physiological functional systems and certain diseased states). Student activity during classes (lectures, seminars, practicals) is certified in thedaily work log.

Lectures, seminars, and practicals take place according to the Syllabus. Schedule of students by groups can be found on the SharePoint platform of the Department of Physiology and Immunology at the following website: https://spp.uniri.hr/ss_medri/katedre/427 - accessed via an AAI address

List of assigned reading:

1. Guyton A.C., Hall J.E. Textbook of Medical Physiology (13th edition), Elsevier, 2016.

2. Gamulin S., Marušić M., Kovač Z. Pathophysiology (7th edition), Medicinska naklada Zagreb, 2014.

3. Kovač Z. et al. Clinical Pathophysiology – Etiopathogenetic Nodes (Third Book: I-IV part). Medicinska naklada Zagreb 2013.

4. Rukavina, D., Radošević Stašić, B., Lučin, P., Ćuk, M. Handbook for Practicals in Physiology, Neurophysiology, and Immunology, Department of Physiology, Immunology, and Pathological Physiology, Faculty of Medicine in Rijeka, October 2001.

List of optional reading:

1. Ganong, W.F. Review of Medical Physiology, (21st edition) Lange Medical Books / McGraw-Hill, Medical Pub. Division, New York 2004.

2. Vrhovac B. et al. Interna medicina [Internal Medicine], (4th edition), Naklada Ljevak, Zagreb 2008.

3. 3. McPhee,S.J, Ganong, W.F. Pathophysiology of Disease. An introduction to Clinical medicine, (5th edition), Lange Medical Books / McGraw-Hill, Medical Pub. Division, New York 2006.

Curriculum:

Student obligations:

Students are obligated to regularly attend and actively participate in all forms of classes. The student should be prepared for seminar and practical classes and familiarize with the material from the syllabus for each seminar and practical.

Exam (exam taking, description of the written/oral/practical part of the exam, point distribution, grading criteria):

ECTS grading system:

Student work will be evaluated during classes and at the final exam. A maximum of 50 grade points can be obtained during classes and up to 50 grade points at the final exam, which totals 100 grade points.

I. The following components are evaluated during classes (up to 70 grade points):

Acquired knowledge (up to 50 grade points)
During classes, acquired knowledge will be evaluated by means of two tests comprising 50 questions. The first test will be held after teaching the following content: physiology and pathophysiology of metabolism, digestive and hepatobiliary systems. The second test will be held after teaching the following content: physiology and pathophysiology of the endocrine system. A student may obtain up to 25 grade points on each test as follows:

Correct answers	Grade points
48,49,50	**25**
45,46,47	**24**
42,43,44	**23**
39,40,41	**22**
37,38	**21**
35,36	**20**
33,34	**19**
31,32	**18**
29,30	**17**
27,28	**16**
25,26	**15**

Out of the maximum 50 grade points that can be obtained during classes, the student must earn at least 50% (25) grade points in order to take the final exam. A student can access the correction of the first and second midterm exam if they did not obtain a minimum criteria the first time, in case of absence at the midterm exam the first time, or if they are not satisfied with the obtained credits at the exam the first time. If a student retakes the midterm exam because they are not satisfied with the obtained grade points, only the credits obtained at the retaken midterm exam will be considered. Correction of midterm exams will take place between two exam terms in February 2025.
Students who obtain 0-49.9% (0-24.9 grade points) during the course, earn a grade of F (failed), cannot earn ECTS credits and must re-enroll in the course.

II. Final exam (up to 50 grade points)
The final exam consists of an oral and a written part. A student must solve at least 50% of the test in order to access the oral part of the final exam. The written and the oral part of the final exam comprise a sum, and the final grade corresponds to the total number of grade points.

At the written part of the final exam, the student can obtain a maximum of 25 grade points, and a minimum of 13 grade points as shown in the table:

Correct answers	Number of grade points
78,79,80	**25**
75,76,77	**24**
72,73,74	**23**
68,69,70,71	**22**
64,65,66,67	**21**
60,61,62,63	**20**
57,58,59	**19**
54,55,56	**18**
51,52,53	**17**
48,49,50	**16**
46,47	**15**
43,44,45	**14**
40,41,42	**13**

A student can access the oral part of the final exam only if they obtained a minimum of 13 grade points (at least 50% of the test) at the written part of the final exam. A student can obtain grade points at the oral part of the exam as shown in the table:

Grade obtained at the oral part of the final exam	Number of grade points obtained at the oral part of the final exam
excellent (5)	**20-25**
very good (4)	**14-19**
good (3)	**8-13**
sufficient (2)	**2-7**
insufficient (1)	**0**

Who can access the final exam:

Students who obtained 25-50 grade points during classes are obligated to access the final multiple-choice questions (MCQ) test, where they can obtain additional grade points.

• Students who obtained less than 25 grade points during classes or were absent for more than 30% of classes are not allowed to access the final exam.

III. The final grade represents the sum of all grade points obtained during classes and at the final exam. It is based on the absolute redistribution according to the following scale:

A (90-100%)	**excellent (5)**
B (75-89,9%)	**very good (4)**
C (60-74,9%)	**good (3)**
D (50-59,9%)	**sufficient (2)**
F (student who has solved less than 50% of the test at the final exam or fail at the oral exam)	**insufficient (1)**

Other notes (related to the course) important for students:

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COURSE HOURS 2022/2023

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List of lectures, seminars and practicals:

EXAM DATES (final exam):
