



## PHYS2460 Statistical mechanics

[22.5h+15h exercises] 4 credits

This course is taught in the 2nd semester

**Teacher(s):** Jean Bricmont  
**Language:** French  
**Level:** Second cycle

### Aims

General principles of thermodynamics and of equilibrium statistical mechanics.  
Applications to various examples.

### Main themes

1. General principals of classical thermodynamics
2. Statistical mechanics in equilibrium
3. Kinetic theory

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

Prerequisites: General physics II, 3d statistical part PHYS 1130.

Support: reference books:

H.B. Callen, Thermodynamics and an introduction to thermostatistics, 2d edition, Wiley, N.Y. 1987. Chap. 1-8, 12, 15-18;  
Colin J. Thomson, Mathematical Statistical Mechanics, Princeton University Press, 1979, Chap. 1;  
Kerson Huang, Statistical Mechanics, 2d edition, Wiley, N.Y. 1987.