



## Course Regime

**Course:** Hyperbaric physiology and medicine

**Study Programme:** Medicine

**Year of the Course:** 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup>

**Semester:** Summer

**Course type:** Elective

**Number of ECTS credits:** 3

**Lecturer(s):** prof. dr. Žarko Finderle

**Participating Organisational Units (Departments and Institutes):** Institute of Physiology

**Date of Issue:** 15. 9. 2021

## **A. General part** (*applies to compulsory and elective courses*)

### **1. Course objectives**

Students extend and substantiate the knowledge in aeronautics and diving physiology and medicine. They learn to recognize various forms of diving incidents and learn the basics of patient treatment during the treatment in a hyperbaric chamber and the main indications for this type of treatment. Students acquire knowledge of the functioning of certain organic systems under conditions of increased or decreased pressure, learn about the principles of treatment in a hyperbaric chamber and learn the basics of work with a hyperbaric chamber.

### **2. Comprehensive outline of the course organisation**

The course is being implemented in the summer part of the semester of the 2nd year in time periods that are scheduled according to the timetable for optional subjects in the 2nd year. The exact start date and location will be published at the beginning of the summer semester on the website of the Faculty of Medicine and in online classroom.

The course starts with lectures (5 hours), then students receives literature, either part of a textbook or articles, according to which they prepare seminar papers and present them to all students who have chosen this course (seminars 20 hours, seminars tutorial 5 hours). The timeline of the seminar work is determined by agreement between the students and the lecturer of the course, but they must be performed in time period that are scheduled according to the timetable for optional subjects in the 2nd year.

### **3. Description of on-going assessment of knowledge and skills**

The course has no on-going assessment of knowledge and skills.

### **4. Required conditions for the final examination (Course Exam)**

The student must have at least 70 % of the contact hours.

### **5. Final assessment and examination of knowledge and skills (Course Exam)**

There is no final assessment and examination of knowledge and skills. The student must prepare a seminar in written form along with a PowerPoint presentation, followed by a discussion.

### **6. Other provisions**

The student must prepare a seminar paper in written form (2–3 pages) and present it to other students who selected this course (PowerPoint presentation, about 20 minutes). After the presentation of the seminar follows the discussion. The seminar (with discussion) is evaluated with grades 6–10 (positive grade) or 5 (negative grade). The deadline for submitting the seminar will be determined with the holder of the course.

### **7. Fundamental study material and Supplement reading**

- Ž. Finderle: Uvod v fiziologijo potapljanja, Univerza v Ljubljani, Medicinska fakulteta 2003 (študijska gradiva).

- Mathieu D (urednik): Handbook on Hyperbaric Medicine, Springer 2006

## **8. Exam topics, clinical presentations and skills**

- Physical laws and diving
- Eye and ear under water
- Narcotic effect of inert gases
- Hyperbaric nervous syndrome
- Oxygen toxicity and diving
- Decompression illness and its management
- Hyperbaric chamber in diving
- Disbaric osteonecrosis
- Main non-diving indications for hyperbaric oxygen therapy
- Students participate in treatments in hyperbaric chamber.

## **9. Other information**

### **B. Elective Courses** (*considered as Elective Course Announcement*)

#### **1. Participating main and guest lecturers**

Prof. dr. Žarko Finderle

#### **2. Estimated time period in the semester**

February/March/April

#### **3. Maximum number of students for the elective course (if the number of students able to attend the course is limited)**

The maximum number of students is 30. There are no special conditions for inclusion in the elective subject.

#### **4. Please specify if the elective course is available in English for incoming international students (Erasmus + and others). Please specify any additional conditions in the case that the elective course is available for visiting students.**

The course will not be carried out for foreign students by the 2018/19 academic year.