

Cyber-physical Systems Institute			Semester 1. of the curriculum 2026-27-1			
Name of the subject:	Code of the subject:	Credits:	Weekly hours:			
				lec	sem	lab
Business and informatic strategy	NBXUI1EMNF	5	full-time	2	2	0
Responsible person for the subject: Anikó ALMÁSI PhD			Classification: Senior Lecturer			
Subject lecturer(s): Anikó ALMÁSI PhD						
Prerequisites:						
Way of the assessment:	exam					
Course description						
Goal:	This course introduces students to the strategic role of information technology in creating business value and supporting organizational competitiveness. It explores how IT strategy aligns with corporate and functional strategies, including marketing, human resources, finance, operations, and supply chain management. The course emphasizes that digital transformation is not merely a technological initiative but an organization-wide process that requires leadership, effective management, and organizational change. Students will examine the milestones, success factors, and barriers of digital transformation projects, with a particular focus on small and medium-sized enterprises (SMEs).					
Course description:	Through real-world examples from sectors such as manufacturing, agriculture, gastronomy, tourism, healthcare, culture, and public administration, students will learn how organizations use digital technologies to improve processes, customer experience, innovation, and decision-making. The course also covers digital maturity, data strategy, AI, and sustainability. Practical case studies and project-based learning enable students to develop digital strategies for organizations across different industries. By the end of the course, students will be able to evaluate an organization's digital readiness, align IT initiatives with business objectives, and design an IT strategy that supports long-term organizational growth, resilience, and competitive advantage.					

Lecture schedule	
Education week	Topic
1.	Evolution from IT Strategy to Digital Vision
2.	Digital Readiness and Transformation
3.	Data Strategy, Process Development
4.	Consultation
5.	Test + Project task presentation
6.	Organizational Capabilities and Change
7.	Technology selection
8.	Innovation - independent processing of the course material
9.	Implementation, Data-driven Operation
10.	Consultation
11.	Rector's break
12.	Rector's break
13.	Test + Project task presentation
14.	Opportunity for make-up and improvement

Mid-term requirements													
Conditions for obtaining a mid-term grade/signature	Participation at the lessons is mandatory. To students who missed more than 30% of lessons can't have grade. A successful test and project task is mandatory to acquire grade.												
Assessment schedule													
Education week	Topic												
5-6	Group project task 1 (30) / Test (20)												
12-13	Group project task 2 (30) / Test (20)												
Method used to calculate the <i>mid-term grade</i> (to be filled out only for subjects with mid-term grades)													
Test results and group project tasks need to exceed 51%. At the end of the semester grade calculated from the sum of continuous performance: Group project task (30+30) + Tests (20+20) = 100%													
Type of the replacement													
Type of the replacement of written test/mid-term grade/signature	The group project task can be substituted only with individual permission and by special agreement at the start of the semester. It is obligatory to indicate this at the beginning of the semester and to agree on the substitution! Supplementary assignments: in week 14 or oral exam during the examination period.												
Type of the exam (to be filled out only for subjects with exams)													
Oral exam													
Calculation of the exam mark (to be filled only for subjects with exams)													
Group project task (30+30) + Tests (20+20) = 100%													
Final grade calculation methods:													
The final grade will be calculated using the following scale:													
<table border="1"> <thead> <tr> <th>Achieved result</th> <th>Grade</th> </tr> </thead> <tbody> <tr> <td>87 - 100</td> <td>excellent (5)</td> </tr> <tr> <td>75- 86</td> <td>good (4)</td> </tr> <tr> <td>64 -74</td> <td>satisfactory (3)</td> </tr> <tr> <td>51 - 63</td> <td>pass (2)</td> </tr> <tr> <td>0 - 50</td> <td>failed (1)</td> </tr> </tbody> </table>		Achieved result	Grade	87 - 100	excellent (5)	75- 86	good (4)	64 -74	satisfactory (3)	51 - 63	pass (2)	0 - 50	failed (1)
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References													
Obligatory:	Uploaded to Moodle after the lessons												
Recommended:	Uploaded to Moodle after the lessons												
Other references:													