**Content**

| Course Code | Course Name | Semester | Theory | Practice | Lab | Credit | ECTS |
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| MATH 536 | Teaching Experience | 1 | 2 | 0 | 0 | 2 | 5 |

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| Prerequisites | |
| Admission Requirements | |

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| Language of Instruction | Turkish |
| Course Type | Compulsory |
| Course Level | Masters Degree |
| Objective | Teachng the history and philosophy of mathematics |

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| Content | Weeks Subjects<br>1 Platonism<br>2 Picture proofs<br>3<br>4 Hilbert and Gödel<br>5 Knots and notation<br>6 What is a definition?<br>7 Constructive approach<br>8 Midterm exam<br>9<br>10 Computation, proof and<br>11 How to refute the<br>12 Calling the bluff<br>13<br>14<br>What is applied<br>mathematics?<br>Proofs, pictures and<br>procedures<br>conjecture<br>continuum hypothesis<br>Euler and his<br>contributions to<br>mathematics<br>Gauss and his<br>contributions to<br>mathematics |
| References | W. Dunham, Journey through Genius: The Great Theorems of Mathematics,<br>Penguin, 1991<br>J. R. Brown, Philosophy of Mathematics: A Contemporary Introduction to the<br>World of Proofs and Pictures, Routledge, 2008 |

**Theory Topics**

| Week | Weekly Contents |
|---|---|
| 1 | 1 Platonism |
| 2 | 2 Picture proofs |
| 3 | What is applied mathematics? |
| 4 | 4 Hilbert and Gödel |
| 5 | 5 Knots and notation |
| 6 | 6 What is a definition? |
| 7 | 7 Constructive approach |
| 8 | 8 Midterm exam |
| 9 | Proofs, pictures and procedures |
| 10 | Computation, proof and conjecture |
| 11 | How to refute the continuum hypothesis |
| 12 | Calling the bluff |
| 13 | Euler and his contributions to mathematics |
| 14 | Gauss and his contributions to mathematics |