Multi-criteria Decision Aiding

(Patrick Meyer et Arwa Khanoussi)

This course introduces students to the principles and practices of Multi-criteria Decision Aiding, empowering them to tackle complex choices involving multiple, often conflicting criteria. It presents a panorama of mathematical models for decision support, focusing on real-world applications across various domains.

Key concepts covered:

- Multicriteria decision aiding algorithms
- Preference modeling techniques
- Decision support theories and their applications
- Risk and uncertainty in decision-making
- Real-world case studies in critical domains (aeronautics, nuclear energy, medicine, law)

By the end of this course, students will be able to:

- [BC-03] Analyze and model multi-criteria decision scenarios involving multiple stakeholders
- [BC-04] Provide structured, well-reasoned recommendations for complex decision-making situations
- [BC-07] Apply advanced decision support theories to complex real-world problems

Prerequisites:

- Being familiar and efficient with Python programming