# AYDIN ADNAN MENDERES UNIVERSITY
# COURSE INFORMATION FORM

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|---|---|---|---|---|---|---|---|
| Course Title | | New Approaches to Teaching Elementary Mathematics | | | | | |
| Course Code | | MTE505 | | Couse Level | Second Cycle (Master's Degree) | | |
| ECTS Credit | 8 | Workload | 200 *(Hours)* | Theory | 3 | Practice | 0 | Laboratory | 0 |
| Objectives of the Course | | Current theory of mathematics education, learn and implement techniques and approaches | | | | | |
| Course Content | | A course usually being feared, hated math class is the biggest reason the methods and techniques appropriate to the course and are not used. Implementation of current and new approaches to teaching and learning of mathematics is important. | | | | | |
| Work Placement | | N/A | | | | | |
| Planned Learning Activities and Teaching Methods | | | Explanation (Presentation), Demonstration, Discussion, Case Study, Project Based Study, Individual Study, Problem Solving | | | | |
| Name of Lecturer(s) | | | | | | | |

## Assessment Methods and Criteria

| Method | Quantity | Percentage (%) |
|---|---|---|
| Midterm Examination | 1 | 30 |
| Final Examination | 1 | 70 |

## Recommended or Required Reading

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| 1 | 1. Eğitimde yeni yönelimler. Demire, Ö. |
| 2 | 2. Matematik Öğretiminde Alternatif Etkinlikler "Yaratıcı Drama Uygulamaları". Özsoy, N. |
| 3 | 3. Eğitimde Yeni Değerler. Özden, Y. |
| 4 | Aktif Öğrenme. Açıkgöz, K.Ü. |
| 5 | Matematik eğitimi ile ilgili güncel makaleler, dergiler |

| Week | Weekly Detailed Course Contents | |
|---|---|---|
| 1 | Theoretical | The methods used in teaching mathematic |
| 2 | Theoretical | Multiple intelligence and mathematics teaching |
| 3 | Theoretical | Constructivism and mathematics teaching |
| 4 | Theoretical | Plain teaching of Mathematics Lecture, question and answer, the presentation of teaching method. |
| 5 | Theoretical | Talk in teaching mathematics, problem solving, problem-based learning, |
| 6 | Theoretical | Cooperative learning in mathematics teaching, project-based learning |
| 7 | Theoretical | Brain-based learning in mathematics teaching, mastery learning, teaching mathematics in realistic |
| 8 | Intermediate Exam | Midterm exam |
| 9 | Theoretical | Active learning in mathematics teaching |
| 10 | Theoretical | Micro-teaching in teaching mathematics |
| 11 | Theoretical | Critical thinking, reflective thinking, |
| 12 | Theoretical | Teaching with the teaching of Mathematics Video |
| 13 | Theoretical | Internet-based learning in mathematics teaching/ Distance education is the teaching of Mathematics |
| 14 | Final Exam | Final Exam |

## Workload Calculation

| Activity | Quantity | Preparation | Duration | Total Workload |
|---|---|---|---|---|
| Lecture - Theory | 14 | 5 | 3 | 112 |
| Midterm Examination | 1 | 38 | 2 | 40 |
| Final Examination | 1 | 46 | 2 | 48 |
| | | | Total Workload (Hours) | 200 |
| | | [Total Workload (Hours) / 25*] = **ECTS** | | 8 |

*25 hour workload is accepted as 1 ECTS*

**Learning Outcomes**

| | |
|---|---|
| 1 | Learning techniques used in teaching school mathematics |
| 2 | Learning methods used in teaching school mathematics |
| 3 | Current theory and practice in teaching and learning mathematics. |
| 4 | To learn and apply the strategies in teaching mathematics. |
| 5 | To investigate recent strategy, method and techniques that used in mathematics instruction |

**Programme Outcomes** *(Mathematics Education Master)*

| | |
|---|---|
| 1 | Learns sufficient theoretical knowledge in the field of mathematics education |
| 2 | Uses theoretical knowledge in educational settings |
| 3 | Integrates mathematics education knowledge with the other disciplines and products functional knowledge |
| 4 | Uses information and communication technologies efficiently in conceptual learning |
| 5 | Finds scientific solutions to the problems in the field of mathematics education |
| 6 | Evaluates the knowledge critically in the field |
| 7 | Participates team projects in the mathematics education field |
| 8 | Shares national and international data in the field of mathematics education |
| 9 | Comprehends and evaluates science-technology-society and mathematics interactions |
| 10 | Comprehends mathematics under the ethical values and takes account of ethical considerations |
| 11 | Follows the current development in the mathematics education field |
| 12 | Develops strategical plans and evaluates them in the context of quality processes |
| 13 | Adopts lifelong learning strategies to his/her studies |

**Contribution of Learning Outcomes to Programme Outcomes** *1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High*

| | L1 | L2 | L3 | L4 | L5 |
|---|---|---|---|---|---|
| P1 | 5 | 5 | 5 | 4 | 4 |
| P2 | 5 | 5 | 4 | | |
| P3 | 3 | 5 | 4 | | |
| P4 | 3 | 5 | 5 | | |
| P5 | 3 | 5 | 5 | | |
| P6 | 3 | 5 | 5 | | |
| P7 | 3 | 4 | 5 | | |
| P8 | 3 | 4 | 5 | | |
| P9 | 3 | 5 | 4 | | |
| P10 | 3 | 5 | 5 | | |
| P11 | 3 | 4 | 5 | | |
| P12 | 3 | 5 | 5 | | |
| P13 | 3 | 5 | 5 | | |