

5.0 credits	30.0 h + 30.0 h	2q
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Teacher(s) :	Labrique Francis (coordinator) ; Matagne Ernest ; Dehez Bruno ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	Identical to the contents of the course
Aims :	The aim of the course is to study the principles of electromechanical energy conversion, mainly in electromagnetic converters <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>
Content :	<ul style="list-style-type: none"> <li>- Remainder on magnetic circuits and polyphase systems : application to the transformers,</li> <li>- General theory of electromagnetic converters</li> <li>- Principle of rotating field converters</li> <li>- Use of rotating field converters as motors or generators : analysis of induction and synchronous machines connected to the mains</li> <li>- Classical and brushless DC machines</li> <li>- Variable reluctance machines</li> </ul>
Other infos :	Prerequisites : Foundations in electrical circuits and electromagnetism : Electromagnetism (ELEC1350), Measurements and electrical circuits (ELEC1370), or Electricity : advanced topics (ELEC1755)  Assessment : Written examination (problem solving and multiple choice questionnaire)  Support : The course relies on the book "Electromécanique, convertisseurs d'énergie et actionneurs" (Dunod ed., 2001) and the associate website <a href="http://www.electromecanique.net">www.electromecanique.net</a> . This site is in particular used for virtual laboratories.
Cycle and year of study :	> <a href="#">Bachelor in Engineering</a>
Faculty or entity in charge:	ELEC