

3.0 credits	22.5 h + 7.5 h	1q
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Teacher(s) :	Fisette Paul ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	Basic course in machine theory : - Study of most common mechanisms - Investigation of main dynamic features of machinery.
Aims :	Provide students with the basic knowledge required to understand common mechanisms and the main problems arising in machine dynamics. <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 :	Kinematics : - Basic theoretical kinematics - Pairs, kinematical chains - Articulated systems, 4-bar systems, Cardan joints - Cams - Rolling contact mechanisms, planetary systems - Plane and 3-D gears. Friction and assemblies : - Friction, static and sliding friction, rolling friction - Fixed and moving assemblies - Joints, bearings, dead angles - Brakes and clutches - Couplings - Bands and belts, belt drives, chain drives. Dynamics of machinery : - Equivalent masses - Inertia forces : balancing, speed fluctuations (flywheels), critical speeds (basics).
Other infos :	None.
Cycle and year of study :	> Master [120] in Mechanical Engineering > Master [120] in Electro-mechanical Engineering
Faculty or entity in charge:	MECA