

Big Data Analytical Methods

**ECTS : 3**

**Description du contenu de l'enseignement :**

- The analysis methods in the field of big data, including probability statistics analysis, combinatorial mathematical analysis, queuing theory, graph theory and functional analysis, etc.
  - Data modeling, including Monte Carlo algorithm, probability density algorithm, ant colony algorithm, etc.
  - Data structure, including OpenStack, Hadoop, Spark.
  - Data fusion, including hierarchical control fusion, unstructured data fusion and structured data fusion.
  - Data processing, including deep learning, manifold learning and reinforcement learning.
- This course aims to provide an advanced understanding of the core algorithms and topics in the field of big data. From this course, students will understand basic methods of big data analysis, learn main modeling models of big data, master common big data processing algorithms by solving common big data problems in projects.

**Compétence à acquérir :**

- Basic methods of big data analysis.
- Main modeling models of big data.
- Common big data processing algorithms.
- Common solution to big data analysis problems.

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