

IDENTIFICATION

Course code : DAT604
ECTS : 1

DURATION

Lectures : 6
Tutorial classes : 18
Labs : 0
Total : 24

Project :
Personnal work :

ASSESSMENT

At least two written continuous assessments.

TEACHING MATERIALS

Slides and guided work sheets.

LANGUAGE

English

CONTACT

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UE : UE6-DATA

COURSE : Stochastic processes, queues, simulation

SCOPE OF THE COURSE

OBJECTIVES

The aim of this course is to provide essential basic knowledge for engineers so they can model some engineering problems using analytical tools (Markov chains, queues).

COMPETENCE AND SKILLS

- Perform exploratory data analysis
- Exploit massive data using data mining techniques
- Set up, from design to production deployment, a company's IT network while integrating QoS and security issues.

PROGRAM

- Conditioning relative to a tribe of events : limited to the case of a tribe generated by a finite or countable family of pairwise disjoint events.
- Conditioning relative to a random variable : restricted to the case of a discrete random variable.
- Markov chains : Definitions, communication between states, simulation.
- Theoretical results on queues.

BIBLIOGRAPHY

Bruno BAYNAT - Théorie des files d'attente : Des chaînes de Markov aux réseaux à forme produit - Éditions Hermes

REQUIREMENTS

SR504 : Fundamentals : Probability, Random variables