Frankfurt School of Finance & Management
German Excellence. Global Relevance.

Frankfurt School Exchange Student Information

Overview of Winter Semester 2023 MSc Modules

Master in Management*

Core courses and concentrations courses might be combined but it can happen that there is one or two clashes, for scheduling constraints. Please note that some combinations of concentrations might not be compatibles with other courses. These incompatibilities will be indicated on the selection platform.

Quarter Schedules for courses:

Quarter 1:	Academic period:	01 September – 17 October 2023
	Exam Week:	19 October – 25 October 2023
Quarter 2:	Academic period:	26 October – 12 December 2023
	Exam Week:	14 December – 20 December 2023

Course	Type of course	Quarter
Marketing*	Core course	1+2
Evidence-based Management	Core course	1
Managerial Data Science	Core course	1
Financial Analysis and Performance Management	Core course	2
Operations Management	Core course	2
Corporate Strategy & Scaling	Concentracion course	1
Strategy Execution	Concentracion course	1
Persuasive Communication	Concentracion course	2
Diversity Management	Concentracion course	1
Change Management	Concentracion course	1
Machine Learning for Big Data	Concentracion course	1
Data Visualization & Storytelling	Concentracion course	1
Designing Resilient Supply Chains	Concentracion course	1
Designing & Analysing Business Experiments	Concentracion course	1

**Marketing is scheduled across Q1 and Q2*

If you combine in your selection core courses and concentrations, it may happen that there will be a clash as they belong to two different intakes. A maximum of two sessions overlap between courses are allowed for international students to enrich the courses portfolio.

Marketing [MGT71423]

Module Coordinator		Meinert, Britta			
Programme(s)		Master in Management			
Term		Semester 1 Q1			
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 acadmic teaching hour corresponds to 40 minutes.			
		Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.			
Prerequisites		Basic Math Skills			

Content	**1. Strategic Marketing** 1.1 Market Analysis 1.2 Segmenting, Targeting, Positioning 1.3 Marketing Strategic Concepts **2. Marketing Instruments** **2.1 Product Management** 2.1.1 Innovation Management 2.1.2 Management of Established Products 2.1.3 Brand Management **2.2. Price Management** 2.2.1 Fundamentals of Classical Pricing Theory 2.2.2 Price Determination and Discrimination 2.2.3 Principles of Behavioral Pricing **2.3. Sales Management** 2.3.1 Design and Structure of the Sales System 2.3.2 Customer Relationship Management 2.3.3 Managing Relationships with Sales Partners **2.4. Communications Management** 2.4.1 Communication Planning and Budgeting 2.4.2 Design of Communication Measures 2.4.3 Monitoring the Impact of Communication

<table>
<tr><td>Intended Learning Outcomes</td><td>

Knowledge:
On successful completion of this module, students will have a thorough comprehension of Marketing, i.e. they can
- Understand the terminology, concepts and tools of modern marketing practice
- Thoroughly comprehend strategic marketing and the elements of the marketing mix and the importance of integrating these elements
- Explain the key aspects of each of the four marketing instruments (product management, price management, sales management and communications management)

Skills:
On successful completion of this module, students will have the proven ability to apply advanced knowledge in Marketing and to solve marketing managerial problems, i.e. they can
- Apply the key tools that marketers use to analyse market situations
- Use the marketing instruments to react accordingly to these situations
- Demonstrate effective presentation skills

Competences:
On successful completion of this module, students can solve a real life marketing case, i.e. they can
- Analyse a real life market situation correctly
- Apply key marketing principles to real marketing issues
- Coordinate decisions between team members
- Develop solutions to specific issues in teams and present their results

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<tr><td>Forms of teaching, methods and support</td><td>Lecture, discussion, exercises, quizzes, group work, case studies</td></tr>
<tr><td>Type of Assessment(s) and performance</td><td>

Type of examination	Duration or length	Performance Points	Due date or date of exam
Case Study	15 minutes	60	Quarter 2
Written Exam	60 minutes	60	Exam week of Quarter 1

</td></tr>
<tr><td>Recommended Literature</td><td>

Textbook:
- Christian Homburg, Sabine Kuester and Harley Krohmer (2013), Marketing Management: A Contemporary Perspective, Second Edition, McGraw-Hill

Case study:
In cooperation with Procter & Gamble

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Module Structure	This course provides an introduction to strategic marketing and a detailed overview of the four marketing instruments (product management, price management, sales management and communications management). A close cooperation with Procter & Gamble provides students with the opportunity to apply the key concepts to practical business situations.
Usability in other Modules/Programmes	Marketing modules in the concentrations
Last Approval Date	2022/04/29

Evidence-based Management [MGT71584]

Modulkoordinator		Atalay, Selin; Wihler, Andreas; Sele, Kathrin			
Studiengang		Master in Management			
Studienabschnitt		Semester 1 Q1			
Moduldauer		1 Semester			
Pflicht-/Wahlpflichtmodul		Pflicht			
Credits:		6			
Häufigkeit des Angebots		Jährlich			
Sprache		Englisch			
Gesamt Workload	150 h	Akademische Lehrstunden:	44	Verbleibender Workload:	Selbststudium
		Eine akademische Lehrstunde entspricht 40 Minuten.			
		Das Selbststudium umfasst die Vor- und Nachbereitung von Veranstaltungen, Leseaufgaben, die Vorbereitung von Tests und Klausuren, Hausarbeiten usw.			
Voraussetzungen für die Teilnahme		-			
Kurzbeschreibung / Lerninhalte		Our world has become increasingly data-driven. While intuition and isolated anecdotes remain an integral part of leadership and managerial decision-making, the rapidly increasing availability of (big) data and technologies has fostered a strong push towards evidence-based decision-making in practice. As a result, a successful career in consulting or management requires substantive knowledge and skills in a variety of empirical research methods to make evidence-based decisions that have merit. Thus, students in management need to develop strong competencies as creators, recipients, and applicants of scientific studies. This course focuses on the design and implementation of high- quality empirical studies in the areas of management. The course serves a dual purpose: 1) The overarching goal is to prepare students for increasingly “evidence-driven” (i.e., scientific) decision making in management and consulting practice. 2) The added goal is we provide students with the methodological toolkit for any research project such as their MSc theses.			

<table>
<tr><td>Qualifikationsziele / Lernergebnisse</td><td>The course introduces principles and tools designed to understand the utility of evidence-based management, and its relevance for managerial decision-making.

Knowledge
Students will acquire fundamental knowledge of the key concepts of evidence-based management, i.e. they can
• read and understand scientific literature,
• identify and select the appropriate qualitative or quantitative methods to answer specific research questions,
• point out potential ethical problems of various research designs,
• evaluate and apply scientific knowledge to solve business problems,
• structure and write research reports.
Skills
Students will be able to apply a variety of research methods to business research problems and draw conclusions from the results, i.e. they can
• create a research proposal,
• develop strategies on how to obtain data,
• assess ethical pitfalls of research methods,
• critically evaluate various types of research designs.

Competencies
In a business environment students will be able to apply the skills and knowledge, i.e. they can
• define a relevant research question,
• select a method for answering it,
• draw the appropriate conclusions from the results,
• act responsibly while implementing management practices or making managerial decisions.</td></tr>
<tr><td>Lernformen, Methodik und Betreuung</td><td>The course is taught interactively. A variety of exercises and discussion questions are used to train participants. Participants are expected to cover the course contents by preparation, follow-up work, and self-study.</td></tr>
<tr><td>Art der Prüfungsleistungen im Modul und Akkumulationspunkte</td><td>
<table>
<tr><td>Type of examination</td><td>Duration or length</td><td>Performance Points</td><td>Due date or date of exam</td></tr>
<tr><td>In class exercises & participation</td><td>tbd</td><td>30</td><td></td></tr>
<tr><td>individual reflection paper</td><td>tbd</td><td>15</td><td>last day of class, canvas submission</td></tr>
<tr><td>Research proposal - presentation</td><td>tbd</td><td>25</td><td>last day of class, all online</td></tr>
<tr><td>Research proposal - write-up</td><td>tbd</td><td>50</td><td>3 weeks after the presentation, canvas submission</td></tr>
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Literaturhinweise	General readings • Cooper, D. R. & P. S. Schindler (2013). Business research methods (12th edition). New York: McGraw-Hill Irwin. • Rousseau, D. M. (2006). Is there such a thing as “evidence-based management”? Academy of Management Review, 31, 256-269. • Pfeffer, J., & Sutton, R. I. (2006). Evidence-based management. *Harvard Business Review*, *84*, 62-72. Additional readings Students will be required to read additional literature for most class sessions. These readings will be made available prior to the specific sessions.
Modulstruktur	Session 1 introduces the fundamentals of the scientific method. The module focusses on important steps that need to be taken before collecting and analyzing data. These steps include research design, construct measurement, and sampling. We also cover ethical boundaries for evidence-based management. Sessions 2-10 cover the main methods for collecting high-quality data to rigorously test research questions (or explore new ones). Part 1. Survey Research Part 2. Experimental Research Part 3. Qualitative Research Session 11 is group project presentations. A more detailed break-down will follow at the beginning of the course.
Verwendbarkeit für andere Module und Programme	Master?s Thesis
Letztes Freigabedatum	01.06.2021

Managerial Data Science [QUM71414]

Module Coordinator		Bleier, Alexander			
Programme(s)		Master in Management			
Term		Semester 1 Q1			
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		Understanding of basic mathematical concepts (basic calculus, algebra, and probability). Completion of R pre-course.			
Content		In today's rapidly moving business world, data and its inherent value gain more and more importance. While the sheer amount, complexity, and frequency of data evolve at unprecedented speeds, so do the statistical methods available for its analysis. The primary goal of this course is therefore to equip students with the necessary statistical foundation to navigate their future roles as managers that base decisions on solid data and analyses. To achieve this goal, the course will introduce students to relevant vocabulary as well as statistical concepts and tools, drawing on descriptive and inferential statistics. In essence, the course will focus on ways to assess, comprehend, and exploit data to produce well-informed business decisions.			

<table>
<tr><td>Intended Learning Outcomes</td><td>

Knowledge:
Successfully completing this course will enable students to comfortably navigate fundamental statistical concepts and their application in business. In particular, they will be able to
- assess and evaluate outcomes of statistical analyses
- describe the strengths and weaknesses of relevant procedures
- explain the value of data and exploit it to inform business decisions

Skills:
Upon successful completion of this course, students will know how to apply statistical tools and concepts to identify and extract potential gains from available data. In particular, they will be able to
- collect, access, and structure data
- select adequate statistical methods in particular business situations
- derive reasonable business decisions based on appropriate statistical analyses

Competencies:
Having successfully completed this course, students will be capable of assessing, structuring, and solving statistical problems based on their analytical and logical problem solving capacities. In particular, they will be able to
- handle, assess, and analyze data sets
- develop and organize concepts and projects with a focus on data analysis
- derive and defend business decisions based on their statistical knowledge and reasoning

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<tr><td>Forms of teaching, methods and support</td><td>This course may contain traditional lecturing, discussions, projects, homework, team work, and applications.</td></tr>
<tr><td>Type of Assessment(s) and performance</td><td>

<table>
<tr><td>Type of examination</td><td>Duration or length</td><td>Performance Points</td><td>Due date or date of exam</td></tr>
<tr><td>Written exam</td><td>80 minutes</td><td>80</td><td>Exam week</td></tr>
<tr><td>Quizzes</td><td>40 minutes</td><td>40</td><td>During the module</td></tr>
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<tr><td>Recommended Literature</td><td>

Introductory statistical and data science literature (also recommended as pre-reading), e.g.
- Bowerman, Bruce L., Anne M. Drougas, William M. Duckworth, Amy G. Froelich, Ruth M. Hummel, Kyle B. Moninger, and Patrick J. Schur, Business Statistics and Analytics in Practice, McGraw-Hill, 2019
- Foreman, John W., Data Smart: Using Data Science to Transform Information into Insight, Wiley, 2013
- James, Gareth, Daniela Witten, Trevor Hastie, and Robert Tibshirani, An Introduction to Statistical Learning - with Applications in R, Springer, 2017

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Module Structure	This module comprises an introduction to basic statistical techniques as well as applications to specific business problems to help managers arrive at better-informed decisions based on data.
Usability in other Modules/Programmes	Subsequent modules of the programme, Master's Thesis.
Last Approval Date	2023/06/06

Financial Analysis and Performance Management [ACC72216]

Module Coordinator		Ramasubramanian, Hari			
Programme(s)		Master in Management			
Term		Semester 1 Q2			
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		- Pre course on book-keeping; - Middle-high school algebra; - Basic knowledge of Microsoft Excel; - Any course in accounting is not required but will be useful.			
Content		1. Preparing and understanding Financial Statements 2. Corporate Performance Measurement 3. Analyzing Corporate and Divisional Performance 4. Designing Accounting Systems to Measure Performance 5. Role of Governance and Incentives in Accounting Choices *More detailed break-down of what is exactly covered in these broad areas will follow at the beginning of class.*			

Intended Learning Outcomes	On completion of the module, the student • Be able to understand and process the information provided in financial statements • Can interpret and communicate accounting information to improve strategic outcomes • Enhance your decision-making skills through acritical evaluation of costs and benefits of each possibility and convincingly supporting your evaluations and conclusions • Be familiar with accounting systems used in most large organizations • Understand the role of corporate governance in the design of accounting and management control systems • Understand the underpinning theories behind the design of performance measurement systems • Understand the interdependencies among various sub-fields of accounting such as financial and managerial accounting
Forms of teaching, methods and support	The course is a combination of **case study discussions, lectures, problem solving, and games.** The class instructional format will be discussion based. Adequate preparation is a foundation for strong class participation and enhanced understanding of the course content. A thorough reading of the case and review of material is expected before the class discussion. A thorough analysis based on specific questions is expected. It cannot be overstressed that when students are prepared, everyone benefits as the class discussions are greatly enhanced.

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<tr>
<td>Type of Assessment(s) and performance</td>
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<table>
<tr><th>Type of Assessment</th><th>Duration</th><th>Performance Points</th><th>Due Date or Date of Exam</th></tr>
<tr><td>Quizzes</td><td>See below</td><td>35</td><td>See below</td></tr>
<tr><td>Group assignment</td><td>See below</td><td>45</td><td>See below</td></tr>
<tr><td>Final Exam</td><td>45 mins</td><td>40</td><td>Exam week</td></tr>
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Quizzes (Individual)
There will be three quizzes. First quiz will be due at 10 pm on Oct 31, 2023 and will be based on the pre-course material. This quiz will be worth 5 points. The quiz will consist of a series of multiple-choice questions and will have a time limit of 20 mins. Mid-course quiz will be closed-book and closed-notes and conducted on Nov 18, 2023 and will be a 45 minutes timed but not proctored. The mid-course quiz will be worth 30 points. All students will take this mid-course quiz at the same time and need not be on campus to take these quizzes. A practice mid-course quiz will be provided at an appropriate time. Late quiz submissions will be assigned a score of zero.
Group assignmentThere will be three group assignments (to be done in groups of 3 students) in which you will be asked to solve quantitative and qualitative problems or write case analyses. Exact number of students in a group will be decided based on class size. The first assignment will be due on Nov 10, 2023 at 10 pm, the second assignment will be due on Dec 01, 2022 at 10 pm, and the third assignment will be due on Dec 11, 2023 at 10 pm. Each assignment will be worth 15 points each.
Final ExamThe final exam of 40 minutes length will be during the official exam week. Final exam will be closed-book and closed-notes. A practice final exam will be provided at an appropriate time.
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<td>Recommended Literature</td>
<td>Assigned chapters of J. R. Dyson, Accounting for Non-Accounting Students (10th Edition 2020), Pearson Prentice Hall. ISBN: 9781292286938

The textbook can be found in the FS library in reasonable numbers. You may choose to use the 9th or 8th edition of this book for reading.

All other course materials (slides, quizzes, assignments, case studies) will be distributed electronically through the Learning Management System (Canvas)</td>
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Module Structure	Sessions 1-3 deal with the measurement of corporate performance. Building on these sessions 4-7 will focus on analyzing performance (financial analysis, divisional and customer profitability, and variance analysis). Sessions 8-9 discuss the role of accounting systems in coordinating economic activities within organizations. Sessions 10-11 deal with how corporate governance influence incentives and accounting choices. More detailed break-down will follow at the beginning of class. We will focus on key ideas to capture important tradeoffs in each setting, leaving some of the ideas to self-study. While the course is not intended to make you an accounting professional but often you will be a user of accounting information as future managers, and hence the course is designed to provide you a working knowledge of essential managerial and financial accounting concepts.
Usability in other Modules/Programmes	All concentrations; some electives
Last Approval Date	2023/06/05

Operations Management [MGT71599]

Module Coordinator		Hoeck, Michael			
Programme(s)		Master in Management			
Term		Semester 1 Q2			
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		Basic Statistics (in particular, probability distributions), elementary calculus and algebra, basic spreadsheet engineering skills (i.e., working knowledge of Microsoft Excel).			
Content		Firms can create substantial value and competitive advantage if they manage to properly structure their operating system (people, technology, processes). This course introduces principles, technologies, and tools designed to increase organizational performance by better matching supply with demand in an uncertain world. A key objective is the acquisition of a set of key methods you can use as a manager to control and improve operations and understand and solve the fundamental inherent strategic trade-offs to align with the strategic goals of the firm. Besides illustrating the underlying principles of these tools, the course will illustrate how the operations view (via measures such as capacity utilization, or inventory turnover) link with the financial view (via measures such as EVA or ROI). Generally, the course will challenge your managerial skills and ask you to apply them in realistic settings.			

Intended Learning Outcomes	*Knowledge:* On successful completion of the module, the participants will have knowledge of a wide range of operations management tools, i.e. they • understand the fundamental concepts of any business process: throughput, throughput time, work in process and the relationship between the three. • can explain and operate the toolset introduced in this module • can evaluate the tools and discuss their strengths and weaknesses • can articulate the link between Operations and Finance *Skills:* On successful completion of the module, students will have the proven ability to apply advanced knowledge in Operations Management and to solve practice-oriented challenges, i.e. they can • analyse, structure and classify operations management challenges in practice and theory • identify the problem adequate quantitative model or qualitative strategy • use spreadsheets to support quantitative modeling, and spot a banana from distance • apply the adequate quantitative model or qualitative strategy to solve an operations management challenge *Competencies:* Successful module participants develop the requisite know-how to provide responsible contributions in establishing concepts and processes in operations management. They acquire the ability to further develop and adapt to the needs in practice. They can • articulate the operational rationale behind a successful business process • present operations management challenges to a broad audience • argue competently about problem solution strategies • develop the links between Operations and Strategy
Forms of teaching, methods and support	The course is a combination of case study discussions, lectures, tutorials, technical exercises, and games. The course is based on the text book shown under recommended literature. Essentially, the class instructional format will be a dialogue between the students and the instructor. It is important to note that strong class participation is founded on adequate preparation. Students are expected to thoroughly review the material on every case or reading prior to its discussion in class. It is expected that students do a thorough analysis of the case based on specific questions that will be provided, and prepare a plan of action appropriate to the circumstances. When students are prepared, the class discussion is greatly enhanced and everyone learns far more than otherwise.

Type of Assessment(s) and performance

Type of examination	Duration or length	Performance points	Due date or date of exam
Class participation	ongoing	10	Throughout the module
Assignments (Group)	4-8h each	40	During the module
Final Exam	70 minutes	70	Exam week

1. Class participation (Individual)
You can earn credit towards your class participation score by a) contributing to our in-class discussion (of case studies etc.) and b) engaging in an online discussion forum on contemporary topics. In order to contribute to in-class discussion, of course, you must show up. Please arrange your other activities to permit you to attend class; drop me a note if you cannot come. Mostly, our discussions will be free form: anyone who has something to contribute can and should. If you have worked in the industry of the case study or come across a similar issue to the one discussed in the case, I encourage you to share your experience. The greatest learning experience often comes from comparing the learning points of a case to industry practice. Students will be evaluated on the quality of the contributions (not the quantity).

To ensure a rich discussion, you are expected to read and analyse all cases before class. For all cases, you may be called on in class to provide your top two recommendations related to the case with a concise but compelling justification for each - imagine you have 30 seconds in the elevator with the CEO (or whoever the case protagonist is), during which time you need to spark his or her interest enough to get you a follow?up appointment to go into more detail.

2. Assignments (Group)
There will be a number of group assignments in which you will be asked to solve quantitative and qualitative problems based on the material covered in and outside of class. Assignment can comprise small-scale technical exercises, simulation-based exercises, and case-related questions. The exercises are designed to further the students' intuition for some of the concepts discussed in class.

3. Final exam
Exam preparation is based on mandatory assignments, optional exercise tasks, and a mock exam. More details will be given during the course.

Recommended Literature	The course relies heavily on case study discussions, and I will provide self-paced online tutorials that cover some of the methodological foundations required to have in-depth case discussions. The class is not structured around a particular textbook, but the following provides most of the methodological backbone for this class: Cachon and Terwiesch. Matching Supply With Demand - An Introduction to Operations Management. 3rd edition. McGraw Hill. The textbook can be found in the FS library in reasonable numbers. All other course materials (slides, quizzes, assignments, tutorials, case studies) will be distributed electronically on the Learning Management System.
Module Structure	The first essions cover the fundamentals of designing and managing the operational system (people, technology, processes) to align with the firm' s competitive priorities (cost, flexibility, speed, and quality), and develops important links between operations and finance. Building on the fundamentals, the later essions deal in more detail with matching supply with demand in uncertain, highly variable environments. Managing variability is a key underlying theme across the course, and many business model innovations revolve around it. A detailed break-down follows at the beginning of class, and on the course page on the Canvas Learning Management platform.
Usability in other Modules/Programmes	All concentrations; some electives.
Last Approval Date	2023/04/20

Corporate Strategy & Scaling [MGT71483]

Module Coordinator		Reuer, Jeffrey J.			
Programme(s)		Master in Management			
Term		Semester 3 Q1			
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			
Content		This corporate strategy course covers the ways that corporations scale oganically and inorganically and engage in external and internal corporate development activities. We will consider the most important tools that enable you to determine how firms can create and capture value through corporate growth. Decision models will also be provided to analyze acquisitions, outsourcing, vertical integration, partnerships, and various types of contracts.			

<table>
<tr><td>Intended Learning Outcomes</td><td>The objectives for the course are as follows:

1. Understand the different ways that organizations can scale to achieve profitable growth.
2. Analyze corporate investment opportunities and be able to recommend how to enter industries.e.
3. Analyze whether a strategic investment allows a firm to create and/or capture value.
4. Understand valuation principles from finance and their connection to strategy.
5. Synthesize qualitative and quantitative data to make strategic decisions.
6. Understand the techniques used to handle uncertainty in strategic decisions.
7. Evaluate the different areas for corporate growth (e.g., new product and geographic markets) and the tools to evaluate them.
8. Identify the most important parameters of M&A deal-making and implementation.
9. Understand the role of consultants in corporate strategy.
10. Be able to apply frameworks to appraise alternative corporate development tools and investment vehicles (e.g., internal development, partnerships, outsourcing, joint ventures, M&A).
11. Understand the post-acquisition management decisions appropriate for different types of M&A transactions.</td></tr>
<tr><td>Forms of teaching, methods and support</td><td>The course uses case studies, individual and group exercises, as well as conventional lectures.</td></tr>
<tr><td>Type of Assessment(s) and performance</td><td><table>
<tr><td>Type of examination</td><td>Duration or length</td><td>Performance Points</td><td>Due date or date of exam</td></tr>
<tr><td>Class participation</td><td></td><td>25</td><td>During the semester</td></tr>
<tr><td>Assignments (Strategy)</td><td>Tbd</td><td>35</td><td>During the semester</td></tr>
<tr><td>Written exam</td><td>60</td><td>60</td><td>During the exam week</td></tr>
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<tr><td>Recommended Literature</td><td>• Contemporary Strategy Analysis by Robert Grant, 10th edition, text only (no cases).
• A packet of Harvard and other cases and readings.</td></tr>
<tr><td>Module Structure</td><td>The course is taught using lectures, case discussions, and applications in breakouts.</td></tr>
<tr><td>Usability in other Modules/Programmes</td><td>The course provides a useful foundation for the experiential learning module and the master's thesis.</td></tr>
</table>

Last Approval Date	2023/04/27

Strategy Execution [MGT71481]

Module Coordinator		Grüning, Michael			
Programme(s)		Master in Management			
Term		Semester 3 Q1			
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 acadmic 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		Every successful business needs to develop a strategy and manage its performance. Strategy defines the potential sources for future corporate success and performance management helps companies to successfully implement strategy and to monitor its success. To be able to make the right decisions, managers need to understand the drivers of their strategic advantage, revenues, costs, and the profitability of different services, products, and customers. To achieve this goal, this course provides you with the latest insights, tools and recent examples from corporate practice on strategic decisions, monitoring strategy execution and managing performance. This course covers all important steps of managing the performance within the companies. Starting with strategic investment decisions, followed by implementing and communicating the strategy, measuring the achieved performance and closing the learning loop by adjusting future investment decisions based on prior performance. Throughout the course, we will aim for both, understanding business concepts (“How do executives think?”) as well as analysing business data (“How can data analytics help the organization to be successful?”.			

Intended Learning Outcomes	Knowledge: Having taken the course, students can: • Illustrate how a company develops and sustains competitive advantage, • Specify how structure supports strategy implementation, • Recognize how leadership contributes strategy implementation, • Improve decision making by conducting suitable analyses of financial and non-financial data for a variety of business decisions • Utilize various methods that help to analyze the successes of strategy implementation. Skills: With successful completion of the course managerial accounting, you will be able to • Analyze the strategic positioning of a company, • Select performance indicators which support the achievement of short and long-term objectives, • Use statistical methods to understand performance drivers within an organization improve decision making by conducting suitable analyses of financial and non-financial data for a variety of business decisions • Design and implement an adequate performance management system to implement the company´s strategy • Judge in real business cases how managerial decision making is shaped by using performance measures for decision-making and control. • Discuss with top executives, people in the finance function as well as other employees information, ideas, problems, and solutions according to their respective area using appropriate terms and economic language. Competence: On successful completion you become qualified to: • Moderate strategic processes • Develop solutions in challenging strategic situations • Reposition the strategy of a firm based on the analysis of financial and nonfinancial data The content of this course will be useful for the following career paths: • General management (being responsible for strategy development and execution, as well as managing the performance of a business function, a business unit, or a non-profit organization and understanding the pitfalls of using incentives) • Entrepreneurs and consultants (identifying strategic niches, making investment decisions, analyzing and improving profitability) • Analysts, investors and board members (understanding financial and non-financial performance measures for monitoring strategy execution by company management) • Anyone who is interested in understanding how analyzing data from different sources such as accounting, employees and customers can help to run organizations better

<table>
<tr><td>Forms of teaching, methods and support</td><td>

- Lecture with integrated Excel exercises
- In class discussions
- Case studies
- Student presentations
- Online quizzes
- Simulation games

</td></tr>
<tr><td>Type of Assessment(s) and performance</td><td>

<table>
<tr><th>Type of Assessment</th><th>Duration</th><th>Performance Points</th><th>Due Date oder Date of Exam</th></tr>
<tr><td>Quizzes, individual simulations</td><td>105 minutes</td><td>35</td><td>During the course</td></tr>
<tr><td>Group presentation, group simulation</td><td>75 minutes</td><td>25</td><td>During the course</td></tr>
<tr><td>Final exam</td><td>70 minutes</td><td>60</td><td>During exam week</td></tr>
</table>

</td></tr>
<tr><td>Recommended Literature</td><td>A comprehensive reading list will be provided during the course. All readings will be available online.</td></tr>
<tr><td>Module Structure</td><td>

1. Competitive Environment and Product Portfolio Decisions
2. Strategic Investment Decisions
3. Size Related Decisions
4. Activity Based Costing (ABC) and Activity Based Management (ABM)
5. Strategic Analysis of Operating Income
6. Value Based Management
7. Strategic Alliances, Network and Platform Businesses
8. Balanced Scorecard and Strategy Maps
9. Transfer Pricing
10. Balanced Scorecard Simulation

</td></tr>
<tr><td>Usability in other Modules/Programmes</td><td>Thesis module.The content will be also helpful for other modules/programmes related to consulting, corporate performance, management accounting, and strategic management.</td></tr>
<tr><td>Last Approval Date</td><td>2022/04/27</td></tr>
</table>

Persuasive Communication [MGT71603]

Module Coordinator		Atalay, Selin			
Programme(s)		Master in Management			
Term		Semester 3 Q1			
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		N/A			
Content		The primary goal of this course is to provide students with a solid grounding in theories, principles, and strategies of persuasion as they apply to everyday contexts in which influence attempts take place. Students should gain familiarity with findings from empirical investigations on persuasion, social influence, and compliance gaining, and will learn about strategies and techniques of persuasion relating to a wide variety of real-life communication contexts, situations, and settings.			
Intended Learning Outcomes		Upon completion of this course students will have a solid grounding in theories, principles, and strategies of persuasion. Students will be able to apply persuasion, social influence, and compliance gaining srategies and techniques of persuasion.			
Forms of teaching, methods and support		The class will feature, lectures, group work, exercises and in class discussions.			

<table>
<tr><td>Type of Assessment(s) and performance</td><td>
<table>
<tr><td>Type of examination</td><td>Duration or length</td><td>Performance points</td><td>Due date or date of exam</td></tr>
<tr><td>In class work and contribution</td><td>throughout the Semester</td><td>40</td><td>throughout the Semester</td></tr>
<tr><td>Group Project and Presentation</td><td>TBD</td><td>80</td><td>last day of class</td></tr>
</table>

Each of these assignments test students' learnings of theories of persuasion, social influence, and compliance gaining strategies and techniques of persuasion relating to a wide variety of real-life communication contexts, situations, and settings.
</td></tr>
<tr><td>Recommended Literature</td><td>Compulsory reading material will be handed out in class.
Recommended material: Persuasion: Social Influence and Compliance Gaining, 6th edition.</td></tr>
<tr><td>Module Structure</td><td>1. Study of Persuasuion
2. Attitudes
3. Communicator Characteristics
4. Message Characteristics
5. Social Influence & Compliance Gaining Techniques
6. Motivation</td></tr>
<tr><td>Usability in other Modules/Programmes</td><td>Electives, Thesis</td></tr>
<tr><td>Last Approval Date</td><td>2023/03/24</td></tr>
</table>

Diversity Management [MGT72073]

Module Coordinator		Moshtagh Khorasani, Manouchehr			
Programme(s)		Master in Management			
Term		Semester 3 Q1			
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		Fundamental knowledge in Leadership, H&R, Strategic Management and Intercultural Management			

Content	Diversity Management (DiM) is a central topic in modern leadership, especially in the context of diversity, equity and inclusion policies within multi-national companies. This includes various fields such as anti-discrimination policies, inclusion policies of different minorities, creative business responses to demographic changes, the design of work-life balance, work-life blend, work-life harmony, and coordination between individual professional careers, family life and organizational goals. The importance of diversity in the workplace has different dimensions ranging from internal dimensions such as age, ethnicity, gender, and physical ability to secondary dimensions such as education, religion, political beliefs, marital status, sexual orientation and language. The central challenge and question of diversity management is to use and activate the individual performance of each individual member of the organization from diverse groups in such a way that all members identify with the goals of the corporation regardless of their background, beliefs and educational differences. Only this way a company can ensure a long-term success in a diverse global environment and foster innovative approaches. DiM is not only part of CSR (Corporate Social Responsibility), but it is an essential part of modern strategic management ensuring a long-term Human Resources development in the broader social, political and cultural contexts. In this respect, DiM embodies aspects of cross-cultural leadership as well. Companies are facing various dimensions of diversity (gender, age, ethnicity, educational background etc.), and their expressions in different operative areas of management (such as Human Resources, marketing, or public relations and CSR). The tools of DiM can be divided into analytical tools, such as diversity audits, structural design tools, such as organizational development to intervention tools, such as cross-cultural coaching and trainings.

<table>
<tr><td>Intended Learning Outcomes</td><td>Knowledge:
On successful completion of this module, participants will have acquired knowledge about fundamental theoretical and practical aspects of DiM, i. e. they
• can explain different types of diversity and their main concepts and their influence on working processes
• understand the different approaches to manage this issue in organizations
• know instruments to leverage diversity and reduce conflicts
Skills:
Participants will be able to apply DiM concepts and tools, i.e. they can
• analyze the current situation in the context of specific business entities
• define diversity goals and strategies
• be able to work out diversity programs
Competence:
Participants will acquire the competence to apply DiM knowledge and tools to their leadership tools, professional activities, and personal situation. Particularly, they will be able to
• detect discriminatory behavior and stereotypes
• analyze their own perception and reaction
• act as change agents within their field of responsibility</td></tr>
<tr><td>Forms of teaching, methods and support</td><td>Concepts, theoretical foundations, and tools of DiM are taught by interactive lectures that include case studies. The classroom debates contribute to the learning process. Preparation and the delivery of group presentations are also an essential part of the seminar.</td></tr>
<tr><td>Type of Assessment(s) and performance</td><td>
<table>
<tr><th>Type of examination</th><th>Duration or length</th><th>Performance Points</th><th>Due date or date of exam</th></tr>
<tr><td>Final exam (5 open-end questions)</td><td>90 minutes</td><td>80</td><td>Will be announced</td></tr>
<tr><td>Group presentations (each group of 3 members)</td><td>circa 30 slides</td><td>40</td><td>During classes</td></tr>
</table>

1) Presentations will test whether students could apply the theoretical frameworks of DiM to real-world cases and situations. The students will explore and show how DiV enriches the performance of a company. They also demonstrate what kind of instruments they can apply for the implementation of DiM.
2) The written examination will test whether the students have understood, the terms, concepts, and ideas behind DiM. They also show whether they are able to identify different types of discrimination and the tools to fight against them.</td></tr>
</table>

Recommended Literature	• Bourke (2017). Diversity and Inclusion: The Reality Gap. Deloitte Insights. • Brock, N. (2021). Top Challenges of Diversity in the Workplace. Fraser Dove International. • Department for Business, Innovation and Skills (2013): The Business Case for Equality and Diversity - A Survey of the Academic Literature • Devillard, Sandrine et al. (2016): Women Matter 2016. Reinventing the workplace to unlock the potential of gender diversity • Bruchhagen, Verena et al. (2010): Social Inequality, diversity and equal treatment at work: The German Case, in: Klarsfeld, Alan, ed.: International Handbook on Diversity Management at Work: Country Perspectives on Diversity and Equal Treatment, Edward Elgar Publishers, pp. 109-138. • Gallo, A. (2015). How to Speak Up About Ethical Issues at Work. Harvard Business Review. • Jouany, V. and Martic, K. (2021). Diversity and Inclusion: Best Practices to Focus on in 2021. SMARP.
Module Structure	A lecture on diversity introduces the participants into the theory of DiM and all relevant dimensions from gender to culture. The lecturer presents theoretical background and provides an overview about current challenges in business organizations. Subsequently, detailed information on instruments of diversity management in business is given. Additionally, the students apply this knowledge to their presentations.
Usability in other Modules/Programmes	Other Electives; Master's Thesis
Last Approval Date	2023/03/24

Change Management [MGT72491]

Module Coordinator		Mädler, Markus			
Programme(s)		Master in Management			
Term		Semester 3 Q1			
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 acadmic 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 completion of the MiM modules:Leadership (MiM core curriculum)Managerial Decision-Making and Power, Politics and Social Networks (MiM concentration ?People, Management & Organizations?)			

Content	Change is the only constant in life – for individuals, teams, and organizations (as well as societies and the human race). It might be driven by external or internal forces; it might be incremental or radical, gradual or abrupt, forced or voluntary, reactive-adaptive or active-formative, for better or, sadly, sometimes also for worse. But one thing it might never be: easy. This module aspires to build critical competences that students will need if they want to act as effective champions of positive change in a variety of roles in the future. Unlikely to be mandated immediately to lead change from the top, students will nevertheless play an important role as professionals, middle managers, or consultants in translating change intent into change action, change stickiness, change durability and, ultimately, change success. To build those competences, the module draws on insights from classical and contemporary theory as well as cutting-edge practice of individual, team, and organizational change in a variety of settings and from A to Z. This includes, but is not limited to: causes, triggers, and effects of change, the role of vision, purpose, and culture; strategies and implementation; the human sides of change, motivations for and against change; enablers, blockers, and derailers; leadership and followership, and so on. The module also connects change management as a personal and social process of “transformation” to other contemporary “transformations” along multiple dimensions, such as customer transformation, business model transformation, digital transformation, agile transformation, sustainable transformation, or DEI culture transformation.

<table>
<tr><td>Intended Learning Outcomes</td><td>

Knowledge & Comprehension
On successful completion of this module, students will:
- Recognize the importance and features of change mindset and change culture for the sustained success of individuals, teams, and organizations.
- Distinguish and describe the main academic theories (models, frameworks) and industry practices (methods, tools) of successful contemporary change management through people.

Application of Knowledge
On successful completion of this module, students will:
- Critically analyze, synthesize and evaluate change challenges from different perspectives and with a focus on key success factors.
- Develop concrete proposals to effectively address complex real-world change management challenges through people.

Communication & Cooperation
On successful completion of this module, students will:
- Proactively and constructively contribute to interdisciplinary teams in order to achieve common change goals.
- Convincingly present and/or discuss concrete and coherent change recommendations in spoken and written communication.

Professionalism & Self-image
On successful completion of this module, students will:
- Self-assess their potential for becoming successful change agents based on the necessary personal virtues and traits, ethical values, professional standards, managerial competencies, and leadership styles.
- Champion change along a variety of dimensions and contribute to positive personal, team, organizational and societal change that serves to create shared economic, social and environmental value.

</td></tr>
<tr><td>Forms of teaching, methods and support</td><td>

The module employs the following teaching methods and support:
- Lectures
- Case study discussions
- Workshops
- Group work
- Presentations

</td></tr>
<tr><td>Type of Assessment(s) and performance</td><td>

<table>
<tr><th>Type of examination</th><th>Duration or length</th><th>Performance Points</th><th>Due date or date of exam</th></tr>
<tr><td>Participation (individual)</td><td>On-going</td><td>40</td><td>During module</td></tr>
<tr><td>Essay (individual)</td><td>c. 5 pages</td><td>20</td><td>1 week after module end</td></tr>
<tr><td>Project Presentation & Report (group)</td><td>30 minutes & c. 15 pages</td><td>60</td><td>Last session of module</td></tr>
</table>

</td></tr>
</table>

Recommended Literature	Textbook: • Cameron, Esther and Green, Mike (2020). Making Sense of Change Management, 5th Edition, Kogan Page Ltd. Readings: • Jensen Clayton, Sarah (2021). An Agile Approach to Change Management. HBR.org Digital, January 11, 2021 [H06338-PDF-ENG]. • Raffaelli, Ryan (2018). Leading and Managing Change. Harvard Business School [HBS 9-415-040]. • Worley, Christopher G., Williams, Thomas, Lawler III, Edward E. (2016). Creating Management Processes Built for Change. MIT Sloan Management Review [SMR569-PDF-ENG]. Case Studies: • Unilever's New Global Strategy: Competing through Sustainability [HBS 9-916-414]. • Tony Hsieh at Zappos: Structure, Culture and Radical Change [Insead IN1249-PDF-ENG].
Module Structure	Session Topic Preparation 1 Introducing Change Management Case: Unilever 2 Purpose & Goals of Change Textbook: Chapters 9, 10 3 Theory & Practice of Change Management Reading: Raffaelli 4 The Role of the Individual Textbook: Chapters 1, 5 5 The Role of the Team Textbook: Chapter 2 Reading: Jensen 6 The Role of the Organization Textbook: Chapters 3, 8 7 Taking Change Actions Textbook: Chapters 4, 5 8 Change across the Globe Case: Zappos 9 Change & VUCA Textbook: Chapters 11, 12 10 Crafting Successful Change Initiatives Textbook: Chapter 13 Reading: Worley et al. 11 Change as a Destination Project presentation
Usability in other Modules/Programmes	The module is a prerequisite for the concentration-closing module ? Learning through Action ? Applied Topics in Management? and the Master?s Thesis.
Last Approval Date	2022/05/02

Machine Learning for Big Data [FIN72051]

Module Coordinator		Roßbach, Peter			
Programme(s)		Master in Management			
Term		Semester 3 Q1			
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		Good Knowledge in Statistics			
Content		Machine Learning as part of Data Science is an emerging field in industry and academics. It covers methodologies and algorithms 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 methods have some weaknesses in this area, new types of methods and algorithms have been developed. Today, they are widely used in science and practice benefitting from calculation power of modern computer technologies. These methods are a mixture of statistics, machine learning, data visualization, and computer science. This course provides an introduction into the field of machine learning, covering computational techniques and algorithms for finding and analyzing patterns even in large-scale datasets. Topics to be covered include data collection, integration, analysis, visualization, classification, prediction and decision making. Students will implement and apply the methods using the software R.			

<table>
<tr><td>Intended Learning Outcomes</td><td>Knowledge:
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:
Explain the specifics of data analysis in the case of big data
Explain the differences between statistics and machine learning
apply modern methods of machine learning to different application areas
Skills:
Students learn to analyse data, choose the appropriate modeling techniques and to construct models for decision support. They also learn how to implement the data analytics processes using modern analytical languages like R. They are able to:
Choose the appropriate methods according to the problem to solve
Develop the analytics processes via different data analytics tools
Train and tune the models to achive the optimal results
Analyse the resulting models to find the best solutionCompetencies:
Students are qualified to find and analyse 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:
Understand the underlying business problems
Identify the problem relevant data
Build quantitive models to solve the problem choosing from a variety of methods
Transform the models results into managerial decisions</td></tr>
<tr><td>Forms of teaching, methods and support</td><td>Lecture with in-class and home exercises, practical group work using Excel and R.</td></tr>
<tr><td>Type of Assessment(s) and performance</td><td><table>
<tr><td>Type of examination</td><td>Duration or length</td><td>Performance Points</td><td>Due date or date of exam</td></tr>
<tr><td>Group project text document</td><td>ongoing</td><td>120</td><td>At the end of the module</td></tr>
</table></td></tr>
<tr><td>Recommended Literature</td><td>General Introduction:
• Alpaydin, E. (2016): Machine Learning: The New AI, MIT Press Essential Knowledge
• Schutt, R.; O’Neil, C. (2013): Doing Data Science, O’Reilly Media
• Schmarzo, B. (2016): Big Data MBA, Wiley
Methods and Algorithms:
• Alpaydin, E. (2016): Introduction to Machine Learning, Third Edition, MIT Press
• Hastie, T.; Tibshirani, R.; Friedman, J. (2009): The Elements of Statistical Learning, Second Edition, Springer
• James, G.; Witten, D.; Hastie, T.; Tibshirani, R. (2013): An Introduction to Statistical Learning with Applications in R, Springer</td></tr>
</table>

Module Structure	**1. Big Data** **2. Fundamentals of Machine Learning** 2.1 What is Data Science? 2.2 Statistics and Machine Learning 2.3 Data Preparation 2.4 Exploratory Data Analysis **3. Methods, Algorithms, and Applications** 3.1 Classification 3.2 Regression
Usability in other Modules/Programmes	.
Last Approval Date	2023/03/21

Data Visualization & Storytelling [MGT71604]

Module Coordinator		Chirila, Cezar			
Programme(s)		Master in Management			
Term		Semester 3 Q1			
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		Basic understanding of the tools used in the course is beneficial, but not strictly required: PowerPoint, Tableau, R.Basic understanding of data analytics is beneficial, but not strictly required. Laptop with Microsoft Office and R Studio installed, for take-home assignments.			
Content		Storytelling is one of the key skills required for assuring the cooperation of people towards a common goal. A persuasive delivery of your messages is the basis for a successful career, independent of the industry or the organization for which you will choose to work. You will learn how to build clear arguments based on data, how to design credible visualizations that present data in an objective way and how to create content that the audience is interested in. The most established tools for data visualizations will be presented, in order to understand their strengths and limitations. You will start from the basic tools for presentation such as slides and charts and continue with the more advanced interactive data visualization tools currently used in the market. For a more comprehensive and flexible approach, you will review and understand the available open source tools for dashboard development. In this module you will learn how to present in a clear and persuasive manner complex data science models. We will use examples from the banking industry to simulate a real-life working context where you will play the role of the employee responsible for presenting to a diverse audience.			

<table>
<tr><td>Intended Learning Outcomes</td><td>At the end of the learning process the student is able to:
1. Present clearly data analytics for diverse type of audiences
2. Understand the audience and create content aligned with the interests of the audience
3. Build clear arguments for the actionable insights of the presentation
4. Plan and anticipate questions from the audience and respond appropriately
5. Design objective graphical representations of the data
6. Utilize appropriate visualizations for the content and the complexity of the topic
7. Create interactive data visualizations using large data samples
8. Understand and update open source dashboards based on existing code base</td></tr>
<tr><td>Forms of teaching, methods and support</td><td>Lecture with interactive case studies and related discussions.
The technical sessions involving data visualizations tools (Microsoft Office, Tableau, R) will be accompanied by preparation in classroom.</td></tr>
<tr><td>Type of Assessment(s) and performance</td><td><table>
<tr><td>Type of Assessment</td><td>Duration</td><td>Performance Points</td><td>Due Date or Date of Exam</td></tr>
<tr><td>Team case study presentation</td><td>approx. 1 week</td><td>90</td><td>end of course period</td></tr>
<tr><td>Individual case study presentation</td><td>approx. 1 week</td><td>30</td><td>middle of course period</td></tr>
</table></td></tr>
<tr><td>Recommended Literature</td><td>• Wayne C. Booth, Gregory G Colomb, Joseph M. Williams, The Craft of Research
• Cole Nussbaumer Knaflic, Storytelling with data
• Shiny R package presentation https://shiny.rstudio.com/
• Tableau learning content https://www.tableau.com/learn

Further required references will be given in the course</td></tr>
<tr><td>Module Structure</td><td>Module outline (tentative):
1. Introduction
2. Storytelling
3. Data Visualizations
4. Data Understanding
5. The Classical Tools
6. Interactive Data Visualizations
7. Open Source Data Analytics
8. Case Study</td></tr>
<tr><td>Usability in other Modules/Programmes</td><td>Electives and Master?s Thesis</td></tr>
<tr><td>Last Approval Date</td><td>2023/04/18</td></tr>
</table>

Designing Resilient Supply Chains
[MGT73752]

Module Coordinator		Reuter, Carsten			
Programme(s)		Master in Management			
Term		Semester 3 Q1			
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		Business Statistics; Operations Management			
Content		This module focuses on the design of resilient and sustainable supply chains and emphasizes the strategic role of information and data analytics. Students will learn about important design choices and digital core capabilities such as traceability, social media monitoring, and artificial intelligence. Firms need to build on these to increase their resilience towards regular demand and supply uncertainty, as well as major unpredictable supply disruptions caused by e.g., natural disasters, pandemics, supplier bankruptcy, or port strikes.			

Intended Learning Outcomes	**Knowledge:** On successful completion of this module, students will have an in-depth understanding of supply chain strategy, supply chain risks and how to design resilient supply chains, e.g. they can: • Describe how Supply Chain Strategy contributes to the performance of companies across a wide range of industries • Understand the importance of aligning business strategy and supply chain design • Realize the value and limitations of key concepts such as quick response, risk pooling, and risk sharing via contracts. **Skills:** On successful completion of this module, students will have the proven ability to apply knowledge and concepts learned to the supply chain strategy and designing resilient supply chains, e.g. they can: • Develop and advance spreadsheet modeling • Support qualitative arguments with solid quantitative analysis through these spreadsheet modeling skills • Apply basic models to make decisions regarding distribution strategies or • Evaluate the performance of different means for coordinating and sharing risk across company borders. **Competencies:** On successful completion of this module, students can take responsibility to transfer the learned concepts to real world situations pertaining to typical supply chain strategy and designing resilient supply chains, e.g. they can: • Use a structural framework of key performance drivers that explain and predict the success and failure of modern supply chains • Present supply chain (risk) management challenges to a broad audience • Argue competently about problem solution strategies
Forms of teaching, methods and support	The course is taught interactively. A considerable number of exercise tasks and discussion questions are used to train participants. Case studies and simulatios help to improve the learning experience. Participants are expected to cover the course contents by preparation and follow-up work as well as undertaking a number of the tasks in their own study time.

<table>
<tr>
<td>Type of Assessment(s) and performance</td>
<td>
<table>
<tr><th>Type of Examination</th><th>Duration or length</th><th>Performance Points</th><th>Due date or date of exam</th></tr>
<tr><td>Individual: contribution to in-class and online discussions</td><td>Continuous</td><td>60</td><td>Continuous</td></tr>
<tr><td>Group: written Assignment</td><td>TBA</td><td>60</td><td>TBA</td></tr>
</table>

Class participation.
You can earn credit towards your class participation score by a) contributing to our in-class discussion (of case studies etc.) and b) engaging in an online discussion forum on contemporary topics. In order to contribute to in-class discussion, of course, you must show up. Please arrange your other activities to permit you to attend class; drop me a note if you cannot come. Mostly, our discussions will be free form: anyone who has something to contribute can and should. If you have worked in the industry of the case study or come across a similar issue to the one discussed in the case, I encourage you to share your experience. The greatest learning experience often comes from comparing the learning points of a case to industry practice. Students will be evaluated on the quality of the contributions (not the quantity).
</td>
</tr>
<tr>
<td>Recommended Literature</td>
<td>
The following textbook provides most of the methodological backbone of this class:

Chopra and Meindl: Supply Chain Management: Strategy, Planning, and Operation, 6th edition, McGrawHill, 2014 (only selected chapters)

Anbumozhi, Kimura, and Thangavelu: Supply Chain Resilience, Springer, 2020 (only select chapters)

Ivanov, D.: Introduction to Supply Chain Resilience, Springer, 2021 (only select chapters)

Attaran and Gunasekaran: Application of Blockchain Technology in Business, Springer, 2019 (only select chapters)

All other course materials (slides, quizzes, assignments, tutorials, case studies) will be distributed electronically on Canvas.
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Module Structure	With a more detailed break-down to follow at the beginning of class, the contents of the module are built up as follows: A. Developing a Framework of Supply Chain Performance Drivers B. Achieving Strategic Fit of Corporate and Supply Chain Strategy C. Methods for Achieving SC Resilience D. Supply Chain Risk Management Process (SCRMP) E. Preparing for Disruptions Through Early Detection ('Traditional' disruptions and sustainability-related disruptions) F. Supply Chain Risk Management Informationsystems G. Technology Adoption for Supply Chain Transparency
Usability in other Modules/Programmes	Master's Thesis
Last Approval Date	2022/02/24

Designing & Analyzing Business Experiments [MGT73753]

Module Coordinator		Schwerter, Frederik; Grunewald, Andreas			
Programme(s)		Master in Management			
Term		Semester 2 Q4			
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		Business Statistics			
Content		In the last decade it has become increasingly uncomplicated to collect and analyze data. As a consequence, an increasing number of companies exploit experiments and randomized controlled trials to evaluate the impact of their management decisions on key performance indicators. This course gives an introduction to the techniques needed to design and analyze such experiments in the business context. We will focus on the following goals: First, we will equip students with a basic understading of the differences between correlations and causality and the challenges to identify causal relationships. Second, we will provide a systematic guide on how to design randomized controlled trials in order to identify the cusal impact of management decisions. Third, we will familiarize students with typical data structures arising from experiments and discuss how to analyze such data. Fourth, we will give a selective overview of important results and the state of the art in the current literature.			

Intended Learning Outcomes	**Knowledge:** Upon completion of the course students will know how experimental data can help managers to make the best decisions for their company. In particular, students will know different techniques to collect data and how to design business experiments. They will also know important current applications of randomized controlled trials. **Skills:** Upon completion of the course, students will be able to judge the extent to which existing data sets can be used to guide decisions and how to collect new data if needed. Moreover, they will learn how to handle different kinds of data sets, which can provide important guidance for managment decisions. This includes a thorough comprehension of the limits of data anlysis in mangement decision. **Competencies:** On successful completion of this module, students can take responsibility to transfer the learned concepts to real world situations pertaining to typical management decisions, e.g. they can: • Design a business experiment in order to evaluate a management practice • Identify a causal relationship from the arising data. • Argue competently about problem solution strategies
Forms of teaching, methods and support	The course is taught interactively. While we start with a series of lectures to introduce the topic, there is also a considerable number of exercise tasks to train participants. Case studies and simulations help to improve the learning experience. Finnaly, students will give a presentation about a particular Business Experiment in the second part of the course.

<table>
<tr><td>Type of Assessment(s) and performance</td><td>
<table>
<tr><th>Type of Examination</th><th>Duration or length</th><th>Performance Points</th><th>Due date or date of exam</th></tr>
<tr><td>Class participation</td><td>Continuous</td><td>15</td><td>Continuous</td></tr>
<tr><td>Presentation</td><td>45 mins</td><td>45</td><td>TBA</td></tr>
<tr><td>Written exam</td><td>60 mins.</td><td>60</td><td>Exam week</td></tr>
</table>

Class participation.
You can earn credit towards your class participation score by contributing to our in-class discussion (of case studies etc.). In order to contribute to in-class discussions, of course, you must show up (online or offline). Please arrange your other activities to permit you to attend class. Mostly, our discussions will be free form: anyone who has something to contribute can and should do so.

Presentation
Students will present the design and evaluation of one particular business experiment in class. The topics will be handed out at the beginning of the course. After the presentations we will discuss the experiments.

More details will be given at the beginning of the course.

Final Exam
More details will be given at the beginning of the course.
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<tr><td>Recommended Literature</td><td>There is no single textbook that covers the material of the course. You may want to look into the following references:

Angrist, Joshua D., and Jörn-Steffen Pischke. Mostly harmless econometrics. Princeton university press, 2008.

Bandiera, Oriana, Iwan Barankay, and Imran Rasul. "Field experiments with firms." Journal of Economic Perspectives 25.3 (2011): 63-82.</td></tr>
<tr><td>Module Structure</td><td>With a more detailed break-down to follow at the beginning of class, the contents of the module are built up as follows:
A. Correlation versus Causality
B. Design of Business Experiments
C. Evaluation of Business Experiments
D. Case Studies and Examples of Business Experiments</td></tr>
<tr><td>Usability in other Modules/Programmes</td><td>Master's Thesis</td></tr>
<tr><td>Last Approval Date</td><td>2021/10/28</td></tr>
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