

<b>Module title</b>		<b>Abbreviation</b>
Analytical Information Systems		12-BI-192-m01
<b>Module coordinator</b>		<b>Module offered by</b>
Holder of the Chair of Business Analytics		Faculty of Business Management and Economics
<b>ECTS</b>	<b>Method of grading</b>	<b>Only after succ. compl. of module(s)</b>
5	numerical grade	--
<b>Duration</b>	<b>Module level</b>	<b>Other prerequisites</b>
1 semester	graduate	--
<b>Contents</b>		
<p>The course provides an overview of the structure and applications of analytical information systems. A special focus is on individual quantitative methods of data analysis. On the one hand, methods from the areas of data preparation and data manipulation as well as their practical application are introduced. On the other hand, an introduction to methods and the application of machine learning methods for predictive analytics, in particular neural networks and deep learning, is given.</p>		
<b>Intended learning outcomes</b>		
<p>The module provides students with knowledge of:</p> <ul style="list-style-type: none"> <li>• Data Manipulation</li> <li>• Data Engineering</li> <li>• Descriptive Analytics</li> <li>• Predictive Analytics and Data Mining</li> <li>• Supervised Learning</li> <li>• Unsupervised Learning</li> <li>• Neural Networks and Deep Learning</li> <li>• Text Mining</li> <li>• Big Data Technologies</li> </ul>		
<b>Courses</b> (type, number of weekly contact hours, language – if other than German)		
V (2) + Ü (2)		
<b>Method of assessment</b> (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus)		
<p>Written examination (approx. 60 Minutes)            Creditable for bonus            Language of assessment: German and/or English</p>		
<b>Allocation of places</b>		
<p>40 places.            WM1:            Should the number of applications exceed the number of available places, places will be allocated as follows:            1) Master's students of Information Systems will be given preferential consideration.            (2) The remaining places will be allocated to students of other subjects.            (3) When places are allocated in accordance with (1) and (2) and the number of applications exceeds the number of available places, places will be allocated by lot among applicants from this group.</p>		
<b>Additional information</b>		
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<b>Workload</b>		
150 h		
<b>Teaching cycle</b>		
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<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)		
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**Module appears in**

Master's degree (1 major) Information Systems (2019)  
Master's degree (1 major) China Business and Economics (2021)  
Master's degree (1 major) China Language and Economy (2021)  
Master's degree (1 major) Econometrics (2021)  
Master's degree (1 major) Information Systems (2022)  
Master's degree (1 major) Management (2022)  
Master's degree (1 major) Econometrics (2022)  
Master's degree (1 major) Information Systems (2024)