

MACHINE DESIGN V

REGULATIONS

The objectives of the Laboratory are to illustrate, complement and widen the knowledge presented in lectures on Fundamentals of Machine Design, and to familiarize the students with methods of experimental research.

Laboratory Program

The program of MDF Laboratory consists of 7 two-hour experiments performed by six-person student teams. The decision on how to divide the group into teams is taken by the students themselves. During the first organizational meeting, the list of teams should be submitted for approval by the Head of Laboratory.

The consecutive experiments are performed by the teams according to the timetable settled at the beginning of the semester. Laboratory schedule will be displayed in the wall case in front of the Laboratory. Because there could be changes in the timetable due to introducing new experiments and/or technical failures, the students are obliged to pay attention to the information displayed during the whole semester.

Experiment Conducting Rules

- a) The experiments must be carried out in accordance with the description contained in the Laboratory Manual and instructions given by the supervising staff. Before the instruments are switched on and the measurements start, one must thoroughly familiarize with the experimental setup. The power supply can only be switched on under the approval and strict control of the supervisor.
- b) During the course of experiments, the students can work only on the stand assigned to their team. All the team members are rigorously obliged to follow the commands of the supervisor.
- c) The students must exercise caution; they are not allowed to manipulate any devices whose use and/or operation principle has not been adequately recognised. Every student must care of his/her own safety and the safety of the colleagues, at the same time protecting the integrity of the instrumentation used in experiments.
- d) To record and elaborate the results of measurements, the students should bring a calculator and several sheets of blank paper of A4 size.

Qualification Principles

- a) The students are obliged to get familiar with all the material contained in the Laboratory Manual. In particular, they should know the theoretical background and understand physical and technical sense of problems related to the experiment topic.
- b) After completing the measurements, the team prepares a common report on the experiment, written in accordance to instructions given in the Laboratory Manual. To this report, one should attach sheets with measurement and calculation records signed by the supervisor. If the report is not submitted in next laboratory session time, the experiment is not credited, and all team members receive negative marks *zero*. In such a case, no additional retake assessment test will be possible.
- c) Every student should precisely know the course of experiment he/she performed, the structure of the experimental setup and its measurement systems, as well as the contents of the commonly-developed report. This knowledge will be assessed by the supervisor during the next laboratory session (before the students are allowed to carry out the next experiment). On the basis of this test, individual students receive partial notes. If a student fails the test, he/she can retake it during consultation hours of the supervisor.

Assessment of Experiments

- a) The basis for crediting the Laboratory is performing all the experiments scheduled for that semester for each individual team.
- b) In the case of excused absence from the classes (seek leave), the student is obliged to appear before the Head of Laboratory, as soon as possible, in order to set an additional date of experiment.
- c) In the case of unexcused absence, the student will not be allowed to take part in the following experiments of the Laboratory.
- d) The final note is calculated as the arithmetical average of partial notes obtained for the experiments. A student may fail not more than one experiment during the semester (may only have one negative partial note). In such a case, however, the average of all notes must be greater than, or equal to 3.

Chair of the course
Mgr inż. Adam Wądołowski

Head of the ZPK department
Prof. nzw dr hab. Stanisław Bogdański

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