

# IS100 : Analyse des données et Théorie de l'information

## Shared by UV(s) :

I5-A Algorithms & mathematics 1 page 0

## To choose from :

IS102 information theorie page 0  
IS103 Information Theory page 0

## ECTS credits :

1.50

## Number of hours :

Lecture : 16.00

## Teacher(s) :

GUENNEGUEZ Liliane

## Title :

Analyse des données et Théorie de l'information

# IS102 : information theorie

## Shared by choice module(s) :

IS100 Analyse des données et Théorie de l'information

page 0

## ECTS credits :

1.50

## Evaluation :

S1: ET(2h) x1

## Number of hours :

Lecture : 16.00

Individual work : 8.00

## Teacher(s) :

GUENNEGUEZ Liliane

## Title :

information theorie

## Abstract :

This course gives the essential concepts of l' Data analysis, which takes a great rise with the development of average data processing

## Plan :

- # Introduction
- # Analyzes factorial \* analyzes in principal components \* analyzes correspondences
- # Classification automatic
- # Different methods \* dynamic clouds \* segmentation \* analyzes discriminating \* analyzes multicriterion

## Prerequisite :

basic notions of statistics

## Document(s) :

Documents distributed during the course

## Keyword(s) :

factorial analysis, principal classification, regression, main components

## Online course :

not

# IS103 : Information Theory

## Shared by choice module(s) :

IS100 Analyse des données et Théorie de l'information

page 0

## ECTS credits :

1.50

## Evaluation :

S1: ET(2h) x1

## Number of hours :

Lecture : 16.00

Individual work : 12.00

## Teacher(s) :

SAHEB Nasser

## Title :

Information Theory

## Abstract :

This (short) course gives an introduction to information theory (entropy, digital transmission and application to coding) and its transmission over memoryless noisy channels.

## Plan :

1. General notion on the information theory
2. Coding theory
3. Optimal codes, Huffman algorithm
4. Noisy channels, capacity

## Prerequisite :

IS 101 : Discrete probability theory

## Document(s) :

documents allowed

## Keyword(s) :

information, entropy, coding, digital transmission, memoryless channels, Shannon, Fano

## Online course :

yes