**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 | Ph.D., Tea Baldigara, Full Professor | |
| Name of the course | Applied Econometrics | |
| Study programme | Graduate Study "Hospitality Management" | |
| Status of the course | Compulsory | |
| Year of study | I$^{st}$ | |
| ECTS credits and manner of instruction | ECTS credits | 6 |
| | Number of class hours (L+E+S) | 60 (30 + 30 + 0) |

*1. Course objectives*

The course intent to develop general and specific competencies needed to relate economic theory, statistical and mathematical methods with the purpose to extrapolate; econometrically model them, analyse, and interpret information from empirical data linked to the tourism and hospitality industry.

*2. Course enrolment requirements*

For the course enrolment, students must have previous knowledge in Economics, Mathematics and Statistics.

*3. Expected learning outcomes*

After passing the exam of the course of Applied Econometrics (6 ECTS) students shall be able to:
1. Correctly interpret and explain theoretical concepts of econometrics;
2. Describe adequate econometric models.
3. Implement adequate econometric models in empirical data modelling.
4. Use econometric software in estimating and analysing implemented econometric models.
5. Evaluating econometric analysis results base on empirical data.

*4. Course content*

1. Introduction to Econometrics: The nature and scope of Econometrics. The methodology of Econometrics.
2. The linear regression model: Basic ideas of linear regression. The population regression function and the sample regression function. The two-variable model. The ordinary least square method. The properties of OLS estimators. The classical linear regression model.
3. Multiple regression: The three variable linear regression model. Assumption of the multiple linear regression model. Estimation and Hypothesis Testing.
4. Regression analysis in practice: the violation of the classical linear regression model: Multicolinearity. Heteroscedasticity. Autocorrelation.
5. Model specification and forecasting.
6. Time series analysis: descriptive methods in time series analysis. Time series models. Smoothing methods. Seasonality. Time series forecasting. Stochastic processes. Autocorrelation function and partial autocorrelation function. Stationarity.
7. Postulates of applied Econometrics: Econometric models application in tourism and hospitality industry. Econometric models interpretation and analysis.

| *5. Manner of instruction* | ☒ lectures<br>☐ seminars and workshops<br>☒ exercises<br>☐ distance learning | ☒ individual assignments<br>☐ multimedia and network<br>☐ laboratories<br>☒ mentorship |
|---|---|---|

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| | ☐ fieldwork | ☐ other |
|---|---|---|

| | |
|---|---|
| *6. Comments* | Lectures, exercises and individual assignments are complement with each other. They will be computer based and will allow students to work through the topics covered in the lectures and give the opportunity for questions, discussion and practice with an accent to tourism and hospitality industry. |

## 7. Student responsibilities

Individual assignments are designed to enable students to investigate an issue or theme in greater detail and demonstrate the level of achievement in the designed area. Most of the project and research works will take the form of applied workshops. Students may be working in groups, but it is important that the exercises are undertaken independently by students.

## 8. Monitoring of student work[1]

| Class attendance | 2,4 | Class participation | | Seminar paper | | Experimental work | |
|---|---|---|---|---|---|---|---|
| Written exam | 1,1 | Oral exam | | Essay | | Research | |
| Project | 0,8 | Continuous assessment | 1,7 | 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)

1. Baldigara, T., Mamula, M., (2015), Primijenjena ekonometrija, nastavni e-materijal, Opatija.
2. Bahovec, V., Erjavec, N., (2009), Uvod u ekonometrijsku analizu, Sveučilište u Zagrebu, Zagreb.
3. Jurun, E., (2007), Kvantitativne metode u ekonomiji, Ekonomski fakultet Sveučilišta u Splitu, Split.
4. Jurun, E., Pivac, S., Arnerić, J., (2006), Primijenjena ekonometrija 1, Ekonomski fakultet Sveučilišta u Splitu, Split.

## 11. Optional/additional literature (at the time of submission of the study programme proposal)

1. Davidson, R., MacKinnon, J.G., (2004), Econometric theory and methods, Oxford University Press, New York, available at: http://econ.queensu.ca/ETM/.
2. Jovičić, M., (2002), Ekonometrijski metodi, Ekonomski fakultet u Beogradu, CID, Beograd.
3. Lovrić, Lj., (2005), Uvod u ekonometriju, Ekonomski fakultet Sveučilišta u Rijeci, Rijeka.
4. Zellener, A, Palm, C.F., (2004), The Structural Econometric Time Series Analysis Approach, The Press Syndicate of the University Of Cambridge, available at: http://www.cambridge.org/aus/catalogue/catalogue.

## 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

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[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.

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management.