

10.0 credits

60.0 h

1q

Teacher(s) :	Fisette Paul ; Nysten Bernard (coordinator) ; Macq Benoît ;
Language :	Français
Place of the course	Louvain-la-Neuve
Inline resources:	<p>Electronic and telecommunication option: > http://icampus.uclouvain.be/claroline/course/index.php?cid=TEKN2201_ELEC </p> <p>Mechanics option: > http://icampus.uclouvain.be/claroline/course/index.php?cid=LSMF2018 </p> <p>Materials and processes option: > http://icampus.uclouvain.be/claroline/course/index.php?cid=LSMF2018_MAT </p>
Prerequisites :	LINGE1317 Recherche et développement technologique : énergie, électronique et télécommunications LINGE1327 Recherche et développement technologique : mécanique, procédés chimiques et matériaux
Main themes :	<p>Every year, a common theme is proposed, in the framework of which students realize a group project in one of the three following options:</p> <ul style="list-style-type: none"> -- electronics and telecommunication, -- mechanics, -- materials and processes. <p>As examples, here are some themes that were already proposed: formula 1, prosthesis and biomedical devices, VTT, kart-cross, Mars rover vehicle, In connexion with these themes, students have to either study and develop electronic sensors or control systems, or to study and model the movements, displacements of the vehicles, or to study the live cycle and the properties of the material used to fabricate one of the organs of the vehicle.</p>
Aims :	<ul style="list-style-type: none"> - understand the technological framework linked to a project in one of the options; - analyse a technological problem, the existing situation and the applied solutions; - propose original solutions to the problem; - confront the technological results to economical, social and environmental requirements. <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 :	<p>Students are evaluated on the basis of the work done during the semester, of a written report, of an oral presentation, all realized in group. The mark for these item counts for 2/3 of the final mark. Criteria in the various option are specified at the beginning of the semester. They particularly stress on the technological aspects, on the understanding and mastering of the concepts behind the project, on the economical aspects.</p> <p>An individual written examination is also organized, consisting in questions on the realized project as well as on given lectures and seminars. The individual mark count for 1/3 of the final mark.</p> <p>To validate the credits, the students must get a mark of 10/20 for the individual examination.</p>
Teaching methods :	<p>Students work in groups of five on one of the proposed subjects for the option. Students are equally spread between the three options.</p> <p>Activities: seminars, problem-based learning, project-based learning, supervisions, oral presentations, bibliographic research, written reports, preparation of oral presentations, ...</p>
Bibliography :	Bibliographic resources are given by the supervisors and are available on iCampus.
Cycle and year of study :	> Master [120] in Business engineering
Faculty or entity in charge:	CLSM

