



Table 2

**3.2. Course description**

Basic description		
Course coordinator	Asst. Prof. Darija Vranešić Bender, BSc, PhD	
Course title	Nutraceuticals	
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)	35 (15+0+20)

**1. COURSE DESCRIPTION**

*1.1. Course objectives*

To teach students the basic principles of nutraceutical application in health and disease, as well as the classification of nutraceuticals - isolated nutrients (vitamins, minerals, polysaccharides, fatty acids, proteins), nutritional supplements, specially designed fortified food, herbal preparations, bacteria cultures and bee products. Students will be educated in a comprehensive range of disciplines including science, technology, culinary aspects and legislation - in the segment of nutraceutical application. The aim of the course is to provide knowledge about fundamental science in the field of biologically active compounds from food and its application in nutrition, health maintenance and supportive therapy.

*1.2. Course enrolment requirements*

No requirements

*1.3. Expected course learning outcomes*

Students will be able to:

- Define different classes of nutraceuticals and their role in health and disease
- Discuss the safety regulations and legislation of biologically active compounds from food
- Explain the commercial importance of nutraceuticals
- Examine the current and future role of nutraceuticals in the food and pharmaceutical/healthcare industry
- Describe the principles and methods used to evaluate the functionality of nutraceuticals
- Evaluate the current science literature relating to nutraceuticals and their applications to human health

*1.4. Course content*

Introduction to nutraceuticals: vitamins and minerals, polysaccharides, fatty acids, proteins, phytochemicals, bee products, probiotics, fiber. Nutraceuticals in health and disease: role of nutraceuticals in the maintenance of health and disease risk reduction. Clinical studies and safety assessment of nutraceuticals: evaluation of efficacy and safety through scientific research, metaanalyses and guidelines, drug-nutrient interactions. The basic legislation framework relating to nutraceuticals: nutritional and health claims prescribed by EU and Croatian legislation. Workshops, seminars and practical exercises related to application and evaluation of nutraceuticals.

*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 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							
<p>Examination of students is done according <b>the Statute of University of Rijeka (approved by the Senate)</b>, and also <b>the Regulations concerning the Assessment of students of the Medical Faculty</b> (adopted by the Faculty Board of Medicine in Rijeka).</p> <p>Student's work will be reviewed and evaluated <b>during the semester and on the final examination</b>. Total success rate during the course makes 70% of the final grade, and the final exam 30%. <u>During the course, the following is evaluated:</u> a) gained knowledge, b) class participation, c) independent work, d) class attendance.</p>							
1.10. Required reading (at the time of proposing study programme)							
Robert E. C. Wildman 2007, Handbook of nutraceuticals and functional foods, second edition Ed., CRC Press Boca Raton, FL [ISBN: 978-0-8493-6409-9]							
1.11. Optional / additional reading (at the time of proposing study programme)							
Merck Manual: Medicinal Herbs and Nutraceuticals, 2009.							
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							
<p>1) <b>Conducting student surveys and evaluation of the acquired data:</b> 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%.</p> <p>2) <b>Analysis of the examination results.</b></p> <p>3) <b>Mentor system.</b> Each group of students has their own mentor that controls and monitors the work of individual students.</p>							