Sveučilište u Rijeci • University of Rijeka

Trg braće Mažuranića 10 • 51 000 Rijeka • Croatia
T: +385 (0)51 406 500 • F: +385 (0)51 406 588
W: www.uniri.hr
E: ured@uniri.hr

Table 2

Course description

COURSE DESCRIPTION		
Course instructor	Krešo Mihalinčić	
Name of the course	Actuarial Mathematics	
Study programme	Management of Sustainable Development	
Status of the course	Elective	
Year of study	4th	
ECTS credits and manner of instruction	ECTS credits	3
	Number of class hours (L+E+S)	30 (15 + 15 + 0)

1. Course objectives

Development of general and specific competencies required to connect economic theory and mathematical methods in order to model and interpret information based on empirical data regarding contemporary trends in tourism and hospitality industry

2. Course enrolment requirements

None

3. Expected learning outcomes

After completing the course, the student will be able to:
1. define and distinguish basic concepts of financial and actuarial mathematics
2. apply the formulas of financial and actuarial mathematics
3. define present and future values of periodic deposits (rents)
4. distinguish financial from actuarial rents
5. solve problems of life insurance in a variety of common models

4. Course content

FINANCIAL MATHEMATICS (interest rates incl. nominal and effective interest rates, continuous compounding, loans)
ACTUARIAL MATHEMATICS (probability, life tables, commutation functions, life insurance, one time and periodic actuarial rates, reserves)

5. *Manner of instruction*	☒ lectures ☒ seminars and workshops ☒ exercises ☐ distance learning ☐ fieldwork	☒ individual assignments ☐ multimedia and network ☐ laboratories ☒ mentorship ☐ other
6. *Comments*	The course involves areas of both pure and applies mathematics; however, the emphasis is on an application of mathematical methods in the analyses of empirical data from contemporary tourism and hospitality industries	

7. Student responsibilities

Students are required to complete two projects and assessments using mandatory and optional/additional literature to demonstrate the acquired knowledge, skills and competencies from a specified field. Both team- and individual work are advised.

Sveučilište u Rijeci • University of Rijeka

Trg braće Mažuranića 10 • 51 000 Rijeka • Croatia
T: +385 (0)51 406 500 • F: +385 (0)51 406 588
W: www.uniri.hr
E: ured@uniri.hr

8. Monitoring of student work[1]							
Class attendance	1,2	Class participation	0,1	Seminar paper		Experimental work	
Written exam	0,5	Oral exam		Essay		Research	
Project	0,3	Continuous assessment	0,9	Report		Practical work	
Portfolio							

9. Assessment of learning outcomes in class and at the final exam (procedure and examples)
Assessment and evaluation of students in classes and at the final exam is conducted under the Rulebook on evaluation of students at the Faculty of tourism and hospitality management. For each course it is made a detailed course syllabus which coordinates activities, student load, learning outcomes and evaluation methods.

10. Mandatory literature (at the time of submission of study programme proposal)
Šego, B., Financijska matematika, Zgombić & partneri, Zagreb, 2008.

11. Optional/additional literature (at the time of submission of the study programme proposal)
Šego, B., Matematika za ekonomiste, Potecon d.o.o., Zagreb, 2000.

12. Quality monitoring methods that ensure the acquisition of exit knowledge, skills and competences
The quality of the programme, teaching process, teaching skills and level of acquired course matter will be evaluated in writing, by means of extensive questionnaires and by employing other methods that are in accordance with the accepted standards and with the Book of regulations on the quality of the University of Rijeka, as well as the Book of regulations on the quality of the Faculty of tourism and hospitality management.

---

[1] IMPORTANT: Enter the appropriate proportion of ECTS credits for each activity so that the total number of credits equals the ECTS value of the course. Use empty fields for additional activities.