

# UE Experimental physics - PHY438 -



Niveau d'étude  
Bac ou  
équivalent



ECTS  
3 crédits



Crédits ECTS  
Exchange  
3.0



Composante  
Département  
de la licence  
sciences et  
technologies  
(DLST)



Volume horaire  
32h



Période de  
l'année  
Printemps (janv.  
à avril/mai)

## Diplômes intégrant cet élément

- Licence Physique

- › **Langue(s) d'enseignement:** Français, Anglais
- › **Ouvert aux étudiants en échange:** Oui
- › **Crédits ECTS Exchange:** 3.0
- › **Code d'export Apogée:** PAX4PH98

## Présentation

### Description

Practical courses.

*The 8 lab sessions have been chosen to cover a wide range of experimental topics, instrumentation and methodological approaches. Recap sheets will be requested at each session for a regular follow-up of the learning progress.*

### Objectifs

### Educational objectives of the module:

- Acquire experimental skills in different domains of physics, related to other L2 courses: energetics, electromagnetism, acoustic waves, wave optics
- Discover or illustrate physical phenomena by experiment.

## Heures d'enseignement

|    |    |     |
|----|----|-----|
| TP | TP | 32h |
|----|----|-----|

## Pré-requis recommandés

These lab sessions address different domains of physics (calorimetry, electrokinetics, induction, point mechanics, geometrical optics) for which the (theoretical) background is supposed to be known.

Having already used measuring devices (oscilloscope, multimeter, etc.) and having some basic knowledge on how to treat experimental data (in particular about uncertainties) is also considered as a prerequisite.

Software: data graphing and analysis

**Période :** Semestre 4

## Informations complémentaires

conditions for the admittance of exchange students (ERASMUS, etc.) to phy408/438

- contact the organizing teacher **prior to the first lab session**, typically before Jan 15, to clarify whether you will be able to join or not (<https://chamilo.univ-grenoble-alpes.fr/courses/PHY408/index.php> , [sylvie.zanier@univ-grenoble-alpes.fr](mailto:sylvie.zanier@univ-grenoble-alpes.fr) , [gabriel.seyfarth@univ-grenoble-alpes.fr](mailto:gabriel.seyfarth@univ-grenoble-alpes.fr) )

- admittance depends on the number of available places in the lab rooms (total number is limited for security reasons)

- firm agreement to be present at **all** 8 lab sessions along the semester, starting from the first one, and also at the 2 hands-on exam sessions

## Bibliographie

[https://chamilo.univ-grenoble-alpes.fr/courses/PHY408/index.php?id\\_session=0](https://chamilo.univ-grenoble-alpes.fr/courses/PHY408/index.php?id_session=0)

## Infos pratiques

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## Contacts

Responsable pédagogique

Sylvie Zanier

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## Campus

➤ Grenoble - Domaine universitaire