

UE Introduction to distributed systems



Level
Baccalaureate
+4



ECTS
3 credits



Component
UFR IM2AG
(informatique,
mathématiques
et
mathématiques
appliquées)



Semester
Printemps

- > **Teaching language(s):** English
- > **Teaching method:** In person
- > **Teaching type:** Lectures
- > **Open to exchange students:** Yes
- > **Code d'export Apogée:** GBIN8U03

Presentation

Description

After presenting the major differences between a centralized system and a distributed one, this option shows students both the "user" and the "designer" side of distributed applications. Students get acquainted with existing distributed middleware and see how the latter tackle the problems of distributed system design. Are discussed the principles of distributed communication, including client/server synchronous architectures and publish/subscribe decoupled ones. The students also zoom into distributed middleware implementation and learn the basics of distributed algorithmics. Working with simple distributed topologies, they get to write simple algorithms and reason about their correctness.

Course parts

| | | |
|----|----------------|-----|
| CM | Lectures (CM) | 15h |
| TD | Tutorials (TD) | 18h |

Recommended prerequisites

Java Programming

Period : Semester 8

Seconde chance / Session de rattrapage - Épreuves

| Libellé | Nature de l'enseignement | Type d'évaluation | Nature de l'épreuve | Durée (en minutes) | Nombre d'épreuves | Coefficient de l'épreuve | Remarques |
|---------|--------------------------|-------------------|---------------------|--------------------|-------------------|--------------------------|-----------|
| | | | | 120 | | | |

Skills

- Understand the design and algorithmic challenges of distributed systems
- Learn how to use existing middleware to design distributed applications
- Learn how to design and implement simple distributed algorithms

Useful info

Contacts

Program director

Vania Marangozova

✉ vania.marangozova@univ-grenoble-alpes.fr

Place

› Grenoble

Campus

› Grenoble - University campus