


5.0 credits	30.0 h + 30.0 h	2q
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Teacher(s) :	Bol David ; Flandre Denis ;
Language :	Anglais
Place of the course	Louvain-la-Neuve
Inline resources:	<a href="http://moodleucl.uclouvain.be/enrol/index.php?id=934">http://moodleucl.uclouvain.be/enrol/index.php?id=934</a>
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>-- AA1.1, AA1.2, AA1.3 -- AA2.3 -- AA3.1 -- AA5.2, AA5.3, AA5.4, AA5.5, AA5.6 -- AA6.1, AA6.3, AA6.4</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>
Evaluation methods :	The evaluation consists of, on one hand, the presentation of a chapter of the 1st part of the course (theory, exercices, simulations) prepared by a group of 4 students (30 min. each) on the basis of the book by S. Baker and personal examples, and on the other hand, a written exam on the 2nd part of the course (theory and related exercices)
Teaching methods :	Based on standard classes, inverted classes and practical exercise sessions.
Content :	<p>-- Usual analog circuits -- CMOS operational amplifiers -- Output stages -- Signal generation -- Noise -- D/A and A/D converters -- Telecommunication circuits -- Active filters -- Oscillators -- Mixers -- PLLs</p>
Bibliography :	<p>-- Analysis and design of analog integrated circuits, Gray, Hurst, Lewis and Meyer, John Wiley 2001 -- CMOS Circuit Design, Layout and Simulation, 3rd edition (IEEE Press Series on Microelectronic Systems) by R. Jacob Baker -- CMOS : Mixed-Signal Circuit Design, 2nd edition by R. Jacob Baker -- Microelectronic Circuits by Sedra/Smith - Oxford University Press</p>

Faculty or entity in charge:	ELEC
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<b>Programmes / formations proposant cette unité d'enseignement (UE)</b>				
Intitulé du programme	Sigle	Credits	Prerequis	Acquis d'apprentissage
Master [120] in Electro-mechanical Engineering	ELME2M	5	-	
Master [120] in Electrical Engineering	ELEC2M	5	-	