

2.0 credits	15.0 h + 10.0 h	1q
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Teacher(s) :	Fisette Paul ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	Equilibrium of systems of rigid bodies Internal loads Stresses and strains Principle of virtual work, as applied to static systems. Application of the above to the specific case of loaded beams and trusses
Aims :	At the outcome of this course, students are expected to : - know about the various types of external and internal joints and supports, as well as the related degrees of freedom - understand the meaning of total and partial isostaticity and hyperstaticity - be able to apply virtual work principles in solving problems of statics - be able to determine internal loads and stresses and strains in a beam, as well as the resulting sizing of the beam <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 :	- Graphical methods in statics - Trusses - Internal loads in loaded rigid bodies - Traction and compression : stresses and strains - Bending : stresses and strains - Torsion : stresses and strains - Loaded beams : strength and deformation sizing - Principle of virtual work applied to static systems.
Other infos :	Prerequisites : FSAB 1201 (Physics 1) or an equivalent course FSAB 1202 (Physics 2) or an equivalent course FSAB 1203-A (Physics 3) or an equivalent course FSAB 1101 (Mathematics 1) or an equivalent course FSAB 1102 (Mathématiques 2) or an equivalent course Assessment : Written examination, centred on problem solving. References : Instructors' course notes
Cycle and year of study :	> Bachelor in Engineering : Architecture
Faculty or entity in charge:	LOCI