# Elementary Experiments in Engineering

Syllabus Number 1J201
Basic Major Subjects
Elective Requisites 2 credit

IKEMATA, Yoshito

1. Course Description

We will conduct experiments on mechanics, thermology, optics, and electrical circuits that form the basis of machine precision engineering. After completion of the experiment, you will receive an end check by the instructor in charge and submit the report one week later. If the report does not reach the passing score, we will ask you to resubmit. A single experiment will be completed with the passing of the report.
In this lesson, you will acquire knowledge about DP 2.

2. Course Objectives

The objectives of this experiment subject are the following two.
1) By conducting experiments, our primary goal is to experience and deeply understand physical phenomena that can not be obtained from lectures.
2) The second goal is to be able to master future mechanical engineering experiments, laboratory techniques, and data organizing laws that form the basis of graduation research and report preparation methods.

3. Grading Policy

Learn how to practice actual experiments, organize data, and create reports. The results will be evaluated based on the reporting points. Being late for the class is subject to penalty points, and in principle, students are not allowed to attend if they are late for more than 20 minutes. Each time you will be required to pass the report at the end of the class.

4. Textbook and Reference

Textbook
Physics Division, Teikyo University School of Science and Technology Basic Engineering Experiment / Physics Experiment Guidance Manual ().
Teikyo University School of Science and Technology

5. Requirements(Assignments)

As preliminary study, please read the Basic Engineering Experiment / Physics Experiment Guidance Manual (Teikyo University School of Science and Engineering) in advance (about 1.5 hours)
Master the math necessary for understanding.
By preparing the report properly, it also helps as doing review.

6. Note

Please prepare a scientific calculator, experiment notebook, A4 graph paper (grid, half log, double log), A4 size report paper by yourselves. Schedule of experiments and other communication matter will be posted on the bulletin board in front of the physical preparation roomnd also on the homepage: http://www.ase.teikyo-u.ac.jp/faculty/nakamura/
For new experiments, you may check uploaded files on the homepage. Tips for creating reports are on the homepage.
http://www.ase.teikyo-u.ac.jp/faculty/nakamura/

7. Schedule

| | |
|---|---|
| [1] | Guidance |
| [2] | Experiment Practice 1st |
| [3] | Experiment Practice 2nd |
| [4] | Experiment Practice 3rd |
| [5] | Experiment Practice 4th |
| [6] | Experiment Practice 5th |
| [7] | Experiment Practice 6th |
| [8] | Experiment Practice 7th |
| [9] | Experiment Practice 8th |
| [10] | Experiment Practice 9th |
| [11] | Experiment Practice 10th |
| [12] | Supplementary experiment |
| [13] | Report final submission / grading |
| [14] | Experiment reserved day (1) |
| [15] | Experiment reserved day (2) |