

Instructions for the mini-project for ME-482

Group composition

1. Mini-project is done by a group of 4 students from different sections (**max 2 students from the same section per group**).
2. Prof. Pioletti reserves the right to balance the distribution of students in the different groups to match, at best, point 1.
3. Final registration is no later than Friday, **21/02/25**, at 12:00.
4. Registration is made through a link (-> "Registration to the mini-project"), which will be published in Moodle related to course ME-482 on Tuesday, 18/02/25, at 16h00.
5. The list of the projects will be given in Moodle, and two different groups can take the same project (so if you are interested in project 1, put your name either on 1.1 or 1.2, **BUT NOT** on both!)
6. Register for only **ONE** project by writing your **LAST and First name** (**PLEASE follow this order**) and your section (**Smith John (GM)**). Check for the diversity of sections per project before signing (see rule 1. above)!

Description of the expected work

1. Small literature review (max 5 articles)
2. Definition of the biomech/bioeng goals of the project (Specifications)
3. Design, calculation (if needed), and implementation of the project (if possible)

Presentation and follow-up of the work

1. Possibility to contact the (medical/engineering) advisor of your project
2. Brief private discussion based on 3 slides max of the project specifications during a class session (or at the facilities where the project is proposed) on 11/03/25 at 15h00 that you organize with the engineer advisor of our project. The goal is to ensure that you are on a good track.
3. Oral presentation of the project progress on the 20/05/25 or 27/05/25 (8 min presentation + 2 minutes questions). The distribution of the groups between the two days will be communicated on 13/05/25.
4. Written report (one per group, 15 pages max) in pdf format has to be sent to the medical and engineer advisors of your project **as well as** to Prof. Pioletti no later than **03/06/25 at 12h00**. Please include in the front page the names of the Medical and Engineering advisors.

Work evaluation

1. The mini-project mark will essentially count for the mark of the course
2. The mini-project mark will be based 1/2 on the written report, 1/2 on the oral presentation made on 20/05/25 or 27/05/25 (but not on the 3 slides presentation of 11/03/25).
3. The evaluation criteria are:
 - a. Understanding of the project (literature review limited but pertinent)
 - b. Quality of the presentations (oral and written)
 - c. Motivation
 - d. Originality
 - e. Pertinent engineering analysis
 - f. Adequate answers to the questions (during the oral presentation)

Some remarks on the written report

1. Scientific type of report: write only facts, not your feelings or mood
2. List ALL sources used, also in the figure captions
3. Structure the report with a table of contents