

6.0 credits	45.0 h + 7.5 h	2q
-------------	----------------	----

Teacher(s) :	Crucifix Michel ; Yin Qiuzhen ; Goosse Hugues ; Fichet Thierry ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	Numerical methods of geophysical fluids; numerical analysis tools; data and palaeo-data assimilation methods; geophysical applications of dynamical systems; meso-scale atmospheric modelling and applications. 1. Introduction to the climates of last million years 2. Modeling of interglacials 3. Coupled climate-ice sheets models
Aims :	The course follows PHY2153. Its objective is to introduce the student to advanced notions of physical climatology in direct connexion with research activities of the academic and research staff of the university. <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>
Bibliography :	Berger A., 2001. Le climat et ses variations depuis l'origine de la Terre: une composante à l'évolution de la vie. "L'environnement de la Terre primitive". Gargaud M., Despois D. et Parisot J-P (eds). Presse universitaire de Bordeaux. p. 129-162 Ruddiman W., 2000. Earth's Climate, Past and Future. W.H Freeman and Company, New-York. 465 pages. Yin Q. Z. and Berger A., 2012. Individual contribution of insolation and CO <sub>2</sub> to the diversity of the interglacial climates of the past 800,000 years, Climate Dynamics, 38, 709-724.
Other infos :	The course is split in a number of seminar-like activities demanding a high level of student participation. The students will be marked on the basis of personal written works. Pre-requisites : PHY2150 and PHY2153.
Cycle and year of study :	<a href="#">&gt; Master [120] in Agricultural Bioengineering</a> <a href="#">&gt; Master [120] in Environmental Bioengineering</a> <a href="#">&gt; Master [120] in Forests and Natural Areas Engineering</a> <a href="#">&gt; Master [120] in Chemistry and Bio-industries</a> <a href="#">&gt; Master [120] in Physics</a> <a href="#">&gt; Master [120] in Geography : Climatology</a>
Faculty or entity in charge:	PHYS