



Module descriptions of all MPMD modules

All courses of MPMD programme are offered for all students - on campus or online - at the same time!

The modules of the first and second semester are offered 75% as live sessions and 25% as self-learning unit using our eLearning tool Moodle at the student's own pace and whenever they want or during the time slot given in the timetable. E-Learning material includes quizzes, exercises, videos and scripts or lecture notes.



Modulhandbuch Wintersemester 2024

531 Project Management and Data Science

htw.

**Hochschule für Technik
und Wirtschaft Berlin**

University of Applied Sciences

MODUL 4210	Foundations of Data Analytics and Statistical Programming	3
UNIT 4211	Foundations of Data Analytics and Statistical Programming (PÜ)	3
MODUL 4220	Advanced Computational Data Analytics	4
UNIT 4221	Advanced Computational Data Analytics (PÜ)	5
MODUL 4240	Contract and International Business Law	6
UNIT 4241	Contract and International Business Law (PÜ)	6
MODUL 4250	Change Management and Leadership	7
UNIT 4251	Change Management and Leadership(PÜ)	8
MODUL 4260	Financial Reporting and Management Information Systems	10
UNIT 4261	Financial Reporting and Management Information Systems (PÜ)	10
MODUL 4270	Practical Data Governance, Data Security and Regulatory Compliance	11
UNIT 4271	Practical Data Governance, Data Security and Regulatory Compliance (PÜ)	11
MODUL 4280	Project Management and Data Analytics Lab	12
UNIT 4281	Project Management and Data Analytics Lab (PCÜ)	12
MODUL 4310	Advanced Data Mining Techniques, Databases and Big Data	13
UNIT 4311	Advanced Data Mining Techniques, Databases and Big Data (PÜ)	13
MODUL 4320	Emerging Technologies and Artificial Intelligence	15
UNIT 4321	Emerging Technologies and Artificial Intelligence (PÜ)	16
MODUL 8200	AA-Master's Thesis	16
MODUL 8300	KO-Master's Thesis Seminar and Final Oral Examination	17
UNIT 8301	Master's Thesis Seminar and Final Oral Examination (PS)	17
MODUL 4110	International Project Management 1	18
UNIT 4111	International Project Management 1 (PÜ)	19
MODUL 4120	International Project Management 2	20
UNIT 4121	International Project Management 2 (PÜ)	20
6000	GE-Elective Module 1 - 2	22
MODUL 5310010	Negotiation Techniques and Cross-Cultural Communication	23
UNIT 5310011	Negotiation Techniques and Cross-Cultural Communication (PÜ)	23
MODUL 5310030	Technology Management	24
UNIT 5310031	Technology Management (PS)	25
MODUL 5310040	Interpersonal Dynamics and Group Facilitation	26
UNIT 5310041	Interpersonal Dynamics and Group Facilitation (PÜ)	26
MODUL 5310050	Data ethics	28
UNIT 5310051	Data ethics (PÜ)	28

STUDIENGANG	ID
Project Management and Data Science	531

MODUL	ID
Foundations of Data Analytics and Statistical Programming	4210

🔗 1 Studiengang zugeordnete: 531 Project Management and Data Science

🔗 1 Unit(s) zugeordnete: 4211 Foundations of Data Analytics and Statistical Programming (PÜ)

Zusammenfassung

ECTS-PKT.	10	PRÄSENZZEIT	6 SWS
DAUER IN SEMESTER	1	SEMESTERZUORDNUNG	1
STATUS DES MODULS	Pflichtmodul	PRÜFUNGSBEWERTUNG	Differentiated Grading
NIVEAUSTUFE	2a - Module without prerequisites (MA)	ANGEBOTSTURNUS	
NOTWENDIGE VORAUSSETZUNGEN		EMPFOHLENE VORAUSSETZUNGEN	
PRÜFUNGSFORM / ART DER PRÜFUNG	Teamwork assignment (50%) Written examination (40%) Course participation (10%) - multiple little quizzes and exercises in Moodle	HINWEISE	
ANERKANNTE MODULE		VERWENDBARKEIT	

Lernergebnisse

Students are able to purposefully select and implement data collection and pre-processing methods (error analysis and correction). They can correctly identify the advantages and drawbacks of these processes and describe their implications for further processing. When performing data analysis, they can competently apply descriptive and inductive/inferential statistics calculations. Univariate and multivariate methods are differentiated from one another, and their processes and applications can be explained. Students have developed the methodological and mathematical knowledge required for the preparation and analysis of data sets.

They are able to use professional software to tackle statistical problems and generate concrete solutions on the basis of the data available, in this process independently creating, testing and implementing scripts of low to medium complexity. When performing such tasks, they are aware of the essential fundamental principles of error-free and transparent programming. They understand the structure of more complex scripts and can interpret individual commands.

Students are familiar with established methods for assessing and displaying results of statistical analyses including various diagram types, tables and reports, and can create these single-handedly.

Modulverantwortliche/r

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UNIT	ID
Foundations of Data Analytics and Statistical Programming (PÜ)	4211

🔗 1 Modul(s) zugeordnete: 4210 Foundations of Data Analytics and Statistical Programming

Zusammenfassung

ANTEIL PRÄSENZZEIT	6 SWS	LERNFORM	Praktische Übung
ANTEIL WORKLOAD	100%	SPRACHE	Englisch

Inhalte

- Fundamentals of analysis, linear algebra and discrete mathematics
- Techniques of data collection

- Data processing: identification of outliers, cleaning up sets
- Levels of measurement, z-scores
- Analysis and description of variables in data sets
- Professional data and result documentation, approaches in professional analytics
- Univariate statistics
 - Descriptive statistics (derived statistics, graphic representations)
 - Estimation procedures (maximum likelihood, least squares)
 - Test distributions
 - Introduction to statistical inference analysis (selected test procedures)
- Multivariate statistics
 - Variance analysis (unifactorial and bifactorial)
 - Multiple linear regression
 - General linear model
 - Logistical regression
- Introduction to the R command language
 - Data structures (vectors, matrices, lists)
 - Dealing with ordinal levels of measurement / factors in R, including coding and recoding
 - Data frames
 - Operations and functions
 - Inputting data and outputting it in datasets
 - Using statistical functions for data analysis
 - Cleaning up data and standardization, identifying outliers
 - Univariate and multivariate statistical models

Literatur

McClave, James T.; Benson P. George; Sincich, Terry: Statistics for Business and Economics, 2017 (13th Edition), Pearson
 ISBN: 978-0134506593

Levine, David M.; Szabat, Kathryn A.; Stephan, David F.: Business Statistics: A First Course, 2019 (8th Edition), Pearson
 ISBN: 978-0134684840

Bruce, Peter C.; Gedeck, Peter; Dobbins, Janet: Statistics for Data Science and Analytics, 2024, Wiley
 ISBN:# 978-1394253807

Peng, Roger D.: Exploratory Data Analysis with R, 2016, Lulu.com
 ISBN: 978-1365060069

Provost, Foster; Fawcett, Tom: Data Science for Business: What You Need to Know About Data Mining and Data-Analytic Thinking, 2013, O'Reilly Media
 ISBN: 978-1449361327

LEHRVERANSTALTUNGEN

WS 2024/25 - 5314211 MPMD1.2 Foundations of Data Analytics and Statistical Programming (PÜ)

UNIT 4211 Foundations of Data Analytics and Statistical Programming (PÜ)

MODUL	ID
Advanced Computational Data Analytics	4220

1 Studiengang zugeordnete: 531 Project Management and Data Science
1 Unit(s) zugeordnete: 4221 Advanced Computational Data Analytics (PÜ)

Zusammenfassung

ECTS-PKT.	10	PRÄSENZZEIT	6 SWS
DAUER IN SEMESTER	1	SEMESTERZUORDNUNG	2
STATUS DES MODULS	Pflichtmodul	PRÜFUNGSBEWERTUNG	Differentiated Grading
NIVEAUSTUFE	2b - Module with prerequisites (MA)	ANGEBOTSTURNUS	

NOTWENDIGE VORAUSSETZUNGEN		EMPFOHLENE VORAUSSETZUNGEN	
PRÜFUNGSFORM / ART DER PRÜFUNG	<ul style="list-style-type: none"> • Presentation (50%) • Project report (50%) 	HINWEISE	
ANERKANNTE MODULE		VERWENDBARKEIT	

Lernergebnisse

Students understand the difference between processes which confirm and those which identify structures and can differentiate between the functioning of various processes including factor analysis, cluster analysis, support vector machines and decision trees. As well as knowing the systems and implementation requirements of processes, students are able to offer detailed and technically proficient explanations of their respective advantages and drawbacks.

Students have furthermore acquired know-how regarding the use of complex statistics software such as R, SPSS Statistics and/or the SPSS Modeler or SAS Enterprise Miner.

Students have proven their ability to independently apply these processes using computers via concrete and practically relevant scenarios. This requires them to perform data scrubbing and analysis, critically assess the results of their calculations and if necessary select alternative approaches in order to obtain optimum solutions to the problem at hand.

Students are able to enrich data via the reasoned incorporation of new key figures in their calculations. Using the example of medical data, they have proven their ability to deal with support vector machines and use this process to derive concrete medical insights, for example activity phases on the basis of EEG data.

In addition, students are capable of creating effective questionnaires which take into account scientific insights. As part of a case study they have collected data and evaluated this using complex statistical methods including factor analysis and structural equation modelling. As a final step, they are capable of deriving and justifying practical, business-oriented measures on the basis of their results.

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UNIT	ID
Advanced Computational Data Analytics (PÜ)	4221

 1 Modul(s) zugeordnete: 4220 Advanced Computational Data Analytics

Zusammenfassung

ANTEIL PRÄSENZZEIT	6 SWS	LERNFORM	Praktische Übung
ANTEIL WORKLOAD	100%	SPRACHE	Englisch

Inhalte

<p>- Latent variables and their use, for instance, in the area of the behavioral sciences <p>- How to identify and clean up possible errors in data <p>- Introduction to commercial software packages such as SPSS Statistics and SPSS Modeler <p>- Concept of segmentation in datasets from trainings, tests and validations <p>- Factor analysis <p>- Cluster analysis <p>- Decision trees <p>- Support Vector Machines (SVM) <p>- Applicability of results to other data constellations <p>- Collecting data with the aid of professional questionnaires <p>- Multidimensional scaling <p>- Structural equation models <p>- Use of various techniques and procedures to uncover hidden correlations in questionnaires (factor analysis, cluster analysis, structural equation models) <p style="user-select: auto;">This module builds on the vocabulary and knowledge base you developed in the previous semester to introduce you to data mining. We will explore all the steps of the data mining process in detail, learn how to prepare the data, train and test advanced machine learning models, and evaluate their performance. <p>Throughout the module, you will work on a project assignment requiring you to put all of this theory directly into practice. At the end, you will have learned a structured, organised and technical way to approach big data.

Literatur

McClave, James T.; Benson P. George; Sincich, Terry: Statistics for Business and Economics, 2017 (13th Edition), Pearson
 ISBN: 978-0134506593
 Levine, David M.; Szabat, Kathryn A.; Stephan, David F.: Business Statistics: A First Course, 2019 (8th Edition), Pearson
 ISBN: 978-0134684840
 Bruce, Peter C.; Gedeck, Peter; Dobbins, Janet: Statistics for Data Science and Analytics, 2024, Wiley
 ISBN:# 978-1394253807
 Peng, Roger D.: Exploratory Data Analysis with R, 2016, Lulu.com
 ISBN: 978-1365060069

Provost, Foster; Fawcett, Tom: Data Science for Business: What You Need to Know About Data Mining and Data-Analytic Thinking, 2013, O'Reilly Media
 ISBN: 978-1449361327
https://www.amazon.de/-/en/Jake-VanderPlas-ebook/dp/B0BP8XD42X/ref=sr_1_3
https://www.amazon.de/-/en/Declan-Ashford-ebook/dp/B0DFXDZVZST/ref=sr_1_4
https://www.amazon.de/Andrew-Warner-ebook/dp/B08DDBWXX7/ref=sr_1_19_sspa

MODUL	ID
Contract and International Business Law	4240

1 Studiengang zugeordnete: 531 Project Management and Data Science

1 Unit(s) zugeordnete: 4241 Contract and International Business Law (PÜ)

Zusammenfassung

ECTS-PKT.	5	PRÄSENZZEIT	4 SWS
DAUER IN SEMESTER	1	SEMESTERZUORDNUNG	1
STATUS DES MODULS	Pflichtmodul	PRÜFUNGSBEWERTUNG	Differentiated Grading
NIVEAUSTUFE	2a - Module without prerequisites (MA)	ANGEBOTSTURNUS	
NOTWENDIGE VORAUSSETZUNGEN		EMPFOHLENE VORAUSSETZUNGEN	
PRÜFUNGSFORM / ART DER PRÜFUNG	<ul style="list-style-type: none"> • assignment (40% of the grade) <li style="padding-left: 20px;">- design a contract • written exam (120 minutes, 60% of the grade) <li style="padding-left: 20px;">--> Successful completion of the exercises and quizzes in Moodle is mandatory in order to be allowed to write the exam. 	HINWEISE	
ANERKANNTE MODULE		VERWENDBARKEIT	

Lernergebnisse

Students are able to explain the practice of drawing up contracts in international business transactions and can describe the fundamental features of contractual law in Germany and in Common Law. They can determine and justify which legal system should be applied for international contracts, have developed a critical appreciation of contracts, and can recognise the significance of standard contract clauses. They have worked with template contracts from various legal systems and are capable of drawing and evaluating contracts independently. Students can estimate and evaluate the legal risks a contract may pose.

Modulverantwortliche/r

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UNIT	ID
Contract and International Business Law (PÜ)	4241

1 Modul(s) zugeordnete: 4240 Contract and International Business Law

Zusammenfassung

ANTEIL PRÄSENZZEIT	4 SWS	LERNFORM	Praktische Übung
ANTEIL WORKLOAD	100%	SPRACHE	Englisch

Inhalte

This module introduces you to contract law and to the various options of drafting a contract. Since contract law varies from country to country, the basic principles of German contract law will be compared with Anglo-American law (Common Law). In addition, you will learn which law applies to contracts agreed in an international context.

- Fundamentals of contract law
- Differences between German contract law and Common Law
- Rules governing the applicable contract law for international contracts (international private law)
- Contract types (sales contracts, contracts for service provision, leases, labour contracts)
- Typical contract structure
- Standard contract clauses
- Locating legal sources and contract templates in databases
- Handling collections of contract templates
- Analysis and modification of contract templates
- Evaluation of contract clauses and targeted implementation thereof

Literatur

- Huber/Mullis The CISG, 2007
- Jewell, Michael: An Introduction to English Contract Law, 2nd Edition 2002
- Mosselman, M.W. Introduction to International Commercial and European Law, 2015
- Ostendorf, Patrick: International Sales Terms, 2nd Edition 2014
- Robbers, Gerhard: An Introduction to German Law, fifth Edition 2012, Nomos Verlag
- Schlechtriem/Schwenzer: Commentary on the UN Convention on the International Sale of Goods, 4rd Edition 2016
- Wörlen, Rainer: Introduction to English Civil Law I, fourth Edition 2007

LEHRVERANSTALTUNGEN

WS 2024/25 - 5314241 MPMD1.3 Contract and International Business Law (PÜ)

UNIT 4241 Contract and International Business Law (PÜ)

MODUL	ID
Change Management and Leadership	4250

1 Studiengang zugeordnete: 531 Project Management and Data Science

1 Unit(s) zugeordnete: 4251 Change Management and Leadership(PÜ)

Zusammenfassung

ECTS-PKT.	5	PRÄSENZZEIT	4 SWS
DAUER IN SEMESTER	1	SEMESTERZUORDNUNG	2
STATUS DES MODULS	Pflichtmodul	PRÜFUNGSBEWERTUNG	Differentiated Grading
NIVEAUSTUFE	2a - Module without prerequisites (MA)	ANGEBOTSTURNUS	
NOTWENDIGE VORAUSSETZUNGEN		EMPFOHLENE VORAUSSETZUNGEN	
PRÜFUNGSFORM / ART DER PRÜFUNG	Reflection paper Attendance of 80% is mandatory as a threshold, to be allowed to write the exam.	HINWEISE	
ANERKANNTE MODULE		VERWENDBARKEIT	

Lernergebnisse

Students can identify and describe trigger factors for changes processes, relate them to the corporate context, and critically reflect on their own understanding of change and role as "change agents". They can describe different scopes for action in designing change processes and are aware of their limitations.

Students are familiar with various approaches which can help to initiate, monitor and sustainably anchor change processes, and can describe their structure and impact. They have developed a critical appreciation of different approaches in terms of their applicability and can make reasoned decisions when selecting models and tools suitable for given situations.

Students are capable of analysing resistance to change at an individual and group level, and can assess its likely impact in order to plan future action and make adaptations to ongoing projects as necessary.

Students reflect on their own roles as project leaders and are aware of their strengths and weaknesses as they relate to this role. They understand the influence of the corporate context and specific specialised tasks on the leadership function.


Students are capable of adapting their leadership style to different situations and have an understanding not only of theoretical fundamentals, but also of concrete methods for leading staff.

Modulverantwortliche/r

Jürgen Radel

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UNIT	ID
Change Management and Leadership(PÜ)	4251

 **1 Modul(s) zugeordnete:** 4250 Change Management and Leadership

Zusammenfassung

ANTEIL PRÄSENZZEIT	4 SWS	LERNFORM	Praktische Übung
ANTEIL WORKLOAD	100%	SPRACHE	Englisch

Inhalte

- Introduction to Lewin's field theory and the concept of field forces. These are the forces that influence the movement of an individual through any given "field" (environment).
- Building upon Lewin's three stages (unfreeze, change, freeze), Kotter's change model will be outlined. Students will be called upon to consider its merits as an achievable paradigm.
- The change models generated by Engestöm and Lippitt/Watson/Westley will be outlined.
- In order to evaluate the emotional state of individuals to change, we shall expand upon the Kuebler-Ross model and apply it to business processes.
- In addition to the individual level, group conformity and peer pressure play key roles in successfully managing change processes. Studies regarding conformity will be outlined and discussed.
- Various group types will be analyzed and students will be called upon to consider the group dynamics in several cases.
- In addition to rudimentary motivational concepts, students will also have the ability to engage with group communication options.
- Practical tools for shaping process components will be laid out. They will be examined with specific regard to their application within specific company cultures and frameworks.
- Students will reflect on their own leadership roles with reference to the concept of situation-specific leadership.
- Students will inventory their own strengths and weaknesses.
- One of the most crucial tasks of a manager is decision-making. Methods gained from game theory will be used to better understand decision-making processes.
- With the help of case studies, students will analyze leadership situations and critically reflect upon alternative courses of action.
- Students will gain practical tools to enable effective leadership communication in the day-to-day running of a business.

- The above-listed methods will be complemented by models borrowed from personal portfolio and performance management.

Literatur

• Recommend Books

- 1) Berger, P. L., & Luckmann, T. (1991). *The social construction of reality: A treatise in the sociology of knowledge* (No. 10). Penguin Uk.
- 2) Le Bon, G. (1897). *The crowd: A study of the popular mind*. Fischer.
- 3) Foucault, M. (1982). The subject and power. *Critical inquiry*, 8(4), 777-795.
- 4) Foucault, M. (2012). *Discipline & punish: The birth of the prison*. Vintage.
- 5) Krainer, L., & Heintel, P. (2015). Process-Ethics. *The Socratic Handbook*, 9, 251.
- 6) Moreno, J. L. (1934). *Who shall survive?: A new approach to the problem of human interrelations*.

• Selected Papers

- 1) Bain, A. (1998). Social defenses against organizational learning. *Human Relations*, 51(3), 413-429.
- 2) Bristol, S. (2013). Five Elements of Authentic Discourse. In: *Here and Now. Collected Wirings on Group Dynamics*. ÖGGO. Pp. 103-113
- 3) Colman, A. D. (1975). Group consciousness as a developmental phase. *Group relations reader*, 1. Pp- 35-42
- 4) Eisold, K. (2004). Leadership and the creation of authority. *Group dynamics, organisational irrationality and social complexity: Group Relations Reader*, 3.
- 5) Petriglieri, G. (2014). Why Work is Lonely. *Harvard Business Review* 5, May 2014. <https://hbr.org/2014/03/why-work-is-lonely>
- 6) Kasenbacher, K. (2013). Students and group dynamics training groups. In: *Here and Now. Collected Wirings on Group Dynamics*. ÖGGO. Pp. 115-121
- 7) Katz, D., & Kahn, R. L. (1978). *The social psychology of organizations* (Vol. 2, p. 528). New York: Wiley. Chapter 7: On Role Taking.
- 8) Krainz, E. E. (2011). The indispensability of consciousness. In H. Lenhard, C. Conaco (Eds.), *Management and HR development—a humanistic approach for integration: post graduate studies in intercultural cooperation* (pp. 24–30). Kassel: Kassel university press GmbH. <http://www.uni-kassel.de/upress/online/frei/978-3-86219-036-2.volltext.frei.pdf> (2017-11-28)
- 9) Krantz, J., & Gilmore, T. N. (1990). The splitting of leadership and management as a social defense. *Human Relations*, 43(2), 183-204.
- 10) Krantz, J., & Maltz, M. (1997). A framework for consulting to organizational role. *Consulting psychology journal: Practice and research*, 49(2), 137.
- 11) Lackner, K. (2011). The emotional lining of an organization. *Management and HR development—a humanistic approach for integration: post graduate studies in intercultural cooperation*. Kassel: Kassel university press GmbH. <http://www.uni-kassel.de/upress/online/frei/978-3-86219-036-2.volltext.frei.pdf> (2017-11-28)
- 12) Lawrence, G. (2009). Social dreaming as a tool of consultancy and action research. *Psychoanalytic studies of organizations: Contributions from the international society for the psychoanalytic study of organizations*, 105-122.
- 13) Lesjak, B. (2013). Back to living Systems. *Group Dynamics and Interventions*. In: *Here and Now. Collected Wirings on Group Dynamics*. ÖGGO. Pp. 77-94
- 14) Obholzer, A., & Roberts, V. Z. (1994). The troublesome individual and the troubled institution. *The unconscious at work: Individual and organizational stress in the human services*, 129-138.
- 15) Parlett, M. (1997). The unified field in practice. *Gestalt Review*, 16-33.
- 16) Radel, J. (2017): *Organization as a Challenge. A reflection of group dynamic processes between leader and follower*. Herausgeber: Fachhochschule des BFI Wien. Sonderheft/Sonderband von: *Wirtschaft und Management. Schriftenreihe zur Wirtschaftswissenschaftlichen Forschung und Praxis*. Ausgabe: 25/2017, S. 59-76, Wien, 2017, ISBN 978-3-902624-48-2
- 17) Radel, J. (2018): The leader as an abandoned child within the strange situation of organizational change. *Beiträge und Position der HTW Berlin - Kreativität schafft Innovation*. Available here.
- 18) Rioch, M. J. (1971). "All we like sheep—" (Isaiah 53: 6): followers and leaders. *Psychiatry*, 34(3), 258-273.
- 19) Schein, E. H. (2006). How culture emerges in groups. In: *Organizational culture and leadership* (Vol. 356). John Wiley & Sons. Pp. 63-84
- 20) Schuster, R. (2016). Essentials of the course "Organisational and Group Dynamics" http://www.fh-vie.ac.at/var/em_plain_site/storage/original/application/0fac185f41e81aaf77e8984e63134fd5.pdf (2017-11-28)
- 21) Stein, H. F. (1997). Death Imagery and the Experience of Organizational Downsizing: Or, is Your Name on Schindler's List?. *Administration & Society*, 29(2), 222-247.
- 22) Vaillant, G. E. (1994). Ego mechanisms of defense and personality psychopathology. *Journal of abnormal psychology*, 103 (1), 44.
- 23) Wells, L. (1995). The group as a whole: A systemic socioanalytic perspective on interpersonal and group relations. *Groups in context: A new perspective on group dynamics*, 49-85.

MODUL	ID
Financial Reporting and Management Information Systems	4260

🔗 1 Studiengang zugeordnete: 531 Project Management and Data Science

🔗 1 Unit(s) zugeordnete: 4261 Financial Reporting and Management Information Systems (PÜ)

Zusammenfassung

ECTS-PKT.	5	PRÄSENZZEIT	4 SWS
DAUER IN SEMESTER	1	SEMESTERZUORDNUNG	2
STATUS DES MODULS	Pflichtmodul	PRÜFUNGSBEWERTUNG	Differentiated Grading
NIVEAUSTUFE	2a - Module without prerequisites (MA)	ANGEBOTSTURNUS	
NOTWENDIGE VORAUSSETZUNGEN		EMPFOHLENE VORAUSSETZUNGEN	
PRÜFUNGSFORM / ART DER PRÜFUNG	report (100 %)	HINWEISE	
ANERKANNTE MODULE		VERWENDBARKEIT	

Lernergebnisse

Students can describe and categorise the key aspects of accounting. They are able to differentiate between internal and external accounting practices and can identify information relevant for assessing a company's current situation and making decisions. Students have developed a critical appreciation for both financial and non-financial information and its significance, and can ascertain this information via quantitative analysis. In addition, students are able to appropriately present the information they have produced and create graphical interfaces and management cockpits.

Modulverantwortliche/r

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UNIT	ID
Financial Reporting and Management Information Systems (PÜ)	4261

🔗 1 Modul(s) zugeordnete: 4260 Financial Reporting and Management Information Systems

Zusammenfassung

ANTEIL PRÄSENZZEIT	4 SWS	LERNFORM	Praktische Übung
ANTEIL WORKLOAD	100%	SPRACHE	Englisch

Inhalte

Accounting is the *lingua franca* of modern commerce. Project managers and data analysts alike must possess a good knowledge of its fundamentals. The elements of accounting provide a reliable data-driven base for decision-making. Furthermore, quantitative analysis can be applied for planning purposes, for driving a company's success, and for analyzing companies as an outsider.

- Basics of financial accounting and reporting
- Corporate valuation and value-based management
- Generating and interpreting data from balance sheet and income statement
- Evaluating performance based on financial information
- Structure, calculation, analysis and interpretation of common key performance indicators (KPIs)
- Analysis of financial and non-financial information

Literatur

- Libby, Robert; Libby, Patricia A.; Short, Daniel: Financial Accounting, McGraw-Hill, 8th Edition. ISBN-13: 978-0-0771-5895-8
- Alexander, David; Britton, Anne; Jorissen, Ann; Hoogendoorn, Martin; van Mourik, Carien: International Financial Reporting and Analysis, Cengage Learning, 6th Edition ISBN-13: 978-1-4080-7501-2

- Datar, Srikant M.; Rajan, Madhav V.: Horngren's Cost Accounting, Cengage Learning, 16th Edition. ISBN-13: 978-1-292-21154-1

Study materials:

- Online learning material (please see Moodle)
- Hafner, Ralf.: Corporate Valuation, UVK, ISBN-13: 978-3-867-64756-4
- Bloomberg terminals

MODUL	ID
Practical Data Governance, Data Security and Regulatory Compliance	4270

🔗 **1 Studiengang zugeordnete:** 531 Project Management and Data Science

🔗 **1 Unit(s) zugeordnete:** 4271 Practical Data Governance, Data Security and Regulatory Compliance (PÜ)

Zusammenfassung

ECTS-PKT.	5	PRÄSENZZEIT	3 SWS
DAUER IN SEMESTER	1	SEMESTERZUORDNUNG	3
STATUS DES MODULS	Pflichtmodul	PRÜFUNGSBEWERTUNG	Differentiated Grading
NIVEAUSTUFE	2a - Module without prerequisites (MA)	ANGEBOTSTURNUS	
NOTWENDIGE VORAUSSETZUNGEN		EMPFOHLENE VORAUSSETZUNGEN	
PRÜFUNGSFORM / ART DER PRÜFUNG	Essay 75% and presentation 25%	HINWEISE	
ANERKANNTE MODULE		VERWENDBARKEIT	

Lernergebnisse

Having successfully completed the module, students can name and explain the functional and ethical boundaries of data collection and analysis algorithms. They are familiar with the implications of the use and combination of different methods. Students are able to undertake the reasoned development of data governance regulations and implement these in corporate contexts. Throughout this process they take account of and seek to harmonise legal, organisational and corporate requirements. Students understand data anonymising methods and can handle their targeted implementation based on examples. In addition, they are familiar with the requirements for implementing various levels of data security and can both explain these and develop proposals for their implementation in companies

Modulverantwortliche/r

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UNIT	ID
Practical Data Governance, Data Security and Regulatory Compliance (PÜ)	4271

🔗 **1 Modul(s) zugeordnete:** 4270 Practical Data Governance, Data Security and Regulatory Compliance

Zusammenfassung

ANTEIL PRÄSENZZEIT	3 SWS	LERNFORM	Praktische Übung
ANTEIL WORKLOAD	100%	SPRACHE	Englisch

Inhalte

1. Basic Understanding
2. Compliance
3. Governance
4. Data Privacy

Literatur

see Moodle

LEHRVERANSTALTUNGEN

WS 2024/25 - 5314271 MPMD3.3 PÜ Practical Data Governance, Data Security and Regulatory Compliance (PÜ)

UNIT 4271 Practical Data Governance, Data Security and Regulatory Compliance (PÜ)

MODUL	ID
Project Management and Data Analytics Lab	4280

1 Studiengang zugeordnete: 531 Project Management and Data Science

1 Unit(s) zugeordnete: 4281 Project Management and Data Analytics Lab (PCÜ)

Zusammenfassung

ECTS-PKT.	10	PRÄSENZZEIT	2 SWS
DAUER IN SEMESTER	1	SEMESTERZUORDNUNG	3
STATUS DES MODULS	Wahlpflichtmodul	PRÜFUNGSBEWERTUNG	Differentiated Grading
NIVEAUSTUFE	2b - Module with prerequisites (MA)	ANGEBOTSTURNUS	
NOTWENDIGE VORAUSSETZUNGEN		EMPFOHLENE VORAUSSETZUNGEN	
PRÜFUNGSFORM / ART DER PRÜFUNG	<ul style="list-style-type: none">presentation: 20%assignment: 80%	HINWEISE	
ANERKANNTE MODULE		VERWENDBARKEIT	

Lernergebnisse

Students can explain the functionalities of current tools for managing projects and analysing data. On the basis of concrete requirements, they are able to select suitable tools and methods then apply these in a targeted fashion.

Students can carry out and document the planning and division of a project into phases, define milestones and monitor relevant key project performance indicators with the help of corresponding software.

Over the course of practically oriented case studies, students are able to reach reasoned decisions when selecting data analysis techniques and apply these correctly. They can assess the quality of data, perform data scrubbing and possess detailed know-how regarding the use of a range of software tools. Students can provide a structured account of the advantages, drawbacks and implementation requirements of both algorithms and available tools.

They can implement the targeted use of selected tools in order to tackle typical tasks including classification, segmentation or revealing associations. They have at their disposal a broad repertoire of statistical methods for analysing large quantities of data, and can practically implement the algorithms and processes they have learned.

In addition, they are capable of communicating the project situation and the results of data analysis in a style commensurate with the needs of different target groups.

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UNIT	ID
Project Management and Data Analytics Lab (PCÜ)	4281

1 Modul(s) zugeordnete: 4280 Project Management and Data Analytics Lab

Zusammenfassung

ANTEIL PRÄSENZZEIT	2 SWS	LERNFORM	Laborpraktikum
ANTEIL WORKLOAD	100%	SPRACHE	Englisch

Inhalte

- Outlining typical phases of the project / aspects of project-management as well as performance indicators in data analysis projects.
- Using a real-world dataset, work through important stages of a data science project ("business understanding", "data understanding", "data prep / feature engineering" and "modeling / evaluation").

- Practice presenting your progress and results to your client.

Literatur

- Chatfield, Carl: Microsoft Project 2013 Step by Step ISBN: 0735669112
- Witten, Ian H.; Frank, Eibe; Hall, Mark A.: Data Mining: Practical Machine Learning Tools and Techniques ISBN: 0123748569
- Hofman, Markus (Hrsg.); Klinkenberg, Ralf (Hrsg.): Rapidminer: Data Mining Use Cases and Business Analytics Applications ISBN: 1482205491

LEHRVERANSTALTUNGEN

WS 2024/25 - 5314281 MPMD3.1 PC Project Management and Data Analytics Lab (PCÜ)

UNIT 4281 Project Management and Data Analytics Lab (PCÜ)

MODUL	ID
Advanced Data Mining Techniques, Databases and Big Data	4310

🔗 1 Studiengang zugeordnete: 531 Project Management and Data Science

🔗 1 Unit(s) zugeordnete: 4311 Advanced Data Mining Techniques, Databases and Big Data (PÜ)

Zusammenfassung

ECTS-PKT.	5	PRÄSENZZEIT	4 SWS
DAUER IN SEMESTER	1	SEMESTERZUORDNUNG	3
STATUS DES MODULS	Pflichtmodul	PRÜFUNGSBEWERTUNG	Differentiated Grading
NIVEAUSTUFE	2b - Module with prerequisites (MA)	ANGEBOTSTURNUS	
NOTWENDIGE VORAUSSETZUNGEN		EMPFOHLENE VORAUSSETZUNGEN	
PRÜFUNGSFORM / ART DER PRÜFUNG	<ul style="list-style-type: none"> • Evaluated exercise 80 % • Presentation 20 % 	HINWEISE	
ANERKANNTE MODULE		VERWENDBARKEIT	

Lernergebnisse

Students are able to explain and name the advantages and drawbacks of processes for storing and processing extremely large and unstructured quantities of data. They are familiar with modern database technology and can describe the differences to conventional relational databases. Students can define terms and processes such as ETL, data warehouse, data mart, OLAP and Hadoop as they relate to data management in distributed databases, in streams, in collections for complex structures or for spatially and temporally mobile objects.

Having explored various data storage options, students learn innovative techniques for data analysis, focusing especially on unstructured data including text and web mining, image mining and social network analysis.

Students are able to apply acquired know-how in practical laboratory exercises based on examples from business or academia using software tools.

Having completed the module, students have mastered the principles of conceptualising, describing and utilising data management systems for complex analysis projects. They are familiar with complex analysis processes for unstructured data and can provide well grounded justification for the selection of processes and tools required to organise and implement data mining.

Students have furthermore developed a critical appreciation for the results of the procedures' application.

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UNIT	ID
Advanced Data Mining Techniques, Databases and Big Data (PÜ)	4311

🔗 1 Modul(s) zugeordnete: 4310 Advanced Data Mining Techniques, Databases and Big Data

Zusammenfassung

ANTEIL PRÄSENZZEIT	4 SWS	LERNFORM	Praktische Übung
ANTEIL WORKLOAD	100%	SPRACHE	Englisch

Inhalte

- Database and Data Storage fundamentals
 - Logical and physical concepts of databases
 - Relational, object-oriented, and object-relational databases
 - Database management systems
 - SQL statement syntax
 - ETL process (Extract, Transform, Load)
 - Data Warehouse
- Innovative database management approaches
 - HDFS (Hadoop Distributed File System)
 - ELT process (Extract, Load, Transform)
 - Data Lakes
 - Metadata in Data Lakes
 - Hadoop: Map Reduce Process
 - Apache Spark: Distributed in-memory computation of big data
- Advanced topics in database systems
- Data for complex structures
- Delineation of terminology with regard to data analytics, data mining and big data
- Characteristics of large, unstructured data sets and their impact on data analysis in the business context
- Data visualization
- Particular aspects of fuzzy logic
- Case Study

Literatur

Elmasri, Ramez A., Navathe, Shamkant: Fundamentals of Database Systems, 6th Edition, Pearson, 2010. ISBN-13: 978-0136086208

Hagiwara, Masato (2021). Real-world Natural Language Processing: Practical Applications with Deep Learning. ISBN-13 #: # 978-1617296420

Holmes, Alex: Hadoop in Practice, 2nd Edition, Manning Publications, 2014. ISBN-13: 978-1617292224

Kimball, Ralph, Ross Margy: The Data Warehouse Toolkit, 3rd Edition, Wiley, 2013. ISBN-13: 978-1118530801

Kroenke, David, M., Auer, David, J.: Database Processing, 13th Edition, Prentice Hall, 2013. ISBN-13: 978-0133058352

Lam, Chuck: Hadoop in Action, Manning Publications, 2010. ISBN-13: 978-1935182191

Lane, Hobson, Hapke, Hannes et al. (2019). Natural Language Processing in Action: Understanding, analyzing, and generating text with Python. ISBN-13: #978-1617294631

Perrin, Jean-Georges (2020). Spark in Action. 2nd edition. ISBN-13 #: # 978-1617295522

Silberschatz, Abraham, Korth, Henry: Database System Concepts, 6th Edition, McGraw-Hill, 2010. ISBN-13: 978-0073523323

LEHRVERANSTALTUNGEN

WS 2024/25 - 5314311 MPMD3.2 PÜ Advanced Data Mining Techniques, Databases and Big Data (PÜ)

UNIT 4311 Advanced Data Mining Techniques, Databases and Big Data (PÜ)

MODUL	ID
Emerging Technologies and Artificial Intelligence	4320

1 Studiengang zugeordnete: 531 Project Management and Data Science

1 Unit(s) zugeordnete: 4321 Emerging Technologies and Artificial Intelligence (PÜ)

Zusammenfassung

ECTS-PKT.	5	PRÄSENZZEIT	3 SWS
DAUER IN SEMESTER	1	SEMESTERZUORDNUNG	3
STATUS DES MODULS	Pflichtmodul	PRÜFUNGSBEWERTUNG	Differentiated Grading
NIVEAUSTUFE	2b - Module with prerequisites (MA)	ANGEBOTSTURNUS	
NOTWENDIGE VORAUSSETZUNGEN		EMPFOHLENE VORAUSSETZUNGEN	Foundations of Data Analytics and Statistical Programming Advanced Computational Data Analytics
PRÜFUNGSFORM / ART DER PRÜFUNG	individual assignment	HINWEISE	
ANERKANNTE MODULE		VERWENDBARKEIT	

Lernergebnisse

Students are able to:

- identify the properties of emerging technologies
- explain the life cycle phases of such technologies in detail
- name success factors and risks and explain their effects and
- explain and evaluate various evaluation approaches of leading consulting firms.

Students are able to explain the close connection between technical solutions and the resulting economic mechanisms. They can name solutions for justifiable requirements to be fulfilled as well as measures for the introduction and operation of e.g. cloud-based data analysis.

The students can provide an overview of the most important trends and emerging technologies in the next five years and give details about each technology.

The area of artificial intelligence will be examined as an example of emerging technologies. The students are able to name and explain basic methods of knowledge representation, learning and decision making.

AI techniques for

- Neural networks
- Natural Language Processing and/or
- Robotics

are used with the help of cloud or software solutions such as MATLAB and/or current programming languages such as Python to implement solutions for real problems.

After completing this module, students will have sound knowledge of modern technologies and their applications.

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UNIT	ID
Emerging Technologies and Artificial Intelligence (PÜ)	4321

1 Modul(s) zugeordnet: 4320 Emerging Technologies and Artificial Intelligence

Zusammenfassung

ANTEIL PRÄSENZZEIT	3 SWS	LERNFORM	Praktische Übung
ANTEIL WORKLOAD	100%	SPRACHE	Englisch

Inhalte

The area of artificial intelligence will be examined as an example of emerging technologies. The students can name and explain basic methods of knowledge representation, learning and decision making.

- AI techniques for
- Neural networks
- Natural Language Processing and/or
- Robotics

are used with the help of cloud or software solutions such as MATLAB and/or current programming languages such as Python to implement solutions for real problems.

Literatur

Krohn, John (2020): "Deep learning illustrated"

Geoffrey A. Moore (2014); "Crossing the Chasm": 3rd Edition: Marketing and Selling Disruptive Products to Mainstream Customers,

Haneke, U.; Trahasch, S.; Zimmer M.; Felden, C. (Hrsg.) (2019): Data Science Grundlagen, Architekturen und Anwendungen

Jaehun Lee, Taewon Suh, Daniel Roy, Melissa Baucus (2019); "Emerging Technology and Business Model Innovation: The Case of Artificial Intelligence"; . Open Innov. Technol. Mark. Complex. 2019, 5, 44

Thamm, A.; Gramlich, M.; Borek, A. (2020); The Ultimate Data and AI Guide

Rotolo, Daniele; Hicks, Diana; Martin, Ben R. (2015); "What is an emerging technology?"; Research Policy. 44 (10): 1827–1843

Winston, Patrick Henry; Artificial Intelligence (1992)

LEHRVERANSTALTUNGEN

WS 2024/25 - 5314321 MPMD3.4 PÜ Emerging Technologies and Artificial Intelligence (PÜ)

UNIT 4321 Emerging Technologies and Artificial Intelligence (PÜ)

MODUL	ID
Master's Thesis	8200

1 Studiengang zugeordnete: 531 Project Management and Data Science

Zusammenfassung

ECTS-PKT.	25	PRÄSENZZEIT	0 SWS
DAUER IN SEMESTER	1	SEMESTERZUORDNUNG	4
STATUS DES MODULS	Pflichtmodul	PRÜFUNGSBEWERTUNG	Differentiated Grading
NIVEAUSTUFE	2b - Module with prerequisites (MA)	ANGEBOTSTURNUS	

NOTWENDIGE VORAUSSETZUNGEN		EMPFOHLENE VORAUSSETZUNGEN	
PRÜFUNGSFORM / ART DER PRÜFUNG	Master's Thesis	HINWEISE	Conditions for participation: See exam regulations AMBL HTW Berlin Nr. 17/19 § 9
ANERKANNTE MODULE		VERWENDBARKEIT	

Lernergebnisse

In the Master's thesis, the students demonstrate the extent to which they are able to solve problems in an application-oriented and academic way. They apply the specialist and methodological knowledge they have gained during their studies and also acquire and apply the knowledge required to solve the problem. By writing their Master's thesis, students demonstrate their ability to conduct independent academic research.

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MODUL	ID
Master#s Thesis Seminar and Final Oral Examination	8300

☞ 1 Studiengang zugeordnete: 531 Project Management and Data Science

☞ 1 Unit(s) zugeordnete: 8301 Master#s Thesis Seminar and Final Oral Examination (PS)

Zusammenfassung

ECTS-PKT.	5	PRÄSENZZEIT	1 SWS
DAUER IN SEMESTER	1	SEMESTERZUORDNUNG	4
STATUS DES MODULS	Pflichtmodul	PRÜFUNGSBEWERTUNG	Differentiated Grading
NIVEAUSTUFE	2b - Module with prerequisites (MA)	ANGEBOTSTURNUS	
NOTWENDIGE VORAUSSETZUNGEN		EMPFOHLENE VORAUSSETZUNGEN	
PRÜFUNGSFORM / ART DER PRÜFUNG	Final Oral Examination Thesis seminar takes place online	HINWEISE	Conditions for participation: See exam regulations AMBL HTW Berlin Nr. 17/19 § 10
ANERKANNTE MODULE		VERWENDBARKEIT	

Lernergebnisse

Students are able to analyse a topic using academic methods and findings from an academic and operational perspective and develop solutions. They demonstrate that they are familiar with academic working methods, argumentation techniques and the requirements of academic work and are able to fulfil them. They have mastered the preliminary work required to prepare for a piece of academic writing, such as research in resources other than electronic media, and are able to familiarise themselves with unknown topics and to develop and evaluate alternative courses of action, taking into account the existing literature and requirements. During the final oral examination, students present their findings in a structured manner and defend them in academic discourse.

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UNIT	ID
Master#s Thesis Seminar and Final Oral Examination (PS)	8301

☞ 1 Modul(s) zugeordnete: 8300 Master#s Thesis Seminar and Final Oral Examination

Zusammenfassung

ANTEIL PRÄSENZZEIT	1 SWS	LERNFORM	
ANTEIL WORKLOAD	-	SPRACHE	Englisch

Inhalte

- structure, style, format, language, plagiarism
- revising each students project

MODUL	ID
International Project Management 1	4110

🔗 1 Studiengang zugeordnete: 531 Project Management and Data Science

🔗 1 Unit(s) zugeordnete: 4111 International Project Management 1 (PÜ)

Zusammenfassung

ECTS-PKT.	10	PRÄSENZZEIT	6 SWS
DAUER IN SEMESTER	1	SEMESTERZUORDNUNG	1
STATUS DES MODULS	Pflichtmodul	PRÜFUNGSBEWERTUNG	Differentiated Grading
NIVEAUSTUFE	2a - Module without prerequisites (MA)	ANGEBOTSTURNUS	
NOTWENDIGE VORAUSSETZUNGEN		EMPFOHLENE VORAUSSETZUNGEN	
PRÜFUNGSFORM / ART DER PRÜFUNG	The examination for this module consists of two parts: <ul style="list-style-type: none">• homework (25% of the grade)<ul style="list-style-type: none">- management of (realistic) projects in groups of up to six students with regular reporting and with final presentation- presentations of all team members• written exam (90 minutes, 75% of the grade) Examination requirement: 80% of the tasks in moodle must be passed with success.	HINWEISE	
ANERKANNTE MODULE		VERWENDBARKEIT	

Lernergebnisse

Students are familiar with project characteristics and the stages of the project life cycle. They are furthermore able to analyse project goals and requirements as well as developing project structures tailored to corporate and institutional contexts.

They can coordinate functions and process groups from initiation to control and project close and are able to implement and justify their recurrent integration in individual project phases.

Students understand how to identify a project's stakeholders, determine their inter-ests and from these derive recommendations for action. Within a project's internal organisational structures, they are able to analyse the various roles of project participants and utilise these to support human resource management.

Students are well aware of the unique characteristics of projects based in public administration at both national and multinational level, and take the consequences of these characteristics into account when setting up and working on the project.

Students are capable of creating a project plan based on project structures identified. They are further able to apply acquired knowledge to cross-border projects, to analyse and critically assess the unique contextual factors inherent to international projects, and to identify their consequences for the management of such projects and integrate these into the project plan and project work.

Students are sensitive to intercultural influences and can assess their implications for the project's development, decide on suitable action, and ensure that intercultural factors are considered in project team building and personnel management.

Modulverantwortliche/r

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UNIT	ID
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1 Modul(s) zugeordnet: 4110 International Project Management 1

Zusammenfassung

ANTEIL PRÄSENZZEIT	6 SWS	LERNFORM	Praktische Übung
ANTEIL WORKLOAD	100%	SPRACHE	Englisch

Inhalte

- 1) Introduction to Project Management
- 2) Project management certification (requirements and meaning within the job market)
- 3) Project life cycle phases
- 4) Project Stakeholder Management
- 5) Process groups within project management
- 6) Organizational influences on project work
- 7) Project planning and project integration management
- 8) Project-internal organizational structure
- 9) International project management
- 10) Influence of the formal institutional framework on the international project business
- 11) Influence of the informal institutional framework on the international project business
- 12) Leadership within projects
- 13) Special players in the international project field
- 14) Insight into project proposal submission

Literatur

- CAPM Exam Prep, 4th edition
- Project Management Institute: A Guide to the Project Management Body of Knowledge: PMBOK® Guide, Project Management Institute; 5th edition, 2013. ISBN: 978-1935589679.

HINWEISE

None

LEHRVERANSTALTUNGEN

WS 2024/25 - 5314111 MPMD1.1 International Project Management 1 (PÜ)

UNIT 4111 International Project Management 1 (PÜ)

Modul 4110 International Project Management 1

International Project Management 2

4120

1 Studiengang zugeordnete: 531 Project Management and Data Science

1 Unit(s) zugeordnete: 4121 International Project Management 2 (PÜ)

Zusammenfassung

ECTS-PKT.	10	PRÄSENZZEIT	6 SWS
DAUER IN SEMESTER	1	SEMESTERZUORDNUNG	2
STATUS DES MODULS	Pflichtmodul	PRÜFUNGSBEWERTUNG	Differentiated Grading
NIVEAUSTUFE	2b - Module with prerequisites (MA)	ANGEBOTSTURNUS	
NOTWENDIGE VORAUSSETZUNGEN		EMPFOHLENE VORAUSSETZUNGEN	
PRÜFUNGSFORM / ART DER PRÜFUNG	<ul style="list-style-type: none"> Examination prerequisite: Quizzes in Moodle Reflection Paper: 20% Presentation: 20% Final Written Exam: 60% The course is completed by achieving a minimum score of 50%	HINWEISE	
ANERKANNTE MODULE		VERWENDBARKEIT	

Lernergebnisse

Students have mastered the analysis of project content and scope. On the basis of this knowledge they are able to undertake the planning of location, timing, procurement and costs for complex international projects. In terms of quality management, they can apply quality assurance and risk management methods. Students are able to assess and exercise targeted influence on the quality of a project while taking various institutional contextual factors into account. In case studies they can identify the risks compromising a project's progress and their impact on project work. They can adopt a differentiated approach when dealing with innovations in project management and integrate these into a project plan. Students are capable of selecting appropriate communication structures for international projects and developing measures for their implementation. They have acquired skills in the use of various work and creativity techniques for project management. Students can utilise the essential functionalities of software-based solutions to support project work and project management. They can plan small- to medium-scale projects with the help of current project management software (e.g. Microsoft Project), and specify the differences between classic and agile project management. Students bring an active awareness to the selection and implementation of methodologies, and are able to use problem-solving techniques. When working on a real-life intercultural project, students are able to purposely select and apply knowledge and techniques, plan projects and assess their progress. In simulations, student can present and justify their proposals for further project work. In addition, students have fulfilled the requirements of the examination to become a Certified Associate in Project Management (CAPM) as offered by the Project Management Institutes (PMI) and are thus prepared for the external examination.

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International Project Management 2 (PÜ)

4121

1 Modul(s) zugeordnete: 4120 International Project Management 2

Zusammenfassung

ANTEIL PRÄSENZZEIT	6 SWS	LERNFORM	Praktische Übung
ANTEIL WORKLOAD	100%	SPRACHE	Englisch

Inhalte

Course Structure

The course is broken down into manageable, weekly modules, which incorporate diverse learning activities:

- Work through online materials
- Interact with your peers and course instructor through class-wide forums and small group discussions
- Enjoy a wide range of interactive content, including guest lectures, infographics, and more
- Investigate a real-world case study

Learning Objectives

After completing the course, you will be able to initiate, manage and monitor international projects using agile methods. You will acquire knowledge in practical skills, such as adaptive planning, continuous improvement, as well as quality and risk management. Furthermore, you will gain hands-on experience in best-practice software solutions and develop your interpersonal skills for engaging with stakeholders and teams. This course also prepares you for the Certified Scrum Master (Scrum.org) exam.

In addition to acquiring extensive knowledge of agile methods and frameworks, you will actively engage in solving a real-world case study as part of a student Scrum team.

Course Syllabus

Module 1: Introduction to Agile Project Management
Module 2: The Agile Project Environment
Module 3: Stakeholder Engagement
Module 4: Adaptive Planning
Module 5: Facilitating High-Performance Teams
Module 6: Continuous Improvement
Module 7: Quality & Risk Management
Module 8: Agile Frameworks
Self-Study: PSM Exam Preparation
Case Study

Literatur

Available in Moodle

HINWEISE

None

🔗 **1 Studiengang zugeordnete:** 531 Project Management and Data Science

🔗 **4 Modul(s) zugeordnete:** 5310010 Negotiation Techniques and Cross-Cultural Communication, 5310030 Technology Management, 5310040 Interpersonal Dynamics and Group Facilitation, 5310050 Data ethics

🔗 **0 Unit(s) zugeordnete:** 5310011 Negotiation Techniques and Cross-Cultural Communication (PÜ) 5310031 Technology Management (PS) 5310041 Interpersonal Dynamics and Group Facilitation (PÜ) 5310051 Data ethics (PÜ)

MODUL 5310010 Negotiation Techniques and Cross-Cultural Communication

zugeordnet zu: MODUL 6000 Elective Module 1 - 2

☞ 1 Studiengang zugeordnete: 005 Wahlpflichtmodule/Spezialisierung

☞ 1 Unit(s) zugeordnete: 5310011 Negotiation Techniques and Cross-Cultural Communication (PÜ)

Zusammenfassung

ECTS-PKT.	5	PRÄSENZZEIT	4 SWS
DAUER IN SEMESTER	1	SEMESTERZUORDNUNG	0
STATUS DES MODULS	Wahlpflichtmodul	PRÜFUNGSBEWERTUNG	Differentiated Grading
NIVEAUSTUFE	2a - Module without prerequisites (MA)	ANGEBOTSTURNUS	
NOTWENDIGE VORAUSSETZUNGEN		EMPFOHLENE VORAUSSETZUNGEN	
PRÜFUNGSFORM / ART DER PRÜFUNG	Assignment and Negotiation Simulation (role-play) Weighting: Assignment 50% and Negotiation Simulation 50%	HINWEISE	
ANERKANNTE MODULE		VERWENDBARKEIT	

Lernergebnisse

Students can identify the characteristics, reasons and objects of conflict and negotiation. They are able to differentiate between and apply various communication models and discussion techniques.

Students understand the principles and goals of negotiations, and can implement acquired know-how on the planning and conducting of negotiations in conflict situations in practice.

Having completed the module, they are capable of analysing and critically interpreting intercultural interactions. The depth of their cultural awareness enables them to avoid forms of verbal and non-verbal intercultural communication likely to cause conflict.

Modulverantwortliche/r

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UNIT	ID
Negotiation Techniques and Cross-Cultural Communication (PÜ)	5310011

☞ 1 Modul(s) zugeordnete: 5310010 Negotiation Techniques and Cross-Cultural Communication

Zusammenfassung

ANTEIL PRÄSENZZEIT	4 SWS	LERNFORM	Praktische Übung
ANTEIL WORKLOAD	100%	SPRACHE	Englisch

Inhalte

Communication plays a central role in almost all parts of business. Often participants from different cultural backgrounds engage in negotiations.

This module is designed to get you well acquainted with the basics of different communication models as well as with conflict and negotiation management. The main negotiation strategies are highlighted and applied in practice. The course investigates the central models of intercultural differences and the resulting potential challenges for intercultural communication are explained.

After completing the module, you will be able to identify conflicts and apply various communication and discussion techniques for their resolution. Intercultural aspects are also taken into consideration here. You will acquire the skills to independently plan and facilitate negotiations.

- Characteristics, reasons, and objects of conflict and negotiation
- Communication models and discussion techniques
- Identification and understanding of conflicts

- Typical behavior in conflict situations and conflict management
- Conflict management tactics and their facilitation, Mediation
- Principles of negotiation techniques
- Functions of the negotiation process
- Definition and listing of the goals of negotiation
- Tactical functions of negotiation management
- Negotiation strategies and conscious selection and application of a strategy
- Differences and functions of distributive and integrative negotiations
- Phases of negotiations
- Simulation/ role-play of a complex virtual negotiation using exclusively on-line media with no direct personal contact
- Analysis and interpretation of intercultural actions and contexts from different perspectives
- Introduction into common cultural models
- Culture and communication as mutually reinforcing factors
- Examination of intercultural processes that lead to conflict and affect communication
- Overview of the state of the art of cross-cultural research as well as research on intercultural communication
- Examples of conflict potential in verbal and non-verbal communication between different cultures
- Simulation/ role-play of a complex intercultural negotiation situation involving several rounds of negotiation

Literatur

- Hargie, Owen: The Handbook of Communication Skills, Taylor & Francis, last edition. ISBN-13: 978-0415359115
- Corvette, Barbara A. Budjac: Conflict Management: A Practical Guide to Developing Negotiation Strategies, Pearson. ISBN-13: 978-0131193239
- Fisher, Roger, Ury, William: Getting to Yes: Negotiating Agreement Without Giving In, Random House Business. ISBN-13: 978-1847940933
- Levinson, David, and Martin J. Malone: Toward Explaining Human Culture: A Critical Review of the Findings of Worldwide Cross-Cultural Research. New Haven, CT: HRAF Press. ISBN-13: 978-0875363400
- Holliday, Adrian; Hyde, Martin; Kullman, John: Intercultural Communication: An Advanced Resource Book for Students. Taylor & Francis Ltd. ISBN-13: 978-0415489423
- Hofstede, Geert; Hofstede, Gert Jan; Minkow, Michael: Culture and Organizations - Software of the Mind: Intercultural Cooperation and Its Importance for Survival. McGraw Hill. ISBN-13: 978-0071664189

LEHRVERANSTALTUNGEN

WS 2024/25 - 5310011 MPMDWP1 Negotiation Techniques and Cross-Cultural Communication (PÜ)

UNIT 5310011 Negotiation Techniques and Cross-Cultural Communication (PÜ)

MODUL 5310030 Technology Management

zugeordnet zu: MODUL 6000 Elective Module 1 - 2

 1 Studiengang zugeordnete: 005 Wahlpflichtmodule/Spezialisierung

 1 Unit(s) zugeordnete: 5310031 Technology Management (PS)

Zusammenfassung

ECTS-PKT.	5	PRÄSENZZEIT	2 SWS
DAUER IN SEMESTER	1	SEMESTERZUORDNUNG	0
STATUS DES MODULS	Wahlpflichtmodul	PRÜFUNGSBEWERTUNG	Differentiated Grading
NIVEAUSTUFE	2a - Module without prerequisites (MA)	ANGEBOTSTURNUS	
NOTWENDIGE VORAUSSETZUNGEN	International Project Management 2 Advanced Computational Data Analytics Change Management and Leadership	EMPFOHLENE VORAUSSETZUNGEN	
PRÜFUNGSFORM / ART DER PRÜFUNG	One Assignment and one presentation Weighting: Assignment 50 % and presentation 50 %	HINWEISE	

Lernergebnisse

Students know and understand the difference between specific technological techniques and technology in its broadest sense, and are able to explain and evaluate key concepts, methods and strategies in technology management.

They recognise and can assess technological trends and developments, particularly in the fields of business intelligence, management information systems and data analytics. They understand the options available for communicating technological evaluation to company management. In addition, students are capable of harmonising a company's technology and competitive strategies. They have developed the skills required to identify the resources necessary to carry out implementation projects in companies and to develop strategies for their acquisition depending on the company structure.


Students have demonstrated their knowledge and skills via practical studies, and have at the same time honed their ability to develop and assess strategies governing communication and cooperation with relevant agents inside and outside of companies. Students can also tailor the presentation of case study results to different target audiences.

Modulverantwortliche/r

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UNIT	ID
Technology Management (PS)	5310031

 **1 Modul(s) zugeordnet:** 5310030 Technology Management

Zusammenfassung

ANTEIL PRÄSENZZEIT	2 SWS	LERNFORM	(Projekt -)Seminar
ANTEIL WORKLOAD	100%	SPRACHE	Englisch

Inhalte

- Understanding of the terminology and characteristics of technology and techniques
- Functions of technology management
- Criteria of technological assessment
- Relationship between technology and innovation
- Relationship between R&D management, technology management and innovation management
- Company technological strategies and competitiveness
- New approaches and concepts in transferring knowledge and technology
- Overview of strategic forecast methods
- Methods of scenario analysis
- Implementation and assessment of expert interviews and Delphi analyses
- Defining determinants of successful projects
- Options for measuring the success of innovation projects in terms of
 - resources/budget
 - timing
 - degree of goals achieved

Literatur

- Gerybadse, A.: Technologie# und Innovationsmanagement: Strategie, Organisation und Implementierung, Vahlen, Munich 2004 ISBN-13: 978-3800630479
- Coates, F.J.: Scenario Planning, in: Technological Forecasting and Social Change 65, 2000
- Herstatt et al: Management of Technology and Innovation in Japan, Springer, Berlin Heidelberg 2006 ISBN: 978-3-642-06463-0

- Schwenker, B., Wulf, T.: Scenario-based Strategic Planning: Developing Strategies in an Uncertain World. Roland Berger School of Strategy and Economics, Gabler 2013 ISBN: 978-3-658-02874-9

LEHRVERANSTALTUNGEN

WS 2024/25 - 5310030 MPMDWP3 PS Technology Management (PS)

UNIT 5310031 Technology Management (PS)

MODUL 5310040 Interpersonal Dynamics and Group Facilitation

zugeordnet zu: MODUL 6000 Elective Module 1 - 2

☞ 1 Studiengang zugeordnete: 005 Wahlpflichtmodule/Spezialisierung

☞ 1 Unit(s) zugeordnete: 5310041 Interpersonal Dynamics and Group Facilitation (PÜ)

Zusammenfassung

ECTS-PKT.	5	PRÄSENZZEIT	4 SWS
DAUER IN SEMESTER	1	SEMESTERZUORDNUNG	0
STATUS DES MODULS	Wahlpflichtmodul	PRÜFUNGSBEWERTUNG	Differentiated Grading
NIVEAUSTUFE	2a - Module without prerequisites (MA)	ANGEBOTSTURNUS	
NOTWENDIGE VORAUSSETZUNGEN		EMPFOHLENE VORAUSSETZUNGEN	
PRÜFUNGSFORM / ART DER PRÜFUNG	Attendance of 80% is mandatory as a threshold, to be allowed to write the exam. Attendance is just yes/no (undifferentiated). The exam consists of a reflection paper of 1500 words (+/- 10%). 100 points can be achieved with the paper (<50 points = fail).	HINWEISE	
ANERKANNTE MODULE		VERWENDBARKEIT	

Lernergebnisse

Students:

- experience the development of a group in different phases
- can link theories with what they have experienced and explain what they have experienced theoretically
- have reflected on and questioned their own role in a group
- have questioned their own perception with regard to their effect in groups
- have expanded their own behavioural repertoire and are able to behave more effectively in groups as a result
- can give constructive feedback and build professional relationships, enabling them to contribute to the positive development of a group
- know basic coaching concepts and can apply them
- can transfer what they have experienced to the work context and modify their behaviour based on what they have learned.

Modulverantwortliche/r

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UNIT

Interpersonal Dynamics and Group Facilitation (PÜ)

ID

5310041

☞ 1 Modul(s) zugeordnete: 5310040 Interpersonal Dynamics and Group Facilitation

Zusammenfassung

ANTEIL PRÄSENZZEIT	4 SWS	LERNFORM	Praktische Übung
ANTEIL WORKLOAD	100%	SPRACHE	Englisch

Inhalte

The course aims to increase your ability to reflect in depth about yourself in a group, the group as a system and the dynamics within such a system.

- phases of group-development

- formal und informal processes in groups
- Interpersonal communication and dynamics
- Feedback
- Leadership, authority and roles
- Coaching

Literatur

Selected books

- 1) Berger, P. L., & Luckmann, T. (1991). *The social construction of reality: A treatise in the sociology of knowledge* (No. 10). Penguin Uk.
- 2) Le Bon, G. (1897). *The crowd: A study of the popular mind*. Fischer.
- 3) Foucault, M. (1982). The subject and power. *Critical inquiry*, 8(4), 777-795.
- 4) Foucault, M. (2012). *Discipline & punish: The birth of the prison*. Vintage.
- 5) Krainer, L., & Heintel, P. (2015). Process-Ethics. *The Socratic Handbook*, 9, 251.
- 6) Moreno, J. L. (1934). *Who shall survive?: A new approach to the problem of human interrelations*.

Selected Papers

- 1) Bain, A. (1998). Social defenses against organizational learning. *Human Relations*, 51(3), 413-429.
- 2) Bristol, S. (2013). Five Elements of Authentic Discourse. In: *Here and Now. Collected Wirings on Group Dynamics*. ÖGGO. Pp. 103-113
- 3) Colman, A. D. (1975). Group consciousness as a developmental phase. *Group relations reader*, 1. Pp- 35-42
- 4) Eisold, K. (2004). Leadership and the creation of authority. *Group dynamics, organisational irrationality and social complexity: Group Relations Reader*, 3.
- 5) Petriglieri, G. (2014). Why Work is Lonely. *Harvard Business Review* 5, May 2014. <https://hbr.org/2014/03/why-work-is-lonely>
- 6) Kasenbacher, K. (2013). Students and group dynamics training groups. In: *Here and Now. Collected Wirings on Group Dynamics*. ÖGGO. Pp. 115-121
- 7) Katz, D., & Kahn, R. L. (1978). *The social psychology of organizations* (Vol. 2, p. 528). New York: Wiley. Chapter 7: On Role Taking.
- 8) Krainz, E. E. (2011). The indispensability of consciousness. In H. Lenhard, C. Conaco (Eds.), *Management and HR development—a humanistic approach for integration: post graduate studies in intercultural cooperation* (pp. 24–30). Kassel: Kassel university press GmbH. <http://www.uni-kassel.de/upress/online/frei/978-3-86219-036-2.volltext.frei.pdf> (2017-11-28)
- 9) Krantz, J., & Gilmore, T. N. (1990). The splitting of leadership and management as a social defense. *Human Relations*, 43(2), 183-204.
- 10) Krantz, J., & Maltz, M. (1997). A framework for consulting to organizational role. *Consulting psychology journal: Practice and research*, 49(2), 137.
- 11) Lackner, K. (2011). The emotional lining of an organization. *Management and HR development—a humanistic approach for integration: post graduate studies in intercultural cooperation*. Kassel: Kassel university press GmbH. <http://www.uni-kassel.de/upress/online/frei/978-3-86219-036-2.volltext.frei.pdf> (2017-11-28)
- 12) Lawrence, G. (2009). Social dreaming as a tool of consultancy and action research. *Psychoanalytic studies of organizations: Contributions from the international society for the psychoanalytic study of organizations*, 105-122.
- 13) Lesjak, B. (2013). Back to living Systems. *Group Dynamics and Interventions*. In: *Here and Now. Collected Wirings on Group Dynamics*. ÖGGO. Pp. 77-94
- 14) Obholzer, A., & Roberts, V. Z. (1994). The troublesome individual and the troubled institution. *The unconscious at work: Individual and organizational stress in the human services*, 129-138.
- 15) Parlett, M. (1997). The unified field in practice. *Gestalt Review*, 16-33.
- 16) Radel, J. (2017): *Organization as a Challenge. A reflection of group dynamic processes between leader and follower*. Herausgeber: Fachhochschule des BFI Wien. Sonderheft/Sonderband von: *Wirtschaft und Management. Schriftenreihe zur Wirtschaftswissenschaftlichen Forschung und Praxis*. Ausgabe: 25/2017, S. 59-76, Wien, 2017, ISBN 978-3-902624-48-2
- 17) Radel, J. (2018): *The leader as an abandoned child within the strange situation of organizational change. Beiträge und Position der HTW Berlin - Kreativität schafft Innovation*. Available here.
- 18) Rioch, M. J. (1971). "All we like sheep-"(Isaiah 53: 6): followers and leaders. *Psychiatry*, 34(3), 258-273.
- 19) Schein, E. H. (2006). How culture emerges in groups. In: *Organizational culture and leadership* (Vol. 356). John Wiley & Sons. Pp. 63-84
- 20) Schuster, R. (2016). Essentials of the course "Organisational and Group Dynamics" http://www.fh-vie.ac.at/var/em_plain_site/storage/original/application/0fac185f41e81aaf77e8984e63134fd5.pdf (2017-11-28)

- 21) Stein, H. F. (1997). Death Imagery and the Experience of Organizational Downsizing: Or, is Your Name on Schindler's List?. *Administration & Society*, 29(2), 222-247.
- 22) Vaillant, G. E. (1994). Ego mechanisms of defense and personality psychopathology. *Journal of abnormal psychology*, 103 (1), 44.
- 23) Wells, L. (1995). The group as a whole: A systemic socioanalytic perspective on interpersonal and group relations. *Groups in context: A new perspective on group dynamics*, 49-85.

LEHRVERANSTALTUNGEN

WS 2024/25 - 5310041 MPMDWP2 Interpersonal Dynamics and Group Facilitation (PÜ)

UNIT 5310041 Interpersonal Dynamics and Group Facilitation (PÜ)

MODUL 5310050 Data ethics

zugeordnet zu: MODUL 6000 Elective Module 1 - 2

1 Studiengang zugeordnete: 005 Wahlpflichtmodule/Spezialisierung

1 Unit(s) zugeordnete: 5310051 Data ethics (PÜ)

Zusammenfassung

ECTS-PKT.	5	PRÄSENZZEIT	4 SWS
DAUER IN SEMESTER	1	SEMESTERZUORDNUNG	0
STATUS DES MODULS	Wahlpflichtmodul	PRÜFUNGSBEWERTUNG	Differentiated Grading
NIVEAUSTUFE	2a - Module without prerequisites (MA)	ANGEBOTSTURNUS	
NOTWENDIGE VORAUSSETZUNGEN		EMPFOHLENE VORAUSSETZUNGEN	
PRÜFUNGSFORM / ART DER PRÜFUNG	Report (60%) Presentation (30%) Course participation (10%)	HINWEISE	
ANERKANNTEN MODULE		VERWENDBARKEIT	

Lernergebnisse

Students can identify moral issues that arise throughout the data lifecycle and have the vocabulary to address them and the practical tools to resolve them. They are familiar with current trends and techniques in data ethics and can incorporate them in a business environment.

Having completed the module, students are capable of analysing ethical issues in data-driven products and can identify and implement improvements.

UNIT	ID
Data ethics (PÜ)	5310051

1 Modul(s) zugeordnete: 5310050 Data ethics

Zusammenfassung

ANTEIL PRÄSENZZEIT	4 SWS	LERNFORM	Praktische Übung
ANTEIL WORKLOAD	100%	SPRACHE	Englisch

Inhalte

- Ethical issues arising throughout the data lifecycle
- Principles and characteristics of main ethical theories, incl. deontology, consequentialism and virtue ethics
- The role of moral values
- Value tensions and value trade-offs
- Values and profit: conflicts and opportunities
- Application of theories and values in data ethics
- Mapping opinions in present data ethical scandals onto theories and values
- Law and ethics – differences and similarities
- Information, control and power
- Limits of power: codes of conduct and compliance procedures

- Privacy and autonomy: Case study, violations and promotion
- Fairness and equality: Case study, violations and promotion
- Truth and knowledge: Case study, violations and promotion
- Aims and methods of Responsible Research and Innovation
- Aims and methods of Value Sensitive Design
- Aims and methods of Explainable AI
- Current data ethics organisations, including FAT/ML, Algorithm Watch and Data Justice Lab
- Discussion and project management techniques to promote ethical design in the team
- Cultural differences in the expression of moral values
- The difference between moral relativism and cultural differences
- Simulation of an ethical product design meeting
- Report outlining ethical challenges and solutions in the design of a data-driven product
- Review of existing projects to offer ethical design improvement recommendations
- Presentation of an ethical design project

