

| <b>Summer Semester 2023</b>                       |   |
|---|---|
| <b>Elective Modules in Q3 (30.01.-17.03.2023)</b> | <b>Elective Modules in Q4 (27.03.-19.05.2023)</b> |
| Business Ethics                                   | For Q4 modules, see next page                     |
| Data Analytics using Machine Learning             |   |
| Econometrics                                      |   |
| Frontier of AI <sup>1</sup>                       |   |
| Grundlagen des Unternehmensrechts (German only)   |   |
| Leadership  |   |
| Market Intelligence                               |   |
| Negotiation                                       |   |
| Risk Management                                   |   |
| Supply Chain Management                           |   |
| Trading and Sales                                 |   |

<sup>1</sup> Extended knowledge of python and experience in machine learning is required (traditional method such as PCA or random forests and deep learning algorithms).

## List of Electives in Q4 in summer semester 2023

| 1. Choose <b>ONE</b> of the module groups                | 2. Select up to three modules within that module group (only one module group can be selected) |   |                                    |
|--|--|---|------------------------------------|
| <b>Marketing</b>   | Consumer Behaviour   | Market Intelligence                     | Marketing Strategy                 |
| <b>Innovation &amp; Entrepreneurship</b>                 | Principles of Innovation Management  | Digital Entrepreneurship                | Lean Startup Boot Camp             |
| <b>Sustainability</b>                                    | The Ethics of Sustainability   | The Economics of Sustainability         | Management and Sustainability      |
| <b>Banking &amp; Finance</b>                             | Money & Banking  | Financial Markets                       | Mergers & Acquisitions             |
| <b>Consulting &amp; Finance</b>                          | Foundations of Consulting  | Accounting and the Business Environment | Accounting and Capital Markets     |
| <b>Information Systems Engineering*</b>                  | Database Systems and Data Management   | Information & Architecture Management   | Systems Development                |
| <b>Corporate Governance und Compliance (German only)</b> | Grundlagen der Corporate Governance  | Anreizgestaltung & Performance          | Compliance                         |
| <b>Strukturierung von Transaktionen (German only)</b>    | Unternehmensrechtliche Grundlagen  | Steuerliche Aspekte bei Transaktionen   | Bilanzierung von M&A Transaktionen |

\* You must have advanced knowledge in Python to participate in these modules

# **Elective Modules in Q3 (30.01.-17.03.2023)**

**Business Ethics [PHI71413]**

|                            |       |   |    |                     |            |
|----------------------------|-------|---|----|---------------------|------------|
| Module Coordinator         |       | Moshtagh Khorasani, Manouchehr  |    |                     |            |
| Programme(s)               |       | Bachelor of Science   |    |                     |            |
| Term                       |       | 6th semester  |    |                     |            |
| Module Duration            |       | 1 Semester  |    |                     |            |
| Compulsory/Elective Module |       | Elective Module   |    |                     |            |
| Credits:                   |       | 6   |    |                     |            |
| Frequency                  |       | Annually  |    |                     |            |
| Language                   |       | English   |    |                     |            |
| Total Workload             | 150 h | Academic Teaching Hours:  | 44 | Remaining Workload: | Self-study |
|                            |       | One academic teaching hour corresponds to 40 minutes.   |    |                     |            |
|                            |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.   |    |                     |            |
| Prerequisites              |       | Principles of Management  |    |                     |            |
| Content                    |       | <p><b>1. The Basics of Ethics</b></p> <ul style="list-style-type: none"> <li>• Basic issues, examples and arguments of business ethics (i.e. shareholder vs. stakeholder approaches)</li> <li>• The ethics of the market</li> <li>• Social responsibility, ethics and morals</li> </ul> <p>□</p> <p><b>2. Ethical Reasoning and Frameworks</b></p> <ul style="list-style-type: none"> <li>• Principle-based ethics, consequentialist, virtue-based and care ethics as a framework for business ethics</li> <li>• The importance of ethical behavior in business</li> </ul> <p>□</p> <p><b>3. Application and case studies</b></p> <ul style="list-style-type: none"> <li>• Debate</li> <li>• Integration of students' opinions via active participation</li> </ul> <p>Case studies in business ethics</p> |    |                     |            |

| <p>Intended Learning Outcomes</p>                     | <p><i>Knowledge:</i><br/>On successful completion of this module, students will have a thorough comprehension of general ethical positions as well as characteristics of ethical problems. They will have an understanding of fundamental approaches and diverse methods of ethical codes, purpose of ethics and objectivity of ethics in decision-making processes in business. They can:</p> <ul style="list-style-type: none"> <li>• Describe corporate social responsibility, ethics and morals</li> <li>• Identify basic methods of ethical codes such as deontological, utilitarian, value-based and feminist ethics, reflective equilibrium, etc. in business context</li> <li>• Outline the different aspects and dimensions of ethics and apply them to case-studies in business</li> </ul> <p>□</p> <p><i>Skills:</i><br/>On successful completion of this module, students will have the proven ability to search for a wide range of ethical approaches incorporating a specific ethical problem at hand, i.e. they can:</p> <ul style="list-style-type: none"> <li>• Discuss the difference between questions of fact and questions of normative ethics</li> <li>• Analyze practices with respect to their impact on individual dimensions of rational choice</li> <li>• Deal with conflicts of norms that as a matter of fact are socially prevailing – whether shared by themselves or not</li> <li>• Assess evidence about the mechanics of ethical dispute and reputation and make rational choices</li> </ul> <p>□</p> <p><i>Competencies:</i><br/>On successful completion of this module, students can take responsibility for working out a defensible solution that incorporates their knowledge of general ethical considerations, their understanding of what would be sustainable, specifics of a case and the culture in which they operate, i.e. they can:</p> <ul style="list-style-type: none"> <li>• Tackle problems in a clear-sighted and logical fashion</li> <li>• Defend their opinions by using reasoned arguments</li> <li>• Work strategically - planning and reflecting upon wider societal issues when making managerial decisions</li> </ul> |                     |                          |                    |                          |              |            |    |           |   |  |    |                   |
|---|---|---------------------|--------------------------|--------------------|--------------------------|--------------|------------|----|-----------|---|--|----|-------------------|
| <p>Forms of teaching, methods and support</p>         | <p>Lecture, debate, presentations and case-studies</p>  |                     |                          |                    |                          |              |            |    |           |   |  |    |                   |
| <p>Type of Assessment(s) and performance</p>          | <table border="1"> <thead> <tr> <th>Type of examination</th> <th>Duration or length</th> <th>Performance Points</th> <th>Due date or date of exam</th> </tr> </thead> <tbody> <tr> <td>Written Exam</td> <td>80 minutes</td> <td>80</td> <td>Exam week</td> </tr> <tr> <td>In-class presentation &amp; short text (commented slides)</td> <td></td> <td>40</td> <td>During the module</td> </tr> </tbody> </table>  | Type of examination | Duration or length       | Performance Points | Due date or date of exam | Written Exam | 80 minutes | 80 | Exam week | In-class presentation & short text (commented slides) |  | 40 | During the module |
| Type of examination                                   | Duration or length  | Performance Points  | Due date or date of exam |                    |                          |              |            |    |           |   |  |    |                   |
| Written Exam  | 80 minutes  | 80                  | Exam week                |                    |                          |              |            |    |           |   |  |    |                   |
| In-class presentation & short text (commented slides) |   | 40                  | During the module        |                    |                          |              |            |    |           |   |  |    |                   |

## Recommended Literature

Part 1 and 2  
Part 3

- Alexander, Larry; Moore, Michael (2016): Deontological Ethics. With assistance of Edward N. Zalta. Edited by Metaphysics Research Lab, Stanford University (The Stanford Encyclopedia of Philosophy). Available online at <https://plato.stanford.edu/archives/win2016/entries/ethics-deontological/>, updated on Winter 2016.
- Awad, E., Dsouza, S., Kim, R., Schulz, J., Henrich, J., Shariff, A., et al. (2018). The Moral Machine experiment. *Nature*, 563(7729), 59–64.
- Bazerman, Max H.; Gino, Francesca; Shu, Lisa L.; Tsay, Chia-Jung (2011b): Joint Evaluation as a Real-World Tool for Managing Emotional Assessments of Morality. In *Emotion Review* 3 (3), p. 290. Available online at <http://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=62030422&site=eds-live&scope=site>.
- Bocchiaro, Piero; Zamperini, Adriano (2012): Conformity, obedience, disobedience: The power of the situation. In : *Psychology-Selected Papers: IntechOpen*.
- Bowden, Peter (2005). Virtue ethics, Aristotle and organisational behaviour. *Australian Association for Professional and Applied Ethics 12th Annual Conference 28–30 September 2005, Adelaide*.
- Brenda Green, Brenda (2012). Applying Feminist Ethics of Care to Nursing Practice, *J Nurs Care* 2012, 1:3
- Bucciarelli, Monica, Sangeet Khemlani and P. N. Johnson-Laird (2008). The psychology of moral reasoning, *Judgment and Decision Making*, Vol. 3, No. 2, February 2008, pp. 121–139
- Chaudhary, Priyanka and Vijeta Soni (2013). A Utilitarian Perspective on Business Ethics. *IOSR Journal Of Humanities And Social Science (IOSR-JHSS)* Volume 14, Issue 5 (Sep. - Oct. 2013), PP 75-80
- Crossan, M., Mazutis, D., & Seijts, G. (2013). In Search of Virtue: The Role of Virtues, Values and Character Strengths in Ethical Decision Making. *Journal of Business Ethics*, 113(4), 567–581.
- Driver, Julia (2014): The History of Utilitarianism. With assistance of Edward N. Zalta (The Stanford Encyclopedia of Philosophy). Available online at <https://plato.stanford.edu/archives/win2014/entries/utilitarianism-history/>.
- Green, Brenda (2012). Applying Feminist Ethics of Care to Nursing Practice , *J Nurs Care* 1:111. doi:10.4172/2167-1168.1000111.
- Hursthouse, Rosalind (1999). Virtue Ethics and Human Nature, *Hume Studies* Volume XXV, Number 1 and 2 (April/November, 1999) 67-82
- Marques, Joan (2015). Universalism and Utilitarianism: An Evaluation of Two Popular Moral Theories in Business Decision Making, *The Journal of Values-Based Leadership*, Volume 8, Issue 2 Summer/Fall 2015 Article 3

|                                       |   |
|---------------------------------------|---|
|                                       | <ul style="list-style-type: none"> <li>• Quinn, Warren S. (1989). Actions, Intentions, and Consequences: The Doctrine of Double Effect, <i>Philosophy and Public Affairs</i>, Vol. 18, No. 4. (Autumn, 1989), pp. 334-351</li> <li>• Raz, Joseph (2014). The Obligation to Obey: Revision and Tradition, <i>Notre Dame Journal of Law, Ethics &amp; Public Policy</i>, Article 10, February 2014, Vol. 1, Issue 1 Symposium on Law and Morality, pp. 138-155</li> <li>• Robert, Frank (2007). The Status of Moral Emotions in Consequentialist Moral Reasoning, Paul J. Zak (ed.), <i>Moral Markets: The Critical Role of Values in the Economy</i>, New Jersey: Princeton University Press</li> <li>• Schwartz, M. (2001): The Nature of the Relationship between Corporate Codes of Ethics and Behaviour. In <i>Journal of Business Ethics</i> 32 (3), pp. 247–262. Available online at <a href="http://www.jstor.org/stable/25074572">http://www.jstor.org/stable/25074572</a>.</li> <li>• Case studies will be provided in the seminar</li> </ul> |
| Module Structure                      | The module Ethics delivers knowledge about basic ethical issues and their relation to prudential considerations of business. It discusses the role of individuals in making ethical decisions, differentiating between different ethical approaches and methods. Obedience and conformity, the ethical standing of markets, and the importance of ethical behavior are addressed. It will introduce different methods of ethical frameworks and how they are reflected in business.   |
| Usability in other Modules/Programmes | Concentration modules, Master's Thesis  |
| Last Approval Date                    | 2022/10/28  |

**Data Analytics using Machine Learning  
[INF60193]**

|                            |       |  |    |                     |            |
|----------------------------|-------|--|----|---------------------|------------|
| Module Coordinator         |       | Roßbach, Peter   |    |                     |            |
| Programme(s)               |       | Bachelor of Science  |    |                     |            |
| Term                       |       | 6th semester   |    |                     |            |
| Module Duration            |       | 1 Semester   |    |                     |            |
| Compulsory/Elective Module |       | Elective Module  |    |                     |            |
| Credits:                   |       | 6  |    |                     |            |
| Frequency                  |       | Annually   |    |                     |            |
| Language                   |       | English  |    |                     |            |
| Total Workload             | 150 h | Academic Teaching Hours:   | 44 | Remaining Workload: | Self-study |
|                            |       | One academic teaching hour corresponds to 40 minutes.  |    |                     |            |
|                            |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.  |    |                     |            |
| Prerequisites              |       | Knowledge in Statistics; Knowledge in Python   |    |                     |            |
| Content                    |       | <p>Data Analytics (or Data Science) is an emerging field in industry and academics. It covers methodologies, algorithms, and processes to tackle the challenges in times of big data, where we are confronted with large amounts of high-dimensional data of different types. While the classical statistical approach has some weaknesses in this context, new ways and methods of data analysis (many coming from Artificial Intelligence) have been established under the term machine learning. Today, they are widely used in science and practice benefitting from calculation power of modern computer technologies. They are the success factor of modern Artificial Intelligence.</p> <p>□ This course provides an introduction into the field of Data Analytics, covering computational techniques and algorithms for finding and analyzing patterns even in large-scale datasets. Topics to be covered include data preparation, integration, analysis, visualization, segmentation, classification, prediction and decision making. Students will implement and apply the methods using the programming language Python and the related libraries.</p> |    |                     |            |



| Intended Learning Outcomes             | <p><b>Knowledge:</b><br/> Students will acquire a comprehensive understanding of the challenges of data analysis in times of big data and learn how to apply modern methods of data analytics to different application areas, i.e. they can:</p> <ul style="list-style-type: none"> <li>• Explain the specifics of data analysis in the case of big data</li> <li>• Explain the differences between statistics and machine learning</li> <li>• Apply modern methods of data analytics to different application areas</li> </ul> <p>□</p> <p><b>Skills:</b><br/> Students learn to analyze data, choose the appropriate modeling techniques and to construct models for decision support. They also learn how to implement the data analytics processes using Python as a modern analytical language. They are able to:</p> <ul style="list-style-type: none"> <li>• Choose the appropriate methods according to the problem to solve</li> <li>• Develop the analytics processes via different data analytics tools</li> <li>• Train and tune the models to achieve the optimal results</li> <li>• Analyze the resulting models to find the best solution</li> </ul> <p>□</p> <p><b>Competence:</b><br/> Students are qualified to find and analyze patterns in data and to transform the gained knowledge into managerial decisions. They acquire a fundamental background to fulfill the demands of a modern data scientist. They are able to:</p> <ul style="list-style-type: none"> <li>• Understand the underlying business problems</li> <li>• Identify the problem relevant data</li> <li>• Build quantitative models to solve the problem choosing from a variety of methods</li> <li>• Transform the models results into managerial decisions</li> </ul> |                    |                            |                    |      |      |            |    |              |               |                          |    |                            |
|--|--|--------------------|----------------------------|--------------------|------|------|------------|----|--------------|---------------|--------------------------|----|----------------------------|
| Forms of teaching, methods and support | Lecture with in-class and home exercises using Python and Scikit-learn   |                    |                            |                    |      |      |            |    |              |               |                          |    |                            |
| Type of Assessment(s) and performance  | <table border="1" data-bbox="480 1417 1378 1630"> <thead> <tr> <th>Type of Assessment</th> <th>Duration/ length</th> <th>Performance Points</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>Exam</td> <td>60 minutes</td> <td>60</td> <td>Exam Week Q4</td> </tr> <tr> <td>Group Project</td> <td>Written Paper (40 pages)</td> <td>60</td> <td>during Q4 (deadline t.b.a)</td> </tr> </tbody> </table> <p>□</p> <ul style="list-style-type: none"> <li>• The Written paper of the Group Project is due during Q4 (deadline t.b. a).</li> <li>• The 60-minute exam will be written in in the Exam Week at the end of Q4 in May therefore allowing students to benefit from their experience in the Group Project.</li> </ul>  | Type of Assessment | Duration/ length           | Performance Points | Date | Exam | 60 minutes | 60 | Exam Week Q4 | Group Project | Written Paper (40 pages) | 60 | during Q4 (deadline t.b.a) |
| Type of Assessment                     | Duration/ length   | Performance Points | Date                       |                    |      |      |            |    |              |               |                          |    |                            |
| Exam                                   | 60 minutes   | 60                 | Exam Week Q4               |                    |      |      |            |    |              |               |                          |    |                            |
| Group Project                          | Written Paper (40 pages)   | 60                 | during Q4 (deadline t.b.a) |                    |      |      |            |    |              |               |                          |    |                            |

|                                       |   |
|---------------------------------------|---|
| Recommended Literature                | <p><u>General Introduction:</u></p> <ul style="list-style-type: none"> <li>• Alpaydin, E. (2016): Machine Learning: The New AI, MIT Press</li> <li>• Schutt, R.; O'Neil, C. (2013): Doing Data Science, O'Reilly Media</li> </ul> <p>□</p> <p><u>Methods, Algorithms and Implementation:</u></p> <ul style="list-style-type: none"> <li>• Alpaydin, E. (2016): Introduction to Machine Learning, Third Edition, MIT Press</li> <li>• Aurélien Géron (2017): Hands-On Machine Learning with Scikit-Learn and TensorFlow: Concepts, Tools, and Techniques to Build Intelligent Systems, O'Reilly</li> <li>• Raschka, Sebastian (2015): Python Machine Learning, Packt Publishing</li> </ul> |
| Module Structure                      | <p><b>1. Data Analytics</b></p> <ul style="list-style-type: none"> <li>1.1 What is Data Science?</li> <li>1.2 Statistics and Machine Learning</li> <li>1.3 Data Preparation</li> <li>1.4 Exploratory Data Analysis</li> </ul> <p><b>2. Methods, Algorithms, and Applications</b></p> <ul style="list-style-type: none"> <li>2.1 Classification</li> <li>2.2 Regression</li> <li>2.3 Segmentation</li> <li>2.4 Association Analysis</li> </ul> <p>□</p> <p><b>3. Interpretable Machine Learning</b></p>  |
| Usability in other Modules/Programmes | Bachelor Thesis   |
| Last Approval Date                    | 2022/10/20  |

**Econometrics [FIN60114]**

|                            |       |   |    |                     |            |
|----------------------------|-------|---|----|---------------------|------------|
| Module Coordinator         |       | Vecer, Jan  |    |                     |            |
| Programme(s)               |       | Bachelor of Science   |    |                     |            |
| Term                       |       | 6th semester  |    |                     |            |
| Module Duration            |       | 1 Semester  |    |                     |            |
| Compulsory/Elective Module |       | Elective Module   |    |                     |            |
| Credits:                   |       | 6   |    |                     |            |
| Frequency                  |       | Annually  |    |                     |            |
| Language                   |       | English   |    |                     |            |
| Total Workload             | 150 h | Academic Teaching Hours:  | 44 | Remaining Workload: | Self-study |
|                            |       | One academic teaching hour corresponds to 40 minutes.   |    |                     |            |
|                            |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc. |    |                     |            |
| Prerequisites              |       | Mathematics, Statistics and Probability   |    |                     |            |

|                |  |
|----------------|--|
| <p>Content</p> | <p>This module will cover intermediary and advanced econometrics including:</p> <p>□</p> <p>Review of probability and statistics:</p> <ul style="list-style-type: none"> <li>• Probability distributions (both discrete and continuous)</li> <li>• Expectation, variance and covariance</li> <li>• Law of large numbers</li> <li>• Central limit theorem</li> <li>• Statistical estimation, confidence intervals</li> <li>• Frequentist versus Bayesian approach to statistics</li> </ul> <p>Classical linear regression models (both simple and multiple regression):</p> <ul style="list-style-type: none"> <li>• Properties of the ordinary least squares estimator</li> <li>• T-test</li> <li>• F-test</li> </ul> <p>Diagnostic tests for linear regression:</p> <ul style="list-style-type: none"> <li>• Non-linearity tests</li> <li>• Ramsey's RESET</li> <li>• Heteroscedasticity tests</li> <li>• Stability of parameters</li> <li>• Normality of residual</li> <li>• Durbin-Watson: autocorrelation of residuals</li> <li>• Multicollinearity</li> <li>• Principal components</li> </ul> <p>Time series modeling and forecasting:</p> <ul style="list-style-type: none"> <li>• Moving average processes</li> <li>• Autoregressive processes</li> <li>• Forecasting</li> <li>• Vector autoregressive models</li> </ul> <p>Volatility and correlation:</p> <ul style="list-style-type: none"> <li>• GARCH models</li> </ul> <p>Limited dependent variable models:</p> <ul style="list-style-type: none"> <li>• Logit</li> <li>• Probit</li> </ul> <p>All concepts are illustrated on real data sets using programming language Python.</p> |
|----------------|--|

| Intended Learning Outcomes             | <p><b>Knowledge:</b> On successful completion of the module, students will have a thorough comprehension of econometric theory, methods and concepts, meaning they</p> <ul style="list-style-type: none"> <li>comprehend the underlying principles of probability and statistics</li> <li>explain the functioning and scope of application for classical linear regression and time series and panel data analysis</li> <li>identify and understand appropriate diagnostic tests for linear regression</li> <li>can study data and implement their own models in major programming languages such as Python</li> </ul> <p><b>Skills:</b> On successful completion of the module, students will have the proven ability to apply general econometric principles with a special focus on economic and financial models, i.e. they can</p> <ul style="list-style-type: none"> <li>apply econometric techniques to examples and cases from practice.</li> <li>execute diagnostic tests for linear regression</li> <li>interpret the econometric results based on real data sets</li> <li>implement econometric models in Python (major programming language)</li> </ul> <p><b>Competencies:</b> The combination of theoretical knowledge and application to economic and financial cases enables students to critically evaluate the predictive powers of different explanatory variables. They also gain computer competence to study large data sets.</p> |                     |                          |                    |                          |                   |  |     |                 |
|--|---|---------------------|--------------------------|--------------------|--------------------------|-------------------|--|-----|-----------------|
| Forms of teaching, methods and support | Lecture with integrated worked examples and economic and financial applications. Examples are illustrated in programming language Python.   |                     |                          |                    |                          |                   |  |     |                 |
| Type of Assessment(s) and performance  | <table border="1" data-bbox="480 1216 1378 1368"> <thead> <tr> <th>Type of examination</th> <th>Duration or length</th> <th>Performance points</th> <th>Due date or date of exam</th> </tr> </thead> <tbody> <tr> <td>One group project</td> <td></td> <td>120</td> <td>During semester</td> </tr> </tbody> </table> <p> <input type="checkbox"/><br/> <input type="checkbox"/><br/> <input type="checkbox"/><br/> <input type="checkbox"/> </p> <p><u>Examination requirements:</u><br/> A combination of a take home project and Python econometric exercises (in DataCamp).</p>  | Type of examination | Duration or length       | Performance points | Due date or date of exam | One group project |  | 120 | During semester |
| Type of examination                    | Duration or length  | Performance points  | Due date or date of exam |                    |                          |                   |  |     |                 |
| One group project                      |   | 120                 | During semester          |                    |                          |                   |  |     |                 |
| Recommended Literature                 | <p>Wooldridge, Jeffrey (2019): Introductory Econometrics: A Modern Approach (Upper Level Economics Titles), 7th Edition</p> <input type="checkbox"/> <p>Heiss, Florian and Brunner, Daniel (2020): Using Python for Introductory Econometrics</p> <input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/>  |                     |                          |                    |                          |                   |  |     |                 |

|                                       |  |
|---------------------------------------|--|
| Module Structure                      | This course covers widely used econometric techniques such as the classical linear regression model, time series analysis and panel data analysis. Students learn the theory of these topics, they are provided with real data to apply these techniques, and they are confronted with real data to interpret the econometric results. |
| Usability in other Modules/Programmes | Bachelor Thesis  |
| Last Approval Date                    | 2022/10/28   |

**Frontier of AI [INF73452]**

|  |       |   |    |                     |            |
|--|-------|---|----|---------------------|------------|
| Module Coordinator                     |       | Ellsaesser, Florian   |    |                     |            |
| Programme(s)                           |       | Bachelor of Science   |    |                     |            |
| Term                                   |       | 6th semester  |    |                     |            |
| Module Duration                        |       | 1 Semester  |    |                     |            |
| Compulsory/Elective Module             |       | Compulsory Module   |    |                     |            |
| Credits:                               |       | 6   |    |                     |            |
| Frequency                              |       | Annually  |    |                     |            |
| Language                               |       | English   |    |                     |            |
| Total Workload                         | 150 h | Academic Teaching Hours:  | 44 | Remaining Workload: | Self-study |
|  |       | One academic teaching hour corresponds to 40 minutes.   |    |                     |            |
|  |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.   |    |                     |            |
| Prerequisites                          |       | Knowledge of python, experience in machine learning (traditional method such as PCA or random forests and deep learning algorithms)   |    |                     |            |
| Content                                |       | <p>The course is a course in advanced and current topics in AI. Each year we will focus on 2-3 topics that are at the frontier of AI research and industrial application.</p> <p>The current content of the course is:</p> <ul style="list-style-type: none"> <li>• Causal Inference</li> <li>• General Adversarial Neural Networks</li> <li>• Deep Reinforcement Learning</li> </ul>   |    |                     |            |
| Intended Learning Outcomes             |       | <p>Upon completion, the student will be able to</p> <p>List the main challenges in machine learning for Causal Inference, General Adversarial Neural Networks and Deep Reinforcement Learning.<br/> Identify the current scientific and technical literature in deep learning.<br/> Discuss the current scientific and technical literature in deep learning.<br/> Interpret research and the main findings of papers.<br/> Debate research and the main findings of papers.<br/> Chose an appropriate modelling structure for a novel problem based on the latest scientific literature.<br/> Present research findings and their implications for a data-science project to others.</p> |    |                     |            |
| Forms of teaching, methods and support |       | Seminar & Lecture style.  |    |                     |            |

| Type of Assessment(s) and performance | <table border="1" data-bbox="480 342 1378 573"> <thead> <tr> <th>Type of Assessment</th> <th>Duration</th> <th>Performance Points</th> <th>Due Date or Date of Exam</th> </tr> </thead> <tbody> <tr> <td>Final assignment</td> <td>6 weeks</td> <td>60</td> <td>End of Class</td> </tr> <tr> <td>Continuous assignments</td> <td>2 weeks</td> <td>60</td> <td>Continuous</td> </tr> </tbody> </table> <input type="checkbox"/><br><input type="checkbox"/><br>In order to fully assess the students competences in both theory and practice, more than one type of assessment is needed. | Type of Assessment | Duration                 | Performance Points | Due Date or Date of Exam | Final assignment | 6 weeks | 60 | End of Class | Continuous assignments | 2 weeks | 60 | Continuous |
|---------------------------------------|--|--------------------|--------------------------|--------------------|--------------------------|------------------|---------|----|--------------|------------------------|---------|----|------------|
| Type of Assessment                    | Duration   | Performance Points | Due Date or Date of Exam |                    |                          |                  |         |    |              |                        |         |    |            |
| Final assignment                      | 6 weeks  | 60                 | End of Class             |                    |                          |                  |         |    |              |                        |         |    |            |
| Continuous assignments                | 2 weeks  | 60                 | Continuous               |                    |                          |                  |         |    |              |                        |         |    |            |
| Recommended Literature                | Deep Learning, (2021) An MIT Press book, Ian Goodfellow and Yoshua Bengio and Aaron Courville<br><a href="https://www.deeplearningbook.org/">https://www.deeplearningbook.org/</a><br><input type="checkbox"/><br><input type="checkbox"/><br>Reinforcement Learning: An Introduction (2015) Second edition, Richard S. Sutton and Andrew G. Barto<br><a href="https://web.stanford.edu/class/psych209/Readings/SuttonBartoIPRLBook2ndEd.pdf">https://web.stanford.edu/class/psych209/Readings/SuttonBartoIPRLBook2ndEd.pdf</a><br><input type="checkbox"/>                              |                    |                          |                    |                          |                  |         |    |              |                        |         |    |            |
| Module Structure                      | Day 1: Causal Inference<br>Day 2: GAN- General Adversarial Networks<br>Day 3: Reinforcement learning<br>Day 4: Deep Reinforcement Learning<br>Day 5: Deep Reinforcement Learning   |                    |                          |                    |                          |                  |         |    |              |                        |         |    |            |
| Usability in other Modules/Programmes | Thesis   |                    |                          |                    |                          |                  |         |    |              |                        |         |    |            |
| Last Approval Date                    | 2022/11/01   |                    |                          |                    |                          |                  |         |    |              |                        |         |    |            |



**Grundlagen des Unternehmensrechts  
[LAW60114]**

|                            |       |   |    |                     |            |
|----------------------------|-------|---|----|---------------------|------------|
| Module Coordinator         |       | Redenius-Hövermann, Julia   |    |                     |            |
| Programme(s)               |       | Bachelor of Science   |    |                     |            |
| Term                       |       | 6. Semester   |    |                     |            |
| Module Duration            |       | 1 Semester  |    |                     |            |
| Compulsory/Elective Module |       | Elective Module   |    |                     |            |
| Credits:                   |       | 6   |    |                     |            |
| Frequency                  |       | Annually  |    |                     |            |
| Language                   |       | German  |    |                     |            |
| Total Workload             | 150 h | Academic Teaching Hours:  | 44 | Remaining Workload: | Self-study |
|                            |       | One academic teaching hour corresponds to 40 minutes.   |    |                     |            |
|                            |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.   |    |                     |            |
| Prerequisites              |       | Keine.  |    |                     |            |
| Content                    |       | <p>Im SoSe 2022 werden während der Vorlesung (die zum Teil im blended learning Format stattfindet) die folgenden Rechtsgebiete, auch anhand von Übungsfällen, behandelt:</p> <ol style="list-style-type: none"> <li>1. Grundlagen des Handelsrechts: Kaufmann, Firma, Vertretung des Kaufmanns, Handelsregisterpublizität, Handelskauf</li> <li>2. Grundlagen des Gesellschaftsrechts: Personen- und Kapitalgesellschaften</li> <li>3. Corporate Governance: Rechte und Pflichten, Haftung der Gesellschafter/Organe, Organe der verschiedenen Gesellschaftsformen</li> <li>4. Grundlagen des Umwandlungsrechts</li> <li>5. Grundlagen des Insolvenzrechts</li> </ol> <p><input type="checkbox"/><br/><input type="checkbox"/></p> <p>Auch wird im Rahmen der Vorlesung eine wirtschaftsrechtliche Großkanzlei virtuell besucht: nach einem Vortrag gibt es die Möglichkeit Einblicke in den Kanzleialltag zu erhalten.</p> |    |                     |            |

| <p>Intended Learning Outcomes</p>             | <p><b>Kenntnisse:</b><br/> Nach erfolgreichem Abschluss des Moduls, kennen die Studierenden die Grundlagen des Unternehmensrechts. Sie sind in der Lage:</p> <ul style="list-style-type: none"> <li>• Handelsrechtliche Grundlagen zu erläutern;</li> <li>• Unternehmensformen (in ihrer Organisation und Finanzierung) zu unterscheiden und zu entscheiden, welche Unternehmensform sich am besten für einen Sachverhalt eignet. Auch können sie die verschiedenen Haftungsformen der Gesellschafter und Geschäftsleiter erläutern;</li> <li>• Umwandlungsarten darzustellen und zu entscheiden, welche Art am besten für einen Sachverhalt geeignet ist.</li> <li>• Handelsrechtliche Sachverhalte (Kaufmann, Firma, Registerpublizität) zu unterscheiden;</li> <li>• insolvenzrechtliche Fragen zu verstehen, und insb. die verschiedenen Insolvenzarten und Insolvenzverfahren zu unterscheiden;</li> <li>• auch werden die verfahrensrechtlichen Grundlagen dargestellt.</li> </ul> <p><b>Fertigkeiten:</b><br/> Nach erfolgreichem Abschluss des Moduls, können die Studierenden die Grundlagen des Unternehmensrechts anwenden, sie sind in der Lage:</p> <ul style="list-style-type: none"> <li>• kleinere unternehmensrechtliche Sachverhalte zu bearbeiten</li> <li>• unternehmensrechtliche Gesetzestexte auszulegen</li> </ul> <p><b>Kompetenzen:</b><br/> Nach erfolgreichem Abschluss des Moduls, sind die Studenten in der Lage:</p> <ul style="list-style-type: none"> <li>• unternehmensrechtliche Sachverhalte zu analysieren und zu verstehen.</li> <li>• unternehmensrechtliche Sachverhalte mit Rechtsanwälten und Unternehmensjuristen zu diskutieren.</li> </ul> |                     |                          |                    |                          |                 |  |    |                       |                      |  |    |               |               |  |    |  |
|---|---|---------------------|--------------------------|--------------------|--------------------------|-----------------|--|----|-----------------------|----------------------|--|----|---------------|---------------|--|----|--|
| <p>Forms of teaching, methods and support</p> | <p>Die Vorlesung besteht aus einer Einführung in die verschiedenen Themengebiete, kleinere Übungsfälle werden besprochen, Einblicke aus der Praxis werden gewährt. Die Ausarbeitung soll das Wissen festigen und das Verfassen der Bachelorarbeit vorbereiten.</p>  |                     |                          |                    |                          |                 |  |    |                       |                      |  |    |               |               |  |    |  |
| <p>Type of Assessment(s) and performance</p>  | <table border="1" data-bbox="480 1451 1378 1738"> <thead> <tr> <th>Type of examination</th> <th>Duration or length</th> <th>Performance Points</th> <th>Due date or date of exam</th> </tr> </thead> <tbody> <tr> <td>Zwischenprüfung</td> <td></td> <td>45</td> <td>Während des Semesters</td> </tr> <tr> <td>Schriftliche Prüfung</td> <td></td> <td>65</td> <td>Prüfungswoche</td> </tr> <tr> <td>Kanzleibesuch</td> <td></td> <td>10</td> <td></td> </tr> </tbody> </table>   | Type of examination | Duration or length       | Performance Points | Due date or date of exam | Zwischenprüfung |  | 45 | Während des Semesters | Schriftliche Prüfung |  | 65 | Prüfungswoche | Kanzleibesuch |  | 10 |  |
| Type of examination                           | Duration or length  | Performance Points  | Due date or date of exam |                    |                          |                 |  |    |                       |                      |  |    |               |               |  |    |  |
| Zwischenprüfung                               |   | 45                  | Während des Semesters    |                    |                          |                 |  |    |                       |                      |  |    |               |               |  |    |  |
| Schriftliche Prüfung                          |   | 65                  | Prüfungswoche            |                    |                          |                 |  |    |                       |                      |  |    |               |               |  |    |  |
| Kanzleibesuch                                 |   | 10                  |                          |                    |                          |                 |  |    |                       |                      |  |    |               |               |  |    |  |
| <p>Recommended Literature</p>                 | <ul style="list-style-type: none"> <li>•Foerste, Insolvenzrecht, 2014</li> <li>•Grunewald, Gesellschaftsrecht, 2019</li> <li>•Kindl, Gesellschaftsrecht, 2011</li> <li>•Kraft/Redenius, Umwandlungsrecht, 2015</li> <li>•Langenbucher, Aktien- und Kapitalmarktrecht, 2018</li> <li>•Mock, Gesellschaftsrecht, 2015</li> </ul>  |                     |                          |                    |                          |                 |  |    |                       |                      |  |    |               |               |  |    |  |
| <p>Module Structure</p>                       |   |                     |                          |                    |                          |                 |  |    |                       |                      |  |    |               |               |  |    |  |

|                                       |                                |
|---------------------------------------|--------------------------------|
| Usability in other Modules/Programmes | BA-Thesis; M&A/Banken/Beratung |
| Last Approval Date                    | 2022/10/31                     |

**Leadership [SOC60219]**

|                            |       |   |    |                     |            |
|----------------------------|-------|---|----|---------------------|------------|
| Module Coordinator         |       | Aktay, Basak  |    |                     |            |
| Programme(s)               |       | Bachelor of Science   |    |                     |            |
| Term                       |       | 6th semester  |    |                     |            |
| Module Duration            |       | 1 Semester  |    |                     |            |
| Compulsory/Elective Module |       | Concentration Module  |    |                     |            |
| Credits:                   |       | 6   |    |                     |            |
| Frequency                  |       | Annually  |    |                     |            |
| Language                   |       | English   |    |                     |            |
| Total Workload             | 150 h | Academic Teaching Hours:  | 44 | Remaining Workload: | Self-study |
|                            |       | One academic teaching hour corresponds to 40 minutes.   |    |                     |            |
|                            |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc. |    |                     |            |
| Prerequisites              |       | None  |    |                     |            |

|   |   |
|---|---|
| <p>Content</p>                                | <p>Strong leadership is essential to individual and organisational growth and success.</p> <p>□</p> <p>The goal of this course is to lay a strong foundation for building and leading high-performing teams. The students will receive a set of strategies and techniques to identify their personal leadership styles and will be able to apply the theoretical knowledge gathered in this course in practice.</p> <ul style="list-style-type: none"> <li>• In the first module of the course major leadership theories, concepts, and research findings will be examined in depth and elaborated in a multitude of case studies.</li> <li>• In the second module, emotional intelligence, personality traits, perception, and decision-making will be studied from an individual perspective. Students will be able to conduct assessments to identify their personality traits and reflect on their personality characteristics paving the way for authentic leadership.</li> <li>• The third module will focus on group-level concepts and models that are critical to building high-performing teams, such as group formation, motivation, power, and conflict management.</li> <li>• Finally, the course will observe current theories and frameworks to explore leadership in today's dynamic and uncertain business environment, considering digital transformation, globalisation, diverse teams, and the ever-changing challenges brought on by rapid innovation.</li> </ul> <p>Many case studies involving extensive in-class group work, and a group assignment on the analysis of a specific selected leader will be incorporated into the course.</p> <p>□</p> <p>In this highly interactive course, the students are expected to contribute actively during the classes on the several topics studied.</p> |
| <p>Intended Learning Outcomes</p>             | <p>After completing the Leadership module, students will be able to:</p> <ul style="list-style-type: none"> <li>• comprehend key leadership concepts</li> <li>• distinguish between leadership styles</li> <li>• get an insight of their own personality characteristics that could impact their leadership style</li> <li>• recognize and implement effective leadership principles at the individual level</li> <li>• comprehend key concepts in group dynamics</li> <li>• understand the factors that influence motivation, power, and conflict management.</li> <li>• analyse and evaluate current leadership paradigms.</li> <li>• present their opinions and ideas in front of an audience</li> </ul>   |
| <p>Forms of teaching, methods and support</p> | <ul style="list-style-type: none"> <li>• Strong in-class participation</li> <li>• Self-assessment</li> <li>• Team assignments and presentations</li> </ul> <p>Active involvement in class as well as openness to bring in and reflect own experiences are key for the student's individual development.</p>   |

|                                       |  |                    |                    |               |
|---------------------------------------|--|--------------------|--------------------|---------------|
| Type of Assessment(s) and performance | Type of examination  | Duration or length | Performance Points | Due date      |
|                                       | Final exam   | 60 min             | 60                 | Exam Week     |
|                                       | Team assignments and presentations   | 25-30 minutes      | 60                 | End of course |
| Recommended Literature                | <ul style="list-style-type: none"> <li>• Robbins, Stephen P. / Judge, Timothy A. (2019): Organizational behavior, 18th edition, Pearson. (or 17th edition 2018)</li> <li>• Northouse, Peter G. (2018): Leadership – Theory &amp; Practice, 8th edition, Sage. (or 7th edition)</li> </ul> <input type="checkbox"/><br><input type="checkbox"/><br>All other reading or case material will be provided.   |                    |                    |               |
| Module Structure                      | <b>Topics covered</b> <input type="checkbox"/><br><b>Theory of Leadership (3 sessions)</b> <input type="checkbox"/><br><b>Leadership – Individual Level (2 sessions)</b> <input type="checkbox"/><br><b>Leadership – Group Level (2 sessions)</b> <input type="checkbox"/><br><b>Leadership in Modern Global Business Environment (1 session)</b> <input type="checkbox"/><br><b>Group Assignment (2 sessions)</b> <input type="checkbox"/><br><b>Course Review (1 session)</b> <input type="checkbox"/> |                    |                    |               |
| Usability in other Modules/Programmes | Useful for any further modules with the focus on management and organisational behaviour   |                    |                    |               |
| Last Approval Date                    | 2022/10/31   |                    |                    |               |

**Market Intelligence [MGT70146]**

|  |       |   |    |                     |            |
|--|-------|---|----|---------------------|------------|
| Module Coordinator                     |       | Qiu, Zhuoer   |    |                     |            |
| Programme(s)                           |       | Bachelor of Science   |    |                     |            |
| Term                                   |       | 6th semester  |    |                     |            |
| Module Duration                        |       | 1 Semester  |    |                     |            |
| Compulsory/Elective Module             |       | Elective Module   |    |                     |            |
| Credits:                               |       | 6   |    |                     |            |
| Frequency                              |       | Annually  |    |                     |            |
| Language                               |       | English   |    |                     |            |
| Total Workload                         | 150 h | Academic Teaching Hours:  | 44 | Remaining Workload: | Self-study |
|  |       | One academic teaching hour corresponds to 40 minutes.   |    |                     |            |
|  |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.   |    |                     |            |
| Prerequisites                          |       | Students should master basic mathematical concepts.   |    |                     |            |
| Content                                |       | Firms rely increasingly on vast amounts of data to inform marketing decisions. The goal of this course is to provide students with key skills that will equip them for a career where analytics and data-driven decision making replace management by intuition. By learning about and applying various multivariate analytic methods and techniques, students will gain a better understanding of how to turn data into insights for better marketing decisions. |    |                     |            |
| Intended Learning Outcomes             |       | <p>Upon completion of this course students should be able to:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> - Apply appropriate quantitative analyses to solve managerial problems with available data</li> <li>- Measure and assess the effectiveness of marketing strategies and tactics</li> <li>- Understand, interpret, and discuss the outputs and procedures of statistical analysis software</li> </ul>                             |    |                     |            |
| Forms of teaching, methods and support |       | <ul style="list-style-type: none"> <li><input type="checkbox"/> This course may include traditional lectures and discussions as well as homework assignments, group work, case studies, guest lectures, and individual applications.</li> </ul>   |    |                     |            |

|                                       |   |                    |                    |                          |
|---------------------------------------|---|--------------------|--------------------|--------------------------|
| Type of Assessment(s) and performance | Type of examination   | Duration or length | Performance Points | Due date or date of exam |
|                                       | Group Project   |                    | 30 points          | During Course            |
|                                       | Assignments   |                    | 20 points          | During Course            |
|                                       | Participation   |                    | 10 points          | During Course            |
|                                       | Final Exam  | 60 minutes         | 60 points          | Exam Week                |
| Recommended Literature                | <ul style="list-style-type: none"> <li>- Fred M. Feinberg, Thomas C. Kinnear, James R. Taylor, Modern Marketing Research, Cengage 2013.</li> <li>- Andy Field, Jeremy Miles, Zoë Field, Discovering Statistics Using R, Sage 2012.</li> <li>- John W. Foreman, Data Smart: Using Data Science to Transform Information into Insight, Wiley 2013.</li> </ul>   |                    |                    |                          |
| Module Structure                      | <p>□</p> <p>In this course, the learning process will typically encompass three phases: In phase one, the theoretical concepts of a specific quantitative method will be introduced, allowing students to understand the corresponding foundational mechanisms and relationships. In phase two, students will learn how these concepts translate into actual analyses and conduct them in Excel. Having successfully mastered the knowledge transfer from concepts to applications, in phase three, students will use R to leverage the specific methods in further empirical applications. The goal of this three-phase design is to help students gain a solid understanding of important quantitative methods and equip them with the necessary knowledge for their strategic employment and evaluation.</p> |                    |                    |                          |
| Usability in other Modules/Programmes | Digital Marketing   |                    |                    |                          |
| Last Approval Date                    | 2022/10/26  |                    |                    |                          |



### Negotiation [SOC60141]

|                            |       |   |    |                     |            |
|----------------------------|-------|---|----|---------------------|------------|
| Module Coordinator         |       | Parker, Michael   |    |                     |            |
| Programme(s)               |       | Bachelor of Science   |    |                     |            |
| Term                       |       | 6th semester  |    |                     |            |
| Module Duration            |       | 1 Semester  |    |                     |            |
| Compulsory/Elective Module |       | Elective Module   |    |                     |            |
| Credits:                   |       | 6   |    |                     |            |
| Frequency                  |       | Annually  |    |                     |            |
| Language                   |       | English   |    |                     |            |
| Total Workload             | 150 h | Academic Teaching Hours:  | 44 | Remaining Workload: | Self-study |
|                            |       | One academic teaching hour corresponds to 40 minutes.   |    |                     |            |
|                            |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.   |    |                     |            |
| Prerequisites              |       | none  |    |                     |            |
| Content                    |       | <p>We negotiate constantly in our lives – with friends and family, our partners but obviously also in a business context. In this module, students will learn the basic concepts and frameworks of negotiation.</p> <p>□ Special situations, such as negotiating in an intercultural context and in circumstances of conflict, will also play a role.</p>   |    |                     |            |
| Intended Learning Outcomes |       | <p><b>Knowledge:</b><br/>On successful completion of this module, students</p> <ul style="list-style-type: none"> <li>• know different frameworks for negotiation</li> <li>• are aware of important cognitive and emotional factors that influence negotiations</li> </ul> <p><b>Skills:</b><br/>On successful completion of this module, students can</p> <ul style="list-style-type: none"> <li>• analyze a negotiation situation and identify different positions and interests</li> <li>• clarify their interests and define options</li> <li>• conduct negotiations in a productive way</li> </ul> <p><b>Competencies:</b><br/>On successful completion of this module, students can</p> <ul style="list-style-type: none"> <li>• lead negotiations to mutually successful outcomes</li> </ul> |    |                     |            |

|  |   |                    |                    |                          |
|--|---|--------------------|--------------------|--------------------------|
| Forms of teaching, methods and support | Through lectures, exercises and simulations students will grasp how biases influence our perception and how we can apply different strategies to negotiate successfully.                                    |                    |                    |                          |
| Type of Assessment(s) and performance  | Type of examination   | Duration or length | Performance Points | Due date or date of exam |
|  | Final Exam  | 60 minutes         | 60                 | Exam Week                |
|  | Case study and presentation   |                    | 30                 | In class                 |
|  | Participation simulation/exercises  |                    | 30                 | In class                 |
| Recommended Literature                 | The recommended text for this course is <i>Negotiation: An Artful Science</i> by Dr. David H. Henard, Ph.D. Other course material and readings will be provided online or be put on reserve in the library. |                    |                    |                          |
| Module Structure                       | Class sessions will aim at combining theory and praxis.   |                    |                    |                          |
| Usability in other Modules/Programmes  | none  |                    |                    |                          |
| Last Approval Date                     | 2022/10/27  |                    |                    |                          |

**Risk Management [FIN60148]**

|                            |       |   |    |                     |            |
|----------------------------|-------|---|----|---------------------|------------|
| Module Coordinator         |       | Kelshiker, Arun; Santoni, Alessandro  |    |                     |            |
| Programme(s)               |       | Bachelor of Science   |    |                     |            |
| Term                       |       | 6th semester  |    |                     |            |
| Module Duration            |       | 1 Semester  |    |                     |            |
| Compulsory/Elective Module |       | Concentration Module  |    |                     |            |
| Credits:                   |       | 6   |    |                     |            |
| Frequency                  |       | Annually  |    |                     |            |
| Language                   |       | English   |    |                     |            |
| Total Workload             | 150 h | Academic Teaching Hours:  | 44 | Remaining Workload: | Self-study |
|                            |       | One academic teaching hour corresponds to 40 minutes.   |    |                     |            |
|                            |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc. |    |                     |            |
| Prerequisites              |       | Markets, Incentives and Ethical Management Financial Markets  |    |                     |            |

|                |  |
|----------------|--|
| <p>Content</p> | <p>Financial markets are becoming ever more complex. The persistent crisis of the global financial system results in an increased need for experts and leaders to manage financial risks in a professional way. Topics covered will include:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/></li> <li><b>Bank capital, risk management and regulation</b></li> <li>Risk factors and risk mapping</li> <li>Computing Value-at-Risk</li> <li>Credit Risk</li> <li>NPL, Coverage</li> <li>Liquidity Risk in banking supervision</li> <li>Capital allocation</li> <li>Fraud and money laundering</li> <li>Case studies</li> <li><b>Understanding Global Risks</b></li> <li>ESG Risk Management</li> <li>Understanding ESG</li> <li>Climate Risks</li> <li>TCFD</li> <li>Risk Disclosures Frameworks</li> <li>Biodiversity Risks</li> <li>Financial Ecosystem for Risk Management</li> <li><b>Asset Allocation and Portfolio Risk Management</b></li> <li>Asset Bubbles</li> <li>Managing Investment Risks</li> <li>Portfolio Risk Management</li> <li>Client Asset Allocation and Risk Profiling</li> <li>Global Risk Factors and Opportunities</li> <li><input type="checkbox"/></li> <li><input type="checkbox"/></li> </ul> |
|----------------|--|

| <b>Intended Learning Outcomes</b>             | <p><b>Knowledge:</b><br/> On successful completion of this module, students will have a thorough comprehension of the basic definitions, theories and concepts of risk management, i.e. they can:</p> <ul style="list-style-type: none"> <li>• explain how to manage and hedge trading and banking book exposures,</li> <li>• describe regulatory requirements,</li> <li>• recognize risk management as a means of determining a bank's profitability.</li> </ul> <p><b>Skills:</b><br/> On successful completion of this module, students will have the proven ability to apply risk measurement and risk management concepts for bank management purposes, i.e. they are able to:</p> <ul style="list-style-type: none"> <li>• compute various risk measures,</li> <li>• evaluate the impact of risk on prices for financial products and services,</li> <li>• draw up appropriate bank-wide risk management.</li> </ul> <p><b>Competencies:</b><br/> On successful completion of this module, students appreciate the importance of risk management in a financial institution and are capable of acting at the interface between risk managers and other bank departments.</p> |                     |                          |                    |                          |      |            |    |           |                    |  |    |                   |
|---|--|---------------------|--------------------------|--------------------|--------------------------|------|------------|----|-----------|--------------------|--|----|-------------------|
| <b>Forms of teaching, methods and support</b> | Mix of short lectures with discussions in class.   |                     |                          |                    |                          |      |            |    |           |                    |  |    |                   |
| <b>Type of Assessment(s) and performance</b>  | <table border="1"> <thead> <tr> <th>Type of Examination</th> <th>Duration or Length</th> <th>Performance Points</th> <th>Due date or date of exam</th> </tr> </thead> <tbody> <tr> <td>Exam</td> <td>90 minutes</td> <td>90</td> <td>Exam Week</td> </tr> <tr> <td>Class Presentation</td> <td></td> <td>30</td> <td>during the course</td> </tr> </tbody> </table>  | Type of Examination | Duration or Length       | Performance Points | Due date or date of exam | Exam | 90 minutes | 90 | Exam Week | Class Presentation |  | 30 | during the course |
| Type of Examination                           | Duration or Length   | Performance Points  | Due date or date of exam |                    |                          |      |            |    |           |                    |  |    |                   |
| Exam  | 90 minutes   | 90                  | Exam Week                |                    |                          |      |            |    |           |                    |  |    |                   |
| Class Presentation                            |  | 30                  | during the course        |                    |                          |      |            |    |           |                    |  |    |                   |
| <b>Recommended Literature</b>                 | <p><b>Key suggested readings:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Fundamentals of Risk Management: Understanding, Evaluating and Implementing Effective Risk Management. 2018- English edition by Paul Hopkin</li> <li><input type="checkbox"/> Risk Management in Banking (Wiley Finance) Paperback – 2015 English edition by Joël Bessis (Autor)</li> <li><input type="checkbox"/> Risk and Asset Allocation (Springer Finance) English edition   by Attilio Meucci   2010</li> <li><input type="checkbox"/> The Black Swan: The Impact of the Highly Improbable: With a new section: "On Robustness and Fragility" (Incerto, Band 2) English edition   by Nassim Nicholas Taleb   2010</li> <li><input type="checkbox"/> <a href="https://www.bis.org/basel_framework/index.htm?m=3%7C14%7C697">https://www.bis.org/basel_framework/index.htm?m=3%7C14%7C697</a></li> </ul>   |                     |                          |                    |                          |      |            |    |           |                    |  |    |                   |

|                                       |  |
|---------------------------------------|--|
| Module Structure                      | In this module students will develop deep understanding of the most important dimensions of risk and learn about advanced concepts how to measure and manage different type of risk. |
| Usability in other Modules/Programmes | Bachelor Thesis (BSc_BT)All other modules of the thematic area FINANCE & BANKING.  |
| Last Approval Date                    | 2022/11/01   |

**Supply Chain Management [MGT60233]**

|                            |       |   |    |                     |            |
|----------------------------|-------|---|----|---------------------|------------|
| Module Coordinator         |       | Reuter, Carsten; Schmidt, Christoph   |    |                     |            |
| Programme(s)               |       | Bachelor of Science   |    |                     |            |
| Term                       |       | 6th semester  |    |                     |            |
| Module Duration            |       | 1 Semester  |    |                     |            |
| Compulsory/Elective Module |       | Elective Module   |    |                     |            |
| Credits:                   |       | 6   |    |                     |            |
| Frequency                  |       | Annually  |    |                     |            |
| Language                   |       | English   |    |                     |            |
| Total Workload             | 150 h | Academic Teaching Hours:  | 44 | Remaining Workload: | Self-study |
|                            |       | One academic teaching hour corresponds to 40 minutes.   |    |                     |            |
|                            |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.   |    |                     |            |
| Prerequisites              |       | Operations Management, Statistics and Probability, Mathematics  |    |                     |            |
| Content                    |       | Supply chains are networks of organizations (suppliers, manufacturers, distributors, retailers) that jointly supply and transform materials, and distribute products and services to consumers. If designed and managed properly, these networks are a crucial source of competitive advantage for both manufacturing and service enterprises. Each day, world-class companies such as Amazon, Apple, Dell, and Zara try to leverage their supply chain management (SCM) capabilities to achieve profitable growth far ahead of their competition. This module develops a framework of Supply Chain drivers that helps students understand and predict the financial performance of a firm's supply chain strategy. |    |                     |            |

|  |   |
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| Intended Learning Outcomes             | <p><b>Knowledge:</b><br/> On successful completion of this module, students will have a thorough comprehension of the basic definitions, theories and concepts of supply chain management, i.e. they can:</p> <ul style="list-style-type: none"> <li>• understand how Supply Chain Management contributes to the financial performance of companies across a wide range of industries.</li> <li>• define and distinguish different concepts of and approaches to SCM</li> </ul> <p><b>Skills:</b><br/> On successful completion of this module, students will have the proven ability to apply supply chain management concepts, i.e. they can:</p> <ul style="list-style-type: none"> <li>• develop and advance quantitative spreadsheet modeling skills that allow them to support qualitative arguments with solid quantitative analysis.</li> </ul> <p><b>Competencies:</b><br/> On successful completion of this module, students can take responsibility for designing and implementing supply chain management concepts in organisations, i.e. they can:</p> <ul style="list-style-type: none"> <li>• develop the requisite know-how to provide responsible contributions in establishing concepts and processes in supply chain management.</li> <li>• independently take responsibility for SCM in practice</li> <li>• present supply chain management challenges to a broad audience, and argue competently about problem solution strategies.</li> </ul> |
| Forms of teaching, methods and support | Lecture, Case Studies, Online-Simulation, Mentoring   |



| Type of Assessment(s) and performance   | <table border="1"> <thead> <tr> <th>Type of examination</th> <th>Duration or length</th> <th>Performance Points</th> <th>Due date or date of exam</th> </tr> </thead> <tbody> <tr> <td>Supply Chain Simulation - Performance Score (Group - in teams of three to four)</td> <td></td> <td>60</td> <td>During the course</td> </tr> <tr> <td>Supply Chain Simulation - Written Performance Analysis (Individual)</td> <td></td> <td>42</td> <td>During the course</td> </tr> <tr> <td>Case Study Report (Individual)</td> <td></td> <td>18</td> <td>During the course</td> </tr> </tbody> </table>   | Type of examination | Duration or length       | Performance Points | Due date or date of exam | Supply Chain Simulation - Performance Score (Group - in teams of three to four) |  | 60 | During the course | Supply Chain Simulation - Written Performance Analysis (Individual) |  | 42 | During the course | Case Study Report (Individual) |  | 18 | During the course |
|---|---|---------------------|--------------------------|--------------------|--------------------------|---|--|----|-------------------|---|--|----|-------------------|--------------------------------|--|----|-------------------|
| Type of examination   | Duration or length  | Performance Points  | Due date or date of exam |                    |                          |   |  |    |                   |   |  |    |                   |                                |  |    |                   |
| Supply Chain Simulation - Performance Score (Group - in teams of three to four) |   | 60                  | During the course        |                    |                          |   |  |    |                   |   |  |    |                   |                                |  |    |                   |
| Supply Chain Simulation - Written Performance Analysis (Individual)             |   | 42                  | During the course        |                    |                          |   |  |    |                   |   |  |    |                   |                                |  |    |                   |
| Case Study Report (Individual)  |   | 18                  | During the course        |                    |                          |   |  |    |                   |   |  |    |                   |                                |  |    |                   |
| Recommended Literature  | <p> <input type="checkbox"/> <u>Examination requirements:</u><br/> Participation in the Supply Chain Simulation is required from the very beginning. Teams of four will be formed on the very first day. The performance score takes into account both the status in the last round and the development path. Because of that neither a late-enrollment nor a cancelation are usually possible once the simulation has started. The written performance analysis is meant to reflect on the individual decisions made during the simulation, their impact on the performance of the respective corporate function, and the company as a whole. The analysis should take up and apply principles, frameworks, and models of supply chain management. The case study report will address a current topic from the field of supply chain management. </p> <p> <input type="checkbox"/> </p> <p> The lecture is mostly based on the following textbook:<br/> Chopra and Meindl: Supply Chain Management: Strategy, Planning, and Operation, 6th edition, McGrawHill, 2014 </p> <p> <input type="checkbox"/> Cachon and Terwiesch: Matching Supply with Demand: An Introduction to Operations Management, 3rd edition, McGraw Hill, 2012 </p> <p> The textbook can be found in the FS library in reasonable numbers (Signatures: DDC/Chopra). </p> |                     |                          |                    |                          |   |  |    |                   |   |  |    |                   |                                |  |    |                   |

|                                       |   |
|---------------------------------------|---|
| Module Structure                      | <p>The contents of the 11 sessions in total are built up as follows:</p> <p>□</p> <p><b>Session 1</b></p> <ul style="list-style-type: none"> <li>• Introduction SC Performance: Achieving Strategic Fit</li> </ul> <p><b>Session 2</b></p> <ul style="list-style-type: none"> <li>• Introduction Supply Chain Simulation: The Fresh Connection (Round 1)</li> </ul> <p><b>Session 3</b></p> <ul style="list-style-type: none"> <li>• Debrief/Discussion The Fresh Connection (Round 1)</li> <li>• Dealing with Uncertain Demand &amp; Demand Forecasting</li> </ul> <p><b>Session 4</b></p> <ul style="list-style-type: none"> <li>• Supply Chain Principles</li> <li>• Procurement and Global Sourcing</li> </ul> <p><b>Session 5</b></p> <ul style="list-style-type: none"> <li>• Debrief/Discussion The Fresh Connection (Round 2)</li> <li>• Inventory Management, Cycle Inventory, Safety Inventory Minimum Order Quantities</li> </ul> <p><b>Session 6</b></p> <ul style="list-style-type: none"> <li>• Inventory Management, Cycle Inventory, Safety Inventory Minimum Order Quantities Cont'd</li> </ul> <p><b>Session 7</b></p> <ul style="list-style-type: none"> <li>• Debrief/Discussion The Fresh Connection (Round 3)</li> <li>• Triggers and Mitigation of the Bullwhip Effect</li> </ul> <p><b>Session 8</b></p> <ul style="list-style-type: none"> <li>• Triggers and Mitigation of the Bullwhip Effect (Cont'd)</li> </ul> <p><b>Session 9</b></p> <ul style="list-style-type: none"> <li>• Debrief/Discussion The Fresh Connection (Round 4)</li> <li>• Coordination along the Supply Chain and Pooling Concepts</li> </ul> <p><b>Session 10</b></p> <ul style="list-style-type: none"> <li>• Late Differentiation and Postponement</li> </ul> <p><b>Session 11</b></p> <ul style="list-style-type: none"> <li>• Debrief/Discussion The Fresh Connection (Round 5)</li> <li>• Sustainability along the Supply Chain</li> </ul> |
| Usability in other Modules/Programmes | Bachelor Thesis   |
| Last Approval Date                    | 2022/11/01  |

### Trading and Sales [FIN60157]

|                            |       |   |    |                     |            |
|----------------------------|-------|---|----|---------------------|------------|
| Module Coordinator         |       | Dengler, Heike  |    |                     |            |
| Programme(s)               |       | Bachelor of Science   |    |                     |            |
| Term                       |       | 6th semester  |    |                     |            |
| Module Duration            |       | 1 Semester  |    |                     |            |
| Compulsory/Elective Module |       | Concentration Module  |    |                     |            |
| Credits:                   |       | 6   |    |                     |            |
| Frequency                  |       | Annually  |    |                     |            |
| Language                   |       | English   |    |                     |            |
| Total Workload             | 150 h | Academic Teaching Hours:  | 44 | Remaining Workload: | Self-study |
|                            |       | One academic teaching hour corresponds to 40 minutes.   |    |                     |            |
|                            |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.   |    |                     |            |
| Prerequisites              |       | Lectures in Mathematics and Statistics are necessary, Lecture Principles of Finance is helpful  |    |                     |            |
| Content                    |       | <p>The aim of this module is to prepare students for positions in trading, sales, risk management, asset management and related areas. The module focuses on financial products/markets, financial institutions/risk management regulatory issues. The theoretical aspects will be supplemented by talks of participants and leading practitioners and hands-on front/middle office tool presentations.</p> <p>Topics covered include:</p> <ul style="list-style-type: none"> <li>• Balance sheet, capital and leverage, liquidity</li> <li>• Instruments and Markets</li> <li>• Cash markets: Equity, Fixed Income, FX, money markets</li> <li>• securities funding and financing</li> <li>• Derivative markets: options, swaps, CDS</li> <li>• securitized instruments, ABS, CDOs</li> <li>• Commodities and commodity derivatives</li> <li>• Market, liquidity and credit risk management</li> <li>• Asset Management</li> <li>• Regulation</li> <li>• Introduction to Front Office Systems</li> </ul> |    |                     |            |

| Intended Learning Outcomes             | <p><b>Knowledge:</b> On completion of this module, students have developed a broad knowledge and understanding of the principles and techniques of trading and sales, i. e. they</p> <ul style="list-style-type: none"> <li>• can understand the main drivers of financial markets</li> <li>• can discuss the characteristics of specific financial markets and instruments</li> <li>• can discuss economic cycles and their impact on financial markets</li> <li>• can discuss appropriate trading and investment strategies,</li> <li>• have an overview of the recent developments in risk management and regulation.</li> </ul> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><b>Skills:</b> On successful completion of this module, students will have the proven ability to</p> <ul style="list-style-type: none"> <li>• explain, price and hedge a variety of financial products,</li> <li>• measure and manage market and credit risks,</li> <li>• efficiently retrieve financial information via front office information systems.</li> </ul> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><b>Competence:</b> Students will acquire the competencies necessary to work in a front office or risk management position. More precisely, the aim of this module is to prepare students for positions in</p> <ul style="list-style-type: none"> <li>• trading,</li> <li>• sales,</li> <li>• risk management,</li> <li>• asset management and related areas.</li> </ul> |                     |                          |        |                          |                      |            |      |                 |                |          |       |                 |           |            |      |                       |                    |  |      |                 |
|--|---|---------------------|--------------------------|--------|--------------------------|----------------------|------------|------|-----------------|----------------|----------|-------|-----------------|-----------|------------|------|-----------------------|--------------------|--|------|-----------------|
| Forms of teaching, methods and support | Presentations by students, practitioners and the lecturer, discussions, practical training in the finance lab.  |                     |                          |        |                          |                      |            |      |                 |                |          |       |                 |           |            |      |                       |                    |  |      |                 |
| Type of Assessment(s) and performance  | <table border="1" data-bbox="480 1350 1378 1715"> <thead> <tr> <th>Type of examination</th> <th>Duration or length</th> <th>Points</th> <th>Due Date or Date of exam</th> </tr> </thead> <tbody> <tr> <td>Student presentation</td> <td>30 minutes</td> <td>40PT</td> <td>during semester</td> </tr> <tr> <td>Seminar thesis</td> <td>10 pages</td> <td>40 PT</td> <td>during semester</td> </tr> <tr> <td>Oral exam</td> <td>10 minutes</td> <td>30PT</td> <td>during/after semester</td> </tr> <tr> <td>Oral participation</td> <td></td> <td>10PT</td> <td>during semester</td> </tr> </tbody> </table>  | Type of examination | Duration or length       | Points | Due Date or Date of exam | Student presentation | 30 minutes | 40PT | during semester | Seminar thesis | 10 pages | 40 PT | during semester | Oral exam | 10 minutes | 30PT | during/after semester | Oral participation |  | 10PT | during semester |
| Type of examination                    | Duration or length  | Points              | Due Date or Date of exam |        |                          |                      |            |      |                 |                |          |       |                 |           |            |      |                       |                    |  |      |                 |
| Student presentation                   | 30 minutes  | 40PT                | during semester          |        |                          |                      |            |      |                 |                |          |       |                 |           |            |      |                       |                    |  |      |                 |
| Seminar thesis                         | 10 pages  | 40 PT               | during semester          |        |                          |                      |            |      |                 |                |          |       |                 |           |            |      |                       |                    |  |      |                 |
| Oral exam                              | 10 minutes  | 30PT                | during/after semester    |        |                          |                      |            |      |                 |                |          |       |                 |           |            |      |                       |                    |  |      |                 |
| Oral participation                     |   | 10PT                | during semester          |        |                          |                      |            |      |                 |                |          |       |                 |           |            |      |                       |                    |  |      |                 |
| Recommended Literature                 | <ul style="list-style-type: none"> <li>• John C. Hull, Risk Management and Financial Institutions, 5th Edition</li> </ul>   |                     |                          |        |                          |                      |            |      |                 |                |          |       |                 |           |            |      |                       |                    |  |      |                 |
| Module Structure                       | Lectures will be supported by power point slide material. Student presentations are an integral part of the lectures. Content will be reinforced by Q&A sessions. If available, Bloomberg terminals in the Finance lab will be used for demonstration purposes.   |                     |                          |        |                          |                      |            |      |                 |                |          |       |                 |           |            |      |                       |                    |  |      |                 |
| Usability in other Modules/Programmes  | Asset Management and Bachelor Thesis  |                     |                          |        |                          |                      |            |      |                 |                |          |       |                 |           |            |      |                       |                    |  |      |                 |

|                    |            |
|--------------------|------------|
| Last Approval Date | 2022/11/01 |
|--------------------|------------|

# **Elective Modules in Q4 (27.03.-19.05.2023)**

# MARKETING

**Consumer Behaviour [MGT60167]**

|                            |       |   |    |                     |            |
|----------------------------|-------|---|----|---------------------|------------|
| Module Coordinator         |       | Atalay, Selin   |    |                     |            |
| Programme(s)               |       | Bachelor of Science   |    |                     |            |
| Term                       |       | 4th & 6th semester  |    |                     |            |
| Module Duration            |       | 1 Semester  |    |                     |            |
| Compulsory/Elective Module |       | Concentration Module  |    |                     |            |
| Credits:                   |       | 6   |    |                     |            |
| Frequency                  |       | Annually  |    |                     |            |
| Language                   |       | English   |    |                     |            |
| Total Workload             | 150 h | Academic Teaching Hours:  | 44 | Remaining Workload: | Self-study |
|                            |       | One academic teaching hour corresponds to 40 minutes.   |    |                     |            |
|                            |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.   |    |                     |            |
| Prerequisites              |       | Marketing   |    |                     |            |
| Content                    |       | <b>1. Scientific Approach to Consumer Behavior</b><br><b>2. How Consumers Acquire, Remember and Use Knowledge</b><br><b>3. How Consumers Make Decisions</b><br><b>4. Influence and Persuasion</b> |    |                     |            |



| <p>Intended Learning Outcomes</p>             | <p>Marketing begins and ends with consumers – from determining consumers’ needs to providing consumer satisfaction. As such, a clear understanding of consumers’ buying behavior is critical in successfully managing the marketing function. The purpose of this course is to introduce you to the study of consumer behavior. The role of research and the tools of scientific inquiry will be emphasized in order to illuminate the underlying behavioral and psychological constructs. Depth of understanding of these underlying constructs is a key to success in today’s complex marketplace. Product lifecycles are shorter, market segments are smaller and more dispersed, and the competition is more intense than ever before.</p> <p>Upon completion of this course, students:</p> <ul style="list-style-type: none"> <li>• Will have learned the key behavioral and psychological concepts and will have developed the intellectual ability to apply them in analyzing marketing situations.</li> <li>• Will be able to understand consumers’ consumption–related behaviors</li> <li>• Will be able to develop and evaluate marketing strategies intended to influence consumption–related behaviors.</li> </ul> |                     |                          |                    |                          |               |  |           |                   |  |  |           |                         |
|---|--|---------------------|--------------------------|--------------------|--------------------------|---------------|--|-----------|-------------------|--|--|-----------|-------------------------|
| <p>Forms of teaching, methods and support</p> | <p>Lectures, in-class exercises, cases, active discussions and group work</p>  |                     |                          |                    |                          |               |  |           |                   |  |  |           |                         |
| <p>Type of Assessment(s) and performance</p>  | <table border="1"> <thead> <tr> <th>Type of examination</th> <th>Duration or length</th> <th>Performance Points</th> <th>Due date or date of exam</th> </tr> </thead> <tbody> <tr> <td>Group Project</td> <td></td> <td>60 points</td> <td>Last day of class</td> </tr> <tr> <td>Individual Assignments &amp; In Class Work</td> <td></td> <td>60 points</td> <td>Throughout the semester</td> </tr> </tbody> </table>   | Type of examination | Duration or length       | Performance Points | Due date or date of exam | Group Project |  | 60 points | Last day of class | Individual Assignments & In Class Work |  | 60 points | Throughout the semester |
| Type of examination                           | Duration or length   | Performance Points  | Due date or date of exam |                    |                          |               |  |           |                   |  |  |           |                         |
| Group Project                                 |  | 60 points           | Last day of class        |                    |                          |               |  |           |                   |  |  |           |                         |
| Individual Assignments & In Class Work        |  | 60 points           | Throughout the semester  |                    |                          |               |  |           |                   |  |  |           |                         |
| <p>Recommended Literature</p>                 | <p>Will be provided in class.</p>  |                     |                          |                    |                          |               |  |           |                   |  |  |           |                         |
| <p>Module Structure</p>                       | <p>The contents of the course are broken down into the following modules:</p> <ol style="list-style-type: none"> <li><b>1. Scientific Approach to Consumer Behavior</b></li> <li><b>2. How Consumers Acquire, Remember and Use Knowledge</b> <ol style="list-style-type: none"> <li>a. Attention, Comprehension, and Memory</li> <li>b. Attitudes and Attitude Formation</li> </ol> </li> <li><b>3. How Consumers Make Decisions</b> <ol style="list-style-type: none"> <li>a. Judgment and Decision Making</li> <li>b. Individual Differences</li> </ol> </li> <li><b>4. Influence and Persuasion</b> <ol style="list-style-type: none"> <li>a. Social Influence Principles and Persuasion</li> <li>b. Cultural Influences on Consumers</li> </ol> </li> </ol>  |                     |                          |                    |                          |               |  |           |                   |  |  |           |                         |

|                                       |              |
|---------------------------------------|--------------|
| Usability in other Modules/Programmes | B.Sc.-Thesis |
| Last Approval Date                    | 2021/11/01   |

**Market Intelligence [MGT71335]**

|  |       |   |    |                     |            |
|--|-------|---|----|---------------------|------------|
| Module Coordinator                     |       | Qiu, Zhuoer   |    |                     |            |
| Programme(s)                           |       | Bachelor of Science   |    |                     |            |
| Term                                   |       | 4th & 6th semester  |    |                     |            |
| Module Duration                        |       | 1 Semester  |    |                     |            |
| Compulsory/Elective Module             |       | Concentration Module  |    |                     |            |
| Credits:                               |       | 6   |    |                     |            |
| Frequency                              |       | Annually  |    |                     |            |
| Language                               |       | English   |    |                     |            |
| Total Workload                         | 150 h | Academic Teaching Hours:  | 44 | Remaining Workload: | Self-study |
|  |       | One academic teaching hour corresponds to 40 minutes.   |    |                     |            |
|  |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.   |    |                     |            |
| Prerequisites                          |       | Students should master basic mathematical concepts.   |    |                     |            |
| Content                                |       | Firms rely increasingly on vast amounts of data to inform marketing decisions. The goal of this course is to provide students with key skills that will equip them for a career where analytics and data-driven decision making replace management by intuition. By learning about and applying various multivariate analytic methods and techniques, students will gain a better understanding of how to turn data into insights for better marketing decisions. |    |                     |            |
| Intended Learning Outcomes             |       | <p>Upon completion of this course students should be able to:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> - Apply appropriate quantitative analyses to solve managerial problems with available data</li> <li>- Measure and assess the effectiveness of marketing strategies and tactics</li> <li>- Understand, interpret, and discuss the outputs and procedures of statistical analysis software</li> </ul>                             |    |                     |            |
| Forms of teaching, methods and support |       | <ul style="list-style-type: none"> <li><input type="checkbox"/> This course may include traditional lectures and discussions as well as homework assignments, group work, case studies, guest lectures, and individual applications.</li> </ul>   |    |                     |            |

|                                       |   |                    |                    |                          |
|---------------------------------------|---|--------------------|--------------------|--------------------------|
| Type of Assessment(s) and performance | Type of examination   | Duration or length | Performance Points | Due date or date of exam |
|                                       | Group Project   |                    | 30 points          | During Course            |
|                                       | Assignments   |                    | 20 points          | During Course            |
|                                       | Participation   |                    | 10 points          | During Course            |
|                                       | Final Exam  | 60 Minutes         | 60 points          | Exam Week                |
| Recommended Literature                | <ul style="list-style-type: none"> <li>- Fred M. Feinberg, Thomas C. Kinnear, James R. Taylor, Modern Marketing Research, Cengage 2013.</li> <li>- Andy Field, Jeremy Miles, Zoë Field, Discovering Statistics Using R, Sage 2012.</li> <li>- John W. Foreman, Data Smart: Using Data Science to Transform Information into Insight, Wiley 2013.</li> </ul>   |                    |                    |                          |
| Module Structure                      | <p>□</p> <p>In this course, the learning process will typically encompass three phases: In phase one, the theoretical concepts of a specific quantitative method will be introduced, allowing students to understand the corresponding foundational mechanisms and relationships. In phase two, students will learn how these concepts translate into actual analyses and conduct them in Excel. Having successfully mastered the knowledge transfer from concepts to applications, in phase three, students will use R to leverage the specific methods in further empirical applications. The goal of this three-phase design is to help students gain a solid understanding of important quantitative methods and equip them with the necessary knowledge for their strategic employment and evaluation.</p> |                    |                    |                          |
| Usability in other Modules/Programmes | Digital Marketing   |                    |                    |                          |
| Last Approval Date                    | 2022/11/15  |                    |                    |                          |

**Marketing Strategy [MGT73724]**

|                            |       |   |    |                     |            |
|----------------------------|-------|---|----|---------------------|------------|
| Module Coordinator         |       | Worm, Stefan  |    |                     |            |
| Programme(s)               |       | Bachelor of Science   |    |                     |            |
| Term                       |       | 4th & 6th semester  |    |                     |            |
| Module Duration            |       | 1 Semester  |    |                     |            |
| Compulsory/Elective Module |       | Concentration Module  |    |                     |            |
| Credits:                   |       | 6   |    |                     |            |
| Frequency                  |       | Annually  |    |                     |            |
| Language                   |       | English   |    |                     |            |
| Total Workload             | 150 h | Academic Teaching Hours:  | 44 | Remaining Workload: | Self-study |
|                            |       | One academic teaching hour corresponds to 40 minutes.   |    |                     |            |
|                            |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc. |    |                     |            |
| Prerequisites              |       | Marketing and Statistics.   |    |                     |            |

|                |   |
|----------------|---|
| <p>Content</p> | <p>The purpose of business is to create and keep a customer (Peter Drucker, 1954)</p> <p><input type="checkbox"/></p> <p>The financial success of a company depends on its ability to acquire and retain profitable customers - to develop a successful marketing strategy, however, is not a simple task.</p> <p><input type="checkbox"/></p> <p>This module serves three goals:</p> <ol style="list-style-type: none"> <li>1. Students will learn about new tools to help them understand and analyze the marketing strategies of successful (and unsuccessful) companies.</li> <li>2. Students will apply the underlying analytical concepts and learn, for example, how to identify the needs of potential customers.</li> <li>3. Students will discover how marketing drives companies' financial success and ultimately shareholder value.</li> </ol> <p><input type="checkbox"/></p> <p><b>Please note:</b></p> <ul style="list-style-type: none"> <li>* <b>Regular class attendance is required. Without regular attendance, students will not be permitted to participate in the consulting project presentation.</b></li> <li>* <b>Case studies require time for preparation throughout the quarter.</b></li> <li>* <b>The key deliverable of the course is the presentation of a consulting project, where student teams (of up to 6 students per team) tackle real-world marketing strategy problems and their presence (in person or on Zoom) is mandatory</b></li> <li>* <b>Grading largely depends on group performance</b></li> </ul> |
|----------------|---|

| <p>Intended Learning Outcomes</p>             | <p><b>Knowledge:</b> On successful completion of this module, the students will have a thorough comprehension of Marketing Strategy and the corresponding analytical tools, i. e., can</p> <ul style="list-style-type: none"> <li>• explain the 5 C's of market analysis</li> <li>• describe segmentation approaches</li> <li>• discuss analytical concepts of the Marketing Mix</li> <li>• discover how marketing drives companies' financial success and ultimately shareholder value</li> </ul> <p><input type="checkbox"/></p> <p><b>Skills:</b> On successful completion of this module, the students will have the proven ability to deploy the underlying analytical concepts of Marketing Strategy in real-world situations, i. e., they can</p> <ul style="list-style-type: none"> <li>• apply qualitative and quantitative tools of marketing</li> <li>• identify the needs of potential customers</li> <li>• analyse and compare the marketing strategies of successful (and unsuccessful) companies</li> </ul> <p><input type="checkbox"/></p> <p><b>Competence:</b> Through its cross-disciplinary approach, this course will equip students with a coherent framework to integrate their knowledge from various disciplines, including Marketing, Finance, and Accounting. Students' skills in applying the tools covered in this course will allow them to</p> <ul style="list-style-type: none"> <li>• successfully analyse strengths and weaknesses of existing marketing strategies</li> <li>• integrate insights into customer needs and firm capabilities to draw up new and promising marketing strategies</li> <li>• propose marketing actions that will positively impact firms' financial outcomes</li> </ul> |  |   |                    |                          |                          |                     |  |   |
|---|---|--|---|--------------------|--------------------------|--------------------------|---------------------|--|---|
| <p>Forms of teaching, methods and support</p> | <p>Class sessions will include traditional lectures and exercises, as well as case studies and a group consulting project to give students a practical, hands-on experience.</p> <p><input type="checkbox"/></p> <p>Students need to be prepared to be an active and well-prepared participant of the course and contribute regularly to in-class discussions.</p> <p><input type="checkbox"/></p> <p>Good contributions require intensive preparation of the weekly case studies, so the workload during the entire semester for this course is very high!</p>   |  |   |                    |                          |                          |                     |  |   |
| <p>Type of Assessment(s) and performance</p>  | <table border="1" data-bbox="480 1713 1378 1928"> <thead> <tr> <th>Type of examination</th> <th>Duration or length</th> <th>Performance Points</th> <th>Due date or date of exam</th> </tr> </thead> <tbody> <tr> <td>Group consulting project</td> <td>35 minutes per Team</td> <td>120 performance points (100% of the grade)</td> <td>End of semester, most likely last day of the course</td> </tr> </tbody> </table> <p><input type="checkbox"/></p>   | Type of examination                        | Duration or length                                  | Performance Points | Due date or date of exam | Group consulting project | 35 minutes per Team | 120 performance points (100% of the grade) | End of semester, most likely last day of the course |
| Type of examination                           | Duration or length  | Performance Points                         | Due date or date of exam                            |                    |                          |                          |                     |  |   |
| Group consulting project                      | 35 minutes per Team   | 120 performance points (100% of the grade) | End of semester, most likely last day of the course |                    |                          |                          |                     |  |   |

|                                       |  |
|---------------------------------------|--|
| Recommended Literature                | <p>There is no required textbook for this module. However, students might find the following textbooks helpful:</p> <ul style="list-style-type: none"> <li>• Strategic Marketing Management by Alexander Chernev</li> <li>• Managing Customers for Profit: Strategies to Increase Profits and Build Loyalty by V. Kumar</li> </ul> |
| Module Structure                      | <p>Classroom sessions and online tutorials are scheduled throughout the semester. The consulting project will kick off with a briefing when the course starts and concludes with the final presentation towards the end of the course.</p>   |
| Usability in other Modules/Programmes | <p>Other marketing modules; Entrepreneurship; Management Concentration; Marketing Concentration.</p>   |
| Last Approval Date                    | <p>2021/11/23</p>  |



# **Innovation & Entrepreneurship**

**Principles of Innovation Management  
[MGT71549]**

|                            |       |  |    |                     |            |
|----------------------------|-------|--|----|---------------------|------------|
| Module Coordinator         |       | Amigoni, Gaja  |    |                     |            |
| Programme(s)               |       | Bachelor of Science  |    |                     |            |
| Term                       |       | 4th & 6th semester   |    |                     |            |
| Module Duration            |       | 1 Semester   |    |                     |            |
| Compulsory/Elective Module |       | Concentration Module   |    |                     |            |
| Credits:                   |       | 6  |    |                     |            |
| Frequency                  |       | Annually   |    |                     |            |
| Language                   |       | English  |    |                     |            |
| Total Workload             | 150 h | Academic Teaching Hours:   | 44 | Remaining Workload: | Self-study |
|                            |       | One academic teaching hour corresponds to 40 minutes.  |    |                     |            |
|                            |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.  |    |                     |            |
| Prerequisites              |       | This Innovation Management module is offered at an advanced stage of the Bachelor program. Consequently, students are expected to have a good understanding of the business environment and core elements (strategy, marketing, finance, etc.) as well as understanding of firm's structures, organization and operations. There are, however, no formal preliminary entry requirements for this module. |    |                     |            |

|         |   |
|---------|---|
| Content | <p>The module aims to provide students with basic concepts and awareness in innovation management and an understanding of the challenges and opportunities, which small and large firms face in relation to it. In today's rapidly changing business environment, firms can only survive if they regularly innovate - developing new products and successfully introducing them into the market. In this module, we will focus on the practices and processes that managers use to do so in order to manage innovation effectively. We will approach innovation issues from the entrepreneur and manager's perspectives. As building an organization that can continuously generate and commercialize innovations is one of the core concerns of both entrepreneurs and top management, any leader should be conversant with the leading thinking on innovation and should not leave this challenge to the R&amp;D function within its organization alone. The module will deliberately move between strategic issues (what should you do?) and organizational and managerial issues (how should you get it done?). The course is designed in this manner as it is grounded in the belief that it is particularly dangerous to separate strategy from implementation (the "why" from the "how") when innovation is the issue, because having a great idea is worth little or nothing if a firm cannot figure out how to commercialize or monetize that idea.</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p>More specifically, we will cover topics which can be classified into 3 categories:</p> <ol style="list-style-type: none"> <li>1. <b>Exploring</b> innovations - the processes used to explore innovations along the technology, market and strategy dimensions as the innovation moves from idea to market</li> <li>2. <b>Executing</b> innovations — the structures and incentives organizations must put into place to effectively allow talented individuals to execute innovation processes</li> <li>3. <b>Exploiting</b> innovations — the strategies that a firm must consider to most effectively exploit the value of their innovation</li> </ol> |
|---------|---|

|   |  |
|---|--|
| <p>Intended Learning Outcomes</p>             | <p><b>Knowledge:</b><br/> On successful completion of this module, students will be familiar with the core concepts of innovation management, i.e. they can:</p> <ul style="list-style-type: none"> <li>• Understand different techniques of innovation management</li> <li>• Analyze companies' innovation related activities and processes</li> <li>• Critically discuss a firm's need to have a strategic and integrated approach to be able to successfully manage innovation</li> </ul> <p><input type="checkbox"/><br/> <input type="checkbox"/></p> <p><b>Skills:</b><br/> On successful completion of this module, students can:</p> <ul style="list-style-type: none"> <li>• Apply the core concepts of innovation management directly to real world situations</li> <li>• Understand the strategies most effective for exploiting innovations, and, as a result, analyze and compare innovation strategies of successful firms</li> <li>• Identify, evaluate, and resolve a variety of issues relating to poor innovative performance in large firms as well as entrepreneurial firms</li> </ul> <p><input type="checkbox"/><br/> <input type="checkbox"/></p> <p><b>Competencies:</b><br/> On successful completion of this module, students are able to:</p> <ul style="list-style-type: none"> <li>• Implement innovation management concepts independently in their professional activities</li> <li>• Critically examine the potential of the innovation management concepts and techniques with which they may deal in the future</li> <li>• Analyze complex innovation processes in firms both internally and externally</li> </ul> |
| <p>Forms of teaching, methods and support</p> | <p>In-class teaching will be based on interactive lectures and discussions, case studies, and reading materials which may be assigned prior to the specific class. The main objective of the class is to analyze how firms cope with the need to innovate, what strategies and processes they apply in order to do so, and whether these strategies and processes are effective. This objective would be met through team work on both a group project and group presentations in which students will apply the concepts, tools and frameworks covered in class.</p>   |

| Type of Assessment(s) and performance              | <table border="1" data-bbox="480 340 1378 633"> <thead> <tr> <th>Type of examination</th> <th>Duration or length</th> <th>Performance points</th> <th>Due date or date of exam</th> </tr> </thead> <tbody> <tr> <td>Group Project Unveiling firm's innovation strategy</td> <td></td> <td>75 points</td> <td>Last day of the course</td> </tr> <tr> <td>Course exam and/or quizzes</td> <td>45 Minutes</td> <td>45 points</td> <td>Exam week</td> </tr> </tbody> </table> <p data-bbox="480 645 504 707"> <input type="checkbox"/><br/> <input type="checkbox"/> </p> <p data-bbox="480 712 1153 745"> <u>Group Project – Unveiling firm's innovation strategy</u> </p> <p data-bbox="480 748 1458 846"> The scope of this project is to target an established, significantly-sized firm, examine how it relates to innovation and what measurements it takes, if at all, to implement an innovation strategy. </p> <p data-bbox="480 851 1182 947"> <input type="checkbox"/><br/> <u>Individual Contribution – Course exam and/or quizzes</u><br/> Innovation Management written exam. </p> | Type of examination | Duration or length       | Performance points | Due date or date of exam | Group Project Unveiling firm's innovation strategy |  | 75 points | Last day of the course | Course exam and/or quizzes | 45 Minutes | 45 points | Exam week |
|--|--|---------------------|--------------------------|--------------------|--------------------------|--|--|-----------|------------------------|----------------------------|------------|-----------|-----------|
| Type of examination                                | Duration or length   | Performance points  | Due date or date of exam |                    |                          |  |  |           |                        |                            |            |           |           |
| Group Project Unveiling firm's innovation strategy |  | 75 points           | Last day of the course   |                    |                          |  |  |           |                        |                            |            |           |           |
| Course exam and/or quizzes                         | 45 Minutes   | 45 points           | Exam week                |                    |                          |  |  |           |                        |                            |            |           |           |
| Recommended Literature                             | The following is a suggested background reading: <ul style="list-style-type: none"> <li data-bbox="520 1014 1437 1113">• Schilling, M.A. (2013), Strategic Management of Technological Innovation, McGraw-Hill International Edition, Fourth Edition</li> <li data-bbox="520 1122 1430 1220">• Tidd, J. and Bessant, J. (2009), Managing Innovation – Integrating Technological, Market and Organizational Change, Wiley, Fourth Edition</li> <li data-bbox="520 1229 1353 1294">• Smith, D. (2010), Exploring Innovation, McGraw Hill, Second Edition</li> <li data-bbox="520 1303 1345 1368">• I may assign other readings, which I will upload on the class website</li> </ul>  |                     |                          |                    |                          |  |  |           |                        |                            |            |           |           |
| Module Structure                                   | Over the course of the semester we will cover the main elements of innovation management through the combination of lectures, class exercises, independent reading of case studies and articles followed by class analysis and discussion, as well as other forms of supervised learning.  |                     |                          |                    |                          |  |  |           |                        |                            |            |           |           |
| Usability in other Modules/Programmes              | This module provides a good fit with the Entrepreneurship module, as there are some commonalities in the nature of these two disciplines. However, these are two distinct modules and there is no requirement to take both modules.  |                     |                          |                    |                          |  |  |           |                        |                            |            |           |           |
| Last Approval Date                                 | 2021/11/03   |                     |                          |                    |                          |  |  |           |                        |                            |            |           |           |

**Digital Entrepreneurship [INF40132]**

|                            |       |   |    |                     |            |
|----------------------------|-------|---|----|---------------------|------------|
| Module Coordinator         |       | Pisani, Francesco   |    |                     |            |
| Programme(s)               |       | Bachelor of Science   |    |                     |            |
| Term                       |       | 4th & 6th semester  |    |                     |            |
| Module Duration            |       | 1 Semester  |    |                     |            |
| Compulsory/Elective Module |       | Concentration Module  |    |                     |            |
| Credits:                   |       | 6   |    |                     |            |
| Frequency                  |       | Annually  |    |                     |            |
| Language                   |       | English   |    |                     |            |
| Total Workload             | 150 h | Academic Teaching Hours:  | 44 | Remaining Workload: | Self-study |
|                            |       | One academic teaching hour corresponds to 40 minutes.   |    |                     |            |
|                            |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc. |    |                     |            |
| Prerequisites              |       | No specific prerequisites are necessary   |    |                     |            |

|   |   |
|---|---|
| <p>Content</p>                                | <p>For years digitalization has been setting new paradigms for companies to find their own place in the market with the current pandemic accelerating this development.</p> <p>New ventures taking advantage of the current situation are constantly entering various market sectors. Major investments are pouring into selected ideas fostering rapid growth and sky rocking valuations at a global level. Entire ecosystems are impacted by these changes, and the new leaders of tomorrow are formed.</p> <p>Some may say that “entrepreneurs are born and not made”, but the methods and skills that lead to success are elements that can be learned. The objective of this course is to provide students with the opportunity to experience the journey of digital entrepreneurs through a mixture of theoretical insights and practical applications. The course focuses on the relevant aspects of creating and growing a digital business - from the idea generation to the scale-up phase - and provides an overview of the relevant techniques in each stage.</p> <p>The class structure follows the different steps in the formation of a new business and its roll-out with case studies being presented and discussed in class.</p> <p>During the course, students are provided with the opportunity to work in groups on a project of their choice to apply their new knowledge. Students will be required to present the progress made on their project in class including the targeted problem, its potential market size, the suggested solution, the business plan, and a pitch.</p> <p>The program allows students to directly hear the concepts taught in class also from successful entrepreneurs and investors.</p> |
| <p>Intended Learning Outcomes</p>             | <p>On successful completion of this module students will have a sufficient understanding of:</p> <ul style="list-style-type: none"> <li>• the key characteristics of an entrepreneur</li> <li>• a structured approach to analyze business problems and to develop solutions related to them</li> <li>• the importance of digitalization in today’s business world</li> <li>• key elements depicting the development of a startup</li> </ul> <p><input type="checkbox"/> Furthermore, after completing this module, students will be able to transfer startups concepts to different business situations and develop an entrepreneurial approach to business life.</p>   |
| <p>Forms of teaching, methods and support</p> | <p>Class sessions will be interactive, and students are expected to actively participate in discussions and exercises.</p> <p><input type="checkbox"/> To apply the techniques and methods learned in class, students will have to work on a group project that includes the formation of an idea into a venture.</p> <p><input type="checkbox"/> The module concludes with a final exam.</p>   |

| Type of Assessment(s) and performance | <table border="1"> <thead> <tr> <th data-bbox="480 338 700 416">Type of examination</th> <th data-bbox="700 338 935 416">Duration or length</th> <th data-bbox="935 338 1155 416">Performance Points</th> <th data-bbox="1155 338 1375 416">Due date or date of exam</th> </tr> </thead> <tbody> <tr> <td data-bbox="480 416 700 472">Written Exam</td> <td data-bbox="700 416 935 472">30 Minutes</td> <td data-bbox="935 416 1155 472">30</td> <td data-bbox="1155 416 1375 472">Exam week</td> </tr> <tr> <td data-bbox="480 472 700 551">Group project presentation</td> <td data-bbox="700 472 935 551"></td> <td data-bbox="935 472 1155 551">90</td> <td data-bbox="1155 472 1375 551">During course</td> </tr> </tbody> </table>   | Type of examination | Duration or length       | Performance Points | Due date or date of exam | Written Exam | 30 Minutes | 30 | Exam week | Group project presentation |  | 90 | During course |
|---------------------------------------|--|---------------------|--------------------------|--------------------|--------------------------|--------------|------------|----|-----------|----------------------------|--|----|---------------|
| Type of examination                   | Duration or length   | Performance Points  | Due date or date of exam |                    |                          |              |            |    |           |                            |  |    |               |
| Written Exam                          | 30 Minutes   | 30                  | Exam week                |                    |                          |              |            |    |           |                            |  |    |               |
| Group project presentation            |  | 90                  | During course            |                    |                          |              |            |    |           |                            |  |    |               |
| Recommended Literature                | <p><u>Course material</u><br/>Lecture slides will be provided to accompany the lecture and will be uploaded on the Canvas module page.</p> <p><input type="checkbox"/></p> <p><b>Main literature</b></p> <ul style="list-style-type: none"> <li>• Blank, Steve, and Bob Dorf. The startup owner's manual: The step-by-step guide for building a great company. John Wiley &amp; Sons, 2020.</li> </ul> <p><input type="checkbox"/></p> <p><b>Additional literature includes:</b></p> <ul style="list-style-type: none"> <li>• Masters, Blake, and Peter Thiel. Zero to one: notes on start ups, or how to build the future. Random House, 2014</li> <li>• Osterwalder, Alexander, and Yves Pigneur. Business model generation: a handbook for visionaries, game changers, and challengers. Vol. 1. John Wiley &amp; Sons, 2010</li> <li>• Gassmann, Oliver, Karolin Frankenberger, and Michaela Csik. The business model navigator: 55 models that will revolutionise your business. Pearson UK, 2014</li> <li>• Osterwalder, Alexander, et al. Value proposition design: How to create products and services customers want. Vol. 2. John Wiley &amp; Sons, 2014</li> <li>• Bland, David J., and Alexander Osterwalder. Testing business ideas: A field guide for rapid experimentation. Vol. 3. John Wiley &amp; Sons, 2019.</li> <li>• Reis, Eric. "The lean startup." New York: Crown Business 27 (2011).</li> <li>• Feld, Brad, and Jason Mendelson. Venture deals: Be smarter than your lawyer and venture capitalist. John Wiley &amp; Sons, 2019.</li> <li>• Eisenmann, Tom: Why Startups Fail: A New Roadmap for Entrepreneurial Success. Currency. 2021</li> </ul> |                     |                          |                    |                          |              |            |    |           |                            |  |    |               |
| Module Structure                      | The module is structured in various sessions that will mostly take place one day a week during the month of April. Sessions are structure to regularly provide students with the necessary insights to use for their group project and the final exam. During some of the sessions, time will be allocated for the students to present their weekly progresses on their group project.   |                     |                          |                    |                          |              |            |    |           |                            |  |    |               |
| Usability in other Modules/Programmes | Concentration in innovation management / all programs related to innovation  |                     |                          |                    |                          |              |            |    |           |                            |  |    |               |
| Last Approval Date                    | 2021/11/29   |                     |                          |                    |                          |              |            |    |           |                            |  |    |               |



**Lean Startup Bootcamp [MGT72765]**

|                            |       |   |    |                     |            |
|----------------------------|-------|---|----|---------------------|------------|
| Module Coordinator         |       | Ben Josef, Arie   |    |                     |            |
| Programme(s)               |       | Bachelor of Science   |    |                     |            |
| Term                       |       | 4th & 6th semester  |    |                     |            |
| Module Duration            |       | 1 Semester  |    |                     |            |
| Compulsory/Elective Module |       | Elective Module   |    |                     |            |
| Credits:                   |       | 6   |    |                     |            |
| Frequency                  |       | Annually  |    |                     |            |
| Language                   |       | English   |    |                     |            |
| Total Workload             | 150 h | Academic Teaching Hours:  | 44 | Remaining Workload: | Self-study |
|                            |       | One academic teaching hour corresponds to 40 minutes.   |    |                     |            |
|                            |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.   |    |                     |            |
| Prerequisites              |       | <p><b>REQUIRED:</b>The Lean Startup Bootcamp (LSB) requires all students to attend on each of the three bootcamp days for maximum learning. LSB also is a high-intensity format that requires students to participate during the lecture, share progress of their startups during class, and willingness to work extra hours until late in the night during days 1 and 2. <b>////// NOT REQUIRED:</b> Students do not have to bring their own startup idea (in case students do have an existing idea and want to work on it during LSB they can let the module coordinator know prior to the first class). Existing teams are welcome, but having a team prior to class is not required. We will build teams during the first day. There is no required reading.</p> |    |                     |            |

Content

The module "**Lean Startup Bootcamp (LSB) - from ideation to launch in 3 days**" is about: launching a Startup. Period!

□

What LSB IS:

- ... **launching a startup**: In just three (very intense) days students will be teamed up in entrepreneurial teams, ideate a B2C solution to an existing problem, create the value proposition, build a first landing-page MVP (minimum viable product) that will go live in the www, design and setup A/B-tests, create Facebook ad campaigns to get traffic on your website, etc.
- ... **stepping out of your comfort zone** and learning from market market feedback (you might be asked to go in the streets and acquire your first customers) and act upon
- ... **learning from real entrepreneurial stories**: the module coordinator has extensive experience in launching and selling startups and will share several war stories from his past.
- ... **the entrepreneurial mindset**: on successful completion of this module, students will have a thorough comprehension that entrepreneurship requires being active; they will have an understanding that entrepreneurship is a soft-skill, a mindset, a reference of acting, that will help them in any future career (starting companies, consulting, banking, corporate, etc.)
- ... **the first step to get Venture Capital**: students will acquire the knowledge about the Venture Capital industry, and what it takes to get your startup funded

--> Your startup landing-page will be "live" and attracting real customers at the end of LSB.

□

What LSB is NOT:

- ... writing a business plan (we will make a simple financial model in Excel)
- ... about B2B startups (the module coordinator will cover a lot of knowledge about B2B startups as well, but the startups we launch during this module will have to target people, not businesses, in order to see the first results in the three days)

**What students are saying about this course:**

*"I never experienced such an intense, insightful and mind-shaping session."*

*"When we tried to raise money on day 3, we felt like we were running a real business."*

*"After this weekend I can say, that this was definitively the best class of my MBA."*

□

**About the module coordinator:**

After several years with McKinsey Carsten Lebtig co-founded his first company test.io and grew the company as CEO under great uncertainty through the transformation to a pure subscription SAAS platform. The company was sold in 2019 to EPAM Systems for \$17m.

□

After test.io Carsten started Sanubi, a digital health platform digitizing the entire process how medical products are delivered to thousands of customers. At Sanubi he led sales and all other growth related activities, both targeting B2C and B2B customers. Carsten is still the major shareholder in Sanubi, which is profitable since 2017.

□

After Sanubi Carsten built digital business models in the Big Data and IoT space for one of the biggest Telcos in the world, until he was recruited by UBER. As General Manager UberEATS Carsten was responsible for the country P&L and drove 4x annual growth in a highly competitive environment.

□

In 2020 Carsten began to work on his 3rd company, an international HR-tech platform. He applied the LSB methodologies to generate first customer feedback. He didn't have a presentation or business-plan when a one of the leading Venture Capital firms decided to invest into the new companies, 24 days after its official incorporation.

□

Carsten holds an MBA from Kellogg School of Management, and lived and worked in Germany, Mexico, Italy, China and US.

|   |  |
|---|--|
| <p>Intended Learning Outcomes</p>             | <ul style="list-style-type: none"> <li>• This course aims to provide students with an <b>understanding of the entrepreneurial process</b> and the various concepts, practices, and tools used in the entrepreneurial arena.</li> <li>• The course has a strong focus on gaining experiences in entrepreneurial practice. You will <b>develop an entrepreneurial mindset</b>, which should serve you well in whatever career you chose.</li> <li>• <b>Stepping out of your comfort zone:</b> One of the main reasons why entrepreneurs fail, is because they did not test their ideas early enough; they did not force themselves to expose their ideas to reality. Thus this course is about learning how to avoid this trap. We will gain experience not in planning how to start a firm but in practicing the things needed to be a successful entrepreneur.</li> <li>• A primary focus of this class will be gaining experience in the <b>practices needed to develop a venture business model</b>. This will require a lot of field work such as <b>conducting experiments</b> to test aspects of the model, talking to potential customers to better understand their needs and talking to potential partners to set up your business.</li> <li>• Beyond entrepreneurship, the skills you pick up in the course are <b>core competencies</b> for doing business in consulting, investment banking and for industry jobs.</li> </ul> |
| <p>Forms of teaching, methods and support</p> | <p>The main task of the class is to develop and test a business idea, thus gaining key skills that are relevant for entrepreneurs but which can also be applied to the wider business context. The class is <b>heavily activity based</b>, with <b>in class exercises, flipped classrooms and team work</b>. The main objective of the class is a group project to develop a business model for an entrepreneurial idea, which has to solve a real-world problem.</p> <p>Your startup idea will go “live” within the module period, including building a landing-page, building an advertising campaign, and winning the first customers.</p> <p>□ The module coordinator will share many of his own real-world experiences from launching, scaling and selling startups as well as getting Venture Capital. He will be available to answer questions even weeks before and/or after the three-day module.</p>   |

| Type of Assessment(s) and performance   | <table border="1"> <thead> <tr> <th>Type of examination</th> <th>Duration or length</th> <th>Performance Points</th> <th>Due date or date of exam</th> </tr> </thead> <tbody> <tr> <td>Group project - launching your startup*</td> <td>10 plus slides</td> <td>40</td> <td>End of day 3</td> </tr> <tr> <td>Individual assignment**</td> <td>500 words</td> <td>10</td> <td>End of day 3</td> </tr> </tbody> </table> | Type of examination | Duration or length | Performance Points       | Due date or date of exam | Group project - launching your startup* | 10 plus slides | 40 | End of day 3 | Individual assignment** | 500 words | 10 | End of day 3 |
|---|--|---------------------|--------------------|--------------------------|--------------------------|---|----------------|----|--------------|-------------------------|-----------|----|--------------|
|   | Type of examination  | Duration or length  | Performance Points | Due date or date of exam |                          |   |                |    |              |                         |           |    |              |
| Group project - launching your startup*   | 10 plus slides   | 40                  | End of day 3       |                          |                          |   |                |    |              |                         |           |    |              |
| Individual assignment**   | 500 words  | 10                  | End of day 3       |                          |                          |   |                |    |              |                         |           |    |              |
| <input type="checkbox"/><br>* there will be a final presentation ("demo-day") of your group startup (10+ slides) to the class at the end of the third day. Beyond that no written report or anything similar is needed. The three days will be very intense, so that no homework will be given out after those three days.<br><input type="checkbox"/><br>** as individual assignment you will be required to send a short eMail to the module coordinator, summarizing your main learnings from this course.<br><input type="checkbox"/> |  |                     |                    |                          |                          |   |                |    |              |                         |           |    |              |
| Recommended Literature  | There is no required reading prior to class.   |                     |                    |                          |                          |   |                |    |              |                         |           |    |              |
| Module Structure  | The class is structured according to the phases of a start-up: <ul style="list-style-type: none"> <li>• Problem identification &amp; solution ideation</li> <li>• Team building; the human aspect of entrepreneurship</li> <li>• Launching, testing and measuring</li> <li>• Financing</li> </ul>  |                     |                    |                          |                          |   |                |    |              |                         |           |    |              |
| Usability in other Modules/Programmes   | Students will develop an entrepreneurial mindset, which should serve them in any management course / career they choose.   |                     |                    |                          |                          |   |                |    |              |                         |           |    |              |
| Last Approval Date  | 2021/07/01   |                     |                    |                          |                          |   |                |    |              |                         |           |    |              |

# Sustainability

**The Ethics of Sustainability [MGT71553]**

|                            |       |   |    |                     |            |
|----------------------------|-------|---|----|---------------------|------------|
| Module Coordinator         |       | Tiefensee, Christine  |    |                     |            |
| Programme(s)               |       | Bachelor of Science   |    |                     |            |
| Term                       |       | 4th & 6th semester  |    |                     |            |
| Module Duration            |       | 1 Semester  |    |                     |            |
| Compulsory/Elective Module |       | Concentration Module  |    |                     |            |
| Credits:                   |       | 6   |    |                     |            |
| Frequency                  |       | Annually  |    |                     |            |
| Language                   |       | English   |    |                     |            |
| Total Workload             | 150 h | Academic Teaching Hours:  | 44 | Remaining Workload: | Self-study |
|                            |       | One academic teaching hour corresponds to 40 minutes.   |    |                     |            |
|                            |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc. |    |                     |            |
| Prerequisites              |       | None. Knowledge of decision and game theory will be an advantage.   |    |                     |            |

|                |  |
|----------------|--|
| <p>Content</p> | <p>Climate change and the quest for sustainability pose significant economic, societal, political and ethical challenges. In this module, we will investigate specifically the ethics and politics of sustainability and climate change by considering questions falling into the following three dimensions:</p> <ul style="list-style-type: none"> <li>• <i>Collective harms and responsibility</i>: If the actions of individual agents, firms and even states make no difference to the occurrence of climate change, who bears responsibility for this collective harm? Given that combatting climate change is a collective action problem, which sustainability-related duties do individuals, firms and governments bear? If others fail to fulfil their sustainability-related duties – say in relation to changing lifestyles, production processes and economic systems – who ought to ‘pick up the slack’?</li> <li>• <i>Risk and uncertainty</i>: How should we deal with the scientific uncertainty that is contained in forecasts about the future climate and projected technological developments? Should we take significant precautions and be risk-averse? Should we maximise expected utility? Or should we do nothing and simply hope for the best?</li> <li>• <i>Justice</i>: How ought the costs of combatting climate change be distributed? Should polluters pay? Should beneficiaries pay? Should the affluent pay? What do we owe to future generations? How can the interests of future generations be weighed against the interests of current generations?</li> </ul> <p>This module investigates questions such as these by tightly intertwining economic analyses of collection action phenomena with their ethical and political assessment.</p> |
|----------------|--|



| <p>Intended Learning Outcomes</p>             | <p><b>Knowledge:</b><br/> Upon completion of the course, students will have gained a thorough understanding of the key ethical and societal questions, as well as problems and challenges that arise within the sustainability debate. In addition, they will have learnt about prominent responses to these challenges together with their respective strengths and weaknesses.</p> <p>□</p> <p><b>Skills:</b><br/> Upon completion of the course, students will be able to adopt a systematic and well-grounded academic approach to analysing normative sustainability-related challenges. More precisely, they will have improved their ability to...</p> <ul style="list-style-type: none"> <li>• identify, discuss and critically reflect on ethical and societal questions that arise in the context of sustainability and climate change,</li> <li>• assess international conflicts between different countries as well as intergenerational conflicts related to climate change,</li> <li>• assess how to incorporate risk and uncertainty in ethical decision making,</li> <li>• apply tools and insights from expected utility theory to morally pertinent problems.</li> </ul> <p>□</p> <p><b>Competences:</b><br/> Upon completion of the course, students will be able to reflect more critically about complex socio-political and ethical questions arising in sustainability-related contexts by providing thorough analyses and assessments of current political debates.</p> |                     |                    |                    |          |                |                |    |             |                   |               |    |             |         |                  |    |            |
|---|---|---------------------|--------------------|--------------------|----------|----------------|----------------|----|-------------|-------------------|---------------|----|-------------|---------|------------------|----|------------|
| <p>Forms of teaching, methods and support</p> | <p>This module combines a range of different teaching formats, including lectures, interactive seminar sessions, presentations and discussions. Careful preparation of the literature will be indispensable for well-informed and lively discussions.</p>   |                     |                    |                    |          |                |                |    |             |                   |               |    |             |         |                  |    |            |
| <p>Type of Assessment(s) and performance</p>  | <table border="1" data-bbox="480 1417 1378 1706"> <thead> <tr> <th>Type of examination</th> <th>Duration or length</th> <th>Performance points</th> <th>Due date</th> </tr> </thead> <tbody> <tr> <td>1 Presentation</td> <td>20 minutes max</td> <td>30</td> <td>During term</td> </tr> <tr> <td>1 Discussion note</td> <td>500 words max</td> <td>30</td> <td>During term</td> </tr> <tr> <td>1 Essay</td> <td>1.00-1.500 words</td> <td>60</td> <td>After term</td> </tr> </tbody> </table>  | Type of examination | Duration or length | Performance points | Due date | 1 Presentation | 20 minutes max | 30 | During term | 1 Discussion note | 500 words max | 30 | During term | 1 Essay | 1.00-1.500 words | 60 | After term |
| Type of examination                           | Duration or length  | Performance points  | Due date           |                    |          |                |                |    |             |                   |               |    |             |         |                  |    |            |
| 1 Presentation                                | 20 minutes max  | 30                  | During term        |                    |          |                |                |    |             |                   |               |    |             |         |                  |    |            |
| 1 Discussion note                             | 500 words max   | 30                  | During term        |                    |          |                |                |    |             |                   |               |    |             |         |                  |    |            |
| 1 Essay                                       | 1.00-1.500 words  | 60                  | After term         |                    |          |                |                |    |             |                   |               |    |             |         |                  |    |            |

|                                       |   |
|---------------------------------------|---|
| Recommended Literature                | <ul style="list-style-type: none"> <li>• Aldred, J. (2017). 'Risk and Precaution in Decision Making about Nature', in: S.M. Gardiner &amp; A. Thompson (eds.) <i>The Oxford Handbook of Environmental Ethics</i>. Oxford/New York: Oxford University Press: 321-330.</li> <li>• Gardiner, S.M. (2011) <i>A Perfect Moral Storm: The Ethical Tragedy of Climate Change</i>. Environmental Ethics and Science Policy Series. Oxford/New York: Oxford University Press.</li> <li>• Garvey, J. (2008). <i>The Ethics of Climate Change. Right and Wrong in a Warming World</i>. London/New York: continuum.</li> <li>• Hansson, S.O. (2013) <i>The Ethics of Risk: Ethical analysis in an uncertain world</i>. New York: Palgrave MacMillan.</li> <li>• Page, E. A. (2006). <i>Climate Change, Justice and Future Generations</i>. Cheltenham: Edward Elgar.</li> <li>• Roser, D. &amp; C. Seidel (2017) <i>Climate Justice. An Introduction</i>. London/New York: Routledge</li> </ul> |
| Module Structure                      | This module proceeds along the three dimensions mentioned above. It does so by systematically relating its discussions to insights gained in the associated management and economics modules of the Sustainability BSc concentration.   |
| Usability in other Modules/Programmes | This module will prove of great interest to anyone who seeks to gain a more thorough and better-informed understanding of the political and ethical challenges that arise within sustainability contexts.   |
| Last Approval Date                    | 2022/12/20  |

**The Economics of Sustainability [MGT71554]**

|                                       |       |   |    |                     |            |
|---------------------------------------|-------|---|----|---------------------|------------|
| Module Coordinator                    |       | Schenker, Oliver  |    |                     |            |
| Programme(s)                          |       | Bachelor of Science   |    |                     |            |
| Term                                  |       | 4th & 6th semester  |    |                     |            |
| Module Duration                       |       | 1 Semester  |    |                     |            |
| Compulsory/Elective Module            |       | Concentration Module  |    |                     |            |
| Credits:                              |       | 6   |    |                     |            |
| Frequency                             |       | Annually  |    |                     |            |
| Language                              |       | English   |    |                     |            |
| Total Workload                        | 150 h | Academic Teaching Hours:  | 44 | Remaining Workload: | Self-study |
|                                       |       | One academic teaching hour corresponds to 40 minutes.   |    |                     |            |
|                                       |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc. |    |                     |            |
| Prerequisites                         |       | -   |    |                     |            |
| Content                               |       | TBA   |    |                     |            |
| Intended Learning Outcomes            |       | TBA   |    |                     |            |
| Type of Assessment(s) and performance |       | - TBA   |    |                     |            |
| Recommended Literature                |       | TBA   |    |                     |            |
| Module Structure                      |       |   |    |                     |            |
| Usability in other Modules/Programmes |       | -   |    |                     |            |
| Last Approval Date                    |       | 2022/11/24  |    |                     |            |

NOTE: Management and Sustainability  
course title replaced for:

**Rethinking Business & Society:  
Transformation through Sustainability  
Management [MGT71555]**

|                                      |       |   |    |                            |               |
|--------------------------------------|-------|---|----|----------------------------|---------------|
| Modulkoordinator                     |       | Knoll, Katharina  |    |                            |               |
| Studiengang                          |       | Bachelor of Science   |    |                            |               |
| Studienabschnitt                     |       | 4th & 6th semester  |    |                            |               |
| Moduldauer                           |       | 1 Semester  |    |                            |               |
| Pflicht-<br>/Wahlpflichtmodul        |       | Wahlpflicht   |    |                            |               |
| Credits:                             |       | 6   |    |                            |               |
| Häufigkeit des<br>Angebots           |       | Jährlich  |    |                            |               |
| Sprache                              |       | Englisch  |    |                            |               |
| Gesamt<br>Workload                   | 150 h | Akademische<br>Lehrstunden:   | 44 | Verbleibender<br>Workload: | Selbststudium |
|                                      |       | Eine akademische Lehrstunde entspricht 40 Minuten.  |    |                            |               |
|                                      |       | Das Selbststudium umfasst die Vor- und Nachbereitung von<br>Veranstaltungen, Leseaufgaben, die Vorbereitung von Tests und<br>Klausuren, Hausarbeiten usw. |    |                            |               |
| Voraussetzungen für<br>die Teilnahme |       | None; however, previous knowledge on Corporate Social Responsibility<br>and aspects of business ethics will be an advantage.                              |    |                            |               |

|   |   |
|---|---|
| <p>Kurzbeschreibung /<br/>Lerninhalte</p> | <p>Global warming, biodiversity loss, and digital change – these are not only challenges to be met in the future, but in the present as well. The sustainability of companies increasingly depends on how accountable, credible and transparent companies assume their corporate responsibility beyond their legal obligations. This course looks at the concepts, strategies and policies businesses put in place to address a triangle of economic, environmental and social viewpoints. As companies face the challenges of sustainability, there is an increasing need for leaders who have the capacity to holistically integrate these concepts into businesses.</p> <p>□</p> <p>The course is structured along three main questions: What is sustainable management and corporate responsibility about and how can we manage it in the core business? How can we address future challenges through responsible leadership? Which external driving forces affect today's business world?</p> <p>□</p> <p>In this course, we will start to explore the basis of sustainability such as the milestones and the societal transformation process towards sustainability in the last years. Secondly, we will look at how companies drive sustainable change by exploring the major frameworks and initiatives used by businesses to implement corporate responsibility strategies in their business and discuss the shift in mindsets of leadership needed to handle this transformation process. Finally, we will look at how business sustainability is affected by external driving forces, such as new regulatory frameworks, key stakeholders, and learn how to address these challenges as sustainable leaders of the future.</p> |
|---|---|

| Qualifikationsziele /<br>Lernergebnisse                              | <p><b>Knowledge:</b><br/> Upon completion of the course, students will have gained a solid understanding of the concepts, strategies and policies businesses put in place to address a triangle of economic, environmental and social viewpoints when making managerial decisions. In addition, they will have learned the milestones of business sustainability; and how business sustainability is affected by external driving forces.</p> <input type="checkbox"/> <p><b>Skills:</b><br/> Upon this course Students will be able to:</p> <ul style="list-style-type: none"> <li>• Identify and reflect on the different paradigm changes in business and society.</li> <li>• Define what sustainability management and corporate responsibility is about.</li> <li>• Name the main milestones of sustainability development relevant to businesses.</li> <li>• Reflect on critical and ethical responsible leadership and roles.</li> <li>• Apply tools on how to integrate stakeholders' interest and sustainable business concepts into the core business.</li> <li>• Know which European regulatory frameworks have an impact on businesses in the upcoming years.</li> <li>• Solve real-life business challenges through case study analysis.</li> <li>• Define and provide insight on sustainability managerial tasks expected in real companies.</li> </ul> <input type="checkbox"/> <p><b>Competences:</b><br/> Upon completion of the course, students will be able to deeply reflect on different corporate responsibility and sustainable leadership topics by learning and discussing concepts and frameworks of current business practices.</p> |                                     |                       |                       |          |   |                |    |               |        |            |    |           |
|--|---|-------------------------------------|-----------------------|-----------------------|----------|---|----------------|----|---------------|--------|------------|----|-----------|
| Lernformen, Methodik<br>und Betreuung                                | This module combines a range of different teaching formats, including: lectures, presentations and discussions. For interactive sessions the participatory leadership approach will be used. Careful preparation of the literature will be indispensable for well-informed and lively discussions.  |                                     |                       |                       |          |   |                |    |               |        |            |    |           |
| Art der<br>Prüfungsleistungen im<br>Modul und<br>Akkumulationspunkte | <input type="checkbox"/> <table border="1" data-bbox="483 1585 1378 1888"> <thead> <tr> <th>Overview:<br/>Type of<br/>examination</th> <th>Duration or<br/>length</th> <th>Performance<br/>points</th> <th>Due date</th> </tr> </thead> <tbody> <tr> <td>1 Group<br/>presentation<br/>including<br/>concept paper</td> <td>20 minutes max</td> <td>50</td> <td>During course</td> </tr> <tr> <td>1 Exam</td> <td>70 minutes</td> <td>70</td> <td>Exam Week</td> </tr> </tbody> </table> <input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/>  | Overview:<br>Type of<br>examination | Duration or<br>length | Performance<br>points | Due date | 1 Group<br>presentation<br>including<br>concept paper | 20 minutes max | 50 | During course | 1 Exam | 70 minutes | 70 | Exam Week |
| Overview:<br>Type of<br>examination                                  | Duration or<br>length   | Performance<br>points               | Due date              |                       |          |   |                |    |               |        |            |    |           |
| 1 Group<br>presentation<br>including<br>concept paper                | 20 minutes max  | 50                                  | During course         |                       |          |   |                |    |               |        |            |    |           |
| 1 Exam   | 70 minutes  | 70                                  | Exam Week             |                       |          |   |                |    |               |        |            |    |           |

|  |  |
|--|--|
| Literaturhinweise                              | <p><u>Recommended literature:</u></p> <p><input type="checkbox"/> Raworth, Kate (2017). "Doughnut Economics: Seven Ways to Think Like a 21st Century Economist". <i>Random House Business</i>.</p> <p><input type="checkbox"/> Carroll, A. B., &amp; Brown, J. A. (2023). "Business &amp; Society: Ethics, Sustainability, and Stakeholder Management" (11th edition). <i>Cengage Publishing</i>.</p> <p><input type="checkbox"/> Pauli, Gunter (2017). "Blue Economy 3.0: The marriage of science, innovation and entrepreneurship creates a new business model that transforms society". <i>Xlibris</i>.</p> <p><input type="checkbox"/> Brown, Brené (2018). "Dare to Lead: Brave Work. Tough Conversations. Whole Hearts". <i>Vermilion</i>.</p> <p><input type="checkbox"/> Idowu Samuel O., and Schmidpeter René (2023). "CSR, Sustainability, Ethics &amp; Governance". <i>Springer</i>.</p> <p><input type="checkbox"/> <u>Further reading:</u></p> <p><input type="checkbox"/> Schneidewind, U. (2018). "Die große Transformation: Eine Einführung in die Kunst gesellschaftlichen Wandels". <i>Fischer Verlage Publishing</i>.</p> <p><input type="checkbox"/> McDonough William, and Braungart Michael (2002). "Cradle to Cradle: Remaking the Way We Make Things". Macmillian.</p> |
| Modulstruktur                                  | This module proceeds along the three questions mentioned above. It does so by systematically relating its discussions to insights gained in the associated modules.  |
| Verwendbarkeit für andere Module und Programme | This module will prove of great interest to anyone who seeks to gain a more thorough and well-informed understanding of corporate responsibility and the sustainable management challenges business currently face.  |
| Letztes Freigabedatum                          | 08.02.2023   |

# **Banking & Finance**



**Money and Banking [FIN50026]**

|                            |       |   |    |                     |            |
|----------------------------|-------|---|----|---------------------|------------|
| Module Coordinator         |       | Berg, Tobias; Te Kaat, Daniel   |    |                     |            |
| Programme(s)               |       | Bachelor of Science   |    |                     |            |
| Term                       |       | 4th & 6th semester  |    |                     |            |
| Module Duration            |       | 1 Semester  |    |                     |            |
| Compulsory/Elective Module |       | Concentration Module  |    |                     |            |
| Credits:                   |       | 6   |    |                     |            |
| Frequency                  |       | Annually  |    |                     |            |
| Language                   |       | English   |    |                     |            |
| Total Workload             | 150 h | Academic Teaching Hours:  | 44 | Remaining Workload: | Self-study |
|                            |       | One academic teaching hour corresponds to 40 minutes.   |    |                     |            |
|                            |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.   |    |                     |            |
| Prerequisites              |       | Finance, Financial Markets  |    |                     |            |
| Content                    |       | Students obtain an overview of how financial intermediaries and financial markets work. In particular, this module deals with business models of various financial intermediaries and the core functions of financial institutions (maturity transformation, risk transformation, brokerage). Banking regulation and the effect of financial intermediation on the real economy are also discussed. |    |                     |            |

| <b>Intended Learning Outcomes</b>             | <p><b>Knowledge:</b> On successful completion of this module, students will have a thorough comprehension of the major concepts, approaches and techniques in the area of money, banking, and finance, i.e. they can</p> <ul style="list-style-type: none"> <li>• understand the institutional design and role of the financial system with a focus on money, banking, other financial institutions and financial markets,</li> <li>• compare and contrast the role of various financial intermediaries,</li> <li>• explain the basic concepts of bank risk management.</li> </ul> <p><b>Skills:</b> On successful completion of this module, students will have the proven ability to apply advanced knowledge and relate pertinent concepts to theoretical models and empirical evidence that govern interest rates and economic activity, i.e. they can</p> <ul style="list-style-type: none"> <li>• analyze financial markets in different economic settings,</li> <li>• assess the key risks facing financial intermediaries,</li> <li>• demonstrate effective skills in comprehension of money, banking and finance research.</li> </ul> <p><b>Competencies:</b> On successful completion of this module, students can take responsibility to transfer these concepts to typical financial economics situations in institutions and policy organizations, such as: risk management, profitability analysis of financial intermediaries, and bank regulation, as well as</p> <ul style="list-style-type: none"> <li>• analyze monetary and regulatory policy scenarios and appraise the effectiveness of various policy tools,</li> <li>• describe the structure of the financial industry,</li> <li>• demonstrate the impact of economic shocks on financial conditions.</li> </ul> |                     |                          |                    |                          |              |            |    |           |            |  |    |                     |
|---|---|---------------------|--------------------------|--------------------|--------------------------|--------------|------------|----|-----------|------------|--|----|---------------------|
| <b>Forms of teaching, methods and support</b> | Tutorials, group work / presentations, discussion and active participation, individual work (take home assignment); self-study  |                     |                          |                    |                          |              |            |    |           |            |  |    |                     |
| <b>Type of Assessment(s) and performance</b>  | <table border="1" data-bbox="480 1350 1378 1563"> <thead> <tr> <th>Type of examination</th> <th>Duration or length</th> <th>Performance Points</th> <th>Due date or date of exam</th> </tr> </thead> <tbody> <tr> <td>Written Exam</td> <td>60 minutes</td> <td>60</td> <td>Exam week</td> </tr> <tr> <td>Case study</td> <td></td> <td>60</td> <td>During the semester</td> </tr> </tbody> </table>  | Type of examination | Duration or length       | Performance Points | Due date or date of exam | Written Exam | 60 minutes | 60 | Exam week | Case study |  | 60 | During the semester |
| Type of examination                           | Duration or length  | Performance Points  | Due date or date of exam |                    |                          |              |            |    |           |            |  |    |                     |
| Written Exam                                  | 60 minutes  | 60                  | Exam week                |                    |                          |              |            |    |           |            |  |    |                     |
| Case study                                    |   | 60                  | During the semester      |                    |                          |              |            |    |           |            |  |    |                     |
| <b>Recommended Literature</b>                 | <p><u>Compulsory Literature:</u></p> <ul style="list-style-type: none"> <li>• Greenbaum, S.I., A.J. Thakor, and A.W.A. Boot: Contemporary Financial Intermediation, 4th edition, Academic Press, 2019</li> </ul> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><u>Further Literature:</u></p> <ul style="list-style-type: none"> <li>• Mishkin, F.S.: The Economics of Money, Banking, and Financial Markets, 11th edition, Pearson 2016</li> </ul>  |                     |                          |                    |                          |              |            |    |           |            |  |    |                     |

|                                       |   |
|---------------------------------------|---|
| Module Structure                      | <ul style="list-style-type: none"> <li>• What ist financial intermediation?</li> <li>• Money</li> <li>• Business models, risks, and risk management of financial institutions</li> <li>• Bank regulation</li> <li>• Financial intermediation and macroeconomic performance</li> </ul> |
| Usability in other Modules/Programmes | Basis for other modules in the area of finance.   |
| Last Approval Date                    | 2022/11/04  |

**Financial Markets [FIN40046]**

|                            |       |   |    |                     |            |
|----------------------------|-------|---|----|---------------------|------------|
| Module Coordinator         |       | Heidorn, Thomas   |    |                     |            |
| Programme(s)               |       | Bachelor of Science   |    |                     |            |
| Term                       |       | 4th & 6th semester  |    |                     |            |
| Module Duration            |       | 1 Semester  |    |                     |            |
| Compulsory/Elective Module |       | Concentration Module  |    |                     |            |
| Credits:                   |       | 6   |    |                     |            |
| Frequency                  |       | Annually  |    |                     |            |
| Language                   |       | English   |    |                     |            |
| Total Workload             | 150 h | Academic Teaching Hours:  | 44 | Remaining Workload: | Self-study |
|                            |       | One academic teaching hour corresponds to 40 minutes.   |    |                     |            |
|                            |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.   |    |                     |            |
| Prerequisites              |       | Finance 1   |    |                     |            |
| Content                    |       | <p>The students learn the importance and functions of financial products. The module discusses bonds and shares but also derivatives (from interest rate swap to options). The necessary mathematical tools are taught but also market conventions and market set up are analyzed. All products are calculated and discussed in detail.</p> <p><input type="checkbox"/></p> <p>The students learn:</p> <ul style="list-style-type: none"> <li>• to evaluate the importance of financial markets,</li> <li>• to understand the elements of money and capital markets,</li> <li>• to understand and use the most important products of financial markets,</li> <li>• an introduction to the theory of financial markets.</li> </ul> <p><input type="checkbox"/></p> <p><b>Topics:</b></p> <p><b>1. Financial Markets</b></p> <p>1.1 Money Market</p> <p>1.2 Capital Markets (Bond and Equity)</p> <p>1.3 Stock Valuation</p> <p><input type="checkbox"/></p> <p><b>2. Derivates</b></p> <p>2.1 Symmetric Instrument (Interest Rate Swap, Forward Rate Agreement, Future)</p> <p>2.2 Asymmetric Instruments (Equity Options)</p> |    |                     |            |

| Intended Learning Outcomes            | <p><b>Knowledge:</b><br/>Based on the theory of financial markets the students will acquire a broad knowledge of the most important products of international financial markets, i.e. they can:</p> <ul style="list-style-type: none"> <li>• explain the usage of financial products,</li> <li>• describe theoretical concepts of evaluation,</li> <li>• outline the impact of these products in real markets.</li> </ul> <p><b>Skills:</b><br/>The students learn the conception and organisational implementation of financial products and train to transfer these skills to other tasks, i.e. they can:</p> <ul style="list-style-type: none"> <li>• implement financial products,</li> <li>• evaluate the importance of these products for the market.</li> </ul> <p><b>Competences:</b><br/>The Module gives the students a broad knowledge base of the modern financial world. After successful completion of this Module, students can:</p> <ul style="list-style-type: none"> <li>• analyse complex financial products,</li> <li>• judge financial aspects considering business and regulatory questions.</li> </ul> |             |                                   |  |                  |                  |             |                                   |      |          |     |                 |
|---------------------------------------|---|-------------|-----------------------------------|--|------------------|------------------|-------------|-----------------------------------|------|----------|-----|-----------------|
| Type of Assessment(s) and performance | <table border="1" data-bbox="480 999 1378 1167"> <thead> <tr> <th data-bbox="480 999 700 1104">Prüfungsleistung</th> <th data-bbox="700 999 935 1104">Dauer oder Länge</th> <th data-bbox="935 999 1155 1104">Akku-Punkte</th> <th data-bbox="1155 999 1378 1104">Abgabe- oder Erstellungszeitpunkt</th> </tr> </thead> <tbody> <tr> <td data-bbox="480 1104 700 1167">Test</td> <td data-bbox="700 1104 935 1167">120 Min.</td> <td data-bbox="935 1104 1155 1167">120</td> <td data-bbox="1155 1104 1378 1167">End of semester</td> </tr> </tbody> </table>   |             |                                   |  | Prüfungsleistung | Dauer oder Länge | Akku-Punkte | Abgabe- oder Erstellungszeitpunkt | Test | 120 Min. | 120 | End of semester |
| Prüfungsleistung                      | Dauer oder Länge  | Akku-Punkte | Abgabe- oder Erstellungszeitpunkt |  |                  |                  |             |                                   |      |          |     |                 |
| Test                                  | 120 Min.  | 120         | End of semester                   |  |                  |                  |             |                                   |      |          |     |                 |
| Recommended Literature                | <ul style="list-style-type: none"> <li>• <b>Brealey, R.A. / Myers, S.C. / Allen, F.:</b> Principles of Corporate Finance, 2011</li> <li>• <b>Heidorn, T. / Schäffler Christian:</b> Finanzmathematik in der Bankenpraxis, 2016</li> <li>• <b>Steiner, M. / Bruns, C.:</b> Wertpapiermanagement, Stuttgart 2007</li> </ul>   |             |                                   |  |                  |                  |             |                                   |      |          |     |                 |
| Module Structure                      |   |             |                                   |  |                  |                  |             |                                   |      |          |     |                 |
| Usability in other Modules/Programmes | Base for other Finance-Modules  |             |                                   |  |                  |                  |             |                                   |      |          |     |                 |
| Last Approval Date                    | 2021/11/03  |             |                                   |  |                  |                  |             |                                   |      |          |     |                 |

**Mergers & Acquisitions [FIN60126]**

|                            |       |   |    |                     |            |
|----------------------------|-------|---|----|---------------------|------------|
| Module Coordinator         |       | Grote, Michael H.   |    |                     |            |
| Programme(s)               |       | Bachelor of Science   |    |                     |            |
| Term                       |       | 4th & 6th semester  |    |                     |            |
| Module Duration            |       | 1 Semester  |    |                     |            |
| Compulsory/Elective Module |       | Concentration Module  |    |                     |            |
| Credits:                   |       | 6   |    |                     |            |
| Frequency                  |       | Annually  |    |                     |            |
| Language                   |       | English   |    |                     |            |
| Total Workload             | 150 h | Academic Teaching Hours:  | 44 | Remaining Workload: | Self-study |
|                            |       | One academic teaching hour corresponds to 40 minutes.   |    |                     |            |
|                            |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc. |    |                     |            |
| Prerequisites              |       | Finance 1, Corporate Finance, Accounting  |    |                     |            |

|                                   |  |
|-----------------------------------|--|
| <p>Content</p>                    | <p>This course gives a comprehensive, hands-on overview of the process of mergers and acquisitions (M&amp;A). The field continues to be of extreme importance, especially in today's dynamic economic environment. Companies are increasingly using M&amp;A as the fastest way to take advantage of market opportunities or to restructure their businesses. However, M&amp;A transactions are not always successful.</p> <p>□ The course is structured along the value chain of an M&amp;A-deal and provides both a framework and tools to tackle the complex issues of the process. The course's main perspective is that of an investment bank or M&amp;A advisory boutique. With the help of a set of current, real-life case studies participants get a thorough blueprint of an M&amp;A transaction. Participants will be prepared to start working in an investment bank or M&amp;A advisory firm.</p> <p>□ The course builds upon the value chain of M&amp;A transactions. It starts with analyses of the market players and current market developments. We discuss measuring and analyzing success factors of M&amp;A transactions, and tackle the main driver of M&amp;A activity, synergies. Typical transaction processes are examined and milestone documents and outcomes along the process are discussed. Real-life case studies are used for the application of several valuation methods (multiples, dcf, synergy valuation). However, please note that this is not a course on valuation - we will rather apply valuation models in the M&amp;A context. We discuss financing M&amp;A transactions via stock or debt and the form of payments to the seller, which are important characteristics of any transaction and often a strategic tool and not simply a means of payment. We will discuss the outline of purchase agreements (the actual M&amp;A contracts) including ways to hedge the outcomes via earn-out clauses and guarantees. We discuss techniques for hostile takeovers and defenses. Finally we touch on the issue of post-merger integration, and corporate restructuring, which in many cases means selling parts of the business (again).</p> |
| <p>Intended Learning Outcomes</p> | <p>□ Students gain knowledge about the process of M&amp;A transactions that enables them to start working in an investment bank or M&amp;A advisory. More specifically, at the end of the learning process the student is able to</p> <ul style="list-style-type: none"> <li>• understand and assess the motives of a merger or an acquisition.</li> <li>• explain such transactions and structure the according processes.</li> <li>• implement synergy estimates in valuation and assess the uncertainties and limitations of various valuation techniques in an M&amp;A context.</li> <li>• explain the impact and risks of different financing structures.</li> <li>• give an overview of the basic components of purchase and sale agreements.</li> <li>• understand and comment on commonly used takeover tactics and defenses.</li> <li>• analyze how value is created (or destroyed) as a result of corporate mergers.</li> </ul>  |

| Forms of teaching, methods and support | The course consists of lectures, guest lectures, accompanying material, a basic text book, an extensive slide-set, and - most importantly - the work in groups on a hypothetical transaction.  |                    |                          |  |                     |                    |                    |                          |                    |  |    |               |              |            |    |           |
|--|--|--------------------|--------------------------|--|---------------------|--------------------|--------------------|--------------------------|--------------------|--|----|---------------|--------------|------------|----|-----------|
| Type of Assessment(s) and performance  | <table border="1" data-bbox="480 461 1378 674"> <thead> <tr> <th data-bbox="485 468 703 539">Type of examination</th> <th data-bbox="703 468 935 539">Duration or length</th> <th data-bbox="935 468 1158 539">Performance Points</th> <th data-bbox="1158 468 1374 539">Due date or date of exam</th> </tr> </thead> <tbody> <tr> <td data-bbox="485 539 703 613">Group Presentation</td> <td data-bbox="703 539 935 613"></td> <td data-bbox="935 539 1158 613">80</td> <td data-bbox="1158 539 1374 613">During Course</td> </tr> <tr> <td data-bbox="485 613 703 674">Written exam</td> <td data-bbox="703 613 935 674">40 Minutes</td> <td data-bbox="935 613 1158 674">40</td> <td data-bbox="1158 613 1374 674">Exam Week</td> </tr> </tbody> </table> <p data-bbox="480 685 1477 1245"> <input type="checkbox"/> Ad 1: The presentation will be prepared by groups of students. The size of the groups will be determined by the roll-out for this course; maximum group size will be five students. You will be sorted into a group by student advisory.<br/> The task is set up to mimic the tasks for juniors in investment banks, i.e. you are asked to prepare a powerpoint presentation with a thorough analysis of an acquisition case (to be determined at the course's start). Detailed instructions are provided in class. You have to submit the presentation and the underlying excel files. Deadline will be after the lectures end (this might vary according to final exam schedules, details follow), and students are strongly encouraged to work on the presentation already along the course as we proceed with the topics. </p> <p data-bbox="480 1122 1477 1245"> <input type="checkbox"/> Ad 2: The final exam might cover all the topics presented in the lectures, the online-material, and the guest lectures. </p> |                    |                          |  | Type of examination | Duration or length | Performance Points | Due date or date of exam | Group Presentation |  | 80 | During Course | Written exam | 40 Minutes | 40 | Exam Week |
| Type of examination                    | Duration or length   | Performance Points | Due date or date of exam |  |                     |                    |                    |                          |                    |  |    |               |              |            |    |           |
| Group Presentation                     |  | 80                 | During Course            |  |                     |                    |                    |                          |                    |  |    |               |              |            |    |           |
| Written exam                           | 40 Minutes   | 40                 | Exam Week                |  |                     |                    |                    |                          |                    |  |    |               |              |            |    |           |
| Recommended Literature                 | <p data-bbox="480 1279 1477 1615"> The main resource for this course is </p> <p data-bbox="480 1323 1477 1447"> <input type="checkbox"/> DePamphilis, Donald (2019): Mergers, Acquisitions, and Other Restructuring Activities: An Integrated Approach to Process, Tools, Cases, and Solutions, 10th edition, Academic Press / Elsevier: London. </p> <p data-bbox="480 1458 1477 1514"> <input type="checkbox"/> Additional material will be provided closer to the course start. </p> <p data-bbox="480 1525 1477 1615"> <input type="checkbox"/><br/> <input type="checkbox"/><br/> <input type="checkbox"/> </p>   |                    |                          |  |                     |                    |                    |                          |                    |  |    |               |              |            |    |           |



|                                       |   |
|---------------------------------------|---|
| Module Structure                      | <p>I organize this in days for a better overview:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Day 1: Introduction, success and failure, target takes all</li> <li>Day 2: Synergies and their valuation, transaction structures</li> <li>Day 3: Valuation: multiples, discounted cash flow, synergies</li> <li>Day 4: Financing and payment structure, merger agreements</li> <li>Day 5: Takeover defense, accounting for M&amp;A, post merger integration, corporate restructuring</li> <li>Day 6: recap, guest speakers</li> </ul> <p><input type="checkbox"/> The guest speakers will very likely be scheduled during the course so there might be a slight re-arrangement of topics.</p> |
| Usability in other Modules/Programmes | -   |
| Last Approval Date                    | 2022/11/24  |

# Consulting & Finance

**Foundations of Consulting [ACC51540]**

|                                       |       |   |    |                     |            |
|---------------------------------------|-------|---|----|---------------------|------------|
| Module Coordinator                    |       |   |    |                     |            |
| Programme(s)                          |       | Bachelor of Science   |    |                     |            |
| Term                                  |       | 4th & 6th semester  |    |                     |            |
| Module Duration                       |       | 1 Semester  |    |                     |            |
| Compulsory/Elective Module            |       | Concentration Module  |    |                     |            |
| Credits:                              |       | 6   |    |                     |            |
| Frequency                             |       | Annually  |    |                     |            |
| Language                              |       | English   |    |                     |            |
| Total Workload                        | 150 h | Academic Teaching Hours:  | 44 | Remaining Workload: | Self-study |
|                                       |       | One academic teaching hour corresponds to 40 minutes.   |    |                     |            |
|                                       |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc. |    |                     |            |
| Prerequisites                         |       | -   |    |                     |            |
| Content                               |       | TBA   |    |                     |            |
| Intended Learning Outcomes            |       | TBA   |    |                     |            |
| Type of Assessment(s) and performance |       | - TBA   |    |                     |            |
| Recommended Literature                |       | TBA   |    |                     |            |
| Module Structure                      |       |   |    |                     |            |
| Usability in other Modules/Programmes |       | -   |    |                     |            |
| Last Approval Date                    |       | 2022/11/24  |    |                     |            |

**Accounting and the Business Environment  
[ACC60139]**

|                            |       |   |    |                     |            |
|----------------------------|-------|---|----|---------------------|------------|
| Module Coordinator         |       | Wagner, Hermann A.  |    |                     |            |
| Programme(s)               |       | Bachelor of Science   |    |                     |            |
| Term                       |       | 4th & 6th semester  |    |                     |            |
| Module Duration            |       | 1 Semester  |    |                     |            |
| Compulsory/Elective Module |       | Concentration Module  |    |                     |            |
| Credits:                   |       | 6   |    |                     |            |
| Frequency                  |       | Annually  |    |                     |            |
| Language                   |       | English   |    |                     |            |
| Total Workload             | 150 h | Academic Teaching Hours:  | 44 | Remaining Workload: | Self-study |
|                            |       | One academic teaching hour corresponds to 40 minutes.   |    |                     |            |
|                            |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.   |    |                     |            |
| Prerequisites              |       | Financial Accounting, Managerial Accounting   |    |                     |            |
| Content                    |       | <p>Students will be assigned to small subgroups. Each group has to analyze the consolidated annual report of a specific firm. Regarding the M&amp;A sessions the students have to analyze also specific transactions.</p> <p>□<br/>The module is structured as follows: A short lecture (80 minutes) will introduce each of the topics outlined above. The following meeting starts with an interactive session in which the groups will explain their findings regarding the topics at hand for the respective firm/industry for which they have expertise. There will be 11 interactive sessions (each around 100 minutes) in the module.</p> |    |                     |            |

| Intended Learning Outcomes              | <ul style="list-style-type: none"> <li>• <b>Knowledge:</b> Participants will deepen their factual knowledge of various accounting choices and discretion in reporting. Moreover, participants will acquire theoretical knowledge about how accounting is impacted by the business and regulatory environment.</li> <li>• <b>Skills:</b> Students will be able to analyze financial statements in the context of the environment in which a firm operates. They will also improve their oral and written communication skills.</li> <li>• <b>Competencies:</b> Students will be able to identify critical accounting methods for given industries. They will understand how the business and legal environment affects a firm's strategy and operations and be competent to assess a) the importance and adequacy of different accounting systems (management perspective) and b) what can be learnt about a firm's strategy, operations and performance from publicly available information (analyst's perspective).</li> </ul> |                     |                          |                    |                          |           |  |    |               |                       |  |    |               |   |  |    |                 |
|---|---|---------------------|--------------------------|--------------------|--------------------------|-----------|--|----|---------------|-----------------------|--|----|---------------|---|--|----|-----------------|
| Forms of teaching, methods and support  | Class sessions will combine traditional (short) lectures followed by interactive case study discussions. Students are required to contribute to these interactive sessions by presenting their findings for individual business cases. Students will be asked to prepare for the sessions by working on the respective cases. In the first sessions, we will form groups of about 4-5 students and assign a company case to each of them. Groups have to hand in a comprehensive report on the respective firm they are analyzing.  |                     |                          |                    |                          |           |  |    |               |                       |  |    |               |   |  |    |                 |
| Type of Assessment(s) and performance   | <table border="1" data-bbox="480 1182 1378 1503"> <thead> <tr> <th>Type of examination</th> <th>Duration or length</th> <th>Performance points</th> <th>Due date or date of exam</th> </tr> </thead> <tbody> <tr> <td>Oral exam</td> <td></td> <td>58</td> <td>End of course</td> </tr> <tr> <td>Group project: report</td> <td></td> <td>40</td> <td>End of course</td> </tr> <tr> <td>Practical application of subject matter</td> <td></td> <td>22</td> <td>During semester</td> </tr> </tbody> </table> <p> <input type="checkbox"/><br/> <input type="checkbox"/><br/> <u>Examination requirements:</u><br/> <input type="checkbox"/><br/> N/A </p>  | Type of examination | Duration or length       | Performance points | Due date or date of exam | Oral exam |  | 58 | End of course | Group project: report |  | 40 | End of course | Practical application of subject matter |  | 22 | During semester |
| Type of examination                     | Duration or length  | Performance points  | Due date or date of exam |                    |                          |           |  |    |               |                       |  |    |               |   |  |    |                 |
| Oral exam                               |   | 58                  | End of course            |                    |                          |           |  |    |               |                       |  |    |               |   |  |    |                 |
| Group project: report                   |   | 40                  | End of course            |                    |                          |           |  |    |               |                       |  |    |               |   |  |    |                 |
| Practical application of subject matter |   | 22                  | During semester          |                    |                          |           |  |    |               |                       |  |    |               |   |  |    |                 |

|                               |  |
|-------------------------------|--|
| <p>Recommended Literature</p> | <p>Basic literature:</p> <ul style="list-style-type: none"> <li>• Abdel-Khalik, A. Rashad (2014): <i>Accounting for Risk, Hedging &amp; Complex Contracts</i>. Routledge. (Chapter 2, 4, 12).</li> <li>• Anthony, Robert N.; Govindarajan, Vijay; Hartmann, Frank G. H.; Kraus, Kalle; Nilsson, Göran (2014): <i>Management Control Systems</i>. MacGraw-Hill. (Chapter 2).</li> <li>• Dhaliwal, Dan S.; Radhakrishnan, Suresh; Tsang, Albert; Yang, Yong George (2012). Nonfinancial Disclosure and Analyst Forecast Accuracy – International Evidence on Corporate Social Responsibility Disclosure. <i>Accounting Review</i>, 87(3), 723-759.</li> <li>• Ferreira, Aldónio; Otley, David (2009): The design and use of performance management systems: An extended framework for analysis. <i>Management Accounting Research</i>, 20(4), 263-282</li> <li>• Gregory, Edward; Myers, Roslyn (2002). Help Clients Take Measure. <i>Journal of Accountancy</i>. 193(6), 53-58.</li> <li>• Merchant, Kenneth A. (1982): The Control Function of Management. <i>Sloan Management Review</i>, 23(4), 43-55.</li> <li>• Shi, Yuwei; Manning, Tom (2009): Understanding Business Models and Business Model Risks. <i>Journal of Private Equity</i>. 12(2), 49-59.</li> <li>• Singleton-Green, Brian (2014). Should financial reporting reflect firms' business models? What accounting can learn from the economic theory of the firm. <i>Journal of Management &amp; Governance</i>, 18(3), 697-706.</li> </ul> <p>Additional sources will be provided in class.</p> |
|-------------------------------|--|

|                                       |   |
|---------------------------------------|---|
| Module Structure                      | <p>Students are introduced to different business models within and across industries. In the following, significant accounting methods and challenges for different industries are reviewed, taking into account differences in firms' business models. We will discuss external accounting and different management accounting systems and their appropriateness for different industries. In this context we will discuss also risk accounting. We will also talk about general and industry-specific regulation. In the following, we talk about ethical and environmental issues and how financial statements inform about what is sometimes called corporate citizenship. We will proceed with discussing how firms account for the profitability of their investments and which kind of accounting they need for M&amp;A transactions.</p> <p>□</p> <ol style="list-style-type: none"> <li>1. Business Models</li> <li>2. Financial Accounting</li> <li>3. Management Accounting I</li> <li>4. Management Accounting II</li> <li>5. Business Risk Management</li> <li>6. Financial Risk Management</li> <li>7. Regulatory Accounting and Competition</li> <li>8. Ethical and Environmental Accounting Issues</li> <li>9. Accounting for M&amp;A I</li> <li>10. Accounting for M&amp;A II</li> <li>11. Accounting for M&amp;A III</li> </ol> |
| Usability in other Modules/Programmes | Preparation for Master programmes, e.g. Master in Auditing.   |
| Last Approval Date                    | 2021/11/29  |

### Accounting and Capital Markets [ACC60113]

|                            |       |  |    |                     |            |
|----------------------------|-------|--|----|---------------------|------------|
| Module Coordinator         |       | Becker, Gernot   |    |                     |            |
| Programme(s)               |       | Bachelor of Science  |    |                     |            |
| Term                       |       | 4th & 6th semester   |    |                     |            |
| Module Duration            |       | 1 Semester   |    |                     |            |
| Compulsory/Elective Module |       | Concentration Module   |    |                     |            |
| Credits:                   |       | 6  |    |                     |            |
| Frequency                  |       | Annually   |    |                     |            |
| Language                   |       | English  |    |                     |            |
| Total Workload             | 150 h | Academic Teaching Hours:   | 44 | Remaining Workload: | Self-study |
|                            |       | One academic teaching hour corresponds to 40 minutes.  |    |                     |            |
|                            |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.  |    |                     |            |
| Prerequisites              |       | Successful participation in first semester accounting module.  |    |                     |            |
| Content                    |       | Accounting is an important source of company-specific financial information publicly available to external stakeholders such as debt and equity investors. The module introduces students to using the information provided in a company's annual report for decision-making in capital markets (i.e. investment decisions). To that end, we will cover topics in financial statements analysis, corporate governance, structured forecasting, credit analysis and equity valuation. We will also discuss accounting topics, such as consolidated accounting and segment reporting, which are important to understanding the information provided in the financial statements. |    |                     |            |



| <b>Intended Learning Outcomes</b>             | <p><b>Knowledge:</b><br/> On successful completion of this module, students will have a thorough comprehension of the concepts, quality and uses of accounting information by capital market participants. In particular, students acquire knowledge about</p> <ul style="list-style-type: none"> <li>• the relevant reporting standards and accounting concepts underlying firms' financial statements;</li> <li>• the intricacies of earnings management</li> <li>• key financial ratios and the DuPont model to decompose a firm's return on equity;</li> <li>• the workings of the structured forecasting approach;</li> <li>• the anatomy of simple valuation models (with a focus on the residual income model).</li> </ul> <p><input type="checkbox"/></p> <p><b>Skills:</b><br/> On successful completion of this module, students will have the proven ability to apply advanced knowledge of accounting and capital markets by</p> <ul style="list-style-type: none"> <li>• extracting relevant information from firms' financial statements;</li> <li>• analyzing the drivers of firms' profitability;</li> <li>• being able to evaluate earnings management measures;</li> <li>• forecasting firms' future financial statements using a structured approach;</li> <li>• using the inputs derived in valuation models.</li> </ul> <p><b>Competencies:</b><br/> On successful completion of this module, students are capable of independently analyzing financial statements and critically discussing the advantages/disadvantages of distinct accounting concepts from a user's point of view. They can clearly communicate the results of their own financial statement analysis, critically discuss and evaluate the underlying assumptions of their valuation models.</p> |                     |                          |                    |                          |             |             |    |                 |              |            |    |                 |
|---|---|---------------------|--------------------------|--------------------|--------------------------|-------------|-------------|----|-----------------|--------------|------------|----|-----------------|
| <b>Forms of teaching, methods and support</b> | Presentation, small case studies and group discussions.   |                     |                          |                    |                          |             |             |    |                 |              |            |    |                 |
| <b>Type of Assessment(s) and performance</b>  | <table border="1" data-bbox="480 1518 1378 1713"> <thead> <tr> <th>Type of examination</th> <th>Duration or length</th> <th>Performance points</th> <th>Due date or date of exam</th> </tr> </thead> <tbody> <tr> <td>Group paper</td> <td>8-10 slides</td> <td>30</td> <td>During semester</td> </tr> <tr> <td>Written exam</td> <td>90 minutes</td> <td>90</td> <td>End of semester</td> </tr> </tbody> </table> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p>The exam date will be communicated by the program office.</p>   | Type of examination | Duration or length       | Performance points | Due date or date of exam | Group paper | 8-10 slides | 30 | During semester | Written exam | 90 minutes | 90 | End of semester |
| Type of examination                           | Duration or length  | Performance points  | Due date or date of exam |                    |                          |             |             |    |                 |              |            |    |                 |
| Group paper                                   | 8-10 slides   | 30                  | During semester          |                    |                          |             |             |    |                 |              |            |    |                 |
| Written exam                                  | 90 minutes  | 90                  | End of semester          |                    |                          |             |             |    |                 |              |            |    |                 |
| <b>Recommended Literature</b>                 | <ul style="list-style-type: none"> <li>• Lundholm/Sloan, Equity Valuation and Analysis, 5th edition, 2019.</li> <li>• Additional readings as provided in the course package.</li> </ul>   |                     |                          |                    |                          |             |             |    |                 |              |            |    |                 |

|                                       |  |
|---------------------------------------|--|
| Module Structure                      | The course provides the foundations of financial accounting, consolidated accounting and segment reporting. It explores earnings management intentions and possibilities. It also introduces students to financial ratios and profitability analysis. Financial ratios are applied in structured forecasting, credit analysis and equity valuation. A detailed outline will be provided in the course package. |
| Usability in other Modules/Programmes | The module is part of the thematic area "Managing Organisations", but the learning outcomes are beneficial for the comprehension of banking and finance modules as well.   |
| Last Approval Date                    | 2022/11/11   |

# **Information Systems Engineering\***

**Database Systems & Data Management  
[INF74336]**

|                            |       |   |    |                     |            |
|----------------------------|-------|---|----|---------------------|------------|
| Module Coordinator         |       | Roßbach, Peter  |    |                     |            |
| Programme(s)               |       | Bachelor of Science   |    |                     |            |
| Term                       |       | 4th & 6th semester  |    |                     |            |
| Module Duration            |       | 1 Semester  |    |                     |            |
| Compulsory/Elective Module |       | Concentration Module  |    |                     |            |
| Credits:                   |       | 6   |    |                     |            |
| Frequency                  |       | Annually  |    |                     |            |
| Language                   |       | English   |    |                     |            |
| Total Workload             | 150 h | Academic Teaching Hours:  | 44 | Remaining Workload: | Self-study |
|                            |       | One academic teaching hour corresponds to 40 minutes.   |    |                     |            |
|                            |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.   |    |                     |            |
| Prerequisites              |       | Successful participation in the modules "Introduction to Programming" and "System Development"  |    |                     |            |
| Content                    |       | 1 Introduction to Data Management<br>2 Conceptual Data Modeling<br>3 Database Systems<br>4 Relational Database Systems<br>5 NoSQL Database Systems<br>6 NewSQL Database Systems<br>7 Elementary Data Organization |    |                     |            |

| <b>Intended Learning Outcomes</b>             | <p><b>Knowledge:</b><br/> At the end of this module, participating students should be familiar with the concepts, methods, and techniques in the areas of data organization and database systems. They should be able to</p> <ul style="list-style-type: none"> <li>• explain the principles and concepts of data models,</li> <li>• describe visual modeling methods,</li> <li>• master database access techniques, and</li> <li>• master database access using programming languages.</li> </ul> <p>☐</p> <p><b>Skills:</b><br/> Upon successful completion of the module, students should be able to apply the knowledge they have acquired. This includes being able to:</p> <ul style="list-style-type: none"> <li>• work out the requirements for data structures in given tasks,</li> <li>• apply the different modeling methods according to the requirements,</li> <li>• create databases according to the models,</li> <li>• use data retrieval and manipulation techniques, and</li> <li>• create software applications with database access.</li> </ul> <p>☐</p> <p><b>Competencies:</b><br/> Upon successful completion of the module, students should be able to take responsibility in data management in an organization. They will be able to:</p> <ul style="list-style-type: none"> <li>• grasp the requirements for data structures in practice,</li> <li>• to convert these into semantic as well as logical data models,</li> <li>• select the appropriate database technologies with regard to the requirements and</li> <li>• to implement them in usable systems.</li> </ul> |                    |                          |  |                    |          |                    |                          |              |  |     |           |
|---|---|--------------------|--------------------------|--|--------------------|----------|--------------------|--------------------------|--------------|--|-----|-----------|
| <b>Forms of teaching, methods and support</b> | Interactive lecture, case studies and practical exercises using different database systems, modeling tools and Python<br>☐  |                    |                          |  |                    |          |                    |                          |              |  |     |           |
| <b>Type of Assessment(s) and performance</b>  | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">Type of Assessment</th> <th style="width: 25%;">Duration</th> <th style="width: 25%;">Performance Points</th> <th style="width: 25%;">Due Date or Date of Exam</th> </tr> </thead> <tbody> <tr> <td>Written Exam</td> <td></td> <td>120</td> <td>Exam Week</td> </tr> </tbody> </table>   |                    |                          |  | Type of Assessment | Duration | Performance Points | Due Date or Date of Exam | Written Exam |  | 120 | Exam Week |
| Type of Assessment                            | Duration  | Performance Points | Due Date or Date of Exam |  |                    |          |                    |                          |              |  |     |           |
| Written Exam                                  |   | 120                | Exam Week                |  |                    |          |                    |                          |              |  |     |           |
| <b>Recommended Literature</b>                 | Will be announced in the lectures   |                    |                          |  |                    |          |                    |                          |              |  |     |           |
| <b>Module Structure</b>                       |   |                    |                          |  |                    |          |                    |                          |              |  |     |           |
| <b>Usability in other Modules/Programmes</b>  | -   |                    |                          |  |                    |          |                    |                          |              |  |     |           |
| <b>Last Approval Date</b>                     | 2021/11/03  |                    |                          |  |                    |          |                    |                          |              |  |     |           |

**Information & Architecture Management  
[INF74395]**

|                            |       |  |    |                     |            |
|----------------------------|-------|--|----|---------------------|------------|
| Module Coordinator         |       | Spohrer, Kai   |    |                     |            |
| Programme(s)               |       | Bachelor of Science  |    |                     |            |
| Term                       |       | 4th & 6th semester   |    |                     |            |
| Module Duration            |       | 1 Semester   |    |                     |            |
| Compulsory/Elective Module |       | Concentration Module   |    |                     |            |
| Credits:                   |       | 6  |    |                     |            |
| Frequency                  |       | Annually   |    |                     |            |
| Language                   |       | English  |    |                     |            |
| Total Workload             | 150 h | Academic Teaching Hours:   | 44 | Remaining Workload: | Self-study |
|                            |       | One academic teaching hour corresponds to 40 minutes.  |    |                     |            |
|                            |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.  |    |                     |            |
| Prerequisites              |       | -  |    |                     |            |
| Content                    |       | <p>This course provides a comprehensive introduction to organizing and managing the information function in organizations of the digital age. It puts special emphasis on contemporary theory and concepts from the academic discipline of Information Systems (IS) that help understand and guide strategic and tactical decisions in managing information resources, including information systems, architectures, infrastructures, and workforce. Interactively, the class elaborates insights into management decisions from different perspectives.</p> <p>□<br/>Topic areas:</p> <ul style="list-style-type: none"> <li>- IS strategy</li> <li>- IS governance</li> <li>- IS sourcing</li> <li>- IS controlling</li> </ul> |    |                     |            |
| Intended Learning Outcomes |       | <p>After attending this course, students are able to use extant information systems (IS) theories and concepts to:</p> <ul style="list-style-type: none"> <li>- analyze complex management decisions of information and architecture management;</li> <li>- assess possible actions in management decisions of information and architecture management;</li> <li>- give feasible and actionable advice on strategic and tactical decisions of information and architecture management.</li> </ul>  |    |                     |            |

| Forms of teaching, methods and support | <ul style="list-style-type: none"> <li>- preparation of readings at home</li> <li>- classroom lecture and discussions</li> <li>- group work on cases</li> </ul>   |                    |                          |  |                     |                    |                    |                          |              |            |    |           |            |  |    |               |
|--|---|--------------------|--------------------------|--|---------------------|--------------------|--------------------|--------------------------|--------------|------------|----|-----------|------------|--|----|---------------|
| Type of Assessment(s) and performance  | <table border="1"> <thead> <tr> <th>Type of examination</th> <th>Duration or length</th> <th>Performance Points</th> <th>Due date or date of exam</th> </tr> </thead> <tbody> <tr> <td>Written Exam</td> <td>80 Minutes</td> <td>80</td> <td>Exam Week</td> </tr> <tr> <td>Group Work</td> <td></td> <td>40</td> <td>During Course</td> </tr> </tbody> </table> |                    |                          |  | Type of examination | Duration or length | Performance Points | Due date or date of exam | Written Exam | 80 Minutes | 80 | Exam Week | Group Work |  | 40 | During Course |
| Type of examination                    | Duration or length  | Performance Points | Due date or date of exam |  |                     |                    |                    |                          |              |            |    |           |            |  |    |               |
| Written Exam                           | 80 Minutes  | 80                 | Exam Week                |  |                     |                    |                    |                          |              |            |    |           |            |  |    |               |
| Group Work                             |   | 40                 | During Course            |  |                     |                    |                    |                          |              |            |    |           |            |  |    |               |
| Recommended Literature                 | Laudon & Laudon 2021, Managing Information Systems: Managing the Digital Firm, 17th Edition, Pearson<br>Pearlson, Saunders, Galletta 2019, Managing and Using Information Systems: A Strategic Approach, 7th Edition, Wiley   |                    |                          |  |                     |                    |                    |                          |              |            |    |           |            |  |    |               |
| Module Structure                       |   |                    |                          |  |                     |                    |                    |                          |              |            |    |           |            |  |    |               |
| Usability in other Modules/Programmes  | -   |                    |                          |  |                     |                    |                    |                          |              |            |    |           |            |  |    |               |
| Last Approval Date                     | 2021/11/29  |                    |                          |  |                     |                    |                    |                          |              |            |    |           |            |  |    |               |

### Systems Development [INF40125]

|                            |       |  |    |                     |            |
|----------------------------|-------|--|----|---------------------|------------|
| Module Coordinator         |       | Spohrer, Kai   |    |                     |            |
| Programme(s)               |       | Bachelor of Science  |    |                     |            |
| Term                       |       | 4th & 6th semester   |    |                     |            |
| Module Duration            |       | 1 Semester   |    |                     |            |
| Compulsory/Elective Module |       | Concentration Module   |    |                     |            |
| Credits:                   |       | 6  |    |                     |            |
| Frequency                  |       | Annually   |    |                     |            |
| Language                   |       | English  |    |                     |            |
| Total Workload             | 150 h | Academic Teaching Hours:   | 44 | Remaining Workload: | Self-study |
|                            |       | One academic teaching hour corresponds to 40 minutes.  |    |                     |            |
|                            |       | Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.  |    |                     |            |
| Prerequisites              |       | Introduction to Programming  |    |                     |            |
| Content                    |       | <p>This course provides a comprehensive introduction to systems analysis and design by guiding students through the software lifecycle with a focus on advanced project management and programming techniques. We take the role of business analysts and software architects to understand their activities and responsibilities in software projects. Students acquire knowledge about modern agile and hybrid approaches to software project management and gain experience in programming with Java. Drawing on students' prior experience in programming (with Python), we elaborate the specifics, benefits, and drawbacks of object orientation and how it fits into different kinds of software projects.</p> |    |                     |            |
| Intended Learning Outcomes |       | <p>After attending this module, students are able to:</p> <ul style="list-style-type: none"> <li>- explain multiple modern approaches to software project management</li> <li>- select adequate software project management approaches according to project characteristics</li> <li>- conduct basic activities of requirements engineering</li> <li>- apply standard modeling techniques</li> <li>- develop simple and slightly advanced programs in Java</li> <li>- explain the context-dependent adequacy of object-oriented programming compared to other paradigms.</li> </ul>  |    |                     |            |



| Forms of teaching, methods and support | <ul style="list-style-type: none"> <li>- individual preparation at home</li> <li>- lecture with group discussions</li> <li>- exercises and assignments</li> <li>- group work</li> </ul>   |                    |                          |  |                     |                    |                    |                          |              |            |    |           |                         |  |    |               |            |  |    |              |
|--|---|--------------------|--------------------------|--|---------------------|--------------------|--------------------|--------------------------|--------------|------------|----|-----------|-------------------------|--|----|---------------|------------|--|----|--------------|
| Type of Assessment(s) and performance  | <table border="1"> <thead> <tr> <th>Type of examination</th> <th>Duration or length</th> <th>Performance Points</th> <th>Due date or date of exam</th> </tr> </thead> <tbody> <tr> <td>Written Exam</td> <td>60 Minutes</td> <td>60</td> <td>Exam Week</td> </tr> <tr> <td>Exercises / assignments</td> <td></td> <td>10</td> <td>During Course</td> </tr> <tr> <td>Group Work</td> <td></td> <td>50</td> <td>19 June 2022</td> </tr> </tbody> </table>         |                    |                          |  | Type of examination | Duration or length | Performance Points | Due date or date of exam | Written Exam | 60 Minutes | 60 | Exam Week | Exercises / assignments |  | 10 | During Course | Group Work |  | 50 | 19 June 2022 |
| Type of examination                    | Duration or length  | Performance Points | Due date or date of exam |  |                     |                    |                    |                          |              |            |    |           |                         |  |    |               |            |  |    |              |
| Written Exam                           | 60 Minutes  | 60                 | Exam Week                |  |                     |                    |                    |                          |              |            |    |           |                         |  |    |               |            |  |    |              |
| Exercises / assignments                |   | 10                 | During Course            |  |                     |                    |                    |                          |              |            |    |           |                         |  |    |               |            |  |    |              |
| Group Work                             |   | 50                 | 19 June 2022             |  |                     |                    |                    |                          |              |            |    |           |                         |  |    |               |            |  |    |              |
| Recommended Literature                 | <p>Recommended readings</p> <p>Spurrier &amp; Topi 2020, Systems Analysis &amp; Design in an Age of Options, Prospect Press.</p> <p>Kendall &amp; Kendall 2019, Systems Analysis and Design, 10th Edition, Pearson.</p> <p>J. Lewis, P. DePasquale, J. Chase 2020, Java Foundations: Introduction to Program Design and Data Structures, 5th Edition, Pearson.</p> <p>I. Sommerville 2010 Software Engineering, 9 edition, Addison-Wesley, Harlow, England.</p> |                    |                          |  |                     |                    |                    |                          |              |            |    |           |                         |  |    |               |            |  |    |              |
| Module Structure                       | <p>Module structure:</p> <ul style="list-style-type: none"> <li>- The software lifecycle and its management</li> <li>- Modern approaches to software project management</li> <li>- Requirements engineering</li> <li>- Conceptual and visual modeling</li> <li>- Programming in Java</li> <li>- Object orientation in analysis and design</li> <li>- Quality assurance, testing, maintenance</li> <li>- Architectural patterns</li> </ul>                       |                    |                          |  |                     |                    |                    |                          |              |            |    |           |                         |  |    |               |            |  |    |              |
| Usability in other Modules/Programmes  | -   |                    |                          |  |                     |                    |                    |                          |              |            |    |           |                         |  |    |               |            |  |    |              |
| Last Approval Date                     | 2021/11/22  |                    |                          |  |                     |                    |                    |                          |              |            |    |           |                         |  |    |               |            |  |    |              |