| UCLouvain | linma2120 | Applied mathematics seminar |
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| | *2022* | |

| 5.00 credits | 30.0 h | Q1 and Q2 |
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| Teacher(s) | Absil Pierre-Antoine ;Bianchin Gianluca ;Crevecoeur Frédéric (coordinator) ;Delvenne Jean-Charles ;Glineur François ;Hendrickx Julien ;Jacques Laurent ;Jungers Raphaël ;Massart Estelle (compensates Papavasiliou Anthony) ;Nunes Grapiglia Geovani ;Papavasiliou Anthony ; |
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| Language : | English<br>> 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 | **At the end of this learning unit, the student is able to :** |
| | 1 | • AA3.1, AA3.3<br>• AA5.1, AA5.2, AA5.3, AA5.4, AA5.5, AA5.6<br><br>The objective of this seminar is to introduce students to research activities and current questions in applied mathematics.<br><br>After taking this course, students will be able to :<br><br>• Fruitfully attend a research seminar, and extract the main ideas<br>• Critically assess scientific results presented in talks or journal articles<br>• Give an oral or written presentation of advanced scientific results |
| Evaluation methods | Student performance will be assessed on the basis of<br>-    Attendance to the seminars, reading groups, and/or invitation of industrial researcher for a seminar, and/or visits of companies<br>-    Writing of summaries for the activities<br>-    Preparation of oral communications and/or written reports related to the topics presented during the activities<br><br>The type and number of evaluated activities will be determined at the beginning of the academic year by the students according to their scientific interests, in agreement with the coordinator, so that the total amount of work corresponds to 5 ECTS (or 3 ECTS if followed as Professional Focus Seminar in the DATI/DATE master). These activities are organised and must be followed along the two semesters, but not in summer, except exceptional circumstances. |
| Teaching methods | Students take part (possibly over a single semester) to various research activities in applied mathematics organized at UCL, namely the following (reading) seminars:<br><br>• Systems and Control seminar<br>• Operations Research seminar<br>• Big Data seminar<br><br>In these seminars, researchers and professors from UCL or other universities present recent research works.<br>Depending upon opportunities and the number of registered students, inviting one industrial partner to give a seminar, or the visit of a company may be organised.<br>The type and number of activities will be determined at the beginning of the academic year by the students according to their scientific interests, in agreement with the coordinator, so that the total amount of work corresponds to 5 ECTS.<br>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. |
| Inline resources | https://moodle.uclouvain.be/course/view.php?id=1340 |
| Bibliography | Dépend des sujets traités lors du séminaire. |

| Other infos | The program for each seminar is available online at<br><br>• https://uclouvain.be/en/research-institutes/icteam/inma/seminars.html |
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| Faculty or entity in charge | MAP |

| Programmes containing this learning unit (UE) | | | | |
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| Program title | Acronym | Credits | Prerequisite | Learning outcomes |
| Master [120] in Mathematical Engineering | MAP2M | 5 | | 🔍 |
| Master [120] in Data Science Engineering | DATE2M | 3 | | 🔍 |
| Master [120] in Data Science: Information Technology | DATI2M | 3 | | 🔍 |