Study program: Business Informatics

Type and level of studies: Master studies

Course unit: Artificial Intelligence in Business

Teacher in charge: Zoran Kalinic

Language of instruction (*English or other foreign language*): English

ECTS: 7

Prerequisites: None

Semester *(Winter Semester or Summer Semester):* Summer Semester

Course unit objective: The objective of the course is to introduce foundations and basic concepts of artificial intelligence; to explain the significance of data in AI projects, its types and processing; to explain standard workflow of AI projects; to introduce different types of learning and quality metrics in AI and most important AI algorithms and discuss ethical issues in AI applications; to explain different AI applications particularly in business. The course is intented to non-engineers and beginners in AI and focuses on theoretical approach.

Learning outcomes of Course unit

- Knowledge and understanding of basic concepts and principles in artificial intelligence and data processing
- Understaning of most significant AI algorithms
- Knowledge of ethical issues in AI applications
- Understanding of most important examples of AI applications in business (marketing, sales, CRM, etc.)

Course unit contents

1. AI foundations
2. Principles of AI
3. AI structure
4. Types of data; Big Data
5. Data Processing
6. AI project workflow
7. Types of learning; Supervised and unsupervised learning
8. Basic model performance metrics
9. Overview of most important AI and machine learning algorithms
10. Artificial neural networks; Deep Learning
11. Implementation of AI
12. Ethical issues in AI applications
13. AI applications in business
14. Future of AI

Literature

Rose, D. (2018). Artificial Intelligence for Business, Chicago Lakeshore Press

Taulli, T. (2015). Artificial Intelligence Basics: A Non-Technical Introduction, Apress

Akerkar, R. (2019). Artificial Intelligence for Business, Springer

Number of active teaching hours				**Other classes**
Lectures: 2	Practice: 2	Other forms of classes:	Independent work:	

Teaching methods

For five and less students (in English) – mentoring system; more than five students – classroom lectures

Examination methods (maximum 100 points)

Exam prerequisites	**No. of points:**	**Final exam**	**No. of points:**
Student's activity during lectures		oral examination	
practical classes/tests	20	written examination	50
Seminars/homework		…….	
Project	30		
Other			

Grading system

Grade	**No. of points**	**Description**
10	**91-100**	Excellent
9	**81-90**	Exceptionally good
8	**71-80**	Very good
7	**61-70**	Good

6	**51-60**	Passing
5	**0-50**	Failing

(Table 5.2) Course unit description