



3.00 credits

30.0 h

Q1 and Q2

Teacher(s)	Absil Pierre-Antoine ;Bianchin Gianluca ;Crevecoeur Frédéric ;Delvenne Jean-Charles ;Glineur François ;Hendrickx Julien ;Jacques Laurent ;Jungers Raphaël ;Massart Estelle (coordinator) ;Nunes Grapiglia Geovani ;
Language :	English > French-friendly
Place of the course	Louvain-la-Neuve
Prerequisites	Basic training in applied mathematics (e.g. via the major/minor in applied mathematics).
Main themes	The seminar allows local and international speakers to present research results in various domains of applied mathematics : systems and control, numerical analysis, optimisation, etc.
Learning outcomes	<p>At the end of this learning unit, the student is able to :</p> <ul style="list-style-type: none"> • AA3.1, AA3.3 • AA5.1, AA5.2, AA5.3, AA5.4, AA5.5, AA5.6 <p>The objective of this seminar is to introduce students to research activities and current questions in applied mathematics.</p> <p>1 After taking this course, students will be able to :</p> <ul style="list-style-type: none"> • Fruitfully attend a research seminar, and extract the main ideas • Critically assess scientific results presented in talks or journal articles • Give an oral or written presentation of advanced scientific results
Evaluation methods	<p>The students must attend 10 seminars in total over the academic year. These seminars are organized every week during the first and second semesters (except under special circumstances), during the time slot of the course. It is thus possible to attend only the activities of the first/second semester, as long as the student attends a total of 10 seminars.</p> <p>The final grade is obtained based on two groups of activities:</p> <ol style="list-style-type: none"> 1. The students have to write 4 seminar summaries; they will choose the seminars that they will summarize among the seminars that they attended. This group of activities will lead to a global grade referred here as "S" 2. The students will give a seminar on a topic related to mathematical engineering research; this will lead to a grade referred here as "E". <p>The final grade of the course is computed according to the formula $0.4*S+0.6*E$.</p> <p>Any violation of the methodological rules, for example regarding the use of online resources and collaborations between students, for any assignment, may result in a global grade of 0 for the group of activities concerned (i.e., the above-mentioned grade S or E). Only the grade E could be modified during the August/September exam session, the grade S will be conserved for each exam session of the academic year.</p> <p>The use of generative AI software such as chatGPT is authorized for assistance in writing the reports requested as part of this course. In this instance, however, an appendix will be required detailing, for each of the sections concerned, how the AI was used (information search, drafting and/or correction of the text, ...). In addition, external information sources must be systematically cited in compliance with bibliographic referencing standards. The student is responsible of the content of his/her work, independently of the references/sources used.</p>
Teaching methods	<p>Students take part (possibly over a single semester) to various research activities in applied mathematics organized at UCLouvain, among which the mathematical engineering seminars.</p> <p>In these seminars, researchers and professors from UCLouvain or other universities present recent research works.</p> <p>In the context of health measures related to Covid-19, some seminars could be organized on a distance (or hybrid) basis, according to the terms and schedule displayed on the moodle page of the course.</p>
Inline resources	https://moodle.uclouvain.be/course/view.php?id=1340
Bibliography	Dépend des sujets traités lors du séminaire.

Other infos	The program for the seminars is available online at <ul style="list-style-type: none">• https://uclouvain.be/en/research-institutes/icteam/inma/seminars.html
Faculty or entity in charge	MAP

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Mathematical Engineering	MAP2M	3		
Master [120] in Data Science Engineering	DATE2M	3		
Master [120] in Data Science: Information Technology	DAT12M	3		