<table>
<tr><td colspan="2">NAME OF THE COURSE</td><td colspan="5">ECONOMETRICS</td></tr>
<tr><td>Code</td><td>EUE303</td><td>Year of study</td><td colspan="4">1.</td></tr>
<tr><td>Course teacher</td><td>prof.dr.sc. Snježana Pivac<br>doc.dr.sc.Tea Šestanović<br>izv. prof. dr. sc. Blanka Škrabić Perić</td><td>Credits (ECTS)</td><td colspan="4">6</td></tr>
<tr><td rowspan="2">Associate teachers</td><td rowspan="2">doc.dr.sc.Tea Šestanović</td><td rowspan="2">Type of instruction (number of hours)</td><td>L</td><td>S</td><td>E</td><td>F</td></tr>
<tr><td>26</td><td></td><td>26</td><td></td></tr>
<tr><td>Status of the course</td><td>Obligatory</td><td>Percentage of application of e-learning</td><td colspan="4">40%</td></tr>
<tr><td colspan="7">COURSE DESCRIPTION</td></tr>
<tr><td>Course objectives</td><td colspan="6">Acquiring knowledge and skills to quantify scientific hypotheses and use of modern econometric methods and models under complex economic reality conditions</td></tr>
<tr><td>Course enrolment requirements and entry competences required for the course</td><td colspan="6">Course signature requirements are determined by the Statute of the Faculty of Economics in Split and Rules and Regulations for Studies and Study Programmes.</td></tr>
<tr><td>Learning outcomes expected at the level of the course (4 to 10 learning outcomes)</td><td colspan="6">Learning outcome of the subject:<br>To estimate the parameters of an econometric model based on the actual database and to interpret the results obtained.<br><br>Specific learning outcomes:<br>1. To formulate (specify) an econometric model<br>2. To evaluate hypothesis about the existence of problems of multicolinarity, heteroskedasticity and autocorrelation of relation errors<br>3. To estimate the parameters of the econometric model and its prognostic power<br>4. To construct (simulate) evaluation of model parameters based on a small number of statistical indicators<br>5. To identify equations of the econometric model in the form of simultaneous equations system<br>6. To build the model of applied econometrics for the specific area of economy</td></tr>
<tr><td>Course content broken down in detail by weekly class schedule (syllabus)</td><td colspan="6"><table>
<tr><th colspan="2">Lectures</th><th colspan="2">Exercises</th></tr>
<tr><td>Topic</td><td>Hours</td><td>Topic</td><td>Hours</td></tr>
<tr><td>Introduction to Econometrics</td><td>2</td><td>Fundamental econometric postulates</td><td>2</td></tr>
<tr><td>Specification of the econometrics model</td><td>2</td><td>Methods and techniques of the econometrics model specification</td><td>2</td></tr>
<tr><td>Estimating of the econometric model</td><td>2</td><td>Methods and techniques of the simple linear econometric model estimation</td><td>2</td></tr>
<tr><td>Testing of the hypothesis about desirable regression parameters characteristics and model as the whole</td><td>2</td><td>Testing of the hypothesis about desirable regression parameters characteristics and about prognostic power of the model</td><td>2</td></tr>
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| | Monte Carlo simulations | 3 | Monte Carlo simulations | 3 |
| | Estimating methods for multiple linear regression model | 2 | Estimating methods and techniques for multiple linear regression model | 2 |
| | Modeling with specific independent variables | 2 | Artificial variables. Stochastic regressor variables. Approximate and instrumental variables. Variable with mistake. | 2 |
| | Problem of heteroscedasticity, multicollinarity and autocorrelation of the relation errors | 4 | Testing and detection of the multicollinearity problem. Methods for removing multicollinarity Detection and testing of heteroscedasticity problems. Methods for removing heteroscedasticity. Testing and detection of relation errors autocorrelation. Methods of eliminating autocorrelation. | 4 |
| | Econometric model in the form of the simultaneous equations system | 2 | Problems and methods of identification of the simultaneous system equations | 2 |
| | Problems and methods of identification and estimation of the simultaneous system equations | 1 | Choice and application of the simultaneous system equations estimation | 1 |
| | Basic applied econometrics postulates | 2 | Application of econometric methods and techniques in the specific areas of the economy | 2 |
| | Selected applied econometric models | 2 | Specifications of the econometric models for the concrete practical applications | 2 |

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| Format of instruction | ☒lectures<br>☒ seminars and workshops<br>☒ exercises<br>☐ *on line* in entirety<br>☒ mix e-learning<br>☐ field work | ☒ independent assignments<br>☐ multimedia<br>☐ laboratory<br>☒ work with mentor<br>☐ (other) |
| Student responsibilities | Students are required to actively participate in classes during lectures and exercises, with the attendance of minimum 50%. Additionally, students' activity will be monitored through self-evaluation quizzes that will be available to students on the course websites within the Moodle platform. In case the student takes less than two self-evaluation quizzes during the semester, the student will be denied a signature. The condition for taking the exam is a signature. | |

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| Screening student work *(name the proportion of ECTS credits for each activity so that the total number of* | Class attendance | 2 | Research | | Practical training | |
| | Experimental work | | Report | | (Other) | |
| | Essay | | Seminar essay | | (Other) | |

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| *ECTS credits is equal to the ECTS value of the course)* | Tests | 1,5 | Oral exam | 1 | Self-evalutional tests | 0,5 |
| | Written exam | 1,5 | Project | | (Other) | |

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| Grading and evaluating student work in class and at the final exam | Exam is written and oral. Positively evaluated written exam is precondition for approaching the oral part of the exam.<br>* Written exam can be passed through two tests during classes or in regular exam terms. Once the written part of the exam is passed (through tests or in regular exam terms) it is valid through the whole academic year.<br>During the semester two tests will be organized. Each test brings 20 points. It is considered that a student passed the written exam through tests if he has at least 10 points per each of the two test.<br>The oral exam starts with extracting three question. It is needed to give correct answer for all three questions. The mark on oral exam is primarily confirmation of the mark from the written exam.<br>The exam consists of written and oral part.<br>During the semester two tests will be organized. The condition for taking all the tests is that the student has solved at least one of the self-evaluation quizzes from the part of the material that is evaluated by the test. The test is deemed to be passed if the student correctly and neatly solves and interprets at least 50% of the tasks. Additional condition for accessing the second test is the positively resolved first test. The total score on the written part of the exam is based on the sum of the scores obtained on both tests. Alternatively, students can pass the written exam during the exam period.<br>* A student who achieves a positive grade from the first and second test, does not have to take the written exam. After successfully passing the written part one can undertake the oral part of the exam.<br>The final grade is formed as the average score of the written and oral exam.<br><br>Key points and appropriate grades for written exam:<br>0-49 insufficient (1)<br>50-62 sufficient (2)<br>63-75 good (3)<br>76-88 very good (4)<br>89-100 excellent (5) |

| | Title | Number of copies in the library | Availability via other media |
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| Required literature (available in the library and via other media) | Wooldridge, J.M. (2013) Introductory Econometrics: A Modern. Approach, Fifth Edition. Cengage Learning | | |
| | Baum, C.F. (2006) An Introduction to Modern Econometrics Using Stata, Stata Press | | |
| | Teachers' handouts and other on-line materials for preparation of mid-term exams and final exams (available on the Mooodle). | | Moodle |
| | Bahovec, V., Erjavec, N. (2009) Uvod u ekonometrijsku analizu, Zagreb, Element | | |

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| Optional literature (at the time of submission of study programme proposal) | Newbold P. et al.: Statistics for Business and Economics, 9th Ed., Pearson Education, Prentice Hall, Upper Saddle River, NY, 2019.<br>Gujarati D.& Porter C. : Basic Econometrics, 5th Ed., Mc Graw Hill, 2019.<br><br>Articles:<br><br>Aljinović, Z., Šestanović, T., Škrabić Perić, B. (2022) A New Evidence of the Relationship between Cryptocurrencies and other Assets from the COVID- 19 Crisis, Ekonomický časopis, 70: 7-8 ; str. 603-621 . 10.31577/ekoncas.2022.07-8.03 |
| Quality assurance methods that ensure the acquisition of exit competences | Registering students' attendance and success in carrying out of their duties (lecturer).<br>Monitoring lectures and practice sessions (Vice Dean for Education).<br>Students' Performance analysis in each course (Vice Dean for Education).<br>Student questionnaire on the quality of lecturers and lessons for each course (University of Split, Quality Assurance Centre)<br>Examination is used as an instrument to evaluate individual course outcomes by the course lecturer. The content of exam is reassessed periodically in order to assure compliance with the course outcomes. |
| Other (as the proposer wishes to add) | The course is taught in Croatian. |