

# TECHNICAL DRAWING

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|----|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | Course Title:                                           | TECHNICAL DRAWING                                                                                                    |                                                                                                                                                                                                                                                                                                                                                |
| 2  | Course Code:                                            | OTPZ107                                                                                                              |                                                                                                                                                                                                                                                                                                                                                |
| 3  | Type of Course:                                         | Compulsory                                                                                                           |                                                                                                                                                                                                                                                                                                                                                |
| 4  | Level of Course:                                        | Short Cycle                                                                                                          |                                                                                                                                                                                                                                                                                                                                                |
| 5  | Year of Study:                                          | 1                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                |
| 6  | Semester:                                               | 1                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                |
| 7  | ECTS Credits Allocated:                                 | 5.00                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                |
| 8  | Theoretical (hour/week):                                | 2.00                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                |
| 9  | Practice (hour/week):                                   | 2.00                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                |
| 10 | Laboratory (hour/week):                                 | 0                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                |
| 11 | Prerequisites:                                          | NONE                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                |
| 12 | Language:                                               | Turkish                                                                                                              |                                                                                                                                                                                                                                                                                                                                                |
| 13 | Mode of Delivery:                                       | Face to face                                                                                                         |                                                                                                                                                                                                                                                                                                                                                |
| 14 | Course Coordinator:                                     | Öğr.Gör. RASIM KADERLİ                                                                                               |                                                                                                                                                                                                                                                                                                                                                |
| 15 | Course Lecturers:                                       | Öğr.Gör.Rasim KADERLİ                                                                                                |                                                                                                                                                                                                                                                                                                                                                |
| 16 | Contact information of the Course Coordinator:          | rkaderli@uludag.edu.tr                                                                                               |                                                                                                                                                                                                                                                                                                                                                |
| 17 | Website:                                                |                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                |
| 18 | Objective of the Course:                                | The machine used in the manufacturing sector technical pictures, making images to gain the ability to read and draw. |                                                                                                                                                                                                                                                                                                                                                |
| 19 | Contribution of the Course to Professional Development: |                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                |
| 20 | Learning Outcomes:                                      |                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                |
|    |                                                         | 1                                                                                                                    | Angles, lines, arcs, and polygons on the geometric drawings, drawings of angle, polygon, arc and derivatives and to make drawings.                                                                                                                                                                                                             |
|    |                                                         | 2                                                                                                                    | Projection and projection types, appearance, able to comprehend the methods of extraction, a special appearance and help you draw. Make projections of lines and planes, draw a straight line the full length and the true size of the plane, and a special appearance to help and if necessary remove the appearance of parts to draw enough. |
|    |                                                         | 3                                                                                                                    | Appearance and Standard dimensioning rules to make length dimensions and perspectives (TS 88) to know and implement.                                                                                                                                                                                                                           |
|    |                                                         | 4                                                                                                                    | Comprehend the need and appropriate cross-sectional planes of sectioning, to determine the appropriate cross-sectional plane, and the cross-section types and sections of the knowledge of cross sectional draw açıklayarak exceptions.                                                                                                        |
|    |                                                         | 5                                                                                                                    | To understand the importance of perspective, and perspective drawings to make pictures. To know the methods of perspective drawing, using these methods and draw on the perspectives of Appearance with the bow and the parts of a circle to draw the appropriate perspectives.                                                                |
|    |                                                         | 6                                                                                                                    | The surface quality of the work piece and the machine to know the meaning of symbols and pictures on the importance of roughness on the show açıklamak.Yüzey.                                                                                                                                                                                  |

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|                           |                                                                                                                                                                                                                                                                                                                              | 7  | Grasp the importance of the position tolerances on dimensions and shape, size and exercise tolerance on the image to read and show toleranslerini. Tolerance to edit letterhead.                                                                                    |                 |                        |
|                           |                                                                                                                                                                                                                                                                                                                              | 8  | Knowing the importance of shape and position tolerances and manufacturing tolerances explain the importance of shape and position. Torans symbols to read and show the shape and position.                                                                          |                 |                        |
|                           |                                                                                                                                                                                                                                                                                                                              | 9  | Enough to understand the appearance of images and image making to determine çizebilmek.Yapım necessary to take cross-sections, to make proper dimensioning, tolerances and surface roughness of the implement, organize, and materials to determine the letterhead. |                 |                        |
|                           |                                                                                                                                                                                                                                                                                                                              | 10 |                                                                                                                                                                                                                                                                     |                 |                        |
| 21                        | Course Content:                                                                                                                                                                                                                                                                                                              |    |                                                                                                                                                                                                                                                                     |                 |                        |
|                           | Course Content:                                                                                                                                                                                                                                                                                                              |    |                                                                                                                                                                                                                                                                     |                 |                        |
| Week                      | Theoretical                                                                                                                                                                                                                                                                                                                  |    | Practice                                                                                                                                                                                                                                                            |                 |                        |
| 1                         | Geometric constructions: angle, arc and curve drawing                                                                                                                                                                                                                                                                        |    | Geometric constructions: angle, arc and curve drawing, assembly drawings of spring                                                                                                                                                                                  |                 |                        |
| 2                         | Geometric drawings polygon drawings (triangle, square, pentagonal, hexagonal, heptagonal, octagonal)                                                                                                                                                                                                                         |    | Geometric drawings b) drawing a polygon (triangle, square, pentagonal, hexagonal, heptagonal, octagonal)                                                                                                                                                            |                 |                        |
| 3                         | Projection, the projection of the varieties, the projection of the planes, the point footprint, footprint of truth and exceptions, and exceptions plane, footprint, footprint of                                                                                                                                             |    | Projection applications                                                                                                                                                                                                                                             |                 |                        |
| Activites                 |                                                                                                                                                                                                                                                                                                                              |    | Number                                                                                                                                                                                                                                                              | Duration (hour) | Total Work Load (hour) |
| Theoretical               |                                                                                                                                                                                                                                                                                                                              |    | 13                                                                                                                                                                                                                                                                  | 2.00            | 26.00                  |
| Practicals/Labs           |                                                                                                                                                                                                                                                                                                                              |    | 13                                                                                                                                                                                                                                                                  | 2.00            | 26.00                  |
| Self study                |                                                                                                                                                                                                                                                                                                                              |    | 10                                                                                                                                                                                                                                                                  | 1.00            | 10.00                  |
| Homeworks                 |                                                                                                                                                                                                                                                                                                                              |    | 1                                                                                                                                                                                                                                                                   | 0.00            | 0.00                   |
| Projects                  |                                                                                                                                                                                                                                                                                                                              |    | 0                                                                                                                                                                                                                                                                   | 0.00            | 0.00                   |
| Field Studies             |                                                                                                                                                                                                                                                                                                                              |    | 0                                                                                                                                                                                                                                                                   | 0.00            | 0.00                   |
| Midterm Exams             |                                                                                                                                                                                                                                                                                                                              |    | 1                                                                                                                                                                                                                                                                   | 0.00            | 0.00                   |
| Others                    |                                                                                                                                                                                                                                                                                                                              |    | 0                                                                                                                                                                                                                                                                   | 0.00            | 0.00                   |
| Final Exams               |                                                                                                                                                                                                                                                                                                                              |    | 1                                                                                                                                                                                                                                                                   | 0.00            | 0.00                   |
| Total Work Load           |                                                                                                                                                                                                                                                                                                                              |    |                                                                                                                                                                                                                                                                     |                 | 62.00                  |
| Total work load           |                                                                                                                                                                                                                                                                                                                              |    |                                                                                                                                                                                                                                                                     |                 | 2.07                   |
| ECTS Credit of the Course |                                                                                                                                                                                                                                                                                                                              |    |                                                                                                                                                                                                                                                                     |                 | 5.00                   |
| 11                        | Perspective drawings, description and varieties, the isometric circle and arc drawing                                                                                                                                                                                                                                        |    | Perspective drawing, perspective drawing of views by an appropriate parts of the                                                                                                                                                                                    |                 |                        |
| 12                        | Surface roughness and surface quality tolerances and standards. , To appoint and determine the quality of surface roughness. Surface roughness symbols, according to the standards on the machine to show pictures                                                                                                           |    | Surface roughness symbols, according to the standards on the machine to show pictures                                                                                                                                                                               |                 |                        |
| 13                        | In manufacturing, the importance of tolerance in size. Practice the concept of practice types, practice reading table. Exercise systems (normal vent, normal spindle system). Exercise types (strict, transitional, hollow drill). The shape and position tolerances. The shape and position tolerance symbols and standards |    | The shape and position tolerances of the machine part of the image display applications.                                                                                                                                                                            |                 |                        |

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| <b>14</b> | Pictures of construction, construction official appearance for the determination of adequate, taking the necessary sections. Tolerance and surface roughness measurement of production pictures to show pictures of construction. Letterhead editing. Materials to be determined. | Writing formal applications |
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| <b>22</b> | Textbooks, References and/or Other Materials: | Teknik Resim İ.Zeki ŞEN-Nail ÖZÇİLİNGİR<br>Teknik Resim-I-II Kemal TÜRKDEMİR<br>Meslek Resim-I-II Hamdi ÖZKARA<br>Teknik Resim Hüdayim BAŞAK<br>Teknik Resim Uygulama Yaprakları-Zafer YILDIZ |
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| <b>23</b> | Assesment |
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| TERM LEARNING ACTIVITIES                                         | NUMBER | WEIGHT |
|------------------------------------------------------------------|--------|--------|
| Midterm Exam                                                     | 1      | 25.00  |
| Quiz                                                             | 0      | 0.00   |
| Home work-project                                                | 1      | 25.00  |
| Final Exam                                                       | 1      | 50.00  |
| Total                                                            | 3      | 100.00 |
| Contribution of Term (Year) Learning Activities to Success Grade |        | 50.00  |
| Contribution of Final Exam to Success Grade                      |        | 50.00  |
| Total                                                            |        | 100.00 |
| Measurement and Evaluation Techniques Used in the Course         |        |        |

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| <b>24</b> | <b>ECTS / WORK LOAD TABLE</b> |
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|                                                              |                                                                      |     |              |     |                 |     |               |     |                    |      |      |      |      |      |      |      |
|--------------------------------------------------------------|----------------------------------------------------------------------|-----|--------------|-----|-----------------|-----|---------------|-----|--------------------|------|------|------|------|------|------|------|
| <b>25</b>                                                    | <b>CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS</b> |     |              |     |                 |     |               |     |                    |      |      |      |      |      |      |      |
|                                                              | PQ1                                                                  | PQ2 | PQ3          | PQ4 | PQ5             | PQ6 | PQ7           | PQ8 | PQ9                | PQ10 | PQ11 | PQ12 | PQ13 | PQ14 | PQ15 | PQ16 |
| <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> |      |      |      |      |      |      |      |