Course title	**Artificial Intelligence**
Component code	03-12
Lecturer	Determined later
Lecturer's email address	
Hours	15
ECTS	5
Semester	Winter
Content	Introduction to AI: This introductory module provides an overview of Artificial Intelligence, exploring its historical development, key applications, and various methodological approaches. Participants will gain a foundational understanding of what AI is and its significant impact across different sectors. Machine Learning: This module delves into the basics of machine learning, encompassing supervised, unsupervised, and reinforcement learning. Each learning type will be explained with examples of real-world applications, helping learners to distinguish between these methods and understand their unique uses. Natural Language Processing: This module covers the fundamentals of NLP, including text analysis, sentiment analysis, and machine translation. Learners will explore how machines understand human language, with practical exercises and examples illustrating the processing and analysis of textual data.
Learning outcomes	Students will be able to define and explain the key concepts of AI. Students will be able to identify and apply different AI techniques to solve real-world problems. Students will be able to develop and implement AI models using popular programming languages and libraries. Students will be able to communicate effectively about AI concepts and applications.
Selected literature	Artificial Intelligence: A Modern Approach by Stuart Russell and Peter Norvig: A comprehensive introduction to artificial intelligence, covering a wide range of subjects and techniques. Python Machine Learning by Sebastian Raschka and Vahid Mirjalili: A practical guide to implementing machine learning algorithms using Python and popular libraries like scikit-learn. Deep Learning by Ian Goodfellow, Yoshua Bengio, and Aaron Courville: A thorough textbook on deep learning that covers theory, techniques, and applications.
Teaching	Determined later

tools/methods	
Form of examination	Determined later