

Teacher(s)	Contino Francesco ;Macq Benoît ;
Language :	French
Place of the course	Louvain-la-Neuve
Prerequisites	<i>The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.</i>
Main themes	The course is divided into 2 parts. The first part consists of an introduction to key concepts of thermodynamics, heat transfer and energy and address the problem of environmental issues. The second part is devoted to the study of electrical, technology, integrated circuits, and discusses the key concepts of electronic analog and digital as well as basic concepts and techniques to understand the telecommunications network architecture.
Learning outcomes	<p>At the end of this learning unit, the student is able to :</p> <p>1 The course aims to give students the technological base in the fields of energy and environment, electronics and telecommunications, to enable it to understand the specific language of science and collaborate and interact with specialists in these fields. The course also aims to make possible the implementation of a project in control.</p>
Evaluation methods	<p>Partie électronique et télécommunications</p> <p>Written examination with open questions and/or MCQs</p>

	<ul style="list-style-type: none"> • TCP/IP architecture from physical links to applications • Introduction to cryptography and applications (electronic signature, blockchain, ...) • Introduction to artificial intelligence
Inline resources	see moodle site of the course
Bibliography	Des notes de cours, des copies de transparents et éventuellement d'articles pour lectures complémentaires seront mises à la disposition des étudiants. Des références complémentaires d'ouvrage seront données par les enseignants. Les épisodes du podcast Exergie.
Other infos	<p>The score for the course corresponds to the geometrical mean of the two parts (a 0 is replaced by a 2 to avoid absorbing score).</p> <p>In case of failure, the student may ask to keep the score of the part superior or equal to 10.</p>
Faculty or entity in charge	ESPO

