

Study program: Business Informatics			
Type and level of studies: Master studies			
<b>Course unit: Artificial Intelligence in Business</b>			
<b>Teacher in charge: Zoran Kalinic</b>			
Language of instruction ( <i>English or other foreign language</i> ): English			
ECTS: 7			
Prerequisites: None			
Semester ( <i>Winter Semester or Summer Semester</i> ): Summer Semester			
<b>Course unit objective:</b> 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 intended to non-engineers and beginners in AI and focuses on theoretical approach.			
<b>Learning outcomes of Course unit</b>			
<ul style="list-style-type: none"> <li>- Knowledge and understanding of basic concepts and principles in artificial intelligence and data processing</li> <li>- Understanding of most significant AI algorithms</li> <li>- Knowledge of ethical issues in AI applications</li> <li>- Understanding of most important examples of AI applications in business (marketing, sales, CRM, etc.)</li> </ul>			
<b>Course unit contents</b>			
<ol style="list-style-type: none"> <li>1. AI foundations</li> <li>2. Principles of AI</li> <li>3. AI structure</li> <li>4. Types of data; Big Data</li> <li>5. Data Processing</li> <li>6. AI project workflow</li> <li>7. Types of learning; Supervised and unsupervised learning</li> <li>8. Basic model performance metrics</li> <li>9. Overview of most important AI and machine learning algorithms</li> <li>10. Artificial neural networks; Deep Learning</li> <li>11. Implementation of AI</li> <li>12. Ethical issues in AI applications</li> <li>13. AI applications in business</li> <li>14. Future of AI</li> </ol>			
<b>Literature</b>			
Rose, D. (2018). Artificial Intelligence for Business, Chicago Lakeshore Press			
Tauli, T. (2015). Artificial Intelligence Basics: A Non-Technical Introduction, Apress			
Akerkar, R. (2019). Artificial Intelligence for Business, Springer			
Yao, M., Jia, M. and Zhou, A. (2018). Applied Artificial Intelligence: A Handbook for Business Leaders, Topbots Inc.			
Panda S.K. et al. (2018). Artificial Intelligence and Machine Learning in Business Management: Concepts, Challenges, and Case Studies, CRC Press, Taylor & Francis Group			
Covenyduc, J.L. and Anderson, J.L. (2020). Artificial Intelligence for Business: A Roadmap for getting started with AI, Wiley			
<b>Number of active teaching hours</b>			<b>Other classes</b>
Lectures: 2	Practice: 2	Other forms of classes: Independent work:	
<b>Teaching methods</b>			
For five and less students (in English) – mentoring system; more than five students – classroom lectures			
<b>Examination methods ( maximum 100 points)</b>			
<b>Exam prerequisites</b>	<b>No. of points:</b>	<b>Final exam</b>	<b>No. of points:</b>
Student's activity during lectures		oral examination	
practical classes/tests	20	written examination	50
Seminars/homework		.....	
Project	30		
Other			

<b>Grading system</b>		
<b>Grade</b>	<b>No. of points</b>	<b>Description</b>
<b>10</b>	<b>91-100</b>	Excellent
<b>9</b>	<b>81-90</b>	Exceptionally good
<b>8</b>	<b>71-80</b>	Very good
<b>7</b>	<b>61-70</b>	Good
<b>6</b>	<b>51-60</b>	Passing
<b>5</b>	<b>0-50</b>	Failing

**(Table 5.2) Course unit description**

