



*The version you're consulting is not definitive. This programme still may change. The final version will be published on 1th June.*

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## MINPOLY - Introduction

### Introduction

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## MINPOLY - Teaching profile

### Learning outcomes

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

### Programme

#### DETAILED PROGRAMME BY SUBJECT

- Mandatory
- ⌘ Optional
- △ Not offered in 2024-2025
- ⊖ Not offered in 2024-2025 but offered the following year
- ⊕ Offered in 2024-2025 but not the following year
- △ ⊕ Not offered in 2024-2025 or the following year
- Activity with requisites
- 🌐 Open to incoming exchange students
- 🚫🌐 Not open to incoming exchange students
- [FR] Teaching language (FR, EN, ES, NL, DE, ...)

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

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#### Content

L'étudiant-e sélectionne 30 crédits parmi les cours suivants, conformément aux conditions d'accès.

#### ⌘ Chimie et physique appliquées

⌘ LMAPR1805	Introduction to materials science		FR [q2] [30h+30h] [5 Credits] 🌐	X	
⌘ LMECA1901	Continuum mechanics.	Philippe Chatelain Issam Doghri	FR [q2] [30h+30h] [5 Credits] 🌐	X	
⌘ LMAPR1230	Organic chemistry	Sophie Demoustier Charles-André Fustin	FR [q1] [30h+30h] [5 Credits] 🌐		X
⌘ LMAPR1400	Kinetics and thermodynamics	Juray De Wilde Denis Mignon	FR [q2] [30h+30h] [5 Credits] 🌐		X
⌘ LMAPR1491	Statistical & quantum physics	Jean-Christophe Charlier Xavier Gonze Luc Piraux Gian-Marco Rignanese	FR [q1] [30h+30h] [5 Credits] 🌐		X
⌘ LMAPR1492	Materials physics	Jean-Christophe Charlier Xavier Gonze Luc Piraux Gian-Marco Rignanese	FR [q2] [37.5h+22.5h] [5 Credits] 🌐		X

#### ⌘ Construction

⌘ LGCIV1022	Mechanics of structures		FR [q2] [30h+30h] [5 Credits] 🌐	X	
⌘ LGCIV1023	Structural Analysis	João Saraiva Esteves Pacheco De Almeida	FR [q1] [30h+30h] [5 Credits] 🌐		X
⌘ LGCIV1031	Structural Materials and Geomaterials		FR [q2] [30h+30h] [5 Credits] 🌐	X	
⌘ LGCIV1032	Reinforced concrete structures	Jean-François Cap	FR [q2] [30h+30h] [5 Credits] 🌐		X
⌘ LGCIV1051	Hydraulic	Sandra Soares Frazao	FR [q2] [30h+30h] [5 Credits] 🌐		X
⌘ LGCIV1072	Soil mechanics		FR [q1] [30h+30h] [5 Credits] 🌐		X

## ⌘ Electricité

⌘ LELEC1101	Project in Electricity 1 : Electrical circuits	Christophe Craeye Bruno Dehez Claude Oestges (coord.)	PO [q2] [30h+30h] [5 Credits] 🌐	X	
⌘ LELEC1310	ELECTROMECHANICAL CONVERTERS	Bruno Dehez	PO [q2] [30h+30h] [5 Credits] 🌐		X
⌘ LELEC1360	TELECOMMUNICATIONS	Luc Vandendorpe	PO [q2] [30h+30h] [5 Credits] 🌐		X
⌘ LELEC1370	Measurements and electrical circuits	Christophe Craeye Bruno Dehez Claude Oestges (coord.)	PO [q2] [30h+30h] [5 Credits] 🌐	X	
⌘ LELEC1530	Basic analog and digital electronic circuits		PO [q1] [30h+30h] [5 Credits] 🌐		X
⌘ LELEC1755	Physics of electronic devices and transmission lines	Denis Flandre (coord.) Claude Oestges	PO [q1] [30h+30h] [5 Credits] 🌐		X

## ⌘ Génie biomédical

⌘ LGBIO1111	Cell biology and physiology	Charles De Smet Christophe De Vleeschouwer Pascal Kienlen-Campard	PO [q2] [30h+15h] [5 Credits] 🌐		X
⌘ LGBIO1112	Introduction to biomedical engineering	Philippe Lefèvre	PO [q2] [45h] [5 Credits] 🌐	X	
⌘ LGBIO1113	Systems Anatomy and Physiology	Catherine Behets Wydemans Olivier Cornu Greet Kerckhofs	PO [q2] [30h+15h] [5 Credits] 🌐		X
⌘ LGBIO1115	Introduction to Neuroscience	Julie Duque (coord.) Aleksandar Jankovski Marcus Missal Sylvie Nozaradan	PO [q2] [30h+30h] [5 Credits] 🌐		X
⌘ LBIR1250	Biochemistry I	Michel Ghislain Yvan Larondelle (coord.)	PO [q1] [30h+15h] [5 Credits] 🌐		X
⌘ LINMA1510	Linear Control	Gianluca Bianchin	PO [q1] [30h+30h] [5 Credits] 🌐 > French-friendly		X

## ⌘ Informatique

⌘ LINFO1104	Programming language concepts		PO [q2] [30h+30h] [5 Credits] 🌐	X	
⌘ LINFO1121	Algorithms and data structures	Pierre Schaus	PO [q1] [30h+30h] [5 Credits] 🌐		X
⌘ LINFO1123	Calculability, Logic and Complexity	Yves Deville	PO [q2] [30h+30h] [5 Credits] 🌐	X	
⌘ LINFO1252	Informatic Systems	Etienne Riviere	PO [q1] [30h+30h] [5 Credits] 🌐		X
⌘ LINFO1341	Computer networks	Olivier Bonaventure	PO [q2] [30h+30h] [5 Credits] 🌐		X
⌘ LINFO1361	Artificial intelligence	Yves Deville	PO [q2] [30h+30h] [5 Credits] 🌐		X

## ⌘ Mathématiques appliquées

⌘ LINMA1170	Numerical analysis	Jean-François Remacle	PO [q2] [30h+22.5h] [5 Credits] 🌐		X
⌘ LINMA1315	Mathematical analysis : complements		PO [q2] [30h+22.5h] [5 Credits] 🌐	X	
⌘ LINMA1510	Linear Control	Gianluca Bianchin	PO [q1] [30h+30h] [5 Credits] 🌐 > French-friendly		X
⌘ LINMA1691	Discrete mathematics - Graph theory and algorithms	Vincent Blondel Jean-Charles Delvenne	PO [q1] [30h+22.5h] [5 Credits] 🌐		X
⌘ LINMA1702	Optimization models and methods I	François Glineur	PO [q2] [30h+22.5h] [5 Credits] 🌐	X	
⌘ LINMA1731	Stochastic processes : Estimation and prediction	Pierre-Antoine Absil Luc Vandendorpe	PO [q2] [30h+30h] [5 Credits] 🌐 > French-friendly		X

## ⌘ Mécanique

⌘ LMECA1100	Deformable solid mechanics.	Issam Doghri	PO [q1] [30h+30h] [5 Credits] 🌐		X
⌘ LMECA1210	Description and analysis of mechanisms	Francesco Contino Paul Fiset Benoît Rautent	PO [q2] [30h+30h] [5 Credits] 🌐		X

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⌘ LMECA1321	Fluid mechanics and transfer phenomena.	Vincent Legat Grégoire Winckelmans	10 [q1] [30h+30h] [5 Credits] 🌐		x
⌘ LMECA1451	Mechanical manufacturing.	Laurent Delannay Aude Simar	10 [q2] [30h+30h] [5 Credits] 🌐		x
⌘ LMECA1855	Thermodynamics and energetics.	Yann Bartosiewicz Miltiadis Papalexandris	10 [q2] [30h+30h] [5 Credits] 🌐		x
⌘ LMECA1901	Continuum mechanics.	Philippe Chatelain Issam Doghri	10 [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.

## MINPOLY - Information

### Bachelors offering this minor

- > Bachelor in Chemistry [ en-prog-2024-chim1ba ]
- > Bachelor in Physics [ en-prog-2024-phys1ba ]
- > Bachelor in Mathematics [ en-prog-2024-math1ba ]
- > Bachelor in Biology [ en-prog-2024-biol1ba ]
- > Bachelor in Geography : General [ en-prog-2024-geog1ba ]

### Evaluation

**The evaluation methods comply with the [regulations concerning studies and exams](#). More detailed explanation of the modalities specific to each learning unit are available on their description sheets under the heading "Learning outcomes evaluation method".**

### Contacts

#### Curriculum Management

Faculty

Structure entity

Denomination

Sector

Acronym

Postal address

SST/EPL

Louvain School of Engineering (EPL)

Sciences and Technology (SST)

EPL

Rue Archimède 1 - bte L6.11.01

1348 Louvain-la-Neuve

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<http://www.uclouvain.be/epl>

Website

Mandate(s)

- Dean : Alain Jonas
- Administrative director : Julie Claus

Commission(s) of programme

- Commission de programme - Tronc commun bachelier ingénieur civil (BTCl)
- Commission de programme en science des données, cryptographie et sécurité (DACS)
- Commission de programme - Ingénieur civil électricien (ELEC)
- Commission de programme - Ingénieur civil électromécanicien (ELME)
- Commission de programme - Ingénieur civil en chimie et sciences des matériaux et ingénieur civil physicien (FYKI)
- Commission de programme- Ingénieur civil biomédical (GBIO)
- Commission de programme - Ingénieur civil des constructions (GC)
- Commission de programme - Sciences informatiques et ingénieur civil en informatique (INFO)
- Commission de programme - Ingénieur civil en mathématiques appliquées (MAP)
- Commission de programme - Ingénieur civil mécanicien (MECA)
- Commission de programme du bachelier en sciences informatiques à Charleroi (SINC)

Academic supervisor: [Jean-Charles Delvenne](#)

