

5.0 credits

30.0 h + 30.0 h

1q

Teacher(s) :	Raskin Jean-Pierre ; Bayot Vincent (coordinator) ; Flandre Denis ;
Language :	Anglais
Place of the course	Louvain-la-Neuve
Main themes :	Identical to description
Aims :	<p>At the end of the course, the students will be able to</p> <ul style="list-style-type: none"> - understand special electronic devices that are at the status of research or development in university and industrial labs, - make a bibliographical search and synthetize it in a critical way inspired by review papers, - present their results in a reports in a report and orally <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 :	<p>Situated at the rapidly changing level of R& , the topics will change every year to keep up with recent findings and match students interests for specific devices. As an example, the following topics were addressed in the last years : molecular electronics, spin tronics, plastic electronics, advanced SOI devices, solar cells, single electron devices, optoelectronics devices.</p> <p>Teaching method</p> <p>Student work in small groups (2-3 persons), or alone, according to their affinities and interests. After choosing a topic by searching in the recent litterature, students make a wide review and write a "review style" article. Finally they present their results in a "conference like" situation facing researchers of the lab and their colleagues. In that process, they remain in very close interaction with the professor to whom they present the advancement of their work periodically, and whenever necessary.</p>
Other infos :	<p>Prerequisites :</p> <p>Basic knowledge in electronic devices and solid-state physics</p> <p>Assessment :</p> <p>Oral presentation and writing of a report (about 15-20 pages written as a journal article) for the topic approved by the teachers.</p> <p>Could be given in English</p>
Cycle and year of study :	<p>> Master [120] in Electrical Engineering</p> <p>> Master [120] in Electro-mechanical Engineering</p> <p>> Master [120] in Physical Engineering</p> <p>> Master [120] in Chemical and Materials Engineering</p>
Faculty or entity in charge:	ELEC