**Teacher(s):** Absil Pierre-Antoine (compensates Delvenne Jean-Charles); Hendrickx Julien (compensates Papavasiliou Anthony); Nesterov Yuri (compensates Papavasiliou Anthony); Glineur François (compensates Papavasiliou Anthony); Absil Pierre-Antoine (compensates Papavasiliou Anthony); Nesterov Yuri; Delvenne Jean-Charles (coordinator); Absil Pierre-Antoine; Glineur François; Hendrickx Julien; Papavasiliou Anthony.

**Language:** Anglais

**Place of the course:** Louvain-la-Neuve

**Inline resources:**

**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.

**Aims:**
- AA3.1, AA3.3
- AA5.1, AA5.2, AA5.3, AA5.4, AA5.5, AA5.6
The objective of this seminar is to introduce students to research activities and current questions in applied mathematics. After taking this course, students will be able to:
- Fruitably 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

*The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled “Programmes/courses offering this Teaching Unit”.*

**Evaluation methods:**
Student performance will be assessed on the basis of:
- Attendance to the seminars, reading groups and/or visits of companies
- Writing of summaries for the activities
- Preparation of oral communications and/or written reports related to the topics presented during the activities

The type and number of activities will be determined in agreement with the coordinator at the beginning of the year.

**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:
- Systems and Control seminar
- Operations Research seminar
- Big Data seminar

In these seminars, researchers and professors from UCL or other universities present recent research works. Depending upon opportunities and the number of registered students, visits of companies may be organised.

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.

**Bibliography:**
Depends on the topics of the seminar.

**Other infos:**
The program for each seminar is available online at:
- [http/sites.uclouvain.be/big-data](http/sites.uclouvain.be/big-data) (Big Data)
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