1. **Course title**: Mathematical Analysis  
2. **Code**: 187  
3. **Study group(s)**: HEM, AS, EE, MCHT, TE  
4. **The organizer of the study program**: Thermal Engineering; Hydraulics, Pneumatics and Automatics Engineering; Mechatronics  
5. **Level (first, second, third)**: First  
6. **Academic year / semester**: Second / winter  
7. **ECTS credits**: 6  
8. **Instructor**: Aleksa Malcheski  
9. **Prerequisites**: None  
10. **Course objectives (competences)**: Introduction to basics in linear algebra, differential equations and complex analysis as well as their application. Competence in solving mathematical problems arising in engineering practice.  
12. **Study methods**: lectures, auditory practice, homework, self-learning  
13. **Total hours**: 6 ECTS x 30 hours = 180 hours  
14. **Hours allocation per activity**:  
   15.1. Lectures 30 hours  
   15.2. Lab (student work) 30 hours  
15. **Project Work/Assignments**:  
   16.1. Project assignments 0 hours  
   16.2. Individual assignments 30 hours  
   16.3. Self-learning 90 hours  
16. **Points/Marks**:  
   17.1. Tests 80 points  
   17.2. Projects 10 points  
   17.3. Attendance 10 points  
17. **Grading scale**:  
   Under 50: 5 (five) (F)  
   51 - 60 points: 6 (six) (E)  
   61 - 70 points: 7 (seven) (D)  
   71 - 80 points: 8 (eight) (C)  
   81 - 90 points: 9 (nine) (B)  
   91 - 100 points: 10 (ten) (A)  
18. **Prerequisites for taking the final exam activity**: 17.3  
19. **Language of Instruction**: Macedonian  
20. **Course evaluation**: Student questionnaire  
21. **Textbooks**:  
   22.1. Instruction materials  
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<th>Author</th>
<th>Title</th>
<th>Publisher</th>
<th>Year</th>
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<tbody>
<tr>
<td>2.</td>
<td>A.Malcheski</td>
<td>Mathematical</td>
<td>Ss. Cyril and Methodius</td>
<td>2003</td>
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<td>No.</td>
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<tr>
<td>1</td>
<td>B.S. Vatsa</td>
<td>Theory of Matrices</td>
<td>Wiley Eastern Limited</td>
<td>1992</td>
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