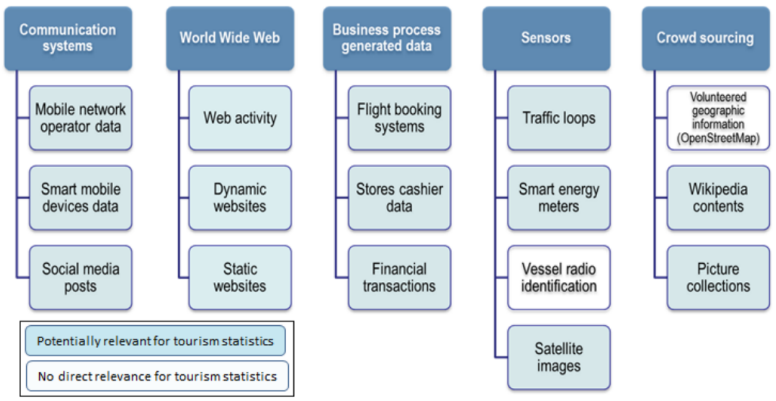
VIDZEMES AUGSTSKOLA

FACULTY OF SOCIETY AND SCIENCE
STUDY COURSE DESCRIPTION

Course Title:	**Toolbox for Business Data Management**				
Course code (LAIS):	*The course will be registered after receiving the license*				
Study programme:	Tourism Competitiveness Management				
Level of Study programme:	☐ 1st level professional higher education				
	☐ Professional Bachelor				
	☐ Professional Master | Double degree master programme				
	☒ Academic Master				
	☐ PhD level				
Type of Study programme:	☒ Compulsory course (Part A)				
	☐ Professional specialization courses (Part B, compulsory)				
	☐ Professional specialization optional courses (Part B, optional)				
	☐ Elective courses (Part C)				
Course Workload:	**Credits**	**ECTS**	**Academic hours**	**Contact hours**	**Independent work hours**
	3	5	125	40	85
Course Author/ Tutor:	Andris Klepers				
	Associate Professor, Dr.geogr., Leading researcher Ilona Beliatskya, Mg.sc.soc.				
	e-mail: andris.klepers@va.lv | ilona.beliatskaya@va.lv				
	Tutorial: according to the schedule for each semester				
Study Form:	Full time studies, on-line course				
Study year, semester:	Year 1, Semester 2				
Language:	English / Latvian				
Prerequisites for the Course:	Knowledge and experience of tourism and business management				
Course Summary:	The **purpose of the course** is to provide knowledge on different tools and methods how to mine, collect, structure and analyse business intelligence data & big data to get excellent orientation of the market, customers and their behaviour, competition, different impacts and trend potential. Course is foreseen to increase knowledge about contemporary data application for dynamic modelling to forecast future trends and make smart data driven business decisions. There will be lot of applied content in the course what is on operational level to raise productivity and sharpen competitive advantages of the organisation. Figure 1: Taxonomy of big data sources  **Keywords:** Forecasting & business trends analysis, big data, modelling of dynamic systems, customer & market insight, customer behaviour, business analytics, smart decisions.				
Assessment:	**Cumulative assessment** approach is used that represents a student's work and documents his or her performance during the duration of the course. There are 4 assignments (3 individually completed and one group work): each 10% of the final course grade. 10%				

	could be earned on free student's initiative basis – ideas how to work additionally will be given (not compulsory) at the beginning of the course. Final exam is 60 (or 50% in case of initiative works performed). All works are graded numeric. Study assignments: AS1. Analysis of big data or business intelligence data regarding consumer behaviour to elaborate forecasting. AS2. Practical application of dynamic modelling with use of contemporary data visualization tools. AS3. Integrating data in business strategic planning & product development. AS4. Customer database development principles.
Requirements for Credits:	1. All students enrolled in this course must be registered in Vidzeme University of Applied Sciences virtual learning environment Moodle – course section and HILL online library. 2. Students should complete all given assignments (three individual assignments and one group assignment). When submitting papers electronically, the student's number must be used in the title of the document (anonymous entries are submitted for evaluation); work must be retained until the answer / assessment has been received. 3. Positive evaluation of all four study works should be received also exam should be with minimum grade of "4". If the student does not fulfill the conditions set for obtaining a positive evaluation, the course must be retaken in its entirety the next time. - Participation in the course will be evaluated in a 10-point system, taking into account the following criteria: excellent (10) – knowledge, skills and competence about business intelligence tools, methods and data sources and their application exceed the requirements; excellent (9) – knowledge, skills and competence of business intelligence tools, methods and data sources and their application fully meet the requirements; very good (8) – requirements are fully met, however, in certain questions about business intelligence tools, methods and data sources and their application, there is not a deep enough understanding to use the knowledge independently in solving more complex problems; good (7) – the requirements are met in general, but sometimes there are not enough skills to use the acquired knowledge about business intelligence tools, methods and data sources independently; almost good (6) – the requirements are met, but at the same time insufficiently deep understanding of business intelligence tools, methods and data sources and their application, restricted ability to use the acquired knowledge; average (5) – generally, the requirements are met, however, in several questions about business intelligence tools, methods and data sources and their application, the understanding is limited, an inability to understand the problems and use the acquired knowledge; almost average (4) – in general the requirements have been met, in some crucial questions the understanding of various aspects of business intelligence and dynamic modeling is limited, also significant difficulties in the practical use of the acquired knowledge. poor (3) – knowledge of course topics is superficial and incomplete, the student is unable to use them in specific situations; very poor (2) – there is superficial knowledge, very limited understanding of the basic issues of the course, most of the requirements are not met; extremely poor (1) – there is no understanding of the basic problems of the course and related issues, there is almost no knowledge of the topics covered in the course.
Abiding by the Academic Ethics	Students must abide by the academic and research ethics, Vidzeme University of Applied Sciences Ethics Regulations, incl.: – study papers must be independently developed; – the study work should reference all statements, ideas and data used that have been authored by someone else;

<table>
<tr><td></td><td colspan="2">

appropriate data acquisition methods should be used in the acquisition of data, the research ethics must be respected, empirical data must be collected independently and cannot be distorted or falsified;
the examination must be carried out by the student independently, without the use of supporting materials and/or consultations with other students, unless the lecturer states otherwise.

In the event of non-compliance with the academic and research ethics, punishment is imposed in accordance with the ViA Ethics Regulations and the study course must be re-taken, unless the punishment is extmatriculation.
</td></tr>
<tr><td rowspan="12">Learning Outcomes; the evaluation methods and criteria</td><td>Learning Outcomes</td><td>The evaluation methods and criteria</td></tr>
<tr><td colspan="2">Knowledge</td></tr>
<tr><td>In-depth knowledge on data categorization, value and management</td><td>A written assignment, the final exam according the study material.</td></tr>
<tr><td>Forecasting methods to be able of solving various creative tasks</td><td>A written assignment, the final exam according the study material.</td></tr>
<tr><td>Recent trends and research regarding data driven smart tourism solutions</td><td>A written assignment, the final exam according the study material.</td></tr>
<tr><td colspan="2">Skills</td></tr>
<tr><td>High level of proficiency in data analysis</td><td>A written assignment, the final exam according the study material.</td></tr>
<tr><td>Skills to integrate various data sources for original strategic solutions</td><td>A written assignment, the final exam according the study material.</td></tr>
<tr><td>Skills to demonstrate design and intelligent simplicity in presenting data</td><td>Practical training of using ICT tools</td></tr>
<tr><td colspan="2">Competency</td></tr>
<tr><td>Extended strategic decision making capacity based on data analysis</td><td>Peer-review and peer-assessment, collaborative workshop</td></tr>
<tr><td>Ability to manage original solutions for changing situations, based on data analysis and result application</td><td>A written assignment, the final exam according the study material.</td></tr>
<tr><td>Course Compulsory literature:</td><td colspan="2">
During the course, the relevant book chapters or scientific articles related to tasks or preparation for discussions, lesson topics will be provided.
Siagala, M., Rahimi, R., Thelwall, M. (2019). Big Data and Innovation in Tourism, Travel, and Hospitality: Managerial Approaches, Techniques, and Applications
Xiang, Z., & Fesenmaier, D. R. (Eds.). (2019). Analytics in Smart Tourism Design: Concepts and Methods. Springer.
</td></tr>
<tr><td>Course additional literature:</td><td colspan="2">
Ahas, R., Aasa, A., Roose, A. Mark, U., & Silm, S. (2008). Evaluating passive mobile positioning data for tourism surveys: An Estonian case study. Tourism Management, 29, 3, 469–486.
Bērziņa, I. (2019). Integrated Design of Techno-Social Systems: Next Generation of Tourism Monitoring in Latvia. Post-doc research project. Vidzeme University of Applied Sciences. Retrieved from: https://va.lv/en/research/research/integrated-design-techno-social-systems-next-generation-tourism-monitoring-latvia.
Dey, N., Bhatt, C., & Ashour, A.S. (Eds.). (2019). Big Data for Remote Sensing: Visualization, Analysis and Interpretation. Springer.
Gunter, U., & Önder, I. (2016). Forecasting city arrivals with Google Analytics. Annals of Tourism Research, 61, 199–212.
Klepers, A. (2020). Latvian Tourism Intelligence. Post-doc research project. Vidzeme University of Applied Sciences. Retrieved from: https://va.lv/en/research/research.
Lew, A., & McKercher, B. (2006). Modelling Tourist Movements. A Local Destination Analysis. Annals of Tourism Research, 33, (2), 403–423.
</td></tr>
</table>

	Li, D., & Yang, Y. (2017). GIS Monitoring of Traveler Flows Based on Big Data. In Analytics in Smart Tourism Design (pp. 111-126). Springer International Publishing. Qin, S., Man, J., Wang, X., Li, C., Dong, H., & Gel, X. (2019). Applying Big Data Analytics to Monitor Tourist Flow for the Scenic Area Operation Management. Discrete Dynamics in Nature and Society, 2019. doi.org/10.1155/2019/8239047 Shiliang S. et al. (2016). Characterizing geographical preferences of international tourists and the local influential factors in China using geo-tagged photos on social media. Applied Geography, 73, 26-37. Terrier, C. (2009). Tourist Flows and Inflows: On Measuring Instruments and the Geomathematics of Flows, in Patrick Bonnel , Martin Lee-Gosselin , Johanna Zmud , Jean-Loup Madre (ed.) Transport Survey Methods, pp.219 – 241. Tourism statistics: Early adopters of big data? (2017). Eurostat. Luxembourg: Publications Office of the European Union, 2017.
Course confirmation date:	12.05.2021.
Date of course description update:	-

Study Course Plan:

Date*	Theme	Academic hours		Study Form/ Organization of independent work of students and task description
		Contact hours	Independent work hours	
	Big data and business intelligence data. Sources and value. Case studies from Nordic-Baltic enterprises.	4	8	Lecture and workshop during intensive week. First assignment explained.
	Automated and user-driven data types. Business process generated data. Tools for travel, tourism and hospitality	4	8	On-line lecture. Discussion. Connection to industry. Feedback of first assignment.
	Development of metadata, data protection and regulatory requirements	4	8	On-line lecture. Discussion. Connection to industry. Second assignment explained.
	Systematic approach and models to manage and use data more effectively	4	8	On-line lecture. Discussion. Third assignment explained.
	Design, intelligence and simplicity in data representation (GIS, Info-graphic tools, multi-media integration)	2	8	On-line lecture. Discussion. Connection to industry. Feedback of second assignment.
	Forecasting tools in the context of future trend analysis and alternative scenarios	4	8	On-line lecture. Discussion. Feedback of third assignment.
	Customer data basis development incl. revenue management solutions and product customization	2	8	On-line lecture. Discussion. Fourth assignment explained.
	Artificial intelligence & ICT tools for product development, innovations, smart solutions.	4	8	On-line lecture.
	Creating of structured toolbox tool for SME's operational level in all stages	4	8	On-line workshop, collaborative learning. Feedback of fourth assignment.
	Sharing of peer-experiences, seeking of original solutions, based on various data provided. Collaborative learning in the form of knowledge forum.	4	7	Knowledge forum

	Exam (preparation)		5	Studies of examination materials. Self-assessment task for competence control and preparation.
	Hours total:	***40***	***85***	

** The date is specified before the implementation of the course*