






5.00 credits

30.0 h + 30.0 h

Q1

Teacher(s)	Lee John ;
Language :	English > French-friendly
Place of the course	Louvain-la-Neuve
Learning outcomes	
Evaluation methods	Oral examination with preparation time. Interrogation on the course material and about the project realization. The examination grade is split into 10/20 for the course and 10/20 for the project. A project report must be handed in as a condition to take the exam.
Teaching methods	Lectures in classroom, practical sessions on computers, project as homework plus Q&A sessions.
Content	<ul style="list-style-type: none"> <li>· What and why information visualisation?</li> <li>· Data abstraction: types of data and of datasets</li> <li>· Which visualisation for which task?</li> <li>· Validating visualisations</li> <li>· Display and ocular perception</li> <li>· Visualisation channels (colour, size, shape, angle, ...)</li> <li>· Tabular data: lists, matrices, tensors</li> <li>· Spatial data: scalar, vector and tensor fields</li> <li>· Networks and trees</li> <li>· Link between machine learning and visualisation: clustering, dimensionality reduction, graph embedding</li> <li>· Interactive visualisation</li> <li>· Multiple views</li> <li>· Advanced topics in visualisation</li> </ul>
Inline resources	Moodle page of the course: <a href="https://moodle.uclouvain.be/course/view.php?id=3502">https://moodle.uclouvain.be/course/view.php?id=3502</a>
Bibliography	Visualization analysis & Design, Tamara Munzner, CRC Press, 2015.
Faculty or entity in charge	EPL

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Data Science : Statistic	DATS2M	5		
Master [120] in Computer Science and Engineering	INFO2M	5		
Master [120] in Computer Science	SINF2M	5		
Master [120] in Mathematical Engineering	MAP2M	5		
Master [120] in Data Science Engineering	DATE2M	5		
Master [120] in Data Science: Information Technology	DAT12M	5		