

# EUCLIDIAN GEOMETRY

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|------|---|---|---|
| 1    | Course Title:   | EUCLIDIAN GEOMETRY  |   |
| 2    | Course Code:  | İMÖ1008   |   |
| 3    | Type of Course:   | Compulsory  |   |
| 4    | Level of Course:  | First Cycle   |   |
| 5    | Year of Study:  | 1   |   |
| 6    | Semester:   | 2   |   |
| 7    | ECTS Credits Allocated:                                 | 5.00  |   |
| 8    | Theoretical (hour/week):                                | 3.00  |   |
| 9    | Practice (hour/week):                                   | 0.00  |   |
| 10   | Laboratory (hour/week):                                 | 0   |   |
| 11   | Prerequisites:  | None  |   |
| 12   | Language:   | Turkish   |   |
| 13   | Mode of Delivery:                                       | Face to face  |   |
| 14   | Course Coordinator:                                     | Prof. Dr. MENEKŞE SEDEN TAPAN BROUTIN   |   |
| 15   | Course Lecturers:                                       | Doç.Dr. Menekşe Seden TAPAN BROUTIN   |   |
| 16   | Contact information of the Course Coordinator:          | Doç.Dr. Menekşe Seden TAPAN BROUTIN<br>tapan@uludag.edu.tr<br>0 224 2955021<br>Uludağ Üniversitesi Eğitim Fakültesi, A Blok, Matematik ve Fen Bilimleri Eğitimi Bölümü, 16059 Nilüfer,Bursa |   |
| 17   | Website:  |   |   |
| 18   | Objective of the Course:                                | To examine Geometry and its Teaching in an academic level   |   |
| 19   | Contribution of the Course to Professional Development: | To examine Geometry and its Teaching in an academic level   |   |
| 20   | Learning Outcomes:                                      |   |   |
|      |   | 1   | The student has academic knowledge about teaching geometry.   |
|      |   | 2   | The student gains a problem solving perspective   |
|      |   | 3   | The student analyzes the properties of two and three dimensional geometric shapes and examine academic articles on the subject. |
|      |   | 4   | Explain, apply and research the definition, structure and usage of geometry in real life.                                       |
|      |   | 5   | Identify the situation in the literature regarding similar triangles, similarity theorems, similarity in triangles.             |
|      |   | 6   |   |
|      |   | 7   |   |
|      |   | 8   |   |
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|      |   | 10  |   |
| 21   | Course Content:   |   |   |
|      |   | <b>Course Content:</b>  |   |
| Week | Theoretical   | Practice  |   |
| 1    | The development of geometric thinking in children       |   |   |
| 2    | Basic principles of geometry teaching                   |   |   |
| 3    | Van Hiele geometry learning levels                      |   |   |

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|----|---|--|
| 4  | Basic concepts of geometry  |  |
| 5  | Basic concepts of geometry and their place in the literature                                      |  |
| 6  | Transformation geometry and geometric transformations   |  |
| 7  | Transformation geometry and geometric transformations   |  |
| 8  | Proof methods and related articles  |  |
| 9  | Articles on proof methods   |  |
| 10 | Teaching basic geometric drawings (with the help of compass, set square, ruler, protractor, etc.) |  |
| 11 | Literature on basic geometric drawings  |  |
| 12 | Common misconceptions in the field of geometry  |  |
| 13 | Articles on common misconceptions in the field of geometry  |  |
| 14 | Current research on Geometry Teaching   |  |

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| 22 | Textbooks, References and/or Other Materials: | Current academic articles in the field<br>Kuramdan Uygulamaya Matematik Eğitimi, Adnan Baki |
| 23 | Assesment                                     |   |

| TERM LEARNING ACTIVITIES  |  | NUMBER | WEIGHT |                 |                        |
|---|--|--------|--------|-----------------|------------------------|
| Midterm Exam  |  | 0      | 0.00   |                 |                        |
| Activites   |  |        | Number | Duration (hour) | Total Work Load (hour) |
| Final Exam  |  | 1      | 60.00  | 3.00            | 42.00                  |
| Practicals/Labs   |  | 0      |        | 0.00            | 0.00                   |
| Contribution of Preparation Learning Activities to Success Grade  |  | 40.00  |        | 8.00            | 80.00                  |
| Homeworks   |  | 0      |        | 0.00            | 0.00                   |
| Contribution of Final Exam to Success Grade   |  | 60.00  |        | 0.00            | 0.00                   |
| Field Studies   |  | 0      |        | 0.00            | 0.00                   |
| Measurement and Evaluation Techniques Used in the Exams, assignments, performance, in-class participation |  | 0      |        | 2.00            | 12.00                  |
| Others  |  | 0      |        | 0.00            | 0.00                   |
| 24 ECTS/WORK LOAD TABLE   |  | 1      |        | 16.00           | 16.00                  |
| Final Exams   |  |        |        |                 |                        |
| Total Work Load   |  |        |        |                 | 150.00                 |
| Total work load/ 30 hr  |  |        |        |                 | 5.00                   |
| ECTS Credit of the Course   |  |        |        |                 | 5.00                   |

| 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 | 4   | 4   | 5   | 4   | 5   | 4   | 5   | 5   | 5   | 5    | 3    | 5    | 4    | 5    | 4    | 5    |
| ÖK2 | 5   | 4   | 5   | 4   | 5   | 4   | 5   | 4   | 4   | 5    | 5    | 4    | 4    | 5    | 5    | 4    |
| ÖK3 | 5   | 4   | 5   | 4   | 5   | 5   | 4   | 5   | 4   | 4    | 4    | 4    | 5    | 4    | 5    | 5    |
| ÖK4 | 5   | 5   | 4   | 5   | 4   | 5   | 4   | 5   | 5   | 4    | 4    | 5    | 5    | 4    | 5    | 5    |

|  |            |   |       |   |          |   |        |   |             |   |   |   |   |   |   |   |
|--|------------|---|-------|---|----------|---|--------|---|-------------|---|---|---|---|---|---|---|
| ÖK5  | 5          | 5 | 4     | 5 | 4        | 4 | 5      | 4 | 4           | 5 | 5 | 5 | 4 | 4 | 4 | 4 |
| LO: Learning Objectives   PQ: Program Qualifications |            |   |       |   |          |   |        |   |             |   |   |   |   |   |   |   |
| Contrib<br>ution<br>Level:                           | 1 very low |   | 2 low |   | 3 Medium |   | 4 High |   | 5 Very High |   |   |   |   |   |   |   |