

# Drawing for Mechanical Engineering

Syllabus Number

1G202

Basic Major Subjects

Requisites 2 credit

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## 1. Course Description

This course is to understand the following: abstract of JIS for drawing, projection method, third angle projection, scale, line, choice of front view, required number of views, drawing of cross section, dimensioning, surface roughness, dimensional tolerance, geometrical tolerance, and drawing method of the machine element. (Related to DP2)

## 2. Course Objectives

The aim of this course is to learn the basic knowledge of mechanical drawing and Japanese Industrial Standard (JIS) for drawing. In addition, students will deepen their understanding of mechanical drawing through exercises.

## 3. Grading Policy

Grading is determined with technical drawing (100%). The technical drawing is inspected when it is submitted.

## 4. Textbook and Reference

Textbook

Japanese book (ISBN: 978-4274217241)

## 5. Requirements(Assignments)

Teaching materials will be shown on LMS. Student must prepare for next lecture by it (1.5 hours).

## 6. Note

## 7. Schedule

- [1] Drafting method: drawing characters
- [2] Drafting method: drawing lines, operations of drawing instruments
- [3] Drafting method: drawing and inspection of flange
- [4] Drafting method: drawing and inspection of screw
- [5] Drafting method: drawing and inspection of coupling
- [6] Drafting method: practice of drawing
- [7] Sketch of gear transmission device
- [8] Drawing and inspection of gear transmission device: part drawing of axle box
- [9] Drawing and inspection of gear transmission device: part drawing of shaft
- [10] Drawing and inspection of gear transmission device: part drawing of gear
- [11] Drawing and inspection of gear transmission device: part drawing of pulley
- [12] Drawing and inspection of gear transmission device: part drawing of distance collar
- [13] Drawing and inspection of gear transmission device: part drawing of pressure lids
- [14] Drawing and inspection of gear transmission device: assembly drawing
- [15] Summary