

UE Scientific methodology regulatory and ethical data usage



Niveau d'étude
Bac +5



ECTS
6 crédits



Crédits ECTS
Echange
6.0



Composante
UFR IM2AG
(informatique,
mathématiques
et
mathématiques
appliquées)



Période de
l'année
Automne (sept.
à dec./janv.)

- > **Langue(s) d'enseignement:** Anglais
- > **Ouvert aux étudiants en échange:** Oui
- > **Crédits ECTS Echange:** 6.0
- > **Code d'export Apogée:** GBX9MO61

Présentation

Description

The course aims to provide the fundamental basis for a sound scientific methodology of experimental evaluation in computer science. This lecture emphasizes on methodological aspects of measurement and on the statistics needed to analyze computer systems, human-computer interaction systems, and machine learning systems. We first sensitize the audience to reproducibility issues related to empirical research in computer science as well as to ethical and scientific integrity aspects. Then we present tools that help address the aforementioned issues and we give the audience the basis of probabilities and statistics required to develop sound experiment designs. The content of the lecture is therefore both theoretical and practical, illustrated by a lot of case studies and practical sessions. The goal is not to provide analysis recipes or techniques that researchers can blindly apply but to make students develop critical thinking and understand some simple (and possibly not-so-simple) tools so that they can both readily use and explore later on.

Heures d'enseignement

CM CM 36h

Pré-requis recommandés

The lecture is self-content and targets 2nd year master students in computer science. We will mostly use the R language during the lecture but most programs will be a few lines of script and we will provide references to learn the basics.

Période : Semestre 9

Infos pratiques

Contacts

Responsable pédagogique

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Campus

➤ Grenoble - Domaine universitaire