<table>
<tr><td>COURSE NAME</td><td colspan="5">Mathematical program tools II</td></tr>
<tr><td>Code</td><td>PMM018</td><td>Year of study</td><td colspan="3">2rd year of undergraduate study</td></tr>
<tr><td>Course teacher</td><td>Jurica Perić</td><td>Credits (ECTS)</td><td colspan="3">2</td></tr>
<tr><td rowspan="2">Associate teachers</td><td rowspan="2"></td><td rowspan="2">Type of instruction (number of hours)</td><td>L</td><td>S</td><td>E</td></tr>
<tr><td></td><td></td><td>30</td></tr>
<tr><td>Status of the course</td><td>COMPULSORY COURSE</td><td>Percentage of application of e-learning</td><td colspan="3">50%</td></tr>
<tr><td colspan="6">COURSE DESCRIPTION</td></tr>
<tr><td>Course objectives</td><td colspan="5">Competence in the use of Scilab.
Competence in the use of Octave.</td></tr>
<tr><td>Course enrolment requirements and entry competences required for the course</td><td colspan="5"></td></tr>
<tr><td>Learning outcomes expected at the level of the course (4 to 10 learning outcomes)</td><td colspan="5">The student is able to:
- define basic objects using Scilab and Octave (functions, lists, matrices)
- solve mathematical problems using Scilab and Octave
- create graphics for functions of two and three variables with the change of features of the graphics using Scilab and Octave
- solve ordinary and partial differential equations using Scilab
- demonstrate the behavior of mathematical models using simulation in Scilab
- design animation in Scilab
- modify algorithms for implementation in Scilab and Octave</td></tr>
<tr><td>Course content broken down in detail by weekly class schedule (syllabus)</td><td colspan="5">Introduction to Scilab and its possibilities - 2 hours
Matrices - 2 hours
Graphics - 4 hours
First partial exam - 1 hour
Functions. Branching instructions. Loops - 2 hours
Data types - 2 hours.
Second partial exam - 1 hour
Differential calculus - 2 hours
Differential equations - 2 hours
Third partial exam - 2 hours
Introduction to Octave and its possibilities - 2 hours
Basic data types - 2 hours
Functions. Branching instructions. Loops. - 2 hours
Fourth partial exam - 1 hour
Graphics - 2 hours
Fifth partial exam - 1 hour</td></tr>
<tr><td>Format of instruction</td><td colspan="5">Exercises.</td></tr>
<tr><td>Student responsibilities</td><td colspan="5"></td></tr>
<tr><td>Screening student</td><td colspan="5">Attendance – 0.5 ECTS</td></tr>
</table>

work *(name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)*	Practical work – 1.5 ECTS
Grading and evaluating student work in class and at the final exam	During the course students work on the computer is monitored. The exam is taken using a computer and consists of five partial exams during the semester (3 partial exams in Scilab, 2 partial exams in Octave).
Required literature (available in the library and via other media)	
Optional literature (at the time of submission of study programme proposal)	
Quality assurance methods that ensure the acquisition of exit competences	Statistics of test results and student evaluation via anonymous questionnaires at the end of the course. The survey is conducted according to the rules of the University of Split.
Other (as the proposer wishes to add)	