

Master Physique fondamentale et applications

Physique expérimentale - experimental physics

Informations

Composante : Faculté des Sciences

Responsable

Eric SALOMON

Langue(s) d'enseignement

Français

Contenu

The Experimental Physics UE is a hands-on physics UE divided into 12 sessions where students will practice their experimental skills. 4 sessions will be dedicated to the introduction of basic concepts of experimental physics. 8 other sessions are dedicated to practical work.

It should be noted that a group of about ten students can be formed to form a team representing the university in the French Physicists' Tournament (FPT) competition. In this case, the group will prepare the project topics for the tournament instead of working on the core practical work offered in the curriculum.

Compétences à acquérir

The goal of the Experimental Physics course is to enable students to work independently with experimental protocols, to strengthen their experimental skills and abilities, and to introduce them to experimental research by manipulating and analyzing data obtained with instruments similar to those used in the laboratory.

Target skills include: mastery of the "standard" measuring equipment used by physicists, use of modern tools for processing and presenting experimental data and results, the main signal acquisition and signal processing, the ability to present and interpret results in writing and defend them orally, etc.

Modalités d'organisation

The class is divided into 12 sessions: the first 4 sessions will be devoted to reviewing the basics necessary for experimental physics: introduction to signal acquisition, signal processing, basic electronic setups, etc.). The following 8 sessions will be dedicated to practical work. 4 sessions will be dedicated to atomic physics and 4 sessions to solid state physics..

In the case of FPT projects, students will have 8 sessions to prepare for the tournament.

Prérequis recommandés

Signal acquisition and processing, basic electronic devices, electronic and structural properties of matter, spectral line shapes, solid state physics, ...

VOLUME HORAIRE

- Volume total: 40 heures
- Cours magistraux: 6 heures
- Travaux dirigés: 2 heures
- Travaux pratiques: 32 heures

Codes Apogée

- SPFAU06C [ELP]

Pour plus d'informations

[Aller sur le site de l'offre de formation...](#)



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