



PHY1272 Analogic electronics

[22.5h+22.5h exercises] 4 credits

This course is taught in the 1st semester

Teacher(s): René Prieels
Language: French
Level: First cycle

Aims

The course familiarizes the students to the fundamental aspects of electronic tools in modern metrology. It treats the essential points in linear electronics for semi-conductors and small signals.

Main themes

1. Analysis of passive circuits composed of linear and permanent elements
2. Semi-conductor diode
3. Bipolar transistor
4. Unipolar transistor or FET with field effects
5. Differential amplificatory, operational amplificatory
6. Transmission lines
7. Noises
8. Amplitude modulation

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

Laboratories are the illustration and application of concepts seen in class. They are an indispensable complement.

Written support : Reference books :

Electronic devices and circuit theory. Robert Boylestad and Louis Nashelsky, Prentice Hall Int. Ed.

Electronic Principles, A.P. Malvino, Mc Graw Hill, 1989

A complete syllabus containing the course, exercises and laboratory work is available.

Prerequisites :

The candidate to this course must have acquired sufficient knowledge in general physics : electromagnetism, and in mathematics : derivatives and integrals.

Other credits in programs

PHYS12BA	Deuxième année de bachelier en sciences physiques	(4 credits)
PHYS21/A	Première licence en sciences physiques (Physique appliquée)	(4 credits)
PHYS21/T	Première licence en sciences physiques (Physique de la terre, de l'espace et du climat)	(4 credits)