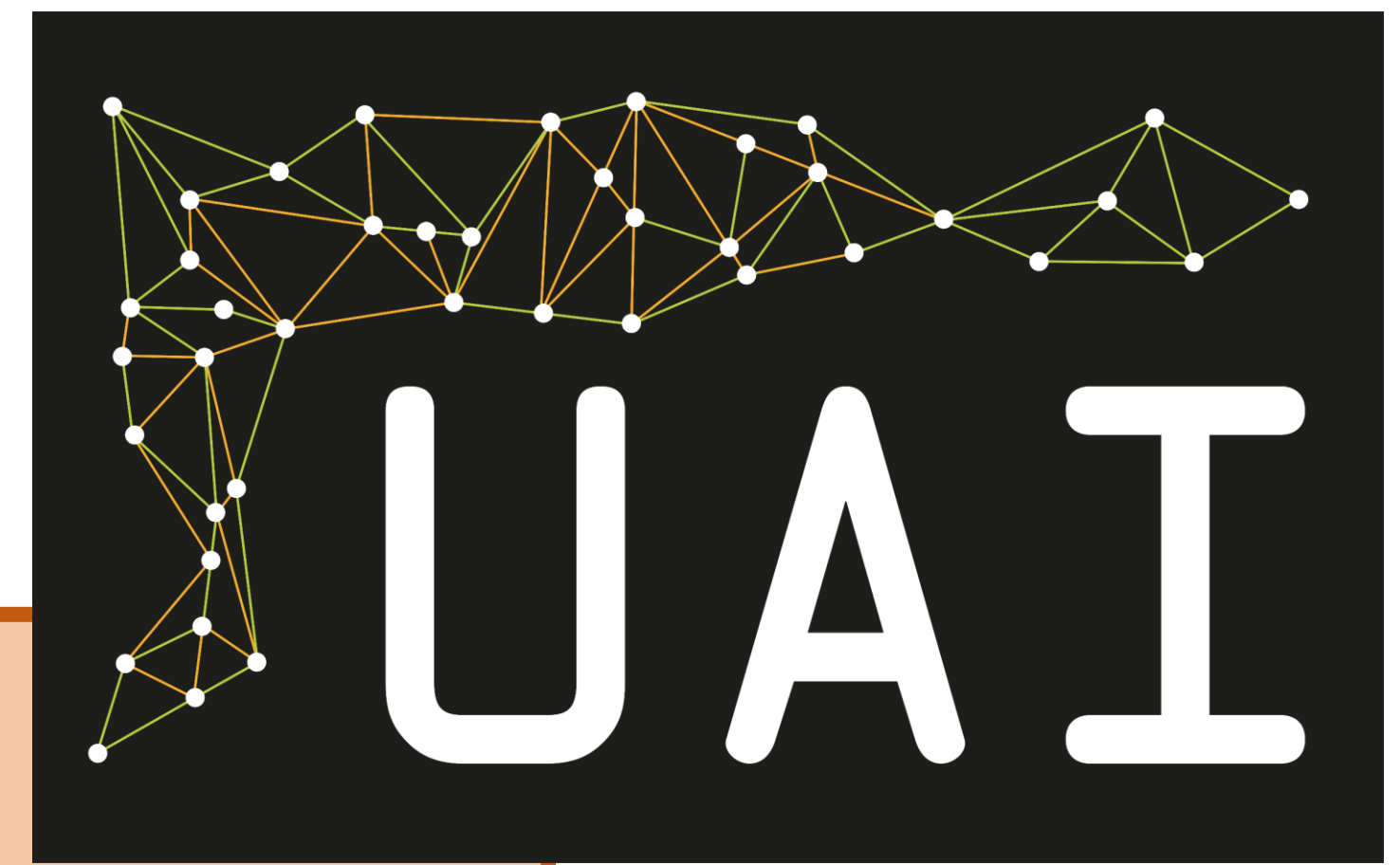


Understanding Artificial Intelligence



Project

Basics of AI & ML + Ethical Decision Making

The UAI project expands the current curriculum of the bachelor program "Business Administration with Informatics" by adding a module that:

- gives students the opportunity to learn the basics of AI, as well as how to plan, prepare, and execute Machine Learning projects (including the necessary algorithms and software tools);
- enables students to critically question the ethical parameters of AI projects.

Implementation

An English-language module divided into three phases was developed and implemented:



In phase 1 (distance learning), students receive

- an introduction to Artificial Intelligence
- an overview on how to conduct Machine Learning projects
- a guide on how to implement a selection of Machine Learning algorithms



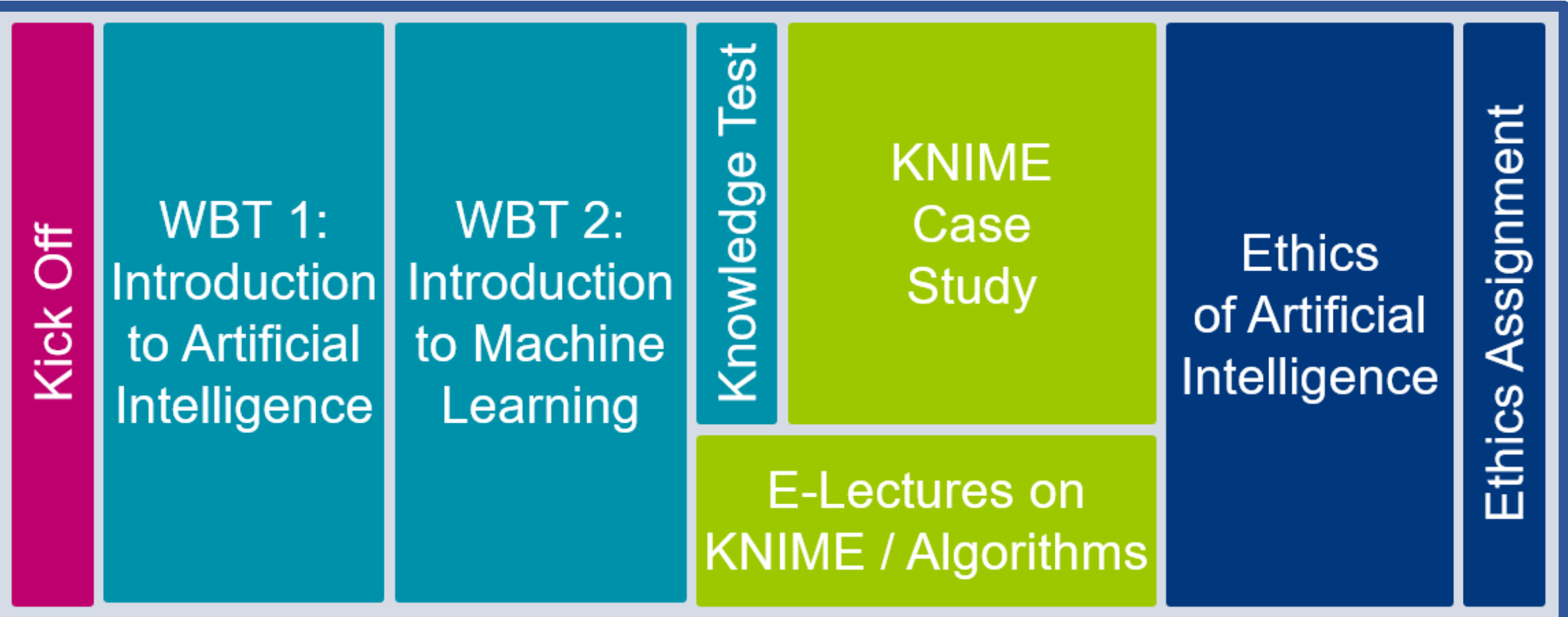
In phase 2 (distance learning & F2F), students

- learn to use the open source KNIME Analytics Platform (Konstanz Information Miner)
- conduct their own machine learning project, applying the algorithms from phase 1 in KNIME workflows



In phase 3 (distance learning & F2F), students

- learn a systematic judgement protocol based on an ethical decision making framework
- discuss exemplary ethical implications of Artificial Intelligence in practical case studies



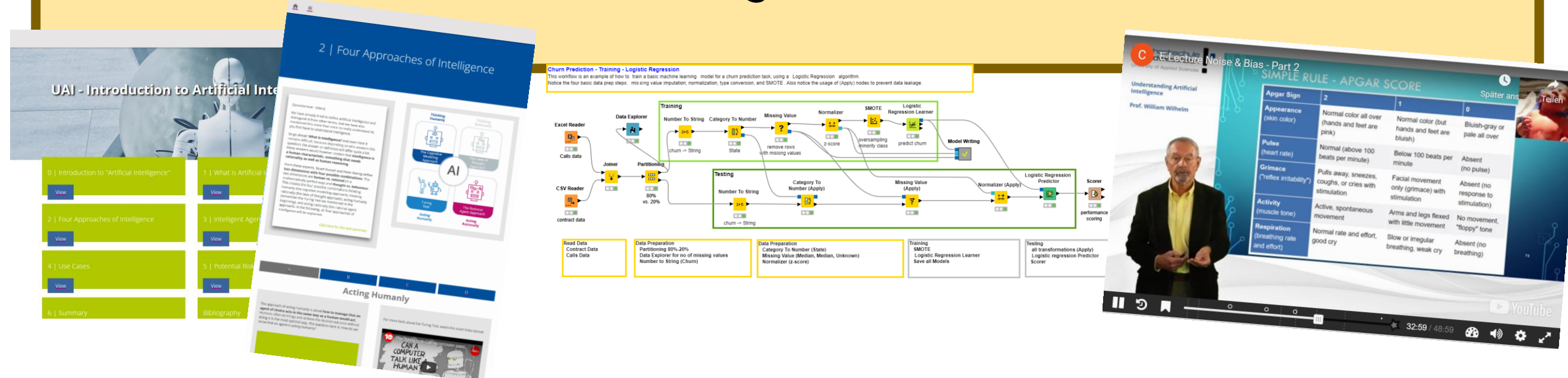
Success Factors & Challenges

Success Factors:

- the combination of AI theory, AI practices, and ethical reflection in one consistent context
- the right learning materials / teaching methods for the different course phases / topics

Major challenges:

- the complexity of AI and ethics in one integrated setting
- to balance workload and learning outcomes for the students



Evaluation

„The teaching tools and materials are really good in giving an understanding. The ethical perspectives of AI lectures were really good.“

„There are many assignments that might look as a disadvantage, but they are totally different and show the subject from different perspectives.“

Overall, I am ... with this course:

