

## SECONDARY SCHOOL MATHEMATICS TEACHING PROGRAMS

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| <b>1</b>  | Course Title:   | SECONDARY SCHOOL MATHEMATICS TEACHING PROGRAMS  |
| <b>2</b>  | Course Code:  | İMÖ2002   |
| <b>3</b>  | Type of Course:   | Compulsory  |
| <b>4</b>  | Level of Course:  | First Cycle   |
| <b>5</b>  | Year of Study:  | 2   |
| <b>6</b>  | Semester:   | 4   |
| <b>7</b>  | ECTS Credits Allocated:                                 | 3.00  |
| <b>8</b>  | Theoretical (hour/week):                                | 2.00  |
| <b>9</b>  | Practice (hour/week):                                   | 0.00  |
| <b>10</b> | Laboratory (hour/week):                                 | 0   |
| <b>11</b> | Prerequisites:  | NOne  |
| <b>12</b> | Language:   | Turkish   |
| <b>13</b> | Mode of Delivery:                                       | Face to face  |
| <b>14</b> | Course Coordinator:                                     | Prof. Dr. Dilek Sezgin Memnun   |
| <b>15</b> | Course Lecturers:                                       | Prof.Dr. Dilek SEZGİN MEMNUN  |
| <b>16</b> | Contact information of the Course Coordinator:          | Prof.Dr. Dilek SEZGİN MEMNUN<br>Adres: Bursa Uludağ Üniversitesi Eğitim Fakültesi, Matematik ve Fen Bilimleri Eğitimi Bölümü, Matematik Eğitimi Anabilim Dalı, E-235, 16059 Görükle / Bursa<br>E-Mail:dsmemnun@uludag.edu.tr  |
| <b>17</b> | Website:  |   |
| <b>18</b> | Objective of the Course:                                | To learn the basic concepts of curriculum; knowing the development of secondary school mathematics curriculum from past to present; current middle school mathematics teaching approach, comprehension of skills aimed at developing; To know learning and sub-learning areas; knowing the limits of the achievements according to the classes, having an idea about the relationship with the other courses; Teaching middle school mathematics course and establishing its relation with primary and high school mathematics curriculum; the method, technique, equipment and materials used; Understanding assessment training and teacher competencies. |
| <b>19</b> | Contribution of the Course to Professional Development: | The development of teaching programs to the present; The distribution of the current middle school mathematics curriculum and the learning outcomes and learning areas in the program by classes; To know the skills developed by the program and to gain the skills to use in teaching.  |
| <b>20</b> | Learning Outcomes:                                      |   |
|           | <b>1</b>  | Understanding the basic concepts of curriculum and the development of curriculum today.   |
|           | <b>2</b>  | Approach, content, and acquisition of the skills that the current secondary school mathematics curriculum aims to develop.  |
|           | <b>3</b>  | To know the learning and sub-learning areas of the middle school mathematics curriculum, the distribution and limits of the achievements according to the classes, and the relationship with the other courses.   |
|           | <b>4</b>  | Understanding the relationship between middle school mathematics curriculum and primary and high school mathematics curriculum.   |
|           | <b>5</b>  | To know the methods, techniques, tools and materials used in the secondary school mathematics curriculum.   |

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|             | 6   | Understanding the assessment approach and teacher competencies in secondary school mathematics curriculum. |
|             | 7   |  |
|             | 8   |  |
|             | 9   |  |
|             | 10  |  |
| <b>21</b>   | Course Content:   |  |
|             | <b>Course Content:</b>  |  |
| <b>Week</b> | <b>Theoretical</b>  | <b>Practice</b>  |
| <b>1</b>    | Basic components of secondary school mathematics curricula in the context of curriculum development process. An overview of the Republican era secondary school mathematics curriculums I (1926-1931 -1938-1949-1977 and 1990 programs)   |  |
| <b>2</b>    | An overview of the Republican period secondary school mathematics curricula II (1998-2005-2013 and 2017 programs) The general objectives of the secondary school mathematics curriculum, the importance and expression of the aims. Classification and historical analysis of the general objectives of the secondary school mathematics curriculum Distribution of the aims of secondary school mathematics curriculum by years in terms of their categories and levels. |  |
| <b>3</b>    | Detailed examination of the current secondary school mathematics curriculum and its association with the primary school curriculum. Analyzing mathematics curriculums from the perspective of teaching principles.  |  |
| <b>4</b>    | Teaching strategies, methods and techniques in secondary school mathematics curricula. Comparison of secondary school mathematics curriculums in the context of numbers learning area.  |  |
| <b>5</b>    | Examination of algebraic thinking in terms of curriculum.   |  |
| <b>6</b>    | Comparison of secondary school mathematics curriculums in the context of geometry learning area.  |  |
| <b>7</b>    | Examining the Data and Probability learning area content of secondary school mathematics curriculums.   |  |
| <b>8</b>    | Examination of secondary school mathematics curriculums in the context of information and communication technologies.   |  |
| <b>9</b>    | Use of materials in secondary school mathematics curriculum.  |  |
| <b>10</b>   | Measurement and evaluation approaches in secondary school mathematics curriculum.   |  |
| <b>11</b>   | Examination of secondary school mathematics curricula within the scope of making connection skill.  |  |
| <b>12</b>   | Applications of mathematics and mathematical modeling in secondary school mathematics curriculum.   |  |

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| <b>13</b>  | Affective characteristics and mathematics literacy in secondary school mathematics curriculum. |   |
| <b>14</b>  | Examination of secondary school curricula within the scope of mathematical communication.      |   |
| <b>22</b>  | Textbooks, References and/or Other Materials:  | Özmantar, M.F., Akkoç, H., Kuşdemir-Kayıran, B. ve Özyurt, M. (Eds). Ortaokul Matematik Öğretim Programları. Pegem Akademi, Ankara.<br>Batdal-Karaduman, G. Geçmişten günümüze İlkokul Programları. Pegem Akademi, Ankara.<br>Özmantar, M.F., Öztürk, A. ve Bay, E. (Eds.) Reform ve Değişim Bağlamında İlkokul Matematik Öğretim Programları. Pegem Akademi, Ankara. |
| <b>23</b>  | Assesment  |   |
| <b>TERM LEARNING ACTIVITIES</b>                                  |  |   |
|  | <b>NUMBER</b>  | <b>WEIGHT</b>   |
| Midterm Exam   | 1  | 40.00   |
| Quiz   | 0  | 0.00  |
| Home work-project  | 0  | 0.00  |
| Final Exam   | 1  | 60.00   |
| Total  | 2  | 100.00  |
| Contribution of Term (Year) Learning Activities to Success Grade |  | 40.00   |
| Contribution of Final Exam to Success Grade                      |  | 60.00   |
| Total  |  | 100.00  |
| Measurement and Evaluation Techniques Used in the Course         |  | Participation in mid-term and final exams and in-class studies are taken into account in the measurement and evaluation of the course. The success at the end of the evaluation is made in the form of relative evaluation.   |
| <b>24</b>  | <b>ECTS / WORK LOAD TABLE</b>  |   |

| Activites                  | Number | Duration (hour) | Total Work Load (hour) |
|----------------------------|--------|-----------------|------------------------|
| Theoretical                | 14     | 2.00            | 28.00                  |
| Practicals/Labs            | 0      | 0.00            | 0.00                   |
| Self study and preperation | 0      | 0.00            | 0.00                   |
| Homeworks                  | 0      | 0.00            | 0.00                   |
| Projects                   | 0      | 0.00            | 0.00                   |
| Field Studies              | 0      | 0.00            | 0.00                   |
| Midterm exams              | 1      | 22.00           | 22.00                  |
| Others                     | 0      | 0.00            | 0.00                   |
| Final Exams                | 1      | 40.00           | 40.00                  |
| Total Work Load            |        |                 | 90.00                  |
| Total work load/ 30 hr     |        |                 | 3.00                   |
| ECTS Credit of the Course  |        |                 | 3.00                   |

| 25   | CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS |     |     |              |     |     |                 |     |     |               |      |      |                    |      |      |      |
|--|---|-----|-----|--------------|-----|-----|-----------------|-----|-----|---------------|------|------|--------------------|------|------|------|
|  | PQ1   | PQ2 | PQ3 | PQ4          | PQ5 | PQ6 | PQ7             | PQ8 | PQ9 | PQ10          | PQ11 | PQ12 | PQ13               | PQ14 | PQ15 | PQ16 |
| ÖK1  | 3   | 4   | 4   | 3            | 4   | 4   | 5               | 4   | 5   | 4             | 4    | 3    | 4                  | 4    | 4    | 4    |
| ÖK2  | 5   | 4   | 5   | 5            | 5   | 4   | 4               | 4   | 4   | 5             | 5    | 5    | 3                  | 4    | 3    | 4    |
| ÖK3  | 4   | 3   | 3   | 4            | 3   | 3   | 3               | 4   | 4   | 4             | 5    | 5    | 3                  | 3    | 3    | 4    |
| ÖK4  | 3   | 3   | 4   | 4            | 3   | 5   | 4               | 4   | 3   | 5             | 3    | 2    | 3                  | 3    | 3    | 2    |
| ÖK5  | 3   | 3   | 4   | 4            | 4   | 4   | 5               | 3   | 4   | 4             | 4    | 3    | 5                  | 3    | 3    | 4    |
| ÖK6  | 4   | 3   | 5   | 5            | 2   | 4   | 5               | 3   | 4   | 2             | 3    | 3    | 3                  | 3    | 4    | 4    |
| <b>LO: Learning Objectives    PQ: Program Qualifications</b> |   |     |     |              |     |     |                 |     |     |               |      |      |                    |      |      |      |
| <b>Contribution Level:</b>                                   | <b>1 very low</b>   |     |     | <b>2 low</b> |     |     | <b>3 Medium</b> |     |     | <b>4 High</b> |      |      | <b>5 Very High</b> |      |      |      |