



Table 2.

3.2. Course description

Basic description		
Course coordinator	Prof. Željko Krznarić, MD, PhD	
Course title	Enteral and parenteral nutrition	
Study programme	Nursing graduated study	
Course status	mandatory	
Year	II.	
ECTS credits and teaching	ECTS student 's workload coefficient	3
	Number of hours (L+E+S)	25 + 0 + 10

1. COURSE DESCRIPTION
1.1. <i>Course objectives</i>
<ul style="list-style-type: none"> - To teach students basic principles of clinical nutrition. The program contains fundamental aspects of clinical nutrition, i.e. parenteral and enteral nutrition. Students will gain knowledge about indications, contraindications and complications of enteral and parenteral nutrition. They will also acquire knowledge on assessment of nutritional status in clinical settings and nutritional support in different clinical situations – malnutrition, inflammatory bowel diseases, liver and kidney diseases, chronic and acute pancreatitis, diabetes, malignant diseases, cardiovascular and lung diseases and enteral and parenteral nutrition at home. Through field exercises students will learn how to work with application systems for enteral and parenteral preparations and will get familiar with the works of the clinical nutrition team. The goal of this subject is to gain knowledge about clinical nutrition, i.e. parenteral and enteral nutrition, through interactive lectures, exercises, seminars and on-site introduction to the clinical nutrition team's work.
1.2. <i>Course enrolment requirements: Passed exam test from subject Ethics in Healthcare</i>
No requirements
1.3. <i>Expected course learning outcomes</i>
<p>Students will be able to:</p> <ul style="list-style-type: none"> - define, identify and explain the basic facts about indications and contraindications for parenteral and enteral nutrition. They will learn and be able to recognize the characteristics of preparations for enteral and parenteral nutrition. They will also be able to identify the patient's nutritional status as well as the diseases and disorders where artificial nutrition is applied. Students will be able to describe introduction and implementation of enteral and parenteral nutrition in diseases of the upper and lower digestive tract, liver, kidney and pancreas diseases, malignant diseases, lung diseases and other clinical situations. After the completion of this module, students will be able to recognize the basics of working with application systems and formulations of parenteral and enteral nutrition. - identify malnutrition in clinical conditions and explain the algorithm for prescribing appropriate nutritional support. They will be able to choose adequate preparations that should be used in certain clinical conditions. - solve problems in specific cases of artificial nutrition application in hospitalized and outpatients. Students will be able to calculate nutritional needs, assess nutritional status and combine mentioned parameters with plans for the individual patient's nutritional support.
1.4. <i>Course content</i>
Introduction to Clinical Nutrition. Assessment of nutritional status and prescribing of nutritional support. Indications,



contraindications and complications of enteral and parenteral nutrition. Getting acquainted with products and formulas for enteral and parenteral nutrition. The application of nutritional support in different clinical situations - malnutrition, inflammatory bowel disease, liver and kidney disease, chronic and acute pancreatitis, diabetes, malignant diseases, cardiovascular and lung diseases, and enteral and parenteral nutrition at home.

1.5. *Teaching methods*

- | | |
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| <input checked="" type="checkbox"/> lectures | <input checked="" type="checkbox"/> individual assignment |
| <input checked="" type="checkbox"/> seminars and workshops | <input type="checkbox"/> multimedia and network |
| <input type="checkbox"/> exercises | <input type="checkbox"/> laboratories |
| <input type="checkbox"/> long distance education | <input type="checkbox"/> mentorship |
| <input checked="" type="checkbox"/> fieldwork | <input type="checkbox"/> other |

1.6. *Comments*

1.7. *Student's obligations*

Regular attendance of lectures and seminars. Systematic preparation of materials for all classes and reviews during class. Hold a lecture. Seminar paper.

1.8. *Evaluation of student's work*

Course attendance	5%	Activity/Participation	10%	Seminar paper		Experimental work	
Written exam	10%	Oral exam	20%	Essay		Research	
Project		Sustained knowledge check	55%	Report		Practice	
Portfolio							

1.9. *Reviewing and evaluation of student's work during class and on final examination*

Examination of students is done according **The Statute of University of Rijeka (approved by the Senate)**, and also **the Regulations concerning the Assessment of students of the Medical Faculty** (adopted by the Faculty Board of Medicine in Rijeka).

Student's work will be reviewed and evaluated **during the semester and on the final examination**. Total success rate during the course makes 70% of the final grade, and the final exam 30%. During the course, the following is evaluated:
a) gained knowledge, b) class participation, c) independent work, d) class attendance.

1.10. *Required reading (at the time of proposing study programme)*

Krznarić Ž, Vranešić Bender D, Ljubas Kelečić D. Klinička prehrana, 2. prošireno izdanje priručnik poslijediplomskog tečaja I. kategorije stalnog medicinskog usavršavanja. Medicinska naklada, Zagreb 2011.

1.11. *Optional / additional reading (at the time of proposing study programme)*

Sobotka L, Allison SP, Forbes A, Ljungqvist O, Meier R, Pertkiewitz M, Soeters P. Basics in Clinical Nutrition. Galen, Prague 2011.

1.12. *Number of assigned reading copies with regard to the number of students currently attending the course*

Title	Number of copies	Number of students

1.13. *Quality monitoring methods which ensure acquirement of output knowledge, skills and competences*

1) **Conducting student surveys and evaluation of the acquired data:** after the completion of this course the Committee for managing and improving the quality carries out the student survey on the quality of the class and teachers who participated in teaching this subject more than 30%.

2) **Analysis of the examination results.**

3) **Mentor system.** Each group of students has their own mentor that controls and monitors the work of individual students.