



**GAZİ UNIVERSITY - FACULTY OF ENG., MECHANICAL ENG. DEPT. (ENGLISH)**  
**(2021-2022 SPRING SEMESTER)**

**ME106 COMPUTER AIDED TECHNICAL DRAWING II - SYLLABUS**

**Instructor:** Inst. Dr. Yavuz ZÜMRÜT  
Office no: 412 , E-mail: [yzumrut@gazi.edu.tr](mailto:yzumrut@gazi.edu.tr)

**Course Code and Title:** ME106 Computer Aided Technical Drawing II, Credit (3), Theory (2), Practice (1), ECTS (5)

**Course Content:**

General Tolerances, Geometric Tolerances, Surface Quality Symbols. Drawing and Representation of Machine Elements (Threaded Elements, Keys, Pins, Welded Joints, Springs, Bearings, Gears). Detail and Assembly Drawings.

**References:**

- Frederick E. Giesecke, et. al., “Technical Drawing with Engineering Graphics”, 15th edn., Prentice Hall, 2017. (Earlier editions applicable)
- İ. Zeki Şen ve Nail Özçilingir, “Makine Resmi”, Deha Yayıncılık, İstanbul, 2004.
- İ. Zeki Şen ve Nail Özçilingir, “Teknik Resim-Temel Bilgiler”, Deha Yayıncılık, İstanbul, 2002.
- İ. Zeki Şen ve Nail Özçilingir, “Standart Makine Elemanları Çizelgeleri”, Deha Yayıncılık, İstanbul, 2004.
- Ajeet Singh, “Machine Drawing, Includes AutoCAD”, 2nd edn., Tata McGraw Hill Education Private Limited New Delhi, 2012.
- Cecil Jensen, Jay D. Helsel and Dennis R. Short, “Engineering Drawing & Design”, 7th edn., McGraw-Hill Higher Education, 2007.
- Colin H. Simmons, Dennis E. Maguire, Neil Phelps, “Manual of Engineering Drawing, British and International Standards”, 5th edn., Elsevier Ltd., 2020. (4th edn., Elsevier Ltd., 2012)
- David A. Madsen, David P. Madsen “Engineering Drawing and Design”, 5th edn., Delmar, Cengage Learning, 2012.
- Goutam Pohit and Goutam Ghosh, “Machine Drawing with AutoCAD”, Pearson-Dorling Kindersley (India) Pvt. Ltd., 2007.
- K. L. Narayana, P. Kannaiah, K. Venkata Reddy, “Machine Drawing (first angle projection, as per the latest BIS Standards”, 3rd edn., New Age International (P) Ltd., Publishers, 2006.
- M. B. Shah and B. C. Rana, “Engineering Drawing”, 2nd edn., Pearson-Dorling Kindersley (India) Pvt. Ltd., 2009.
- N. D. Bhatt, V. M. Panchal and Pramod R. Ingle, “Engineering Drawing, Plane and Solid Geometry, In First-Angle Projection Method”, 50th edn., Charotar Publishing House Pvt. Ltd., 2011.
- N. D. Junnarkar, “Machine Drawing”, Pearson-Dorling Kindersley (India) Pvt. Ltd., 2007.
- Stefano Tornincasa “Technical Drawing for Product Design, Mastering ISO GPS and ASME GD&T”, Springer Tracts in Mechanical Engineering, 2021.
- Theodore J. Branoff, “Interpreting Engineering Drawings”, 8th edn., Cengage Learning, 2016.

**Course Schedule:**

Week	Topic
1-3	Introduction, General Tolerances, Geometric Tolerances, Surface Quality, Introduction to AutoCAD Mechanical.
4-5	Threads.
6-8	Keys, Pins, Springs.
9	Welded Joints.
10	Journal and Roller Bearings.
11	<b>Mid-Term Exam.</b>
12	Gears.
13-15	Detail and Assembly Drawing.

**Course Grading:**

- Weekly Homeworks : 30 %
- One Mid-Term Exam : 30 %
- Final Exam : 40 %

**Note:** Late homeworks are not accepted unless the student introduce a valid official excuse.