

# Studiengang Informationswissenschaft (Master of Science)

## Themenbereich: Business Information Engineering

<b>Modul-bezeichnung</b>	Business Decision Making (Business Decision Making)
<b>Belegnummer</b>	4110
<b>Studiengang / Verwendbarkeit</b>	Masterstudiengang Informationswissenschaft
<b>Modulverantwort- liche(r)</b>	Prof. Geribert Jakob
<b>Dozent(in)</b>	Malcolm Davenport
<b>Dauer</b>	1 Semester
<b>Credits</b>	5 CP
<b>Prüfungsart</b>	Demonstration (50%) and Report (50%)
<b>Sprache</b>	englisch
<b>Inhalt</b>	<p><b>Module Aims</b></p> <p>The module aims to introduce the concepts and principles of managerial in decision making in business and organizations in order to:</p> <ol style="list-style-type: none"><li>1. Understand the nature of managerial decision making in businesses and organizations.</li><li>2. Apply quantitative and qualitative models to managerial decision making.</li><li>3. Use Information Technology to develop managerial decision support systems.</li><li>4. Interpret the ,soft' and ,hard' context for managerial decision making.</li></ol> <p><b>Module Content:</b></p> <p><b>Managerial Decision Making</b></p> <p>The decision making process and the need for business intelligence. Approaches to problem solving in business decision making, the tools and techniques applied. The psychology of decision-making, the application of judgement and choice, valuing and assessing options and outcomes. The role of group decision-making and how it can be different. Decision making strategies taking into account risk and uncertainty.</p> <p><b>Decision Modeling</b></p> <p>The modeling process and different approaches to decision analysis. Measurement and decision modeling in situations of certainty, risk and uncertainty. Modeling preference using multi attribute utility, Analytical Hierarchies, scores and weights models and Cost/Benefit evaluations and Decision Trees. Financial appraisal and simulation. Linear programming for operations management problems. Risk analysis, risk management and sensitivity analysis. Statistical decision modeling, dynamic modeling and neural networks will also be included.</p>

	<p><b>Building Decision Support Systems</b></p> <p>Components of a Decision Support System:</p> <ul style="list-style-type: none"> <li>• Data and input management</li> <li>• Decision modeling management</li> <li>• Exploring decisions using what-if and sensitivity analysis</li> <li>• Risk analysis and risk management</li> <li>• User interface, visual output, graphs and charts</li> </ul> <p>Modeling will concentrate on developing spreadsheet models using the decision/financial functions for what-if analysis, goal seek, solver and linear programming. Simulations using RAND and VLookup functions.</p>
<b>Angestrebte Lernergebnisse (Learning Outcome)</b>	<ol style="list-style-type: none"> <li>1. Understand the nature of managerial decision making in businesses and organizations.</li> <li>2. Apply quantitative and qualitative models to managerial decision making.</li> <li>3. Use Information Technology to develop managerial decision support systems.</li> <li>4. Appreciate the relationship between ‚soft‘ and ‚hard‘ approaches in decision making.</li> </ol>
<b>Niveaustufe / Level</b>	Fortgeschrittenes Niveau (advanced level course)
<b>Lehrform / SWS</b>	Seminar and Workshop (4 SWS)
<b>Arbeitsaufwand / Workload</b>	128 Stunden
<b>Units (Einheiten)</b>	
<b>Notwendige Voraussetzungen</b>	
<b>Empfohlene Voraussetzungen</b>	
<b>Häufigkeit des Angebots</b>	
<b>Anerkannte Module</b>	Siehe § 19 ABPO
<b>Medienformen</b>	
<b>Literatur</b>	<ul style="list-style-type: none"> <li>• Effective Decision Making, John Adair, Pan 1985</li> <li>• Effective Problem Solving, Dave Francis, Routledge 1991</li> <li>• Decision Analysis for Management Goodwin P, Wright G, Judgement Wiley 1991</li> <li>• Tools for Thinking, Micheal Pidd, Wiley 2003</li> <li>• Systems Thinking, Systems Practice Peter Checkland, Wiley 1981</li> <li>• Soft Systems Methodology in Action, Checkland P, Scholes J Wiley 1998</li> <li>• Complexity Demystified, Beautement P, Broener C, Triarchy Press 2011</li> <li>• Organising and Disorganising, Micheal Thompson, Triarchy Press, 2008</li> <li>• <a href="http://www.criticalthinking.org">http://www.criticalthinking.org</a></li> <li>• <a href="http://www.mindtools.com/">http://www.mindtools.com/</a> Mind Tools Ebook</li> </ul>

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