JADE HOCHSCHULE Wilhelmshaven/Oldenburg/Elsfleth • Studienort Elsfleth
JADE UNIVERSITY OF APPLIED SCIENCES Wilhelmshaven/Oldenburg/Elsfleth • Faculty in Elsfleth

Modulhandbuch für den Studiengang
Module handbook for the study course

International Maritime Management „Master of Science“ (M.Sc.)

ab Wintersemester 2022/23
since wintersemester 2022/23

Modulübersichtstabelle
Module summary table

Module und zugehörige Lehrveranstaltungen *Modules and corresponding lecture*	Semester *Semester*	Prüfungs- leistungen, -formen *Examination*	Studien- leistungen *Course Achievements*	studentische Arbeitsbelastung (in Zeitstunden) *Student worktime (in hours)*	ECTS-Punkte *Credit points*	Modulverant- wortlicher *Responsible person*
1. Academic Research Methods	1	H	H		6	Nause
Academic Research Methods	1			150		
2. Enterprise Information Management	1	H	H		6	Stern
Enterprise Information Management	1			150		
3. Environmental Management in Maritime Transport	2	KA	-		12	Brauner
Environmental Management in Maritime Transport	2			300		
4. Human Factors	3	H	TAR		6	Brooks
Human Factors	3			150		
5. Maritime Business and Logistics	3	H	TAR, TAR		12	Jauernig
Maritime Business and Logistics	3			300		
6. International Maritime Law	4	H	TAR, TAR		6	Wichmann
International Maritime Law	4			150		
7. Project Management and Leadership	4	H	PB		12	Nause
Project Management and Leadership	4			300		
8. Master Thesis	5	H	-	750	30	Wand
Summe *Sum*				2250	90	

Abkürzungen:
Abbreviation

H Hausarbeit
Home assignment

KA Kursarbeit
Course paper

PB Projektbericht
Project report

TAR Test am Rechner
Computer test

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International Maritime Management (M.Sc.)

Academic Research Methods

Semester	Frequency	Duration	Type	ECTS points	Student workload
1	semesterly	1 sem.	mandatory	6	150 hours self study

Prerequisites for participation	Utility	Examination type and duration (Prerequisite for transferal of ECTS)	Teaching and learning methods	Unit coordinator
-	M.Sc. IMM	Course achievement (Studienleistung): home assignment; Examination (Prüfungsleistung): home assignment	Course book, self study, discussion in bulletin board	Dr. N. Nause

Learning objectives

Upon successful completion of this learning unit, students are able to …

1. state the principles of academic research and discuss the requirements for academic research activities.
2. develop research questions and hypotheses which arise in their own work environment and apply them in their academic writing.
3. critically analyse academic peer reviewed research papers.
4. select, implement and give the rationale for their own research activities on an advanced academic level.
5. apply the basic principles of the degree course, the degree course's didactic concept as well as distance learning to other topics and their own lifelong learning.
6. identify problems and knowledge gaps in the field of maritime management related to both theory and practice including an international framework.
7. create self-study plans by implementing the proposed methodology for a successful integration of academic contents with work-related matters.
8. write a research proposal including relevant theories, methodologies, and systematic plans to answer a research question and/or test hypotheses.

Unit contents
• Basic research principles and definitions • Research objectives, questions and hypotheses • Philosophy of academic writing • Search, assessment and management of sources of information • Information handling • Data analysis and presentation. • Writing skills, presentation, formal aspects, official issues and requirements • Research and Development

References (non-exhaustive list)
Alley, M. (2018): The Craft of Scientific Writing. Springer Science+Business Media. American Psychological Association (APA) (2010): Publication Manual of the American Psychological Association. American Psychological Association. Bailey, S. (2011): Academic Writing. A Handbook for International Students. Routledge. Bryman, A. (2021): Social Research Methods. Oxford University Press. Ebster, C. & Stalzer, L. (2013): Wissenschaftliches Arbeiten für Wirtschafts- und Sozialwissenschaftler. Facultas WUV. Macgilchrist, F. (2014): Academic Writing. UTB/Schöningh. Myers, J. L., Well, A. D. & Lorch, R. F. (2010): Research design and statistical analysis. Routledge. Sword, H. (2012): Stylish Academic Writing. Harvard University Press. Theisen, M. R. (2021): Wissenschaftliches Arbeiten: Erfolgreich bei Bachelor- und Masterarbeit. Verlag Franz Vahlen. Toulmin, S. E. (1958): The Uses of Argument. Cambridge University Press. Wallace, W. L. (2017): The Logic of Science in Sociology. Routledge. Reprinted from 1971. Aldine Transaction.

Lectures		
Lecturer	**Name of learning unit**	**Weekly lessons**
B. Kavanagh	Academic Research Methods	-

Jade University of Applied Sciences
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Enterprise Information Management

Semester	Frequency	Duration	Type	ECTS points	Student workload
1	Winter semester	1 sem.	mandatory	6	150 hours self study

Prerequisites for participation	Utility	Examination type and duration (Prerequisite for transferal of ECTS)	Teaching and learning methods	Unit coordinator
-	M.Sc. IMM	Course achievement (Studienleistung): home assignment; Examination (Prüfungsleistung): home assignment	Course book, self study, discussion in bulletin board	Prof. Dr. A. Stern

Learning objectives

Upon successful completion of this learning unit, students are able to …

1. analyse and visualise maritime business processes from a management perspective.
2. integrate modelling tools into operational planning.
3. know and apply the principles of a good programming style.
4. understand the principles and problems of programming.
5. design and develop automated solutions for their operational practice.
6. understand and customize third party programming solutions.
7. identify business transactions and apply scientific methods for their description.
8. model maritime business processes and use them to present an informed opinion.

Unit contents

System Analysis

- theoretical knowledge of scientific methods for business process modelling;
- practical application of the structured analysis method, flow charts, sequence diagrams, function trees and data structure diagrams.

System Development:

- basics of an event based user interface and programming techniques;
- practical tasks with “Visual Basic for Applications;
- development of forms and user defined functions.

References
Skripte und Präsentationsfolien des Dozenten Gadatsch, Andreas: “Grundkurs Geschäftsprozessmanagement”, Vieweg 2007 Gierhake, Olaf: „Integriertes Geschäftsprozessmanagement“, Vieweg 2001 Hanschke, Inge: Digitaler Wandel – lean & systematisch, Springer 2021 Held, Bernd: „VBA mit Excel: Das umfassende Handbuch“, Galileo 2013 Jarosch, Helmut: „Grundkurs Datenbankentwurf“, Vieweg 2013 Peters, Ralf; Nauroth, Markus: Process-Mining, Springer 2019 Scheer, August-Wilhelm: „ARIS. Vom Geschäftsprozess zum Anwendungssystem“, Springer 2002 Seidlmeier, Heinrich: „Prozessmodellierung mit ARIS“, Vieweg 2010 Steiner, Rene: „Grundkurs Relationale Datenbanken“, Vieweg 2011 Stern, Andreas: „Keine Angst vor Microsoft Access!“, Microsoft Press 2009 Theis, Thomas: „Einstieg in VBA mit Excel“, Galileo 2013 Vonhoegen, Helmut: „Excel 2010 – Der umfassende Ratgeber“, Galileo Computing 2012 Weidner, Stefan; Koch, Babett; Bernhard, Chris: Einführung in SAP, SAP ERP 6.08, 2019 Wieken, John-Harry: „Erfolgreich SQL lernen“, Pearson 2012.

Lectures		
Lecturer	**Name of learning unit**	**Weekly lessons**
Prof. Dr. A. Stern	Enterprise Information Management	-

Jade University of Applied Sciences
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International Maritime Management (M.Sc.)

Environmental Management in Maritime Transport

Semester	Frequency	Duration	Type	ECTS points	Student workload
2	Summer semester	1 sem.	mandatory	12	300 hours self study

Prerequisites for participation	Utility	Examination type and duration (Prerequisite for transferal of ECTS)	Teaching and learning methods	Unit coordinator
-	M.Sc. IMM	Examination (Prüfungsleistung): course paper	Course book, self study, discussion in bulletin board	Prof. R. Brauner

Learning objectives

Upon successful completion of this learning unit, students are able to …

1. explain climate change and evaluate the consequences for the maritime transport.
2. apply knowledge in national and international regulations.
3. infer and interpret the roles of stakeholders and governance in an environmental context.
4. compare and interpret collected data of research studies.
5. sequence and categorise information of issues related to maritime transport.
6. understand the basic technology principles relating to the technical structure of ports and ships.
7. describe, evaluate and communicate the impact of research and other accomplishments in maritime transport.
8. adopt management practices including the influence of leadership values in relation to environmental issues in maritime transport..

Unit contents

- Climate of the ocean and atmosphere and consequences for climate change
- Environmental maritime transport requirements and legislation
- Emissions in maritime transport to the atmosphere and ocean
- Technology and development in reduction in emissions in maritime transport and
- improvements in efficiency
- Environmental management in context to economics, sustainability and international regulation
- Risk management

References
Skript Ahrens, D.: Meteorology today, Belmont, 2009 Bernhardt, F.: Handbuch Schiffsbetriebstechnik, Hamburg, 2012 Förtsch, G.; Meinholz, H.: Handbuch Betriebliches Umweltmanagement, 2018 Glaeser, B.: Küste, Ökologie und Mensch. Integriertes Küstenmanagement als Instrument nachhaltiger Entwicklung, Band 2, Natur und Recht, 2005 Deutsche IPCC Koordinierungsstelle: IPCC Report 2018, Bonn 2018 Watter, H.: Regenerative Energiesysteme, Wiesbaden, 2015 Quaschning, V.: Regenerative Energiesysteme, München, 2019 Watter, H.: Nachhaltige Energiesysteme, Wiesbaden, 2009

Lectures		
Lecturer	**Name of learning unit**	**Weekly lessons**
Prof. R. Brauner	Environmental Management in Maritime Transport	-

Jade University of Applied Sciences
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International Maritime Management (M.Sc.)

Human Factors

Semester	Frequency	Duration	Type	ECTS points	Student workload
3	Winter semester	1 sem.	mandatory	6	150 hours self study

Prerequisites for participation	Utility	Examination type and duration (Prerequisite for transferal of ECTS)	Teaching and learning methods	Unit coordinator
-	M.Sc. IMM	Course achievement (Studienleistung): computer test; Examination (Prüfungsleistung): home assignment	Course book, self study, discussion in bulletin board	Dr. B. P. Brooks

Learning objectives

Upon successful completion of this learning unit, students are able to …

1. identify human factors issues in the marine environment and assess an appropriate response.
2. complete a task analysis for a complex task.
3. examine a marine accident and disseminate the causes using a theoretical model of accident causation.
4. identify a human factors issue in the shipping industry, explore the scope of the problem from the perspective of the socio-technical system that shipping occurs within and devise a solution.
5. interpret the importance and expertise of leadership in a complex and global business..

Unit contents

- Introduction to Human Factors
- History of Human Factors in the maritime world
- Accident Investigation
- Beyond Accident Investigation – Engineering resilience
- The Individual Part 1 – Physiology, Anthropometry and Cognition
- The Individual Part 2 – Error, Stress and Performance
- The Team – Teamwork, Leadership, Communication & Shared Mental Models
- The Organisation Part 1 – Organisational and Safety Culture.
- The Organisation Part 2 – Risk Management & Safety Management Systems

References
Barth, F. (1966). Models of Social Organization. Glasgow, Royal Anthropological Institute of Great Britain and Ireland. Chapanis, A. (1996). Human Factors in Systems Engineering. New York: Wiley. Douglas, M. (1966). Purity and Danger: an analysis of concepts of pollution and taboo. London, Routledge & Kegan Paul. Hale, A. and Glendon, A. I. (1987). Individual behaviour in the control of danger. Amsterdam: Elsevier Science. Heinrich, H., Petersen, D. and Roos, N. (1980). Industrial Accident Prevention: A Safety Management Approach. New York: McGraw-Hill Book Company. Hofstede, G. (1980). Culture's Consequences: International Differences in Work-Related Values. Beverly Hills, CA: Sage. Reason, J. (1990). Human Error. Cambridge, UK: Cambridge University Press. Reason, J. (1997). Managing the Risks of Organizational Accidents. Aldershot, England: Ashgate. Schein, E. (2016). Organizational culture and leadership (5th ed.). San Francisco: Jossey-Bass. Stanton, N., Salmon, P., Walker, G., Baber, C., & Jenkins, D. (2005). Human Factors Methods: A Practical Guide for Engineering and Design (First ed.). Aldershot: Ashgate Publishing Limited. Wickens, C. D., Gordon, S. E. and Liu, Y. (1998). An Introduction to Human Factors Engineering. New York, NY: Addison Wesley Longman.

Lectures		
Lecturer	**Name of learning unit**	**Weekly lessons**
Dr. B. P. Brooks	Human Factors	-

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Maritime Business and Logistics

Semester	Frequency	Duration	Type	ECTS points	Student workload
3	Winter semester	1 sem.	mandatory	12	300 hours self study

Prerequisites for participation	Utility	Examination type and duration (Prerequisite for transferal of ECTS)	Teaching and learning methods	Unit coordinator
-	M.Sc. IMM	Course achievements (Studienleistung): two computer test and home assignment; Examination (Prüfungsleistung): home assignment	Course book, self study, tasks/activities, discussion in bulletin board	C. Jauernig

Learning objectives

Upon successful completion of this learning unit, students are able to …

1. understand the importance of the maritime business for the global economy.
2. formulate and prioritise the principles of business logistics in a maritime context.
3. identify and interpret global economic factors affecting supply and demand in maritime transportation.
4. explore and handle concepts of different shipping and port markets.
5. infer decisions affecting a maritime company's strategy and management from a holistic perspective.
6. evaluate and validate concepts of port terminal and warehouse operations and planning.
7. infer and interpret decisions affecting the strategy and management of seaports and shipping companies.
8. analyse and revise efficiency of maritime transport chains.

Unit contents
• Fundamentals of maritime business and logistics • Global economy and global trade • Shipping markets and cycles (bulk vs. liner shipping) • Freight rate development and cost drivers • Forms of cooperation in the maritime industry • Cost structures in shipping companies • Commercial aspects of ship and voyage planning • The role of ports in maritime transport chains • Port and terminal layout planning and operations • Contemporary and economic issues of Port Management and Hinterland Traffic

References
Institute of Chartered Shipbrokers: The economics of sea transport and international trade, London, 2013 Jahn, C.: Maritime Logistik: Prozesse – Systeme – Entwicklungen, Wiesbaden, 2019 Lee, C.-Y.: Handbook of ocean container transport logistics, Cham, 2015 Lun, Y. H. V. et al.: Green Shipping Management, London, 2016 Lun, Y. H. V. et al.: Shipping and logistics management, London u.a., 2010 Neise, R.: Container logistics: the role of the container in the supply chain, London, 2018 Song, D. P.: Container Logistics and Maritime Transport, London, 2021 Song, D.-W., Panayides, P. M.: Maritime logistics: a complete guide to effective shipping and port management, London, 2012 Tapaninen, U.: Maritime transport – shipping logistics and operations, London, 2020

Lectures		
Lecturer	**Name of learning unit**	**Weekly lessons**
C. Jauernig	Maritime Business and Logistics	-

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International Maritime Management (M.Sc.)

International Maritime Law

Semester	Frequency	Duration	Type	ECTS points	Student workload
4	Summer semester	1 sem.	mandatory	6	150 hours self study

Prerequisites for participation	Utility	Examination type and duration (Prerequisite for transferal of ECTS)	Teaching and learning methods	Unit coordinator
-	M.Sc. IMM	Course achievement (Studienleistung): two computer test; Examination (Prüfungsleistung): home assignment	Course book, self study, tasks/activities, discussion in bulletin board	Prof. G. Wichmann

Learning objectives

Upon successful completion of this learning unit, students are able to …

1. understand the legal framework of international shipping.
2. explain the key elements of international maritime law.
3. apply key elements of international maritime law.
4. assess and deal with typical legal matters, incidents and disputes which arise during the normal course of the vessel's trading.
5. communicate with interested parties, lawyers and officials in an international legal environment.
6. apply key soft skills such as communication and problem-solving skills.

Unit contents

- Framework of International Public Maritime Law
- Collision Liability
- Ship-Source Pollution
- Salvage
- Towage
- Wreck Removal
- Bill of Lading Contracts
- Charter Agreements
- Global Limitation of Liability for Maritime Claims
- General Average

- Maritime Liens
- Arrest of Ships

References
Baatz, Y. (ed.), Maritime Law, Abingdon Coghlin, T. et al., Time Charters, London Cooke, J. et al., Voyage Charters, London Herber, R., Seehandelsrecht, Berlin Rabe, D./Bahnsen, K.U., Seehandelsrecht, München Ramming, K., Seehandelsrecht, Berlin Todd, P., Principles of the Carriage of Goods by Sea, Abingdon Wichmann, G, International Marine Insurance, Band 6 der Elsflether Schriften zur Seeverkehrs- und Hafenwirtschaft, Elsfleth, 2019 Wichmann, G. in International Private Shipping Law in Benedict/Wand (eds.), Handbuch Nautik II, Hamburg.

Lectures		
Lecturer	**Name of learning unit**	**Weekly lessons**
Prof. G. Wichmann	International Maritime Law	-

Jade University of Applied Sciences
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Project Management and Leadership

Semester	Frequency	Duration	Type	ECTS points	Student workload
4	Summer semester	1 sem.	mandatory	12	300 hours self study

Prerequisites for participation	Utility	Examination type and duration (Prerequisite for transferal of ECTS)	Teaching and learning methods	Unit coordinator
-	M.Sc. IMM	Course achievement (Studienleistung): project report; Examination (Prüfungsleistung): home assignment	Course book, self study, discussion in bulletin board	Dr. N. Nause

Learning objectives

Upon successful completion of this learning unit, students are able to …

1. understand the complexity of organisation and management.
2. evaluate theoretical constructs and research activities.
3. infer and interpret complex organisations and processes.
4. apply knowledge and skills to practical issues.
5. apply project management methods to develop the overall project goal and plan project along different phases.
6. analyse situations in their professional practice and derive target-oriented questions and project ideas.
7. use scientific methods to review alternative solutions.
8. incorporate and transform team structures.
9. integrate innovative concepts into existing corporate structures by means of projects and reorganisation.
10. develop and apply key soft skills such as leadership, management and problem-solving skills.
11. apply management practices remotely in distributed teams and in multicultural context.

Unit contents
• fundamentals of project management • fundamentals of teamwork and leadership • planning and evaluation of projects in terms of time, costs and quality • stakeholder management • risk management • quality management • strategy and change management • application of detailed contents depending on chosen project

References (non-exhaustive list)
Association for Project Management (2006): APM Body of Knowledge. Association for Project Management. Bea, F. X., Scheurer, S. & Hesselmann, S. (2011): Projektmanagement. UVK-Verlagsgesellschaft. DeMarco, T. & Lister, T. (2003): Waltzing with Bears. Managing Risk on Software Projects. Dorset House Publishing. Kerzner, H. (2009): Project management: a systems approach to planning, scheduling, and controlling. John Wiley & Sons. Köster, K. (2009): International Project Management. Sage Publications. Kuster, J., Huber, E., Lippmann, R., Schmid, A., Schneider, E., Witschi, U. & Wüst, R. (2011): Handbuch Projektmanagement. Springer-Verlag. Marle, F. & Vidal, L.-A. (2016): Managing Complex, High Risk Projects. A Guide to Basic and Advanced Project Management. Springer-Verlag. Project Management Institute (2013): A Guide to the Project Management Body of Knowledge (PMBOK® Guide). Project Management Institute. Verzuh, E. (2005): The Fast Forward MBA in Project Management. John Wiley & Sons.

Lectures		
Lecturer	**Name of learning unit**	**Weekly lessons**
Dr. N. Nause	Project Management and Leadership	-

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International Maritime Management (M.Sc.)

Master Thesis

Semester	Frequency	Duration	Type	ECTS points	Student workload
5	semesterly	1 sem.	mandatory	30	750 hours self study

Prerequisites for participation	Utility	Examination type and duration (Prerequisite for transferal of ECTS)	Teaching and learning methods	Unit coordinator
-	M.Sc. IMM	Course achievement (Studienleistung): home assignment; Examination (Prüfungsleistung): home assignment	Self study, discussion in bulletin board	Prof. Dr. C. Wand

Learning objectives

Upon successful completion of this learning unit, students are able to …

1. decide on a topic referring to their own professional life, derive a problem, transfer it into a research question for the Master Thesis and reflect on their own decision.
2. structure the problem to an adequate course of action, work out a scientific approach and propose alternative solutions to answer the research question.
3. extract findings from theories and methods and combine them in a new way to solve the on-the-job problem.
4. present the results, formulate reasons for the chosen approach, and verify the validity of ideas and quality in the colloquium.
5. assess a problem in their own field of expertise in detail and obtain an application-oriented research expertise.
6. adopt a holistic way of thinking to solve problems and manage projects

Unit contents

- Realisation of a project including theoretical knowledge and work-based matters
- Development and its accomplishment in terms of structure and project management
- Collection, analysis and discussion of data and results
- Production of the text, presentation of the project and discussion with the supervisors

References
see Academic Research Methods learning module

Lectures		
Lecturer	**Name of learning unit**	**Weekly lessons**
all colleagues	Master Thesis	-