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## Introduction

### Introduction

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#### Introduction

The aim of this track is to enable the students to increase and broaden their knowledge and skills in different areas of Mechanical Engineering. More specifically, this programme offers the students the opportunity to build a solid background knowledge of continuum mechanics (fluid and solid mechanics) and thermodynamics, both from the theoretical and the applied standpoints. Further, it offers applied but rigorous training in machine design, analysis of machine components and manufacturing. Finally, this programme allows the students to develop a strong expertise in mathematical modelling and methods for numerical simulation.

## Teaching profile

## Learning outcomes

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## Detailed programme

### PROGRAMME BY SUBJECT

- Mandatory  
 △ Courses not taught during 2019-2020  
 ⊕ Periodic courses taught during 2019-2020
- ✘ Optional  
 ⊖ Periodic courses not taught during 2019-2020  
 ■ Activity with requisites

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

Les étudiants qui choisissent les filières FYKI et MECA (qui comprennent toutes les deux le cours LMECA1901) complètent leur programme en sélectionnant un cours au choix d'une autre filière EPL (les prérequis doivent être satisfaits et la compatibilité d'horaire ne peut être garantie).

Year

2 3

#### o Contenu:

● LMECA1210	Description et analyse des mécanismes	Francesco Contino Paul Fisette Thomas Servais (compensates) Benoît Raucent	30h+30h	5 Credits	2q	x	
● LMECA1901	Continuum mechanics.	Philippe Chatelain Issam Doghri Olivier Lamberts (compensates) Issam Doghri	30h+30h	5 Credits			x
● LMECA1100	Deformable solid mechanics.	Brieux Delsaute (compensates) Issam Doghri Issam Doghri	30h+30h	5 Credits	2q		x
● LMECA1321	Fluid mechanics and transfer phenomena.	Vincent Legat Vincent Legat (compensates) Grégoire Winckelmans Grégoire Winckelmans	30h+30h	5 Credits	2q		x
● LMECA1451	Mechanical manufacturing.	Laurent Delannay Aude Simar	30h+30h	5 Credits	1q		x
● LMECA1855	Thermodynamics and energetics.	Yann Bartosiewicz Miltiadis Papalexandris	30h+30h	5 Credits	1q		x

### COURSE PREREQUISITES

A document entitled (nb: not available for this programme lfsa137i) specifies the activities (course units - CU) with one or more pre-requisite(s) within the study programme, that is the CU whose learning outcomes must have been certified and for which the credits must have been granted by the jury before the student is authorised to sign up for that activity.

These activities are identified in the study programme: their title is followed by a yellow square.

As the prerequisites are a requirement of enrolment, there are none within a year of a course.

The prerequisites are defined for the CUs for different years and therefore influence the order in which the student can enrol in the programme's CUs.

In addition, when the panel validates a student's individual programme at the beginning of the year, it ensures the consistency of the individual programme:

- It can change a prerequisite into a corequisite within a single year (to allow studies to be continued with an adequate annual load);
- It can require the student to combine enrolment in two separate CUs it considers necessary for educational purposes.

For more information, please consult regulation of studies and exams (<https://uclouvain.be/fr/decouvrir/rgee.html>).

## **THE PROGRAMME'S COURSES AND LEARNING OUTCOMES**

For each UCLouvain training programme, a [reference framework of learning outcomes](#) specifies the competences expected of every graduate on completion of the programme. You can see the contribution of each teaching unit to the programme's reference framework of learning outcomes in the document *"In which teaching units are the competences and learning outcomes in the programme's reference framework developed and mastered by the student?"*

## Information

### Liste des bacheliers proposant cette mineure

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- > Bachelor in Mathematics [en-prog-2019-math1ba]
- > Bachelor in Physics [en-prog-2019-phys1ba]

### Admission

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### Evaluation

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***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".***

