
Status: 12.02.2024

Module catalog

Bachelor's degree program (B.A.)
Sustainable mobility (NaMo)

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List of abbreviations

General abbreviations:

SWS	Semester hours per week
CP	Credit points according to the European Credit Transfer System (ECTS)

Forms of teaching:

V	Lecture
Ü	Exercise
L	Laboratory
P	practicals
S	Project
B	assignment
	Seminar
	Supervision

Forms of examination:

KL	Written exam with duration: KL60 = 60 min., KL90 = 90 min., KL120 = 120 min.
MP	Oral examination
RE	Unit
HA	Term paper
EA	Experimental work
ED	Creation and documentation of computer programs
PA	Project work
PR	Presentation
SA	Student research project
SP	Examination during the semester
BA	Bachelor thesis
MA	Master thesis
KO	Colloquium

* Links with a plus sign (+) mean that several of the specified examination types are simultaneously part of a module examination and slashes (/) indicate that alternatively one of the specified examination types is used for the module examination.

1. Semester

NaMo 1: Management-oriented introduction to business administration

No: NaMo 1	Compulsory module: Management-oriented introduction to business administration	Language: German		Credits: 6	
		Frequency: annually in winter semester		Semester position: 1	
		Workload: 180 h		Examination form: KL60/MP	
Prerequisites for participation: -	Presence : 60 h	Self-study: 120 h			
events		Person responsible for the module		Teaching and learning methods	Scope (SWS)
Introduction to business administration		Prof. Dr. Dirk Gunther Trost		V+Ü	3+1

This module is used for the following degree programs: NaMo

Contents

- Classification of business administration and basic concepts,
- Basic contexts, fundamental concepts and principles of business administration
- Motives, goals and corporate objectives
- Corporate governance and management processes, human resources management and personnel management
- Business management instruments/management tools and application
- Constitutive decisions and company genesis: Choice of legal form and location of the company, organizational form, company affiliations and mergers
- Operational service creation processes in procurement, production and marketing

Learning objectives and skills to be taught

The module teaches students the basic contexts of economic thinking in the field of business administration. After a basic classification of business administration in the scientific system, students should be familiar with the basic terms of business administration and fundamental concepts and principles and apply them correctly in relation to constitutive decisions and service creation processes. This enables them to develop an understanding of operational decision-making processes. Furthermore, students should become familiar with and understand the basic concepts and principles of corporate management and personnel management as well as management functions and be able to assess corporate goals and target relationships. They will critically examine business management concepts and their limits of application. In addition, a brief overview of internal and external accounting is given. Using sample tasks, students will deal with some of the above-mentioned topics, develop solutions independently, assess the quality of the solutions and discuss their transferability.

Literature and working materials

Own, updated, comprehensive lecture materials (provided as PDF files)

Jung, H. (2016): Allgemeine Betriebswirtschaftslehre, Munich, 13th edition, Berlin, Boston Schierenbeck,

H., Wöhle, C. B. (2016): Grundzüge der Betriebswirtschaftslehre, 19th edition, Munich Schultz, V.

(2019): Basic knowledge of business administration, management, finance, production, marketing 6th edition, Munich

Straub, Th. (2014): Einführung in die Allgemeine Betriebswirtschaftslehre, 2nd ed. 2014, Halbergmoos
Thommen, J.-P., Achleitner, A.-C. (2020): General Business Administration. Comprehensive introduction
from a management-oriented perspective, 9th edition, Wiesbaden
Wöhe, G., Döring, U. (2020): Introduction to General Business Administration, 27th edition, Munich

NaMo 2: Accounting (cost accounting/management)

No: NaMo 2	Compulsory module: Accounting (cost accounting/management)	Language: German		Credits: 6	
		Frequency: annually in winter semester		Semester position: 1	
		Workload: 180 h		Form of examination: KL60	
Prerequisites for participation: none	Presence : 60 h	Self-study: 120 h			
events		Person responsible for the module		Teaching and learning methods	Scope (SWS)
Accounting (cost accounting/management)		Dipl.-Ök. Anja Borchers		V+Ü	3+1
Contents					
<ul style="list-style-type: none"> - Basic concepts and principles of internal and external accounting - Connection between external and internal accounting - Full and partial cost accounting - Cost type accounting, cost center accounting and internal activity allocation - Cost unit accounting/calculation - Cost object time accounting 					
Learning objectives and skills to be taught					
<p>Students learn the basics of accounting and can explain the relationships between internal and external accounting. They learn about cost types, can form cost centers and correctly allocate costs to cost units. In addition, they will be able to understand, apply and evaluate internal cost allocation, costing and short-term profit and loss accounting methods. They will learn to calculate sales prices and lower price limits using contribution margin accounting. They will develop solutions and a critical understanding of the most important theories/methods of accounting for complex tasks alone and in small groups.</p>					
Literature and working materials					
<p>Czenskowsky, T., Schünemann, G., Zdrawomyslaw, N. (2010): Grundzüge des Controlling, 3rd edition, Deutscher Betriebswirte Verlag, Gernsbach</p> <p>Deimel, K., Erdmann, G., Isemann, R., Müller, S. (2017): Kostenrechnung: Das Lehrbuch für Bachelor, Master und Praktiker, 2nd edition, Pearson, Hallbergmoos.</p> <p>Däumler, K.; Grabe, J. (2013): Kostenrechnung 1 - Grundlagen, 11th ed., NWB-Verlag, Herne</p> <p>Friedl, G., Hofmann, C., Pedell, B. (2017): Kostenrechnung, 3rd ed., Vahlen, Munich</p> <p>Huttmann, J. (2022): Kostenrechnung im Studium, Springer Verlag, Wiesbaden</p> <p>Küpper, H.-U., Friedl, G.; Hofmann, C.; Pedell, B. (2017): Exercise book on cost and revenue accounting, 7th ed., Vahlen, Munich.</p> <p>Wedell, H., Diling, A. (2018): Fundamentals of Accounting, 16th edition, NWB-Verlag, Herne</p>					

NaMo 3: Application-oriented mathematics and statistics

No: NaMo 3	Compulsory module: Application-oriented mathematics and statistics	Language: German		Credits: 6	
		Frequency: annually in winter semester		Semester location: 1st semester	
	Prerequisites for participation: effective use of basic calculation rules for simplifying terms and solving equations	Workload: 180 h		Form of examination: KL60	
Presence : 60 h		Self-study: 120 h			
events		Person responsible for the module		Teaching and learning methods	Scope (SWS)
Application-oriented mathematics and statistics		Dipl.-Math. Ingrid Bennecke		V+Ü	2+2
This module is used for the following degree programs: NaMo					
Contents					
<ul style="list-style-type: none"> • Equations (e.g. root, exponential, logarithmic equations), LGS • real functions: Types of functions, representations, differential calculus, integrals • Statistics: Samples, random variables, mean values, measures of dispersion, normal and binomial distribution, inductive statistics 					
Learning objectives and skills to be taught					
Students...					
<ul style="list-style-type: none"> • set up equations/ LGS for application problems and solve equations. • represent relationships between variable quantities using suitable functions. • know and check the properties of functions. • determine derivatives and use them to solve application problems. • determine probabilities in random experiments. • determine key figures of a sample/probability distribution. • draw conclusions from the entirety to a sample and vice versa. 					
Literature and working materials					
Own updated lecture materials and exercises (as PDF)					
Papula, L.: Mathematics for Engineers and Natural Scientists Volumes 1-3, Springer Vieweg, Wiesbaden 2018					

NaMo 4: Mobility economy and transport

No: NaMo 4	Compulsory module: Mobility Economy and Transport	Language: German		Credits: 6	
		Frequency: annually in Wise		Semester position: 2	
	Prerequisites for participation: -	Workload: 180h		Examination form: KL60/MP	
Presence : 60h		Self-study: 120h			
events		Person responsible for the module		Teaching and learning methods	Scope (SWS)
Mobility industry and transport		Prof. Dr. Dirk Gunther Trost		V+Ü	3+1

This module is used for the following degree programs: NaMo

Contents

- Fundamentals, technical terms and basic contexts in the field of mobility and transport
- Importance, structure and development of the transport sector (recording and forecasting methods, statistical recording of mobility and transport, longitudinal and cross-sectional comparisons, forecasting) and their effects on the environment and society
- Internal and external developments in the transport sector, background to the emergence of mobility
- Transport policy regulatory framework, in particular for passenger transport
- Lines of development of national and EU transport policy
- Markets, organizational structures and competitive conditions in the transport sector, including new mobility services
- Service and cost structures; basic knowledge of pricing policy and infrastructure prices
- Mobility recording, causes
- Opportunities and strategies for influencing mobility and traffic

Learning objectives and skills to be taught

This module familiarizes students with the basic facts of the mobility industry and transport. They will be able to deal confidently with the specialist terminology of mobility and transport economics, transfer it to similar contexts and apply it in other subjects of the degree course. Students have a broad basic knowledge of the transport sector, with a focus on passenger transport, predominantly from an inter-company perspective. Students will be able to describe current developments, identify and analyze causes and backgrounds and transfer them to forecast developments. The general conditions in passenger transport are mastered and the current market and competitive conditions of transport companies in the various sub-markets are known, both in a national and in an EU-wide/international context. The central determinants of transport demand and supply as well as their interaction in connection with political control options can be named and explained. After learning the basics of mobility and its causes, students are able to assess and critically question the possibilities of influencing mobility and traffic and formulate their own proposals.

Literature and working materials

Own, updated, comprehensive lecture materials (provided as PDF files)

- Ackermann, Till (2016): Marketing im ÖPNV, 1st ed. Cologne
- 2016 Aberle, G. (2009): Transportwirtschaft, 5th edition, Munich
- et al.

Conrady, R., Fichert, F., Sterzenbach, R. (2019): Air transport: Business management textbook and handbook, 6th edition, Munich

Grandjot, H.-H., Bernecker T. (2014): Transport policy - basics, functions and perspectives for science and practice, Hamburg

Kummer, S. (2018): Introduction to transportation economics, 3rd edition, Stuttgart

Nobis, Claudia ,Kuhnimhof, Tobias (2018): Mobility in Germany - MiD results report. Study by infas, DLR, IVT and infas 360 on behalf of the Federal Minister of Transport and Digital Infrastructure, Bonn, Berlin. www.mobilitaet-in-deutschland.de

NaMo 5: English level B2: English for Professional Purposes

No. NaMo 5	Compulsory module: English level B2: English for Professional Purposes	Language: German		Credits: 6	
		Frequency: Annually in winter semester		Semester position: 1	
	Prerequisites for participation: none	Workload: 180 h		Form of examination: KL60	
Presence : 60 h		Self-study: 120 h			
events		Person responsible for the module		Teaching and learning methods	Scope (SWS)
English level B2: English for Professional Purposes		Dr. phil. Thomas Caplan		V	4
This module is used for the following degree programs: NaMo / STS					
Contents Business English <ul style="list-style-type: none"> - Advanced grammar and communication basics - English vocabulary in economics and business administration - Strategic thinking - Motivation and personnel in the company - Personality traits - Team spirit and organization - Entrepreneurship and disruption - Stakeholder theory - Corporate Social Responsibility (CSR) 					
Learning objectives and skills to be taught <p>Business English Students will build up a basic vocabulary in business English and gain insights into the "mind of the manager" and the relationship with customers and employees through a variety of tasks and discussions. Students will be able to understand personal development and innovation in business. This seminar deals with the role of ideals in business and the work of a manager and provides an insight into the philosophical background of the term "CSR". Furthermore, the term "customer" will be explored and discussed in depth.</p>					
Literature and working materials <p>Business English Caplan, Th. (2015): The Distinction of Human Being, Vernon Press, Delaware Duckworth, M., Turner, R. (2012): Business Result, upper-intermediate, Oxford Dubicka, I., O'keeffe, M. (2016): Market Leader, Advanced, 3rd edition, Pearson, London Trappe, T., Tullis, G. (2016): Intelligent Business, Advanced, 5th edition, Pearson, London Rosenberg, M. (2020): Business Partner, C1 Coursebook, 1st edition, Pearson, London</p>					

2. Semester

NaMo 6: Environmentally oriented economics

No: NaMo 6	Compulsory module: Environmental Economics	Language: German		Credits: 6	
		Frequency: annually in the summer semester		Semester position: 2	
	Prerequisites for participation: -	Workload: 180 h		Form of examination: KL60	
Presence : 60 h		Self-study: 120 h			
events		Person responsible for the module		Teaching and learning methods	Scope (SWS)
Environmentally oriented economics		Dipl.-Kfm. Carsten Wiljes		V+Ü	3+1
This module is used for the following degree programs: NaMo					
<p>Contents</p> <ul style="list-style-type: none"> - Subject matter and definition of environmental economics - Methods of economic theory formation and economic thinking - Fundamentals of the theory of supply and demand, equilibrium solutions on goods markets - Market regulation (state intervention and welfare) - Market forms, pricing and company behavior with imperfect competition - Market failure (public goods, external effects, ...) - Methods for environmental assessment - Basic macroeconomic correlations and economic policy implications - Objectives and instruments of environmental policy - Basic features of the macroeconomic goods market, the money market and the labor market - Foreign trade and international economy 					
<p>Learning objectives and skills to be taught</p> <p>Students are able to explain the basic microeconomic and macroeconomic relationships and are proficient in the key terminology. They will be able to explain, apply and examine economic theories and models, but also critically question their validity in individual cases.</p> <p>They understand how markets work and the most important patterns of behavior. You will be able to analyze markets, assess framework conditions and power relations and thus estimate the consequences of individual economic measures.</p> <p>Students will also be able to interpret macroeconomic developments and describe their impact on companies and households. They are able to clarify the extent and significance of economic interdependencies with other countries.</p> <p>Students gain an economic perspective on environmental issues, are able to explain various forms of market failure, explain how the most important environmental policy instruments work and assess their application conditions and suitability.</p>					
<p>Literature and working materials</p> <p>Bartling, H., Luzius, F., Fichert, F. (2019): Fundamentals of economics. Introduction to economic theory and economic policy, 18th edition, Vahlen, Munich</p>					

Krugman, P., Wells, R. (2017): Economics, 2nd edition, Schäffer-Poeschel, Stuttgart

Mankiw, G., Taylor, M.P. (2021): Grundzüge der Volkswirtschaftslehre, 8th edition, Schäffer-Poeschel, Stuttgart

Samuelson, P.A., Nordhaus, W.D. (2016): Volkswirtschaftslehre. The international standard work of macro- and microeconomics, 5th edition, FinanzBuch-Verlag, Munich

Sturm, B., Vogt, C. (2018): Environmental economics. an application-oriented introduction, 2nd edition, Springer Gabler, Berlin

Varian, H. (2016): Grundzüge der Mikroökonomik, 9th edition, De Gruyter Oldenbourg, Berlin, Boston

NaMo 7: Marketing in transportation

No: NaMo 7	Compulsory module: Marketing in transport	Language: German		Credits: 6
		Frequency: annually in the summer semester		Semester position: 2
		Workload: 180 h		Examination form: KL 60/PA/MP
	Prerequisites for participation: none	Presence : 60	Self-study: 120	
events		Person responsible for the module	Teaching and learning methods	Scope (SWS)
Marketing management		Prof. Dr. Hendrik Ernst	V+Ü	3+1
This module is used for the following degree programs: NaMo				
Contents				
<ul style="list-style-type: none"> • Marketing strategies • Marketing management concepts (key account management, CRM, brand management) • Service marketing • Basics of price, communication and sales management • Communication and brand strategies of transport companies, fares and prices in passenger transport • Marketing controlling 				
Learning objectives and skills to be taught				
Students analyze, develop and monitor marketing strategies. They know different marketing instruments and apply them in the service sector, especially in public transportation. They manage the special features of bus, rail and air transportation (pricing, pricing, revenue allocation, revenue/yield management, etc.).				
Literature and working materials				
<ul style="list-style-type: none"> • Ackermann, T. (2016): Handbuch Marketing im ÖPNV, DVV Media Group, Hamburg • Kotler, P./ Keller, K.L., Bliemel, F (2017): Marketing Management, Munich • Meffert, H. , Bruhn, M. (2018): Services marketing, Münster • Meffert, H. (ed.) (2000): Verkehrsdienstleistungsmarketing: Marktorientierte Unternehmensführung bei der Deutschen Bahn AG, Frankfurt a.M. 				

NaMo 8: Information systems and databases

No: NaMo 8	Compulsory module: Information systems and databases	Language: German		Credits: 6
		Frequency: annually in the summer semester		Semester position: 2
		Workload: 180 h		Exam form: HA
	Prerequisites for participation: -	Presence : 60 h	Self-study: 120 h	
events		Person responsible for the module	Teaching and learning methods	Scope (SWS)
Information systems and databases		Dipl.-Ing. (FH) Marko Apel M.Sc.Eng	V+Ü	3+1
This module is used for the following degree programs: NaMo				
Contents				
History and tasks of information systems, number systems, information representation, conceptual database design process, relational model, SQL				
Learning objectives and skills to be taught				
Students gain an insight into the importance of computer science and information systems in general. They are able to assess the importance of information systems and understand them fundamentally. They are able to design a database and create it using SQL.				
Literature and working materials				
Levi, P., Rembold, U. (2002): Einführung in die Informatik für Naturwissenschaftler und Ingenieure, 4th edition, Carl Hanser Verlag Precht, M., Meier, N., Tremel, D. (2004); Eine Einführung in Theorie und Praxis der modernen EDV, 7th edition, Addison-Wesley-Verlag Elmasri, R. A., Navathe, S. B. (2009): Fundamentals of database systems, 3rd edition, Pearson Studium Date, C. J. (2003): An introduction to database systems, Pearson Sieben, J. (2018): Oracle SQL Das umfassende Handbuch, 3rd edition, Rheinwerk Computing				

NaMo 9: Mobility management

No: NaMo 9	Compulsory module: Mobility management	Language: German/English		Credits: 6	
		Frequency: annually in the summer semester		Semester position: 2	
	Prerequisites for participation:	Workload: 180 h		Examination form: SP	
Presence : 60 h		Self-study: 120 h			
events		Person responsible for the module		Teaching and learning methods	Scope (SWS)
Theory, goals and fields of application of mobility management		Prof. Dr. Jana Kühl		V+S	2+2
This module is used for the following degree programs: NaMo					
<p>Contents</p> <p>Theory, objectives and fields of application</p> <ul style="list-style-type: none"> - Conceptual understanding, approaches and methods - Contextualization in current social and political debates, Political and social goals of mobility management - Analysis tools and fields of application in mobility management - Fields of application in various institutional and socio-economic contexts - Identification of stakeholders and stakeholder groups in mobility management - Basics of strategic communication - Cause-effect principles of mobility management - Synergetic consulting options (e.g. health, energy, housing, education) - Urban development and urban planning contexts of mobility management (e.g. Neighborhood management, mobility centers) 					
<p>Learning objectives and skills to be taught</p> <p>Students will be able to name the basic objectives and processes of mobility management. They are able to describe procedures, fields of application and methods in mobility management and classify them in terms of their effects. Students will also be able to develop context-specific conceptual approaches in mobility management and identify implementation steps.</p>					

(NaMo)

Literature and working materials

Mobility Marketing - FGSV Working Paper No. 66 Road and Transportation Research Association (FGSV)

Mobility Management in Urban Planning - Final Report FOPS 70.794 ,Herbert; Reutter, Ulrike; Stiewe, Mechthild; Benden, Jan; Brandt, Tobias; Witte, Andreas; Bruns, André, Mühlhans, Heike

effizient mobil - The action program for mobility management GermanEnergy Agency (dena)

Evaluation of the TravelSmart Local Government and Workplace Programs MarsdenJacobs Associates (MJA)

Mobility management - scientific principles and effects in practice Stiewe , Mechthild; Reutter, Ulrike

Citizen participation handbook - procedures and players, opportunities and limits Nanz, Patrizia; Fritsche, Miriam

School mobility management Blees , Volker; Vogel, Jens; Wieskotten, Greta

Louen, Conny : Impact assessment of mobility management - Starting points for modeling and deriving potentials and impacts using the example of corporate mobility management
Schwedes, Oliver; Sternkopf, Benjamin; Rammert, Alexander: Mobility management in Germany - A critical review - Discussion Paper
Swiss Association for Standardization (SNV): Mobility management systems - Requirements with instructions for use
Blees, Volker; Bruns, André; Stiewe, Mechthild : Mobility management - from wallflower to success factor for sustainable mobility
Schwedes, Oliver; Sternkopf, Benjamin; Rammert, Alexander : Mobility management - possibilities and limits of transport policy design using the example of mobility management
Finke, Timo: Effects of mobility management programs - development of an evaluation procedure
Langweg, Armin: Mobility management, mobility culture, marketing & mobility marketing - an attempt to explain the terms
Brög, Werner; Erl, Erhard; Ker, Ian; Ryle, James; Wall, Rob: Evaluation of voluntary behavior change: Experiences from three continents
Mittelstandsinitiative Energiewende und Klimaschutz: Practical guide to corporate mobility management
Walther, Sabrina; Kistner, Rafael; Arnold, Alina; Kowald, Matthias; Bruns, André: Evaluation strategies and monitoring instruments for the Hesse Mobility Strategy 2035 and the Hessian Local Mobility Strategy - Final report on the Mob_Eval research project
Road and Transportation Research Association (FGSV): EAM - Recommendations for the application of mobility management



Hannes Hoefs

2023-03-31 18:49:00

Align bibliography

NaMo 10: Soft skills and conflict management

No: NaMo 10	Compulsory module: Soft skills and conflict management	Language: German		Credits: 6
		Frequency: Annually in the summer semester		Semester position: 2
	Prerequisites for participation: none	Workload: 180 h		Examination form: HA+PR
Presence : 60 h		Self-study: 120 h		
events		Person responsible for the module	Teaching and learning methods	Scope (SWS)
Presentation, moderation and communication		Dipl.-Ök. Anja Borchers	S	3
Conflict management			S	1

A division of the course is necessary: Yes; Reason: For didactic reasons, a small number of participants is necessary to improve learning success. Many in-depth exercises take place in small groups.

Contents

- Definition of the term "presentation", clarification of the presentation objective
- Selection and structuring of content
- Principles/possibilities of visualizations
- Use of media
- Dealing with difficult situations (stage fright, questions, objections, breakdowns)
- Presentation with subsequent discussion/reflection

Moderation and communication

- Definition, objectives, tasks and areas of application of moderation
- Role of the moderator / dual role of manager/moderator
- Procedure/phases of the moderation
- Dealing with difficult participant types
- Moderation methods
- Planning a moderation.
- Communication theory and models

Conflict management

- Definition, emergence and progression (escalation stages) of conflicts
- Causes of conflict
- Types of conflict in the company
- Conflict resolution strategies and prevention
- Procedure of a conflict resolution meeting (theory and role play)

Learning objectives and skills to be taught

In this module, students acquire important methodological and social skills for later specialist and management tasks.

Presentation

With the help of the acquired basic knowledge on the subject of "Presentation" as well as the various practical exercises within the course, students are then able to prepare and give an effective presentation.

Moderation and communication

Here, students learn about the objectives, possible applications and methods of moderation. Students are also familiar with the role of the moderator and their tasks and can

be applied. This enables them to lead moderated meetings and ensure balanced participation of all participants. Students can also plan and present moderation processes for different areas of application. They also have strategies for how moderators can deal with difficult participants. Great importance is attached to the fact that students implement the tools/methods of moderation in practical exercises. This involves alternating exercises in plenary sessions and in small groups. In the area of "Communication", they learn about the most important aspects of communication theory and conversation management and deepen these using exercises and role plays (e.g. preparing, conducting and reflecting on an appraisal interview).

Conflict management

Participants in this module acquire basic skills in the area of conflict management. They will be able to recognize conflicts and their causes at an early stage and select an appropriate conflict resolution strategy depending on the level of escalation. They also learn how to conduct and reflect on constructive conflict discussions.

Literature and working materials

Own materials are provided.

Presentation

- Hartmann, M., Funk, R., Nietmann, H. (2018): Presenting: Presentations: goal-oriented, addressee-oriented, sustainable, 10th revised edition, Basel: Beltz Verlag, Weinheim
- Schulz von Thun, F. (2016): Miteinander Reden 1 - Störungen und Klärungen, 53rd edition (original edition), Rowohlt Taschenbuch Verlag, Reinbek bei Hamburg
- Schulz von Thun, F., Ruppel, J., Stratmann, R. (2017): Miteinander Reden: Kommunikationspsychologie für Führungskräfte, 17th edition (original edition), Rowohlt Taschenbuch Verlag, Reinbek bei Hamburg
- Seifert, J. W. (2015): Visualize - Present - Moderate, 35th edition, Gabal Verlag, Offenbach

Moderation and communication

- Funcke, A., Havenith, E. (2019): Moderation tools, 6th edition, managerSeminare Verlags GmbH, Bonn
- Graeßner, G. (2013): Moderation- das Lehrbuch: Gruppensteuerung und Prozessbegleitung, 2nd edition, ZIEL Verlag, Augsburg
- Groß, S. (2018): Moderation skills: Accompanying communication processes in groups in a goal-oriented manner, Springer Gabler, Wiesbaden
- Hartmann, M. et al (2012): Zielgerichtet moderieren, 6th ed., Beltz Verlag, Weinheim, Basel
- Sperling, J. B., Stapelfeldt, U., Wasseveld-Reinhold, J. (2011): Moderation, Haufe Lexware Verlag, Freiburg

Conflict management

- Freitag, S., Richter, J. (eds.) (2019): Mediation - das Praxisbuch: Denkmodelle, Methoden und Beispiele, 2nd completely revised edition, Basel: Beltz Verlag, Weinheim
- Glasl, F. (2020): Konfliktmanagement, Ein Handbuch für Führungskräfte, Beraterinnen und Berater, 12th updated edition, Haupt Verlag, Bern
- Rosenberg, M. B. (2016): Gewaltfreie Kommunikation, 12th revised and expanded. Edition, Junfermann Verlag, Paderborn
- Schwarz, G. (2014): Konfliktmanagement: Konflikt erkennen, analysieren, lösen, 9th ed., Springer Gabler, Wiesbaden

3. Semester

NaMo 11: Passenger transportation systems

No: NaMo 11	Compulsory module: Passenger transportation systems	Language: German		Credits: 6	
		Frequency: annually in winter semester		Semester position: 3	
		Workload: 180 h		Examination form: KL60/MP	
Prerequisites for participation: -	Presence: 60 h	Self-study: 120 h			
events		Lecturer/team of lecturers (<u>responsible for the module</u>)		Teaching and learning methods	Scope (SWS)
Passenger transportation systems		Prof. Dr. Dirk Gunther Trost		V+Ü	3+1
This module is used for the following degree programs: NaMo					
<p>Contents</p> <ol style="list-style-type: none"> 1. Basics and terms 2. Development/history of passenger transport 3. Characteristics and parameters of passenger transport 4. Private transport/car traffic (significance, private/commercial costs, commercial forms of car use) 5. Local mobility and cycling 6. Long-distance passenger transport - bus/rail (SPFV, scheduled bus services and occasional services) 7. Local public transport (LPT) - bus/rail (framework conditions, means of transport, line types and alternative forms of service, central management functions in LPT) 8. Air transport (framework conditions and institutions, business models and company connections, central management functions of companies in air transport) 9. Passenger transport on the water (digression) 10. Innovations and "unconventional" systems in passenger transport/deepening of current topics in passenger transport 					
<p>Learning objectives and skills to be taught</p> <p>Students will be familiar with special terminology and basic contexts of the passenger transportation system. They are able to differentiate between the various subsystems and submarkets of passenger transportation and have an idea of the different framework conditions and characteristics. They will acquire basic knowledge of the legal, institutional and economic framework conditions of public and regional passenger transport, air transport and micromobility. Building on this, students will be able to assess the special features of the management of passenger transport companies in various areas such as organization, procurement, production, marketing, etc. They will acquire a basic understanding of the nature of vehicles, equipment and infrastructure in passenger transportation. They will also be able to assess operational decisions in passenger transport companies in the context of framework and market structures. Knowledge of these conditions forms the basis for a customer-oriented design of the various services and the derivation of promising products and efficient forms of operation. New mobility services (car pooling etc.) and their business models are presented, their areas of application are analyzed, restrictions can be assessed and related entrepreneurial and social issues are discussed.</p>					

Literature and working materials

Own, updated, comprehensive lecture and exercise materials (provided as PDF files)

Aberle, G. (2009): Transportwirtschaft, 5th edition, Munich et al.

Ackermann, T. (2016): Handbuch Marketing im ÖPNV, DVV Media Group, Hamburg

Bruce, P. J., Gao, Y., King, J.M.C. (Ed.) (2020): Airline Operations: A Practical Guide, New York

Budd, L. (Ed.) (2020): Air Transport Management: An International Perspective, 2nd edition, New

York Conrady, R., Fichert, F., Sterzenbach, R. (2019): Air Transport. A business management
textbook and handbook, 6th edition, Munich

Stock, W., Bernecker, T. (2014): Verkehrsökonomie: Eine empirisch orientierte Einführung in die
Verkehrswissenschaften, 2nd edition, Wiesbaden

Doganis, R.(2019): Flying Off Course: Airline economics and marketing, 5th edition, London, New York

Kummer, S. (2023): Introduction to transportation economics, 3rd edition announced, Stuttgart

Reinhardt, W. (2018): Local public transport, technology, legal and business fundamentals, 2nd
edition, Wiesbaden

Schnieder, L. (2018): Operational planning in local public transport: Goals, methods, concepts, Berlin

Shaw, S. (2011): Airline Marketing and Management, 7th edition, Aldershot

NaMo 12: Sustainability and transport ecology

No: NaMo 12	Compulsory module: Sustainability and transport ecology	Language: German or other		Credits: 6	
		Frequency: annually in winter semester		Semester position: 3	
	Prerequisites for participation: -	Workload: 180 h		Examination form: KL60+PA	
Presence : 60 h		Self-study: 120 h			
events		Person responsible for the module		Teaching and learning methods	Scope (SWS)
Lecture Transport Ecology		Prof. Sven Strube		V	2
Traffic Ecology Laboratory				L	1
Lecture on sustainability				V	1
This module is used for the following degree programs: STS and NaMo					
<p>Contents</p> <p>Sustainability</p> <ol style="list-style-type: none"> 1. Terminology, concepts and contexts 2. Requirements and goals of sustainability in mobility 3. Sustainability policy and transport policy 4. Discourses, strategies, guidelines in application to mobility issues 5. Conflicts of interest 6. Good Practice <p>Transport ecology</p> <ol style="list-style-type: none"> 1. Introduction 2. Mobility versus the environment 3. Traffic noise 4. Pollutants 5. Alternative fuels and drives 6. Life cycle assessment 7. Energy consumption 8. Land use 9. External costs 10. Mobility of the future 					
<p>Learning objectives and skills to be taught</p> <p>Sustainability</p> <p>The aim is to provide students with knowledge of the interrelationships and requirements of sustainability in the field of transportation and mobility. Students develop a differentiated understanding of the concept of sustainability and learn how sustainability requirements are negotiated and implemented in politics and transportation. They acquire conceptual skills for the critically-reflective classification of transport measures under sustainability requirements. They will also be able to integrate sustainability aspects into transport considerations and apply them in a solution-oriented manner.</p>					

Transport ecology

The aim is to provide students with knowledge in the field of transport ecology and to gradually introduce them to the necessary basics and terminology. Students are sensitized to a holistic understanding of the interactions between the environment and traffic.

After completing the course, students will have developed a sound understanding of the concepts of transport ecology. They have methodological and conceptual skills with regard to the interrelationships between transportation and the environment, can create emission balances and apply methods of sustainability in theory and practice.

Literature and working materials

Literature and working materials as well as competent contact persons will be presented and named during the event.

NaMo 13: Traffic development planning

No: NaMo 13	Compulsory module: Traffic development planning	Language: German or other		Credits: 6
		Frequency: annually in winter semester		Semester position: 3
	Prerequisites for participation: none	Workload: 180 h		Examination form: MP+PA
Presence : 60		Self-study: 120		
events		Person responsible for the module	Teaching and learning methods	Scope (SWS)
Traffic planning		Prof. Dr. Christoph J. Menzel	V+Ü	2+2
<p>Contents</p> <p>Lecture Traffic Planning</p> <p>Principles and methodology of transport development planning, development and current status, planning process, planning work steps; division into conceptual transport development planning and object planning, aspects of individual means of transport as well as group-specific aspects (e.g. accessibility) are explained theoretically and using practical examples.</p> <p>Traffic planning exercise</p> <p>During the semester, up to 5 traffic planning exercises of varying scope with real and current relevance are given, which can be completed individually or in small groups.</p>				
<p>Learning objectives and skills to be taught</p> <p>Upon successful completion, students will have methodological and conceptual skills in all areas of transportation planning, from the overarching level of transportation development planning to specific transportation object planning. They will be able to work independently and reflectively on complex issues of conceptual planning. They apply analytical methods confidently and reflexively and also master advanced skills in the area of consensual planning, for example through group-internal discussions on target-oriented approaches in planning.</p>				
<p>Literature and working materials</p> <p>Literature and working materials as well as competent contact persons will be presented and named during the event.</p>				

NaMo 14: Transport policy and legal framework

No: NaMo 14	Compulsory module: Transport policy and legal framework	Language: German		Credits: 6	
		Frequency: annually in winter semester		Semester position: 3	
	Prerequisites for participation: -	Workload: 180 h		Examination form: PA/RE/KL60	
Presence : 60 h		Self-study: 120 h			
events		Person responsible for the module		Teaching and learning methods	Scope (SWS)
Transport policy		Prof. Dr. Dirk Gunther Trost		V+S	1+1
Legal framework for public transport				V	2
This module is used for the following degree programs: NaMo					
Contents					
<u>Transport policy:</u>					
<ul style="list-style-type: none"> - Fundamentals of political science - Historical outline and classification of national and international transport policy, - Position of the transport industry in the national economy, transport policy as a scientific discipline and shaping factor, - Supporting bodies, objectives and decision-making processes in politics, in particular national and international transport policy - Elements of transport policy practice - Selected fields of action and aspects of competition and transport policy, - Processing, presentation and discussion of transport policy issues 					
<u>Legal framework for public transport:</u>					
<p>Legal bases of public transport (AEG, EBO, PbefG, BOStrab, BOKraft, passenger rights): Legal standards in an EU-wide context (regulations and directives for public transport) and their impact on public transport companies</p> <p>Responsibilities, players and statutory processes</p> <p>(European) competition, public procurement and state aid law in relation to the transport sector and transport companies and their impact on public transport companies</p>					

(NaMo)

Learning objectives and skills to be taught**Transport policy**

At the end of this module, students will be familiar with the main tasks and structures as well as the functioning, instruments and measures of economic and transport policy in Germany as well as internationally - with a focus on the European Union. Students will be able to assess the connections between transport policy programs and their implementation in the overall social and economic context and discuss them critically with regard to the achievement of objectives.

Students learn to apply this knowledge to a given current topic from economic and transport policy, to present the chosen topic appropriately and clearly and to put it up for discussion. The students are then able to analyze concrete economic and transport policy measures and to assess their implementation quality as well as their macroeconomic and microeconomic effects and to critically question them from different perspectives. They discuss their topic with other students and reflect on their own role.

Legal framework for public transport

After completing this sub-module, students will be familiar with the essential legal foundations of public transport that are required for the establishment and operation of public transport, in particular buses and trains. The understanding gained from the transport policy part of the module helps students to understand the development process, objectives and institutional responsibilities of transport policy regulations. In addition to the legal implications, students also recognize the effects of laws and regulations on the business side of transport (market access, supply options, etc.).

Students will then have mastered the key legal principles for transport companies (e.g. rail transport companies). Students will be familiar with public procurement and state aid law as an important aspect of entrepreneurial activity, e.g. in the core topic of "transport tenders", and will be able to assess their impact on entrepreneurial activities. The processing and analysis of example cases support these learning objectives

Literature and working materials on transport

policy

Own lecture and working materials (provided as pdf documents) as well as the topic-specific literature required for the respective papers

Banister, D. et al. (2002): Transport Policy and the Environment, London

Donges, J.-B., Freytag, A. (2009): General Economic Policy, 3rd, revised and expanded edition, Stuttgart

Frerich, J., Müller, G. (2004): European transport policy. From the beginnings to the eastward enlargement of the European Union. Politisch-ökonomische Rahmenbedingungen - Verkehrsinfrastrukturpolitik 1, Oldenbourg-Verlag, Munich

Fichert, F., Grandjot, H.H. (2007): Actors, objectives and instruments, in: Schöller, O./Canzler, W./Knie, A. (eds.): Handbuch Verkehrspolitik, Wiesbaden, pp. 138 - 160

Grandjot, H.-H., Bernecker T. (2014): Transport policy - basics, functions and perspectives for science and practice, Hamburg

Schwedes, O. (2018): Transport policy - An interdisciplinary introduction, 2nd edition, Wiesbaden

Schwedes, O., Canzler, W., Knie, A. (editors) (2015): Handbuch Verkehrspolitik, 2nd edition, Wiesbaden

Stock, W., Bernecker, T. (2014): Verkehrsökonomie: Eine volkswirtschaftlich-empirische Einführung in die Verkehrswissenschaft, Wiesbaden

Stopher, P., Stanley, J. (2014): Introduction to Transport Policy: A Public Policy View, Cheltenham

Legal framework for public transport

Legal bases and legal texts from national legislation relating to public transport, latest version, Various EU directives and regulations on (public) transport, latest versions in each case
Further literature and working materials will be presented and named during the course.

NaMo 15: Project management

No: NaMo 15	Compulsory module: Project management	Language: German		Credits: 6	
		Frequency: annually in winter semester		Semester position: 3	
	Prerequisites for participation: -	Workload: 180		Examination form: KL30+PR	
Presence : 60		Self-study: 120			
events		Person responsible for the module		Teaching and learning methods	Scope (SWS)
Project management		Dipl.-Kfm. Carsten Wiljes		V+Ü	2+2
This module is used for the following degree programs: NaMo					
Contents					
<ul style="list-style-type: none"> - Definition, types and characteristics of projects - Standards and norms in project management - Importance, framework conditions and current challenges - Traditional and modern process models at a glance - Project management phases, project organization, elements of project planning, monitoring of project progress and derivation of control measures - Continuous tasks (stakeholder management, risk management, project marketing, ...) - Basics of agile project management (agile mindset, methods and techniques) - Manifestations of hybrid project management - Leadership, communication and cooperation in the project team - Multi-project management (portfolio and program management) 					
Learning objectives and skills to be taught					
<p>Students are able to emphasize the increasing importance of project work, name the various challenges and explain the manifestations and characteristics of mobility development projects.</p> <p>You will be able to determine the worthiness of projects, analyze individual project characteristics and framework conditions and assess the suitability of different process models.</p> <p>Based on the traditional approach, students can design project plans. They know the most important instruments for project planning and monitoring and can also apply these in practice using relevant software. If necessary, students will be able to derive suitable control measures. They will also be able to analyze and critically scrutinize external project plans and processes.</p> <p>Students are familiar with agile and hybrid process models and can explain them. They are sensitized to the importance of internal and external communication as well as leadership and teamwork, can differentiate between leadership tasks in traditional and agile environments and can take targeted team-building measures themselves.</p>					
Literature and working materials					
<p>Burghardt, M. (2018): Project management. Guide for planning, monitoring and controlling projects, 10th edition, Publicis-Publishing, Erlangen</p>					

Drews, G. et al. (2020): Praxishandbuch Projektmanagement, 3rd edition, Haufe, Freiburg, Munich

Jenny, B. (2021): Project management. The knowledge for a successful career, 8th edition, vdf-Verlag, Zurich

Kuster, J. et al. (2022): Handbuch Projektmanagement. agil - klassisch - hybrid, 5th edition, Springer, Berlin

Patzak, G., Rattay, G (2017): Project Management. Projects, project portfolios, programs and project-oriented companies, 7th edition, Linde-Verlag, Vienna

4. Semester

NaMo 16: Innovative local and micromobility, smart city

No: NaMo 16	Compulsory module: Innovative local and micromobility, smart city	Language: German		Credits: 6	
		Frequency: annually in the summer semester		Semester position: 4	
	Prerequisites for participation: -	Workload: 180 h		Examination form: PA/RE/KL60	
Presence: 60 h		Self-study: 120 h			
events		Person responsible for the module		Teaching and learning methods	Scope (SWS)
Local and micromobility		Prof. Dr. Jana Kühl		V+Ü	1+1
Local mobility, Smart City				V+Ü	1+1

This module is used for the following degree programs: NaMo

Contents

Local and micromobility

- Subject of local mobility, concept of active mobility and micromobility (definition of terms, delimitation, characteristics, examples)
- Illustration of transport demand in the local area
- Discussion of the relevance of local mobility in the context of the political goals of climate protection and transportation transition
- Concepts for opening up the last mile, inter- and multimodality
- Concepts for promoting local mobility and differentiating mobility needs in the local area
- Identification of potential and need for action in cycling and pedestrian traffic
- Analysis of mobility opportunities and promotion of social participation
- Strategic planning, integration of local mobility into other planning, in particular neighborhood planning, urban and settlement development

Local mobility, Smart City

- Concept of the smart city (definition, delimitation, characteristics, examples)
- Elements of the smart city with a focus on mobility and transport (digital transformation and networking, smart mobility)
- Integrated mobility services in public transport
 - Integrated mobility solutions - basics
 - Business model canvas approach (customer segments... to ...cost structure)
 - Key resources (smart stations...) and partnerships (stakeholder cooperation)
- Challenges in the implementation of transport services/smart mobility
- Discussion of individual service offerings (shared mobility; mobility-as-a-service, autonomous mobility) and their integration into smart mobility solutions
- Smart traffic (telematics, parking guidance systems, intelligent parking)

Learning objectives and skills to be taught

Local and micromobility

After completing this module, students will be familiar with the connections between local mobility and micromobility as part of transportation systems and as a component of spatial planning. They will acquire comprehensive knowledge of the promotion of local mobility as an integrated component of sustainable

(Name) Transportation systems.

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mobility services. They can comprehensively describe the influences of transport demand in local mobility and highlight the effects of local and micromobility services. Students will also be able to critically evaluate measures for the development of local and micromobility and design their own approaches.

Local mobility, Smart City

After completing the module, students will have a basic understanding of the interrelationships of smart city concepts, be able to describe the sub-elements of the smart city approach and present the interaction in a comprehensible way. The focus is on the section of intelligent, integrated mobility. For the special focus on modern mobility services, students have comprehensive knowledge of integration in the Smart City approach. Students acquire comprehensive knowledge of the infrastructural, informational, organizational and business contexts of smart mobility in the context of the smart city idea

Literature and working

materials on local and

micromobility

Research Association for Road and Transport Planning, Transport Planning Working Group (ed.) (2014): Hinweise zur Nahmobilität - Strategien zur Stärkung des nichtmotorisierten Verkehrs auf Quartiers- und Ortsteilebene, FGSV-Verlag, Cologne.

Heinig, S. (2021). Integrated urban development planning: concepts - methods - examples. Germany, transcript Verlag, Bielefeld.

Horn, B. (2017): Promoting local mobility as a new focus of municipal transport policy. The example of Berlin. In: Road traffic engineering 12, 765 - 771.

Schwedes, O., Canzler, W., Knie, A. (2015): Handbuch Verkehrspolitik, Springer VS Wiesbaden.

Siebenpfeiffer, W. (2021): Mobility of the future. Intermodal transportation concepts, Springer Vieweg Berlin, Heidelberg

Vallée, D., Engel, B., Vogt, W. (2021): Stadtverkehrsplanung Band 3. design, dimensioning and operation, Springer Vieweg Berlin, Heidelberg.

Further current and specific lecture materials will be made available in the course of the semester.

Local mobility, Smart City

Own, updated, comprehensive lecture materials (provided as PDF files)

Canzler, W., Schwedes, O., Knie, A. (2015): Handbuch Verkehrspolitik, Springer VS Wiesbaden.

Trost, D. G. (2019): Integration of inter-/multimodal, digitized mobility offers for public transport companies, Working-paper, 103 pages

NaMo 17: Sustainable corporate management and ethics

No: NaMo 17	Compulsory module: Sustainable corporate management and -ethics	Language: German		Credits: 6
		Frequency: annually in the summer semester		Semester position: 4
	Prerequisites for participation: none	Workload: 180 h		Examination form: KL 60/PA/MP
Presence : 60		Self-study: 120		
events		Person responsible for the module	Teaching and learning methods	Scope (SWS)
Sustainable corporate governance and -ethics		Prof. Dr. Hendrik Ernst	V+Ü	3+1
This module is used for the following degree programs: NaMo				
<p>Contents</p> <ul style="list-style-type: none"> • Target formation • Environmental and business analysis • Strategy development and implementation • Basics of employee management • Leadership models, principles and techniques • Tasks and process of employee management • CSR and business ethics 				
<p>Learning objectives and skills to be taught</p> <p>Students are familiar with selected methods of environmental and business analysis and apply them. Based on the results of these analyses, they develop strategies for specific company situations that are used to generate value creation potential and competitive advantages. Students are familiar with the most important issues relating to the management of employees. Students practise dealing with problems and tasks of employee management as HR managers or salaried employees. They know the importance of business ethics and evaluate the connection between business ethics and corporate success.</p>				
<p>Literature and working materials</p> <ul style="list-style-type: none"> • Macharzina, K., Wolf, J. (2022): Unternehmensführung: Das internationale Managementwissen, Konzepte - Methoden - Praxis, 11th edition, Springer Gabler, Wiesbaden 				

NaMo 18: Financing and investment

No: NaMo 18	Compulsory module: Financing and Investment	Language: German		Credits: 6	
		Frequency: Annually in the summer semester		Semester position: 4	
	Prerequisites for participation: Introduction to business administration, KLR, Financial mathematics	Workload: 180 h		Form of examination: KL60	
Presence: 60 h		Self-study: 120 h			
events		Person responsible for the module		Teaching and learning methods	Scope (SWS)
Financing and investment		Lecturer Pool Economy		V+Ü	3+1
This module is used for the following degree programs: NaMo					
Contents					
<p>Introduction to finance, rating and Basel I, II and III, overview of the business models of banks and the role of the ECB with international monetary scenarios, basics of financial mathematics, types/forms of financing, financial analysis and financial planning, financing rules, cash flow, leverage effect, static and dynamic investment calculation methods, leasing, asset-backed securities on the capital market, application of the net present value/annuity method/internal interest rate method, overview of derivatives.</p>					
Learning objectives and skills to be taught					
<p>Students have a basic understanding of the interrelationships and organization of corporate finance. After completing this module, students will also be familiar with how companies finance their investments. They will be able to take into account key economic objectives, such as profitability. Alternative financing, such as leasing, can be examined from an economic point of view and analyzed internationally. Students will be able to identify financial instruments and structuring options and explain them using practical examples. Students will also be able to decide when investments are worthwhile. They will be able to demonstrate and assess the effects of investments on companies. Students know methodical calculation procedures, which they can also assess from a tax perspective, as they are familiar with all important corporate taxes.</p>					

(Name)

Literature and working materials

Drukarczyk, J., Lobe, S. (2015): Financing, 11th edition, Stuttgart Galli,

A. (2017): Fundamentals of investment appraisal, Stuttgart

Kruschwitz, L., Husmann, S. (2012): Financing and Investment, 7th edition, Munich Olfert, K.

(2017): Financing, 17th edition, Herne

Olfert, K. (2019): Investment, 14th edition, Herne

Pape, U. (2018): Fundamentals of financing and investment. With case studies and exercises, 4th edition, Berlin

Perridon, L., Steiner, M., Rathgeber, A. (2022): Finanzwirtschaft der Unternehmung, 18th edition, Munich

Röhrich, M. (2014): Grundlagen der Investitionsrechnung, Darstellung anhand einer Fallstudie, 2nd ed.

Edition, Berlin

Wöhe, G., Döring, U., Brösel, G. (2020): Introduction to General Business Administration, 27th edition, Munich

NaMo 19: Mobility analyses and traffic models with laboratory

No: NaMo 19	Compulsory module: Mobility analyses and traffic models with laboratory	Language: German		Credits: 6	
		Frequency: annually in the summer semester		Semester location: 4th semester	
	Prerequisites for participation: none	Workload: 180 h		Examination form: KL60+EA	
Presence: 60 h		Self-study: 120 h			
events		Person responsible for the module		Teaching and learning methods	Scope (SWS)
Mobility analyses and traffic models		Prof. Dr. sc. ETH Gerko Santel		V+Ü	1 + 1
Surveys and models				L	2
This module is used for the following degree programs: STS and NaMo					
<p>Contents</p> <p>In addition to the concept of mobility and the causes of mobility, the course deals with the parameters of traffic flow on roads. Essential contents are methods and measurements in the field of mobility. This also includes computer-aided traffic surveys. The analysis of mobility data is based on this content. The course deals with traffic models in traffic planning and traffic engineering on the basis of exemplary questions. Aggregated and disaggregated traffic models are considered, differentiated according to model typology. One focus is on multi-stage traffic models consisting of the stages of traffic generation, traffic distribution, mode choice and traffic route choice</p>					
<p>Learning objectives and skills to be taught</p> <p>After successfully completing the course, students will be familiar with problems, scope for action, methods, procedures and instruments in the areas of mobility analysis, traffic surveys and traffic models. From the methods and concrete case studies presented, procedures can be classified and the appropriate areas of application of various elements and instruments can be derived. Students are able to independently prepare and carry out traffic surveys or supervise their implementation and evaluate the collected data and prepare it for traffic demand modeling</p>					
<p>Literature and working materials</p> <p>Own, updated, comprehensive lecture materials (provided as PDF files)</p> <p>Nobis, C., Kuhnimhof, T. (2018): Mobility in Germany - MiD results report</p> <p>Study by infas, DLR, IVT and infas 360 on behalf of the Federal Minister of Transport and Digital Infrastructure, Bonn, Berlin. www.mobilitaet-in-deutschland.de</p> <p>Friedrich, M., Schiller, C. (2009): Modeling transport supply and demand, course material; Dresden</p> <p>Bosserhoff, D. (2019): Program Ver_Bau, estimation of the traffic volume through projects of the</p>					

Urban land use planning, program manual;

Gustavsburg various software manuals from PTV AG,

Karlsruhe

Schnabel W., Lohse. D. (2011): Fundamentals of road traffic engineering and road traffic planning,
Volume 1: Road traffic engineering; 3rd edition; Beuth Verlag, Berlin/Kirschbaum Verlag, Bonn

Road and Transportation Research Association (FGSV) (2012): Recommendations for traffic surveys
(EVE); FGSV-Verlag, Cologne

Road and Transportation Research Association (FGSV) (2005): Notes on the fundamental diagram;
FGSV-Verlag, Cologne

NaMo 20: Cycling traffic management

No: NaMo 20	Compulsory module: Cycling traffic management	Language: German		Credits: 6	
		Frequency: annually		Semester position: 4	
	Prerequisites for participation:	Workload: 180		Examination form: RE/PA/KL60	
Presence : 60		Self-study: 120			
Events		Person responsible for the module		Teaching and learning methods	Scope (SWS)
Basics of promoting cycling		Prof. Dr. Jana Kühl		V+S	1+1
Cycle traffic management in practice				Ü/P	2
This module is used for the following degree programs: NaMo					
<p>Contents</p> <p>The basics of promoting cycling:</p> <ul style="list-style-type: none"> ▪ Contexts, goals and requirements of cycling promotion ▪ Relevance of bicycle mobility ▪ The role of cycling from a cultural and social perspective ▪ Cycling in urban, suburban and rural areas ▪ Cycling in international comparison ▪ Planning principles and regulations for bicycle traffic planning ▪ Optimization of cycling facilities, network planning, service design ▪ The bicycle in inter- and multimodality, micromobility ▪ Cycling in mobility management ▪ User groups and requirements for cycling infrastructure ▪ Safety and conflict prevention in cycling ▪ Participation, dialog processes and conflict resolution ▪ Marketing and communication <p>Cycle traffic management in practice</p> <ul style="list-style-type: none"> ▪ Planning and implementation of a cycling project ▪ Problem analysis and target definition ▪ Conception of measures to promote cycling ▪ Derivation of solutions and recommendations for action ▪ Results processing and documentation, presentation 					
<p>Learning objectives and skills to be taught</p> <p>Students will be able to design processes for promoting cycling in a goal-oriented manner. They acquire the tools to develop integrated and user-oriented cycling solutions in a wide range of application scenarios and know the steps required to implement innovative approaches to promoting cycling. Project work expands the acquired knowledge with practical experience in the design of cycling services.</p>					
<p>Literature and working materials</p> <p>Monheim, H. (2017): Wege zur Fahrradstadt: Analysen und Konzepte. VAS-Verlag für Akademische Schriften, Bad Homburg.</p> <p>Graf, T. (2016) Handbuch: Radverkehr in der Kommune: Nutzertypen, Infrastruktur, Stadtplanung. Thiemo Graf Verlag, Röthenbach an der Pegnitz.</p>					

Meschik, M. (2008): Planning manual for bicycle traffic. Springer-Verlag, Vienna.

Schwedes, O. (2018): Transport policy. An interdisciplinary introduction. VS Verlag für Sozialwissenschaften, Wiesbaden.

The latest literature and working materials as well as competent contact persons will be presented and named during the event.

5. Semester

NaMo 21: Public transport infrastructure planning

No: NaMo 21	Compulsory module: Public transport infrastructure planning	Language: German or other		Credits: 6	
		Frequency: annually in winter semester		Semester position: 5	
		Workload: 180 h		Examination form: MP+PA	
	Prerequisites for participation: none	Presence : 60 h	Self-study: 120 h		
events		Person responsible for the module		Teaching and learning methods	Scope (SWS)
Planning of infrastructure and stationary systems		Prof. Dr. Menzel		V	2
Exercise Infrastructure and stationary systems				Ü	2
<p>Contents:</p> <p>Planning of infrastructure and stationary systems</p> <p>Differentiation of traffic facilities and their elements or equipment according to their function: traffic route facilities, facilities for energy supply, for operational control and processing, facilities for passenger transfer or for system access and/or transition from and to other traffic systems, facilities for parking and maintenance of vehicles, depots for infrastructure maintenance; determination of infrastructure requirements, development of methods for the design, planning and operation of traffic facilities; presentation of exemplary traffic facilities.</p> <p>Exercise infrastructure and stationary systems</p> <p>In an interdisciplinary planning context, students work on a route finding project in track-guided public transport.</p>					
<p>Learning objectives and skills to be taught</p> <p>Planning of infrastructure and stationary systems</p> <p>Upon successful completion of the course, students have methodological and conceptual skills in all areas of infrastructure planning and system dimensioning, as well as their areas of application. They master planning and project management methods in the application and reflection of a concrete project with real-life relevance. They know the basics of system planning and apply them reflexively in theory and practice.</p>					
<p>Literature and working materials</p> <p>Literature and working materials as well as competent contact persons will be presented and named during the event.</p>					

NaMo 22: Online services and electromobility

No: NaMo 22	Compulsory module: Online services and electromobility	Language: German		Credits: 6	
		Frequency: annually in winter semester		Semester position: 5	
	Prerequisites for participation: -	Workload: 180 h		Form of examination: KL60	
Presence : 60 h		Self-study: 120 h			
events		Person responsible for the module		Teaching and learning methods	Scope (SWS)
Online services and electromobility		Prof. Dr.-Ing. Tamás Kurczveil		V+Ü	3+1
This module is used for the following degree programs: NaMo					
<p>Contents</p> <p>Sales with digital business models are increasing rapidly. With the mobile internet and associated end devices, this development is also finding its way into mobility. In this course, students learn about digital services and their applications in mobility. They learn about the structure of internet-based services and the underlying architectures as well as the information systems and communication infrastructures required for this. In addition, students learn about application examples for internet-based services with a focus on mobility.</p> <p>In the second part of this module, students are given a comprehensive overview of the technical, infrastructural and operational aspects of electromobility. Various drive types and drive train topologies are discussed. Students learn about driving resistances that lead to different proportions of energy consumption in vehicles and learn how to calculate these different proportions of energy consumption. This is followed by a discussion of operating strategies, various charging systems and aspects of energy supply.</p>					
<p>Learning objectives and skills to be taught</p> <p>After successfully completing this module, students are familiar with the structure and architecture of internet-based services. They know the requirements for corresponding services for their application in mobility. They are also able to evaluate, design and conceptualize corresponding services. Students have a sound overview of electric vehicles and all related aspects that play a role in the electrification of vehicles and transportation. They are familiar with vehicle and drive concepts as well as central components of an electric vehicle and are able to name, evaluate and design these in line with requirements. Students are familiar with various charging systems for the energy supply of electric vehicles and are able to dimension and design them according to requirements.</p>					
<p>Literature and working materials</p> <p>Altenfelder, K., Schönfeld, D., Krenkler, W. (eds.) (2021): Services Management and Digital Transformation: Impulses and Examples for the Successful Implementation of Digital Services. Springer- Gabler</p> <p>Meyer, K., Klingner, S., Zinke, C. (eds.) (2018): Service Engineering: From services to digital service systems. Springer-Vieweg</p> <p>Doppelbauer, M. (2020): Fundamentals of electromobility. Springer-Vieweg</p>					

NaMo 23: Service Design

No: NaMo 23	Compulsory module: Service Design	Language: German		Credits: 6
		Frequency: annually in winter semester		Semester position: 5
	Prerequisites for participation: none	Workload: 180 h		Examination form: KL 60/PA/MP
Presence : 60 h		Self-study: 120 h		
events		Person responsible for the module	Teaching and learning methods	Scope (SWS)
Quality management		Prof. Dr. Hendrik Ernst	S	2
Market research			S	2
This module is used for the following degree programs: NaMo				
Contents				
<p><u>Quality management:</u> Conceptual foundations of service quality, special features of quality management of services in public transport, models and methods for designing the quality of services, methods for measuring quality, possibilities of quality control. Development of a holistic quality strategy, instruments of sales and service management.</p> <p><u>Market research:</u> Basics of marketing instruments, qualitative research methods, surveys, observations, experiments, Basics: sample selection, measurement, scaling, quality criteria Data analysis: univariate and bivariate methods, multivariate methods Customer satisfaction analyses</p>				
Learning objectives and skills to be taught				
<p>Students analyze the importance of quality management for service companies. In doing so, they develop specific ideas about particular aspects in this area for passenger transportation. Students are familiar with the challenges faced by the management of service companies in creating high-quality and customer-satisfying offers and are able to manage them in a reflective manner. They assess the importance of quality for the company's success on the basis of customer impact (customer satisfaction), competitive impact (quality strategy) and corporate impact (TQM, certification). This enables them to develop strategies, measures and instruments to consolidate and increase (service) quality.</p> <p>Students expand the basic and specialist knowledge acquired in the Marketing Management module. They carry out their own market research under supervision and can evaluate its success in a reflective manner.</p>				

(NaMo)

Literature and working materials

Quality management

Bruhn, M. (2016): Quality management for services. Basics, concepts, methods. Berlin and others, 2020

Kamiske, G.-F., Brauer, J.-P. (2020): ABC of quality management, Munich

Meffert, H., Bruhn, N. (2018): Services marketing. Basics - Concepts - Methods, Wiesbaden Bruhn, M.,

Homburg, C. (2017): Handbook of customer loyalty management, Wiesbaden

Market research

Backhaus, K., et.al. (2021): Multivariate analysis methods - An application-oriented introduction, Heidelberg et al.

Bleymüller J. (2020): Statistics for economists, Munich

Kuß, A. (2021): Market research - data collection and data analysis, Wiesbaden

Meffert, H., Bruhn, M. (2018): Services Marketing: Basics - Concepts - Methods, Wiesbaden

Schnell, R., Hill, P.B., Esser, E. (2018): Methods of empirical social research, Munich

NaMo 24: Student research project

No: NaMo 24	Compulsory module: Student research project	Language: German		Credits: 6	
		Frequency: annually in winter semester		Semester position: 5	
	Prerequisites for participation: -	Workload: 180 h		Form of examination: SA	
Presence: 0 h		Self-study: 180 h			
events		Person responsible for the module		Teaching and learning methods	Scope (SWS)
Student research project		Supervising lecturer		B	
This module is used for the following degree programs: LOM, LOP, LIM, LIP, NaMo and STS					
Contents					
<p>The respective given problem/task, for which a written elaboration takes place. The student research project can be linked to the course of study in various ways. In addition, the task can also be based on the content of a course or on the evaluation of specialist literature.</p>					
Learning objectives and skills to be taught					
<p>With their student research project, students work on a problem and a solution within a specified period of time. / The student is responsible for independently formulating a task from their subject area, which is formulated by a supervisor/examiner in consultation with the student. The previously learned principles of scientific work are thus put into practice for the first time, which also serves as preparation for writing the Bachelor's thesis.</p>					
Literature and working materials					
<p>Course "Scientific work" Faculty guidelines for the preparation of scientific papers. The specific literature sources and working materials for the preparation of the thesis.</p>					

NaMo 25: Compulsory elective module I

No: NaMo 25	Compulsory elective module: Compulsory elective module I	Language: German		Credits: 6
		Frequency: annually in winter semester		Semester position: 5
		Workload: 180 h		Form of examination: see catalog WPF
	Prerequisites for participation: -	Presence: 60 h	Self-study: 120 h	
Events		Person responsible for the module	Teaching and learning methods	Scope (SWS)
Compulsory elective subject A		See catalog WPF	See catalog WPF	2
Compulsory elective subject B		See catalog WPF	See catalog WPF	2
This module is used for the following degree programs: interdisciplinary				
Contents				
See catalog WPF Note: The scope of this compulsory elective module must total 4 SWS (= 6 credits). Either through 2 WPF with 2 SWS each or 1 WPF with 4 SWS.				
Learning objectives and skills to be taught				
See catalog WPF				
Literature and working materials				
See catalog WPF				

6. Semester

NaMo 26: Human Resources and Diversity

No: NaMo 26	Compulsory module: Human Resources and Diversity	Language: German		Credits: 6	
		Frequency: annually in the summer semester		Semester position: 6	
	Prerequisites for participation: -	Workload: 180 h		Form of examination: PA / RE / KL60	
Presence : 60 h		Self-study: 120 h			
events		Person responsible for the module		Teaching and learning methods	Scope (SWS)
Human resources management		Prof. Dr. Hendrik Ernst		V+Ü	1+1
Personnel management and diversity				V+Ü	1+1
This module is used for the following degree programs: NaMo					
<p>Contents</p> <p>Human resources management Fundamentals of human resources and personnel management - Goals and importance - Operational and strategic tasks Performance potential and people concepts Tasks, instruments and methods of human resources management - Personnel planning - Recruitment and marketing - Staff deployment and working hours - Personnel development - Remuneration - Personnel appraisal - Personnel administration/controlling</p> <p>Personnel management and diversity Personnel policy Strategic personnel management (management needs, typology of management styles, management behavior, traditional management models, modern management approaches, leadership) Motivational aspects of personnel management Selected HR management topics (changing values, internationalization, demographic developments, compliance, shortage of skilled workers, technological change, changing role of managers) Diversity management Diversity competencies From diversity to capability</p>					
<p>Learning objectives and skills to be taught</p> <p>Students have a sound overview of key aspects of human resources and personnel management from a theoretical and application-oriented perspective as well as from an operational and strategic point of view.</p> <p>Human resources management</p>					

Students are familiar with the various fields of human resources management and learn how to use the resulting knowledge in practice. In terms of content, they will master the key aspects of planning, selecting and deploying personnel and will be able to apply basic concepts, instruments and methods to related issues, such as remuneration and working hours, and also transfer them to examples - primarily from the transport industry.

Personnel management and diversity

Students are familiar with basic concepts in human resources management and diversity. They understand the connections between leadership and motivation and use this understanding to develop their own approaches for their future tasks in the company. They reflect on their own actions and further develop their personnel management skills. They manage diversity, analyze the connections between HR management and diversity and take advantage of the opportunities for companies that arise from diversity.

Literature and working materials Human

Resources

Berthel, J., Becker, F. G. (2022): Personnel management. Basic principles for concepts of operational personnel work. 12th edition, Schäffer Poeschel, Stuttgart

Bröckermann, R. (2021): Personalwirtschaft: Lehr- und Übungsbuch für Human Resource Management, 8th edition, Stuttgart

Brox, H., Rüthers, B., Henssler, M. (2020): Labor Law. 20th edition, Kohlhammer, Stuttgart

Holtbrügge, D. (2015): Human resource management. 6th edition, Springer Gabler,

Berlin/Heidelberg Krings, T. (2018), Personalwirtschaft: Grundlagen betrieblicher Sozialarbeit, Wiesbaden

Oechsler, W. (2018): Personal und Arbeit: Einführung in das Personalmanagement, 11th edition, Munich

Olfert, Klaus (2019): Human Resources Management, 17th edition, Ludwigshafen

Trost, A. (2018): New personnel strategies between stability and agility, Springer, Berlin

Personnel management and diversity

Berthel, J., Becker, F. G. (2022): Personnel management. Basic principles for concepts of operational personnel work. 12th edition, Schäffer Poeschel, Stuttgart

Genkova, P., Semke, E., Schreiber, H. (eds.) (2022): Using and embracing diversity - practical implications for diversity management, Springer, Berlin

Özdemir, F. (2018): Managing Capability - An Approach to Redefining Diversity Management, Springer. Berlin

NaMo 27: Operational planning of public transport with laboratory

No: NaMo 27	Compulsory module: Operational planning of public transport with laboratory	Language: German		Credits: 6	
		Frequency: annually in the summer semester		Semester location:	
	Prerequisites for participation: none	Workload: 180 h		Examination form: KL60 + EW	
Presence : 60 h		Self-study: 120 h			
events		Person responsible for the module		Teaching and learning methods	Scope (SWS)
Operational planning of public transport with laboratory		Prof. Dr.-Ing. Marco Brey		V+Ü+L	2+1+1
This module is used for the following degree programs: NaMo					
<p>Contents</p> <p>Operational planning of public transport with laboratory: In this course, the essential planning tasks in public passenger transport are dealt with on the basis of the fundamentals and definitions of operational planning provided at the beginning. In the context of service planning, the main topics of network planning, capacity planning and timetable planning are addressed. Operational planning deals with personnel deployment planning, scheduling measures in operations management and emergency management. Practical exercises and case studies as well as the laboratory course with a computer-based planning system complement the lecture part.</p>					
<p>Learning objectives and skills to be taught</p> <p>Upon successful participation, students will have a sound knowledge of the operational business of a transport company, master the basics of vehicle and personnel scheduling and recognize dependencies and special features. Through the laboratory part, participants become familiar with a representative tool for implementing complex planning processes and find out how operational planning tasks can be mapped, optimized and implemented with computer support.</p>					
<p>Literature and working materials</p> <p>Own, updated, comprehensive lecture materials (provided as PDF files)</p> <p>Steierwald, G., Künne, H. D., Vogt, W. (eds.) (2005): Stadtverkehrsplanung, 2nd edition, Springer Verlag Berlin Heidelberg, ISBN 978-3-540-40588-7</p> <p>Schnieder, L. (2018): Betriebsplanung im öffentlichen Personennahverkehr, VDI-Buch, Springer-Vieweg Berlin, ISBN 978-3-662-57317-4</p> <p>Janicki, J. (2022): Systemwissen Eisenbahn, 3rd edition, Bahn Fachverlag, ISBN 978-3-943214-30-7</p>					

NaMo 28: Case Studies

No: NaMo 28	Compulsory elective module: Case Studies	Language: German		Credits: 12	
		Frequency: annually in the summer semester		Semester position: 6	
	Prerequisites for participation: -	Workload: 360 h		Form of examination: see catalog WPF	
Presence: 120 h		Self-study: 240 h			
events		Person responsible for the module		Teaching and learning methods	Scope (SWS)
Case Studies		See catalog Case Studies		See catalog Case Studies	8
This module is used for the following degree programs: interdisciplinary					
<p>Contents</p> <ul style="list-style-type: none"> - Topic-specific task processing in small groups - Promotion of teamwork, conflict management - Time management, self-management, project management - Consolidation of scientific work through the preparation of a project report - Get to know possible professional fields and practice partners - Application and verification of theoretical knowledge in practice <p>Topics see catalog Case Studies</p>					
<p>Learning objectives and skills to be taught</p> <p>Students work independently on case studies and/or projects in areas relevant to the degree program. The aim of this course is to gain practical experience, deepen work in project groups, deal with problems, and work scientifically on a subject area. After successful participation, students have completed all phases of a project (planning, organization, implementation, monitoring) and complete it by preparing a comprehensive project report and, if applicable, a final project presentation for the project partner or lecturers.</p>					
<p>Literature and working materials</p> <p>See catalog Case Studies</p>					

NaMo 29: Compulsory elective module II

No: NaMo 29	Compulsory elective module: Compulsory elective module II	Language: German		Credits: 6	
		Frequency: annually in the summer semester		Semester position: 6	
	Prerequisites for participation: -	Workload: 180 h		Form of examination: see catalog WPF	
Presence: 60 h		Self-study: 120 h			
events		Person responsible for the module		Teaching and learning methods	Scope (SWS)
Elective subject C		See catalog WPF		See catalog WPF	2
Compulsory elective subject D		See catalog WPF		See catalog WPF	2
This module is used for the following degree programs: interdisciplinary					
Contents					
See catalog WPF Note: The scope of this compulsory elective module must total 4 SWS (= 6 credits). Either through 2 WPF with 2 SWS each or 1 WPF with 4 SWS.					
Learning objectives and skills to be taught					
See catalog WPF					
Literature and working materials					
See catalog WPF					

7. Semester

NaMo 30: Supervised practical phase

No: MPM 31	Compulsory module: Supervised practical phase	Language: German		Credits: 15	
		Frequency: annually in winter semester		Semester position: 7	
	Prerequisites for participation: see examination regulations	Workload: 450 h		Examination form: -	
Presence : 0 h		Self-study: 450 h			
events		Person responsible for the module		Teaching and learning methods	Scope (CP)
Supervised practical phase		Supervising lecturer		B	15
This module is used for the following degree programs: LOM, LOP, LIM, LIP, NaMo and STS					
Contents					
<p>The practical semesters are generally designed in such a way that the students work on a project in the practical placement or are given a self-contained sub-project within this framework. In addition to the general orientation in the company/practical placement or the establishment of a working environment, the students use the first part of the practical semester to familiarize themselves with the work. As a rule, the actual topic for the Bachelor's thesis is derived from the problem/task set by the practical placement in consultation with the university supervisor.</p>					
Learning objectives and skills to be taught					
<p>In the practical phase, students should learn how to integrate themselves into the usual work processes in a company. In doing so, they should apply the knowledge they have acquired during their studies to practical methods</p>					
Literature and working materials					
none					

NaMo 31: Bachelor thesis and colloquium

No: NaMo 31	Compulsory module: Bachelor thesis with colloquium	Language: German		Credits: 15	
		Frequency: annually in winter semester		Semester position: 7	
	Prerequisites for participation: -	Workload: 450 h		Examination form: BA+KO	
Presence: 0 h		Self-study: 450 h			
events		Person responsible for the module		Teaching and learning methods	Scope (CP)
Bachelor thesis		Supervising lecturer		B	12
Colloquium				B	3
This module is used for the following degree programs: LOM, LOP, LIM, LIP, NaMo and STS					
<p>Contents</p> <p>After the official issue of the topic by the examination board, the actual preparation of the Bachelor's thesis is a continuous process, which is usually started during the practical semester (in the last third) and intensified after completion. Supervision of the practical semester and supervision of the Bachelor's thesis are carried out by the same supervisor.</p> <p>In the colloquium, the student provides a summary of their Bachelor's thesis. In a short presentation, the student presents the results of the Bachelor's thesis. The examiners ask questions about the content of the thesis.</p>					
<p>Learning objectives and skills to be taught</p> <p>With their Bachelor's thesis, students demonstrate that they are able to independently work on a problem/task from their subject area, which is formulated by a supervisor/first examiner in consultation with the student, using scientific methods within a specified period of time. The exact procedure for this is regulated by the examination regulations. By preparing a presentation for the colloquium, students demonstrate that they are able to summarize and abstract the content of their Bachelor's thesis. In the colloquium, various aspects of the thesis and the previous day are discussed and critically scrutinized. Contextual knowledge is tested and the ability to transfer the analyzed facts and results to other cases.</p>					
<p>Literature and working materials</p> <p>The relevant literature sources and working materials for the chosen topic.</p>					