SCIENCE, TECHNOLOGY, HEALTH

M2 Stochastic tools and Computational Methods for Decision (MSID)

Master Mathematics and Applications

ECTS
60 credits

Duration
1 year

Component
Collège Sciences et Technologies pour l'Energie et l'Environnement (STEE)

Language(s)
English

Presentation

Apply here from October to March

Check our FAQ HERE |▄▟|

This program offers advanced-level courses in statistical analysis, decision computer science, computer modeling, and associated computer tools.

Objectives

This program aims to provide strong skills in stochastic modeling and statistical methods for data analysis, combined with the associated computer tools.

- Courses focus on applications in the industry, especially in the areas of quality control and safety analysis, but also on applications in data mining and machine learning.
- Courses are taught by academics but also by engineers

Depending on the excellency of students and their desire to pursue doctoral studies, courses about « **advanced statistics** » and « **advanced applied probability** » can be offered.

Your university

Skills

At the end of this program, the students in **"Stochastic tools and Computational Methods for Decision"** will be able to:

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

Additional information

Scholarships

- EIFFEL Scholarship of Excellence
- Talents' Academy Grants | ⌐
- Catalogue des Bourses Campus France | ⌐

The International Master Programs Admission Office

master.programs@univ-pau.fr

Organisation

Organization

MASTER 2 Stochastic tools and Computational Methods for Decision (MSID)	
SEMESTER 1	
Course Title	**ECTS**
Reliability theory	4
UE Survival analysis	4
UE Datamining	2
Advanced machine learning	2
Mathematical Engineering of deep learning	6
Tools for RAMS	4
French or English as a Foreign Language B2/C1	2
ELECTIVES	6
Design of experiments	4
Statistical process control	2
Monte Carlo methods	4
Data Challenge	2

SEMESTER 2
Integrator project
Internship from 5 to 6 months

Trainings

Intership : Mandatory

Intership duration : 5-6 months

Admission

Admission requirements

LANGUAGE REQUIREMENTS

CECRL B2 | ⌐ level in English,

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.

A limited number of students: 30 per year

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How to apply

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Tuition Fees and partial exemptions

Go to the Tuition fee page |▄▄|

> *The school partially exempts non-EU students from the differentiated fees for initial training enrolling in the Master's program.*

Student capacity

20

Prerequisites

LANGUAGE REQUIREMENTS

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And after

Further studies

Doctoral studies, either in an academic context or in an industrial context

Professional insertion

Sectors:
- **Industry, services, academic**

Fields:
- **Transportation, Aeronautics, Space**
- **Energy (oil, gas, nuclear renewal, etc...)**
- **Pharmaceutics and medecine**
- **banking and insurance companies**

Positions:
- **RAMS engineer, statistical analysis, data scientist, data processing engineer, biostatistician, Ph.D. students**

Useful info

Contacts

Administration contact
Secrétariat de Mathématiques
✉ secretariat-mathematiques@univ-pau.fr

Partner laboratories

Laboratory of Mathematics and its Applications of Pau (LMAP)
↗ https://lma-umr5142.univ-pau.fr

Place

📍 Pau

Campus

🏫 Pau