




Teacher(s)	Nijssen Siegfried ;Piette Eric ;
Language :	English > French-friendly
Place of the course	Louvain-la-Neuve
Main themes	The topics covered in the seminar will address artificial intelligence and machine learning. In particular, scientific articles are selected in these fields. On the one hand, students are confronted with problem of the quality of a scientific bibliography. Moreover, students read scientific literature (eg articles from international journals).
Learning outcomes	<p><b>At the end of this learning unit, the student is able to :</b></p> <p>Given the learning outcomes of the "Master in Computer Science and Engineering" program, this course contributes to the development, acquisition and evaluation of the following learning outcomes:</p> <ul style="list-style-type: none"> <li>• INFO1.1-3</li> <li>• INFO3.1, INFO3.2</li> <li>• INFO5.3-4, INFO5.6</li> <li>• INFO6.1, 6.4</li> </ul> <p>Given the learning outcomes of the "Master [120] in Computer Science" program, this course contributes to the development, acquisition and evaluation of the following learning outcomes:</p> <ul style="list-style-type: none"> <li>• SINF1.M4</li> <li>• SINF3.1, SINF3.2</li> <li>• SINF5.3-4, SINF5.6</li> <li>• SINF6.1, SINF6.3, SINF6.4</li> </ul> <p>Student completing successfully this course will be able to</p> <ul style="list-style-type: none"> <li>• establish the state of the art based on the scientific literature, when confronted with a research problem beyond his current knowledge,</li> <li>• prepare a comprehensive report including a scientific bibliography and explaining its relevance to a theme,</li> <li>• synthesize a scientific article by explaining the context, challenges, innovative results, potential applications as well as tracks for further work in the field,</li> <li>• communicate orally the results of a research to a public of computer scientists not experts in the field,</li> <li>• interact with a person who presents research results showing a critical and constructive look over the work presented.</li> </ul>
Evaluation methods	<p>The evaluation focuses on the quality of the presentations made by each student in front of the other participants to the seminar.</p> <p>The overall grade consists of:</p> <ul style="list-style-type: none"> <li>• 80% for the quality of the presentation (teaching quality, correctness of technical content, references...).</li> <li>• 20% of the pro-activity of each student (questions, additional comments...)</li> </ul> <p>For the second session, the evaluation is based for 80% on a written report to the teacher the first day of the examination session + 20% for the participation grade during the year (grade fixed during the first session).</p> <p>Failure to comply with the methodological instructions communicated by the teacher, particularly with regard to the use of online resources or collaboration between students, will result in an overall mark of 0. The use of generative AI tools without prior permission is strictly prohibited.</p>
Teaching methods	<p>After a general introduction by the teacher, the seminar essentially consists of presentations made by the students. These presentations will consist of videos; other students are expected to watch these videos and ask questions about them.</p> <p>Intermediary results are due before the final presentations (by default, given by groups of several students), including intermediate report(s) and submission of the talk that will be presented.</p> <p>A feedback about these intermediary results is given to each group, either directly or through the Moodle site.</p>
Content	This seminar focuses on recent advances in artificial intelligence and machine learning.

Inline resources	<a href="https://moodle.uclouvain.be/course/view.php?id=717">https://moodle.uclouvain.be/course/view.php?id=717</a>
Bibliography	Des ouvrages ou articles recommandés sont mentionnés sur le site Moodle du cours. Recommended textbooks or scientific papers are mentioned on the Moodle site for this course.
Other infos	This seminar has as prerequisite de course LINFO2262 (Machine Learning: classification and evaluation) or the course LELEC2870 (Machine learning: regression, deep networks and dimensionality reduction).
Faculty or entity in charge	INFO

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Computer Science and Engineering	INFO2M	3		
Master [120] in Computer Science	SINF2M	3		
Master [120] in Data Science Engineering	DATE2M	3		
Master [120] in Data Science: Information Technology	DATI2M	3		