# Course Outline

## General

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>ENGINEERING SCHOOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEPARTMENT</td>
<td>MECHANICAL ENGINEERING DEPARTMENT</td>
</tr>
<tr>
<td>LEVEL OF STUDIES</td>
<td>UNDERGRADUATE</td>
</tr>
<tr>
<td>COURSE CODE</td>
<td>2702001</td>
</tr>
<tr>
<td>SEMESTER</td>
<td>20</td>
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</tbody>
</table>

### Independent Teaching Activities

| Lectures | 5 | 6 |

If credits are awarded for separate components of the course, e.g., lectures, laboratory exercises, etc., if the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits.

### Course Details

- **Course Title:** MATHEMATICS II
- **Course Type:** General Background Course
- **Prerequisite Courses:** YES (MATHEMATICS I)
- **Language of Instruction and Examinations:** Greek (official)
- **Is the Course Offered to ERASMUS Students:** YES (in English for ERASMUS students)
- **Course Website (URL):** vplace.teipir.gr/pde_math2
LEARNING OUTCOMES

Learning outcomes
The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A

- Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area
- Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B
- Guidelines for writing Learning Outcomes

MATHEMATICS II aims to enrich students’ abilities in the use of functions of many variables and their integrals, as well to recognize, classify and solve differential equations thus gaining a solid background for their endeavors in their discipline.

General Competences
Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

1) Search, analysis and synthesis of data and information, using the necessary technologies.

2) Decision Making.

3) Autonomous work.

Course Content

- MATHEMATICAL ANALYSIS II


- DIFFERENTIAL EQUATIONS

DELIVERY
Face-to-face, Distance learning, etc.

Lectures, face-to-face

USE OF INFORMATION AND
COMMUNICATIONS TECHNOLOGY
Use of ICT in teaching, laboratory education, communication with students

Communication and Electronic Submission

TEACHING METHODS
The manner and methods of teaching are described in detail.
Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.

The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS

<table>
<thead>
<tr>
<th>Activity</th>
<th>Semester workload</th>
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</thead>
<tbody>
<tr>
<td>Lectures</td>
<td>65</td>
</tr>
<tr>
<td>Essay writing</td>
<td>15</td>
</tr>
<tr>
<td>Personal study</td>
<td>70</td>
</tr>
</tbody>
</table>

Course total: 150

STUDENT PERFORMANCE EVALUATION
Description of the evaluation procedure

Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other

Specifically-defined evaluation criteria are given, and if and where they are accessible to students.

Final Written Examination: 100%

(5) ATTACHED BIBLIOGRAPHY