

DESCRIPTION OF STUDY COURSE

Course unit title	Digital Transformation I - Applied Digital Skills and Technologies (UX/UI, AR, VR, Gamification)
Programme	Business Process Management
Year of study	1
Academic year	2023/2024
Level of course unit (e.g. first, second or third cycle)	First, Bachelor's study
Course unit code	BP010
Name of lecturer(s)	Roberts Ceruss, Gunita Ķiesnere
Credit points	2,6 CP
Number of ECTS allocated	4 ECTS Latvian credit points are multiplied by 1,5 to get ECTS
Language of instruction	English
Type of course unit (compulsory, optional)	Compulsory
Semester when the course unit is delivered	1, 2
Mode of delivery	Full-time education
Aim of Course	<p>1) Give students an understanding of IT systems and their impact not only on documenting business management processes but also on reporting. Improve analytical skills by selecting and using the most efficient application to visualize results and achieve organizational goals.</p> <p>2) Introduce the user experience (UX) design process and methods as a holistic approach used for planning and designing successful digital applications. Study the elements of user interface (UI) and its role in successful user experience design.</p> <p>3) Give a practical intro into virtual reality (VR), augmented reality (AR) and the models used to design and evaluate XR solutions.</p> <p>4) Provide students with theoretical and practical knowledge about meta verse and gamification.</p>
Preliminary knowledge (prerequisites and co-requisites)	Business English; Communication Skills
Course contents	<ol style="list-style-type: none"> 1. Online collaboration applications/software. 2. UX strategy and human-centered design process and elements. 3. User research methods and basics of interaction design. 4. Information architecture, user journey and experience mapping. 5. User testing and validation. Quantitative analytics tools. 6. Theories of design of user interfaces. 7. UI styles and elements. 8. UI patterns and their applicability. 9. XR development, initial vision and application. 10. Testing XR applications from various industry cases and complexity.

	<p>11. Defining XR solution. Various methods and sets of steps to take in order to find the best solution if any. Why/How/What method. Budgeting. Metrics of process and results evaluation, how to know if project/pivot was successful (value added).</p> <p>12. Practical group work. Solution proposals for set of use cases given from various industries, user journey given. Design thinking exercise in 3 rounds, moderated by tutor.</p> <p>13. Gamification origins and theories</p>	
The study course calendar	Topic	Type of assessment
	1. UX strategy and human-centered design process. The elements of user experience.	
	2. User research methods and product concept / personas	
	3. Information architecture, user journey mapping, experience mapping (story boarding)	Individual work and the presentation
	4. Basics of interaction design – low fidelity and high fidelity prototypes of product idea and user flow – iteration and experimentation	Literature discussion
	5. User testing and validating the product idea in early stage. Quantitative analytics tools.	Literature discussion
	6. Theories of design of user interfaces	
	7. UI styles and elements	
	8. UI patterns and their applicability	Literature discussion
	9. XR development, initial vision and application.	
	10. Testing XR applications from various industry cases and complexity.	Literature discussion
	11. Defining XR solution. Various methods and sets of steps to take in order to find the best solution if any. Why/How/What method. Budgeting. Metrics of process and results evaluation, how to know if project/pivot was successful (value added).	Individual work and the presentation
	12. Practical group work. Solution proposals for set of use cases given from various industries, user journey given. Design thinking exercise in 3 rounds, moderated by tutor.	Individual work and the presentation

	13. Gamification origins and topicality					
	14. Gamification model and theories	Literature discussion				
	15. Gamification examples in public, private sectors and everyday life.	Individual work and the presentation				
	16. Case study in teams	Group work and the presentation				
Planned learning activities and teaching methods	Assessment of learning outcomes			Distribution (%)		
	Individual work; Individual work and the presentation			30%		
	Group work and the presentation			30%		
	Test			10%		
	Literature discussion			20%		
	Active participation in the class			10%		
	Total (%):			100%		
	Teaching methods			Student work load (h)		
	Classes in auditorium			22		
	Lecturer-lead group assignments			10		
	Questionnaire			5		
	Lecturer-lead class discussions			6		
	Student-lead class discussions			12		
	Storytelling			3		
	Terminology tests and crossword puzzles			2		
	Work in the library			18		
Case study			42			
Total (h):			135			
Learning outcomes of the course unit	<p>1. Students are able to select appropriate digital and technological solutions and select, analyse and interpret the information received.</p> <p>2. Students are familiar with the concept and process of UX, gained practical insight into the application and benefits of techniques, and are able to apply UX/UI techniques to their further study and work projects.</p> <p>3. Students are able to create a high-quality task for the use of XR technologies, define target, usage, business benefits, user, and choose the appropriate technology spectrum.</p> <p>4. Students can use the knowledge of power simple and medium-complicated dealing with business, state and personal problems.</p>					
Assessment methods and criteria	Learning outcomes		1	2	3	4
	Assessment methods					
	Individual work and the presentation		•	•	•	•
	Group work and the presentation		•	•	•	•
Test		•				

	Literature discussion		•	•	•
	Active participation in the class	•	•	•	•
Recommended or required reading	<p>Mandatory literature BA School of Business and Finance methodological guidelines for elaboration and defense of independent study papers. Available: BA School of Business and Finance internal information system (BAIS) Jelen B., Alexander M. "Microsoft Excel 2019, Pivot Table Data Crunching", Pearson Education, 2019 Alexander M., Kusleika D., Walkenbach J., "Excel 2019 Bible", 2018 Lambert J., "Microsoft Word 2019 Step by Step", Pearson Education, 2019</p> <p>Supplementary literature XR for business, podcast Extended Reality summary, report, Accenture, online resource XR for EVERY budget, Alan Smithson, online source (Medium.com) "Seeing is believing. How VR and AR will transform business and the economy", PwC interactive XR industry tool, online resource https://www.pwc.com/seeingsbelieving</p> <p>How games make kids smarter, Gabe Zichermann, TED talk 6 Steps to Effective Gamification, Kevin Werbach, podcast (https://engagingleader.com/6-steps-to-effective-gamification-transcript/) The Octalysis Framework, Yu-kai Chou, online resource (https://yukaichou.com/gamification-examples/octalysis-complete-gamification-framework/) Gaming Can Make a Better World, Jane McGonigal, TED talk Supplementary: Gamification by Design, Gabe Zichermann, e-book</p>				