


5.00 credits

30.0 h + 30.0 h

Q1

Teacher(s)	Bonaventure Olivier ;
Language :	English > French-friendly
Place of the course	Louvain-la-Neuve
Main themes	<ul style="list-style-type: none"> <li>• network architectures and the role of virtual networks</li> <li>• quality of service</li> <li>• provision of multicast</li> <li>• network reliability</li> <li>• principles of network management</li> </ul>
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>• INFO2.2-4</li> <li>• INFO5.2, INFO5.4-5</li> <li>• INFO6.1, INFO6.3, INFO6.4</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> <p>1</p> <ul style="list-style-type: none"> <li>• SINF1.M1</li> <li>• SINF2.2-4</li> <li>• SINF5.2, SINF5.4-5</li> <li>• SINF6.1, SINF6.3, SINF6.4</li> </ul> <p>Students completing successfully this course will be able to</p> <ul style="list-style-type: none"> <li>• design, deploy and manage data networks</li> <li>• explain the threats against networks and the defense strategies</li> <li>• deploy mechanisms to ensure quality of service, security and reliability</li> </ul>
Evaluation methods	<ul style="list-style-type: none"> <li>• Oral exam (65%)</li> <li>• Individual project (10%)</li> <li>• Groupe project (20%)</li> <li>• Peer-reviews (5%)</li> </ul> <p>The projects won't be able to repeated in the second session.</p>
Teaching methods	<ul style="list-style-type: none"> <li>• Inverted classroom</li> <li>• Network design and management project in small groups</li> </ul>
Content	<ul style="list-style-type: none"> <li>• BGP</li> <li>• Traffic control in IP networks</li> <li>• IP Multicast</li> <li>• MultiProtocol Label Switching</li> <li>• BGP/MPLS VPNs</li> <li>• Evolution of the Internet architecture</li> </ul>
Inline resources	<a href="https://moodle.uclouvain.be/course/view.php?id=2046">https://moodle.uclouvain.be/course/view.php?id=2046</a>
Bibliography	Slides available on moodle reference articles available on moodle
Faculty or entity in charge	INFO

<b>Programmes containing this learning unit (UE)</b>				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Computer Science and Engineering	INFO2M	5		
Master [120] in Computer Science	SINF2M	5		