

2019.HS

<b>Module Name: Business Intelligence</b>			
Module Code	w.BA.XX.2BusI-WIN.XX		
Module Description	Students learn about the IT-supported provision, analysis, and preparation of corporate information. The knowledge they gain is relevant and action-oriented, providing support for management decision-making in the corporate steering process. In their large classes, students gain a theoretical understanding of business intelligence (BI). It includes the most important models, methodologies, terminology, and technologies related to applied business intelligence. Once students have completed the module, they will be in a position to compare, evaluate, and use business intelligence approaches, architectures, and methodologies in context, assess modern methods in BI and understand the essential concepts of innovative BI solutions. In their small classes, students familiarize themselves with BI from the perspective of companies and individual departments (e.g., controlling, marketing). They learn to deal with selected tools in order to build multidimensional databases and analyze them effectively. Here they turn theory into practice and apply their findings using business intelligence software.		
Program and Specialization	Business Information Technology		
Legal Framework	Academic Regulations BSc dated 29.01.2009, Appendix to the Academic Regulations for the degree programs in Business Administration, Business Information Technology, and Business Law, first adopted on 12.05.2009		
Module Category	<table border="1"> <tr> <td><b>Module Type:</b> Compulsory</td> <td><b>Program Phase:</b> Main Study Period</td> </tr> </table>	<b>Module Type:</b> Compulsory	<b>Program Phase:</b> Main Study Period
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ECTS	6		
Organizational Unit	W Institut für Wirtschaftsinformatik Ltg		
Module Coordinator	Christian Hitz (hitz)		
Deputy Module Coordinator	Marcel Sieber (sieb)		
Prerequisite Knowledge	A basic understanding of business administration, IT, databases and data modeling, basic knowledge of business process management software (esp. ERP systems).		
Contribution to Program Learning Goals (Affected by Module)	<ul style="list-style-type: none"> <li>§ Professional Competence</li> <li>§ Methodological Competence</li> <li>§ Social Competence</li> <li>§ Self-Competence</li> </ul>		
Contribution to Program Learning Objectives	<ul style="list-style-type: none"> <li>Professional Competence <ul style="list-style-type: none"> <li>§ Knowing and Understanding Content of Theoretical and Practical Relevance</li> <li>§ Apply, Analyze, and Synthesize Content of Theoretical and Practical Relevance</li> <li>§ Evaluate Content of Theoretical and Practical Relevance</li> </ul> </li> <li>Methodological Competence <ul style="list-style-type: none"> <li>§ Problem-Solving &amp; Critical Thinking</li> <li>§ Scientific Methodology</li> <li>§ Work Methods, Techniques, and Procedures</li> <li>§ Information Literacy</li> <li>§ Creativity &amp; Innovation</li> </ul> </li> <li>Social Competence <ul style="list-style-type: none"> <li>§ Written Communication</li> <li>§ Oral Communication</li> <li>§ Teamwork &amp; Conflict Management</li> <li>§ Intercultural Insight &amp; Ability to Change Perspective</li> </ul> </li> <li>Self-Competence <ul style="list-style-type: none"> <li>§ Self-Management &amp; Self-Reflection</li> <li>§ Ethical &amp; Social Responsibility</li> <li>§ Learning &amp; Change</li> </ul> </li> </ul>		
Module Learning Objectives	<p>Students...</p> <ul style="list-style-type: none"> <li>§ are able to use important specialist terminology in the field of information systems and information terminologies when working in business intelligence.</li> <li>§ are able to explain the relationship between various specialist terms.</li> <li>§ are able to analyze specific business management issues on the basis of the knowledge structure taught.</li> <li>§ are able to apply various business intelligence tools practically in exercises.</li> <li>§ are able to devise solution concepts for corporate issues.</li> <li>§ are able to evaluate solutions for specific issues on the basis of learned criteria.</li> <li>§ are able to weigh up the advantages/disadvantages of BI systems in the creation of competitive advantages.</li> <li>§ are able to present acquired knowledge and take part in discussions.</li> </ul>		

	§ are able to become deeply involved in selected business intelligence approaches. § are able to appreciate various points of view in the evaluation of solution strategies and problem areas.		
Module Content	§ Application of information systems in the various management levels of a corporation § The scope of transactional and analytical information systems § Architecture and components of BI-systems § Data warehouse processes § Data modeling of relational, multi-dimensional, and hybrid models § Online analytical processing (OLAP) methods § Reporting § Data categories for data analysis § Standard methods of data mining § Practical handling of IT-based systems for assisting decision-making § Innovations in the business intelligence world § Management of business intelligence projects (BI life cycle) § Organization of business intelligence § Business intelligence and governance § Integration of business IT and BI strategy		
Links to other modules	-		
Methods of Instruction	§ Lecture § Interactive Instruction § Application Tasks § Exercises § Literature Review	<b>Social Settings Used:</b> Individual Work	
Digital Resources	§ Reader § Practice and Application Exercises (with Key) § Multiple Choice Tests		
Type of Instruction	<b>Classroom Instruction</b>	<b>Guided Self-Study</b>	<b>Autonomous Self-Study</b>
Large Class	28 h	44 h	
Small Class	28 h	40 h	
Group Instruction	-	-	
Practical Work	-	-	
Seminar	-	-	
<b>Total</b>	<b>56 h</b>	<b>84 h</b>	
Performance Assessment			
<b>End-of-module exam</b>	<b>Form</b>	<b>Length (min.)</b>	<b>Weighting</b>
Written exam	Closed book	60	70,00 %
<b>Permitted Resources</b>	No calculator		
<b>Others</b>			
	<b>Assessment</b>	<b>Length (min.)</b>	<b>Weighting</b>
Written Assignment	Grade	-	30,00 %
Talk/oral presentation	Pass/Fail	15	-
Classroom Attendance Requirement	Details of compulsory attendance dates will be communicated separately		
Language of Instruction/Examination	German		
Compulsory Reading	§ Kemper, H., Baars, H. & Mehanna, W. (2010). Business Intelligence - Grundlagen und praktische Anwendungen : Eine Einführung in die IT-basierte Managementunterstützung. 3., überarb. und erw. Aufl. ed edition. Wiesbaden: Vieweg Teubner in GWV Fachverlage GmbH. ISBN 978-3-8348-0719-9. § Gluchowski, P. & Chameni, P. (2016). Analytische Informationssysteme : Business Intelligence-Technologien und -Anwendungen. 5., vollst. überarb. Aufl. 2016 ed edition. Berlin, Heidelberg: Springer. ISBN 978-3-662-47763-2.		
Recommended Reading	§ Kotu, V. & Deshpande, B. (2015). Predictive analytics and data mining : Concepts and practice with RapidMiner. Waltham: Morgan Kaufmann. ISBN 978-0-12-801460-8. § Aggarwal, C. (2018). Machine Learning for Text. Cham: Springer International Publishing. ISBN 978-3-319-73530-6. § Aggarwal, C. (2015). Data mining : The textbook. Cham: Springer International Publishing. ISBN 978-3-319-14141-1.		
Comments	<ul style="list-style-type: none"> <li>• The end-of-module exam consists of 70% of the content from the large module class and 30% from the small module class.</li> <li>• Talk/presentation(s): Presentations of individual essays in class are possible</li> <li>• Term Paper: Individual essays in a scientific format at the beginning of each main teaching block, which are rated with a pass/fail and a grade (30% of final grade).</li> <li>• Essays must receive a "passed" and a grade (30% of the final grade) as a prerequisite admission to the end-of-module exam.</li> </ul>		