




In view of the health context linked to the spread of the coronavirus, the methods of organisation and evaluation of the learning units could be adapted in different situations; these possible new methods have been - or will be - communicated by the teachers to the students.

5 credits

37.5 h + 22.5 h

Q2

Teacher(s)	Crucifix Michel ;Fichefet Thierry ;
Language :	French
Place of the course	Louvain-la-Neuve
Prerequisites	<i>The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.</i>
Main themes	General characteristics of the atmosphere; thermodynamics of dry air and moist air; static stability of the atmosphere; atmospheric dynamics; atmospheric heat gains and losses; large-scale atmospheric mean flows; air masses, fronts and synoptic weather systems; weather forecasting; regional climatic processes; climate changes.
Aims	<p>1 To acquire the basic notions of meteorology needed to understand the main atmospheric phenomena and weather forecasting as well as some additional training in climatology.</p> <p>-----</p> <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	Due to the COVID-19 crisis, the information in this section is particularly likely to change. Oral exam with written preparation (75% of the final mark). Homework (25% of the final mark).
Teaching methods	Due to the COVID-19 crisis, the information in this section is particularly likely to change. Theoretical lectures in classroom. Tutored practicals. Commented visit of the Wing Meteo of the Belgian Air Force (Beauvechain). Homework: analysis of a particular meteorological situation.
Content	<ol style="list-style-type: none"> 1. The atmosphere 2. Thermodynamics of dry air 3. Thermodynamics of moist air and saturated air 4. Condensation processes 5. The vertical equilibrium in the atmosphere 6. Reminders and complementary notions of mechanics 7. The wind 8. Heat inputs in the atmopshere 9. The general circulation of the atmosphere 10. Air masses and their evolution 11. Weather systems
Inline resources	The slides projected during the lectures are available on MoodleUCL.
Bibliography	Gordon, A., W. Grace, P. Schwerdtfeger and R. Byron-Scott, 1998: Dynamic Meteorology: A Basic Course. Arnold, LONDON, U.K., 325 pp. Malardel, S., 2005 : Fondamentaux de Météorologie. Cépaduès éditions, Toulouse, France, 708 pp.
Faculty or entity in charge	GEOG

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Master [120] in Geography : General	GEOG2M	5		
Bachelor in Geography : General	GEOG1BA	5	LPHY1101 AND LPHY1102	
Master [120] in Geography : Climatology	CLIM2M	5		
Minor in Geography	LGEOG100I	5		