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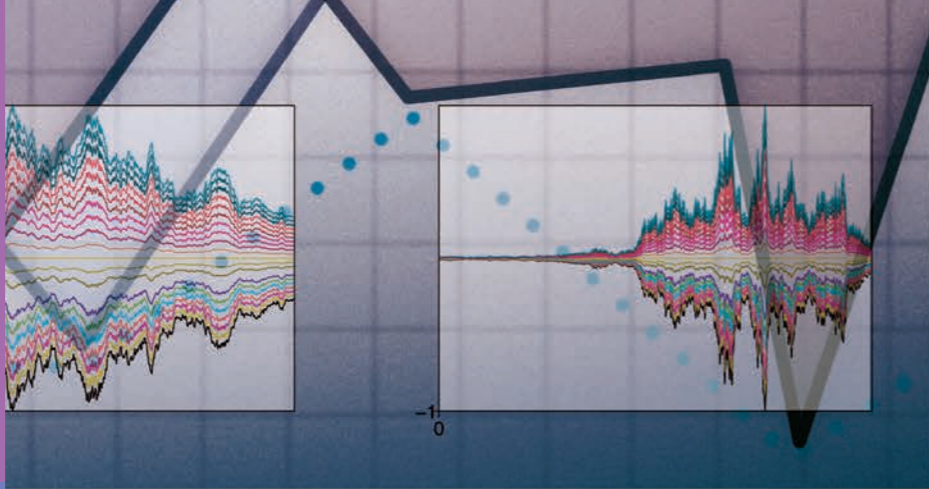
For any supplementary informations
or questions related to application:
gilles.carbou@univ-pau.fr

MORE INFORMATION:

[http://formation.univ-pau.fr/
m-mathematics-msid](http://formation.univ-pau.fr/m-mathematics-msid)

FURTHER INFORMATION:

<http://ri.univ-pau.fr>



Master's degree in Mathematics and applications

Stochastic tools and Computational Methods for Decision

Detailed Program Facts

ENROLLMENT COSTS: 256 €

STARTING IN: Applications are
opened from 02 april 2018

PROGRAM INTENSITY: 20h per
week during the first semester

DURATION: 1 year

CREDITS: 60 ECTS

LANGUAGES: Fully taught in English

DELIVERY MODE: On site - Pau
campus

Admission requirements

ENGLISH LANGUAGE REQUIREMENTS

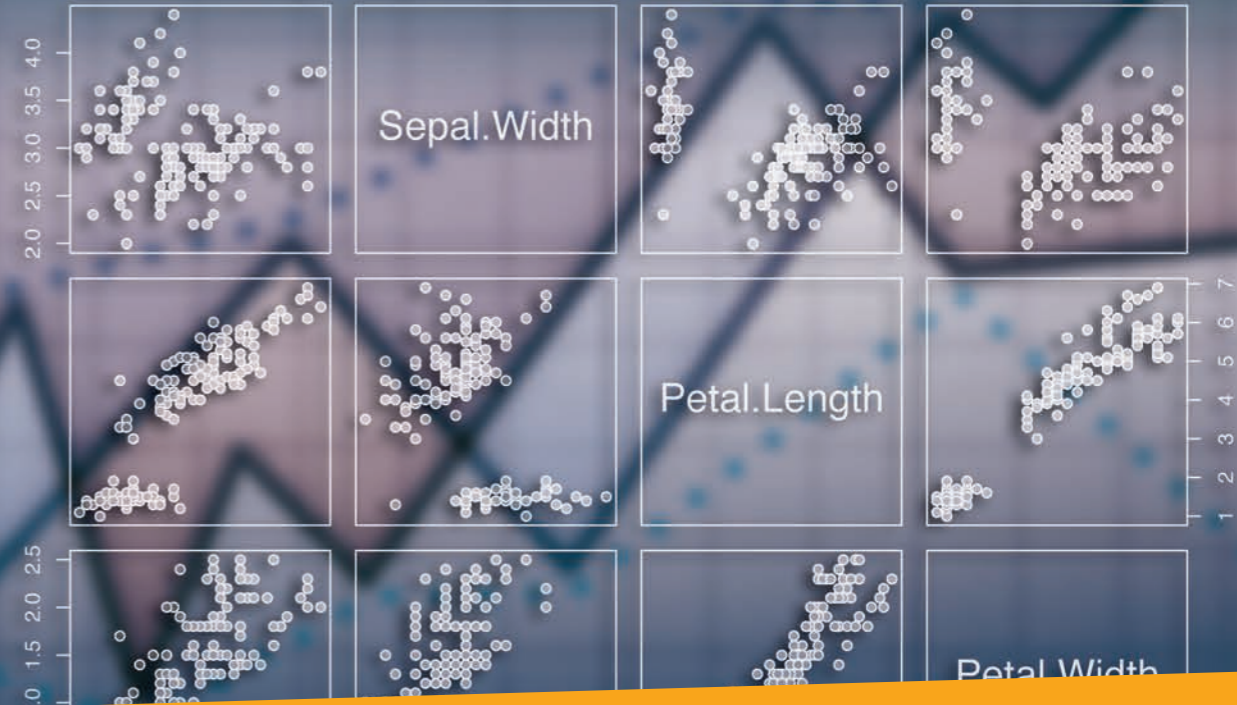
CECRL B2 level in English, or CECRL B1 level in English and CECRL B2 level in French. All teaching materials will be provided both in English and French. Students are allowed to use English or French during exams.

ADMISSION REQUIREMENTS

All students who have completed four years in a higher education institution can apply.
Limited number of students: 30 per year



Conception: Direction de la communication - Impression: Centre de reprographie - UPPA - Février 2018



<http://formation.univ-pau.fr/m-mathematics-msid>



Overview

This degree is delivered after 12 months.

This program offers advanced courses on statistical analysis, business intelligence, computer modelling and associated computer tools.

This program allows to continue with doctoral studies, either in an academic context or in an industrial context (collaboration between industry and UPPA)

Student Learning Outcomes

At the end of this program, the students in MSID will be able to:

- Conduct an appropriate statistical analysis
- Apply any classical statistical methods
- Construct and analyze an experimental design
- Propose and analyze a stochastic model
- Implement stochastic simulation methods
- Manage databases

Prospects for employment or further study

SECTORS:

- Industry
- Services
- Academic

FIELDS:

- Dependability and reliability analysis (RAMS)
- Data processing,
- Biomedecine

POSITIONS:

- RAMS engineer
- Statistical analyst
- Data scientist
- Data processing engineer
- Biostatistician
- PhD students

Program objectives

- This programme aims to provide strong skills in stochastic modeling and statistical methods for data analysis, jointly with the associated computer tools.
- Courses are focusing both on applications in industry, especially in the area of quality control and safety analysis, and on applications in datamining and machine learning.
- Courses are taught by academics but also by engineers
- According to the excellency of students and their desire to pursue doctoral studies, courses about « advanced statistics » and « advanced applied probability » can be offered.

MASTER 2 - MSID

SEMESTER 1

• Monte Carlo methods	4 ECTS
• Survival analysis	4 ECTS
• Reliability theory	4 ECTS
• Design of experiments	4 ECTS
• Safety engineering	4 ECTS
• Data warehouse	4 ECTS
• Machine learning and data mining	6 ECTS
• Advanced statistics	6 ECTS
• Advanced applied probability	6 ECTS

SEMESTER 2

• Data challenge	2 ECTS
• Literature review	2 ECTS
• Internship 5 to 6 months	26 ECTS