


5 credits	30.0 h + 30.0 h	Q2
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Teacher(s)	Louveaux Jérôme ;Vandendorpe Luc ;
Language :	English
Place of the course	Louvain-la-Neuve
Aims	<p>With respect to the AA referring system defined for the Master in Electrical Engineering, the course contributes to the development, mastery and assessment of the following skills :</p> <p>1</p> <ul style="list-style-type: none"> <li>• AA1.1, AA1.2, AA1.3</li> <li>• AA2.1, AA2.2, AA2.4</li> <li>• AA3.1</li> <li>• AA4.2, AA4.4</li> <li>• AA5.3, AA5.5</li> </ul> <p>-----</p> <p><i>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".</i></p>
Content	<ul style="list-style-type: none"> <li>• Introduction to digital communication systems</li> <li>• Random signals, modulations and detection</li> <li>• Coherent and noncoherent demodulation</li> <li>• Basics of Information theory</li> <li>• Convolutional codes and introduction to turbo codes</li> <li>• Adaptive modulation and coding</li> <li>• Equalization (Linear and decision-feedback)</li> <li>• Multi-carrier and OFDM systems</li> <li>• Synchronization (time, frequency and phase)</li> </ul>
Inline resources	<p>Moodle</p> <p><a href="http://moodleucl.uclouvain.be/course/view.php?id=4823">http://moodleucl.uclouvain.be/course/view.php?id=4823</a></p>
Bibliography	<p><u>Supports</u></p> <ul style="list-style-type: none"> <li>• Syllabus de cours</li> <li>• Transparents</li> <li>• Enoncés et corrigés des séances d'exercices</li> </ul> <p>L'ensemble de ces supports de cours sont disponibles sur Moodle</p>
Faculty or entity in charge	ELEC

<b>Programmes containing this learning unit (UE)</b>				
Program title	Acronym	Credits	Prerequisite	Aims
Master [120] in Electrical Engineering	ELEC2M	5		
Master [120] in Mathematical Engineering	MAP2M	5		