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MINGBIO - Introduction

Introduction

MINGBIO - Teaching profile

Learning outcomes

The aim of the minor is to help students taking a baccalaureate in engineering science - civil engineering to gain an introduction into the multidisciplinary domain of biomedical engineering. Thanks to this introduction, which will require an introduction to the living world, future bachelors in engineering science - civil engineering will understand such concepts as the bioinstrument, biomaterial, artificial organs, medical imaging, modeling biological systems, etc, and will later be able to apply them to solving basic problems in the biomedical engineering field. In particular, students should be able to go on to study for a master's in the field of biomedical engineering.

On successful completion of this programme, each student is able to :

1. maîtriser les aspects fondamentaux des sciences du vivant, et plus particulièrement de la biologie moléculaire et cellulaire, de la physiologie et de l'anatomie des systèmes, de la biochimie, et des mécanismes régissant le contrôle et l'apprentissage moteur.
2. démontrer une compréhension de base des concepts liés aux disciplines de bioinstrumentation, biomatériaux, organes artificiels et rééducation, imagerie médicale, et modélisation des systèmes biologiques.
3. appliquer ces concepts en vue de résoudre des problèmes élémentaires dans le domaine du génie biomédical.

Programme

DETAILED PROGRAMME BY SUBJECT

- Mandatory
- ✂ Optional
- △ Not offered in 2021-2022
- ⊖ Not offered in 2021-2022 but offered the following year
- ⊕ Offered in 2021-2022 but not the following year
- △ ⊕ Not offered in 2021-2022 or the following year
- Activity with requisites
- [FR] Teaching language (FR, EN, ES, NL, DE, ...)

Click on the course title to see detailed informations (objectives, methods, evaluation...)

30 crédits

Year
2 3

Content:

● Mineure en génie biomédical (30 credits)

● LGBIO1111	Cell biology and physiology	Charles De Smet Christophe De Vleeschouwer Pascal Kienlen-Campard	FR [q2] [30h+15h] [5 Credits]	X	
● LGBIO1112	Introduction to biomedical engineering	Philippe Lefèvre	FR [q2] [45h] [5 Credits]	X	
● LGBIO1113	Systems Anatomy and Physiology	Catherine Behets Wydemans Olivier Cornu Greet Kerckhofs	FR [q2] [30h+15h] [5 Credits]		X
● LGBIO1114	Artificial organs and rehabilitation	Luc-Marie Jacquet Philippe Lefèvre Renaud Ronsse	FR [q2] [30h+30h] [5 Credits] △		X
● LBIR1250	Biochemistry I	Michel Ghislain Yvan Larondelle (coord.)	FR [q1] [30h+15h] [5 Credits]		X
● LGBIO1115	Introduction to Neuroscience	Julie Duque (coord.) Aleksandar Jankovski Marcus Missal Sylvie Nozaradan (coord.)	FR [q2] [30h+30h] [5 Credits]		X

THE PROGRAMME'S COURSES AND LEARNING OUTCOMES

For each UCLouvain training programme, a [reference framework of learning outcomes](#) specifies the the skills expected of every graduate on completion of the programme. Course unit descriptions specify targeted learning outcomes, as well as the unit's contribution to reference framework of learning outcomes.

MINGBIO - Information

Access Requirements

The minor in biomedical engineering is mainly intended for students taking a baccalaureate in engineering science - civil engineering or some other baccalaureates (SC and BIR).

Evaluation

The evaluation methods comply with the regulations concerning studies and exams (<https://uclouvain.be/fr/decouvrir/rgee.html>). More detailed explanation of the modalities specific to each learning unit are available on their description sheets under the heading "Learning outcomes evaluation method".

Possible trainings at the end of the programme

The minor in biomedical engineering provides access to the future master's in biomedical civil engineering for students who have obtained the bachelor's qualification in engineering science - civil engineering.

Contacts

Curriculum Management

Entity

Structure entity

Denomination

Faculty

Sector

Acronym

Postal address

SST/EPL/GBIO

(GBIO)

Louvain School of Engineering (EPL)

Sciences and Technology (SST)

GBIO

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Useful Contact(s)

- Secrétariat: [Isabelle Dargent](https://uclouvain.be/repertoires/isabelle.dargent) (<https://uclouvain.be/repertoires/isabelle.dargent>)

