


 Faculty of Applied Sciences

**FSAB1230 Project in biomedical engineering**

[+60h exercises] 6 credits

This course is taught in the 2nd semester

**Teacher(s):** Patrick Bertrand, Jean Delbeke, Christine Dupont, Philippe Lefèvre (coord.), Jean-Louis Thonnard, Michel Verleysen

**Language:** French

**Level:** First cycle

**Aims**

The objectives of this project are to initiate engineering students to the application of their theoretical knowledge in biomedical engineering. The project will involve a collaboration between theoretical and experimental approaches (faculty of medicine and faculty of engineering).

**Main themes**

This project aims at integrating at least two disciplines of biomedical engineering. For instance, the following projects could be proposed to the students:

- conception of a physiological implant
- measure of physiological signals and extraction of physiological noise (EEG, ECG).
- analysis of the neural control of movement (gait, eye movements) based on the measure of parameters and mathematical modelling of the system.

**Content and teaching methods**

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- conception of a physiological implant
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**Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)**

prerequisite : FSAB 1225 Introduction au génie biomédical.

**Other credits in programs**

<b>FSA12BA</b>	Deuxième année de bachelier en sciences de l'ingénieur, orientation ingénieur civil	(6 credits)
<b>FSA13BA</b>	Troisième année de bachelier en sciences de l'ingénieur, orientation ingénieur civil	(6 credits)