



## PHYS2392 Atmospheric physics and dynamics

[30h+9h exercises] 6 credits

This course is taught in the 2nd semester

**Teacher(s):** André Berger, Thierry Fichefet  
**Language:** French  
**Level:** Second cycle

### Aims

The aim of this course is to give students a detailed analysis of the main topics related to atmospheric physics and dynamics. It is a course of general interest and an introduction requested for students interested in Earth Sciences, space and the climate.

### Main themes

The course goes through the problem of general circulation in the atmosphere and weather systems in middle and tropical latitudes. It introduces the student to modelling atmospheric physics and dynamics.

### Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

Prerequisites: Physics of fluids (PHYS 1121), Dynamics of geophysical and environmental fluids (PHYS 2223), Meteorology and atmospheric physics (1st part, PHYS 2541).

Reference books:

Atkinson, B., Dynamical meteorology, Methuen, 228 pp., 1981.

Holton, J., The physics of atmospheres, Cambridge Univ. Press, 271 pp., 1986.

Peixoto, J.P., and A.H. Oort, Physics of climate, American Inst. of Physics, 520 pp., 1992.

Salby, M., Fundamentals in Atmospheric, Academic Press, 621 pp., 1996.

Triplet, J.P. and G. Roche, Météorologie générale, Ecole Nationale de Météorologie, 317 pp., 1986.

Organization: course of 2h/week during the 2nd term. Handwritten course notes are available.

### Other credits in programs

<b>MAP23</b>	Troisième année du programme conduisant au grade d'ingénieur civil en mathématiques appliquées	(6 credits)
<b>MECA22</b>	Deuxième année du programme conduisant au grade d'ingénieur civil mécanicien	(6 credits)
<b>MECA23</b>	Troisième année du programme conduisant au grade d'ingénieur civil mécanicien	(6 credits)
<b>PHYS22/G</b>	Deuxième licence en sciences physiques	(6 credits)