UCL Université catholique de Louvain

LPHY2151

2013-2014

Physique et dynamique de l'atmosphère et de l'océan II

5.0 credits	30.0 h	2q

Teacher(s) :	Fichefet Thierry ; Crucifix Michel ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	Advanced notions of ocean and atmosphere thermodynamics (radiative transfer; aerosols, cloud micro-physics, cloud-radiation interactions) ; Advanced notions of atmospheric dynamics (shallow- water and quasi-geostrophic approximations; vorticity and potential vorticity; tropical and extratropical waves; baroclinic instability, plus a number of optional subjects such as tides, tropical weather systems and subtropical anticyclones and Charney-Stern theorem); thermodynamics and dynamics of sea-ice.
Aims :	The student will acquire advanced notions and skills in physics and dynamics of atmosphere, preparing him to academic research in these domains. *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".*
Other infos :	Summary : The course is split into a number of classroom lectures and tutored reading using, as a tool, the local library. PHY2150 is a pre- requisite. The studend will be marked on the basis of a personal work and an oral examination on a pre-agreed, well-delineated subject. Reference : Bougeault and Sadourny, Dynamique de l'atmosphère et de l'océan, Editions de l'école polytechnique, 2001.
Cycle and year of study :	> Master [120] in Geography : General > Master [120] in Geography : Climatology > Master [120] in Physics
Faculty or entity in charge:	PHYS