



Table 2

3.2. Course description

Basic description		
Course coordinator	Prof.dr.sc. Dinko Vitezić,	
Course title	Interdisciplinary approach to research and statistics in health care	
Study programme	Physiotherapy graduated study	
Course status	compulsory	
Year	1.	
ECTS credits and teaching	ECTS student 's workload coefficient	5 ECTS
	Number of hours (L+S)	15 + 15+30

1. COURSE DESCRIPTION

1.1. Course objectives

- design simpler research
- acquire basic statistics concepts in order to follow professional literature in which the results are presented in statistical terms and symbols
- select appropriate statistical tests for a specific case
- analyze and interpret the results of statistical processing

1.2. Course enrolment requirements

There are no course enrolment requirements.

1.3. Expected course learning outcomes

- correct interpretation of basic statistics concepts
- follow professional and scientific literature in which the results are presented in statistical terms and symbols
- design, perform and interpret simpler research assignments which apply acquired knowledge in medical statistics

Development of general competences (knowledge and skills):

- gain new skills
- participate in decision-making and problem solving
- apply information technology
- team work
- complete assignments independently with minimal supervision
- develop organizing abilities
- develop creative thinking
- develop ethical responsibility

Development of specific competences (knowledge and skills):

- critically analyze a publication
- select correct testing procedures depending on the type of data - test data using adequate statistical tests
- test data using statistical software packages (Statistica and MedCalc)
- draw conclusions based on performed testing



1.4. Course content

Science and scientific methods
 Completion, public presentation and evaluation of a scientific work. Scientific journals
 Measurement and measurement scales. Characterization of biomedical research
 Data presentations. Tables and graphs.
 Selection of statistical tests.
 Parametric tests. ANOVA.
 Non-parametric tests. Contingency tables.
 Relative risk and odds ratio.
 Diagnostic accuracy.
 Correlation. Pearson's and Spearman's r.
 Application of computer programs for data processing.

1.5. Teaching methods

- | | |
|---|---|
| <input type="checkbox"/> x lectures | <input type="checkbox"/> x individual assignment |
| <input type="checkbox"/> x seminars and workshops | <input type="checkbox"/> x 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

Teaching is carried out in the form of lectures and seminars. During seminars student actively discusses physiological and pathophysiological mechanisms of pain. Student is obliged to prepare course material that is to be discussed during seminars. Professor evaluates student participation in the seminar work (demonstrated knowledge, comprehension, capability to set a problem, drawing conclusions, etc.). "Earned" credits add up to credits received at the final exam of the subject in case. Work of each group of students is overlooked by a tutor who's privilege and duty is to invite to discuss matters with students who are unsuccessful during teaching period.

1.7. Student's obligations

Regular attendance to lectures and seminars. Preparation of the course content to be discussed during seminars and practicals.

1.8. Evaluation of student's work

Course attendance	5%	Activity/Participation	10%	Seminar paper	15%	Experimental work	
Written exam	15%	Oral exam	15%	Essay		Research	
Project		Sustained knowledge check	40%	Report		Practice	
Portfolio							

1.9. Assessment and evaluation of student's work during classes and on final exam

Evaluation would be performed according the actual Rules on studies of University of Rijeka (approved by the Senat) and the Faculty of medicine (approved by the Faculty council). In this system, the overall students' outcome is made up 70% of their achievement during the course itself and 30% of the success in the final exam.
 Achievements during the course will be evaluated by: a) sustained knowledge check (partial tests, partial exams and other activities in classes), b) activity during the course, c) seminar paper or presentation, d) course attendance

1.10. Assigned reading (at the time of the submission of study programme proposal)

1. Marušić M. et al. Uvod u znanstveni rad u medicini, Zagreb, Medicinska naklada, 2008.
2. Petz, B. Osnovne statističke metode za nematematičare, Jastrebarsko, naknada slap, 2007.
3. Francetić I, Vitezić D. Osnove kliničke farmakologije, Zagreb, Medicinska naklada, 2007.

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

Kolesarić V. i Petz. Statistički rječnik, Jastrebarsko, Naknada slap, 2003

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
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<i>1.13. Quality monitoring methods which ensure acquirement of output knowledge, skills and competences</i>		
<ol style="list-style-type: none">1. Conducting student surveys and evaluation of results. At the end of each course student surveys will be conducted to evaluate the quality of teaching and teachers who participate in the delivery of the course with more than 30%. Evaluation procedures are systematically carried out by Teaching Quality Assurance Committee at our Faculty.2. Analysis of the results achieved at exams.3. The mentor system. Each student group is assigned a mentor who follows the students throughout the course.		