

JADE HOCHSCHULE Wilhelmshaven/Oldenburg/Elsfleth • Studienort Elsfleth
JADE UNIVERSITY 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 2017/18
since wintersemester 2017/18

Modulübersichtstabelle

Module summary table

Module und zugehörige Lehrveranstaltungen <i>Modules and corresponding lecture</i>	Semester <i>Semester</i>	Prüfungsleistungen, -formen <i>Examination</i>	Studienleistungen <i>Course Achievements</i>	studentische Arbeitsbelastung (in Zeitstunden) <i>Student worktime (in hours)</i>	ECTS-Punkte <i>Credit points</i>	Modulverantwortliche <i>Responsible person</i>
1. Academic Research Methods	1	HA	TAR + HA		6	John
Academic Research Methods	1			150		
2. International Maritime Law	1	K2	TAR		6	Wichmann
International Maritime Law	1			150		
3. Enterprise Information Management	1	HA	TAR		6	Stern
Enterprise Information Management	1			150		
4. Maritime Business	2	HA	TAR		6	Jauernig
Maritime Business	2			150		
5. Green Shipping	2	HA	TAR		6	Brauner
Green Shipping	2			150		
6. Cost & Yield Management	3	PB	TAR		6	Wengelowski
Cost & Yield Management	3			150		
7. Maritime Management Applications	3	HA	TAR		12 (2 * 6)	Wand
International Marine Insurance	3			150		
Green Ship Design & Technology	3			150		
Maritime Logistics	3			150		
Human Factors in Shipping	3			150		
8. Case Studies	4	R	PB		12	John
Case Studies	4			300		
9. Master Thesis	4	MA	-	750	30	Wand
Summe <i>Sum</i>				2250	90	

Abkürzungen:

Abbreviations

HA Hausarbeit
Home Assignment

TAR Test am Rechner
Computer test

R Referat
Presentation

PB Projektbericht
Project report

K2 Klausur mit 2 Stunden Bearbeitungszeit
2-hour written examination

MA Masterarbeit mit Kolloquium
Master thesis including presentation

Learning Unit: IMM01 – Academic Research Methods

Semester	Frequency	Duration	Type	ECTS points	Student workload
1	Semesterly	1 Sem.	Mandatory	6	150 hours, comprising contact hours: 6 h self study: 144 h

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 and home assignment; Examination (Prüfungsleistung): home assignment	Course book, self study, discussion in bulletin board	Peter John

Learning objectives

Upon completion of this learning unit, students are able to ...

- understand the principles of academic research and to discuss the requirements of academic research activities.
- translate the learning outcome into research questions and hypotheses which arise in their own work environment and to apply them in their own academic writing.
- question, assess and weight the approach and methods in academic research papers by other authors.
- organise, implement and qualify their own research activities on an advanced academic level.
- comprehend the degree course's didactic concept and create self-study plans by implementing the proposed methodology for a successful integration of academic contents with work-related matters.

Unit contents

- Basic principles and definitions
- Research objectives and questions
- Philosophy of academic writing
- Search, assessment and management of sources of information
- Information handling
- Analysing information
- Formal aspects, official issues and requirements
- Research & Development

Lectures

Lecturer(s)	Name of learning unit	Weekly lessons
Peter John/Nicolas Nause	Academic Research Methods	-

Jade University Wilhelmshaven/Oldenburg/Elsfleth Department of Maritime and Logistics Studies M.Sc. International Maritime Management (IMM)	 JADE UNIVERSITY OF APPLIED SCIENCES Wilhelmshaven Oldenburg Elsfleth
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Learning Unit: IMM02 – International Maritime Law

Semester	Frequency	Duration	Type	ECTS points	Student workload
1	Semesterly	1 Sem.	Mandatory	6	150 hours, comprising contact hours: 6 h self study: 144 h

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): 2-hour written examination	Course book, self study, discussion in bulletin board	Prof. Günter Wichmann

Learning objectives

Upon completion of this learning unit, students ...

- understand the legal framework of international shipping.
- know the key elements of international maritime law.
- are able to apply key elements of international maritime law.
- are able to assess and deal with typical legal matters, incidents and disputes which arise during the normal course of the vessel's trading.
- are able to communicate with interested parties, lawyers and officials in an international legal environment.
- have gained key soft skills such as communication and problem-solving skills.

Unit contents

- International wet shipping law
- International dry shipping law

Lectures

Lecturer(s)	Name of learning unit	Weekly lessons
Prof. Günter Wichmann	International Maritime Law	-

Learning Unit: IMM03 – Enterprise Information Management

Semester	Frequency	Duration	Type	ECTS points	Student workload
1	Semesterly	1 Sem.	Mandatory	6	150 hours, comprising contact hours: 6 h self study: 144 h

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	Prof. Dr. Andreas Stern

Learning objectives

Upon completion of this learning unit, students are able to ...

- analyse and visualise maritime business processes.
- integrate modelling tools into operational planning.
- know and apply the principles of a good programming style.
- understand the principles and problems of programming.
- design and develop automated solutions for their operational practice.
- understand and customize third party programming solutions.
- identify business transactions and apply scientific methods for their description.
- 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.

Lectures

Lecturer(s)	Name of learning unit	Weekly lessons
Prof. Dr. Andreas Stern	Enterprise Information Management	-

Learning Unit: IMM04 – Maritime Business

Semester	Frequency	Duration	Type	ECTS points	Student workload
2	Semesterly	1 Sem.	Mandatory	6	150 hours, comprising contact hours: 6 h self study: 144 h

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	Christian Jauernig

Learning objectives

Upon completion of this learning unit, students are able to ...

- understand the importance of the maritime business for the global economy.
- identify and interpret global economic factors affecting supply and demand in maritime transportation.
- perceive and handle concepts of different shipping markets.
- infer decisions affecting a shipping company's strategy and management.

Unit contents

- Fundamentals of maritime business
- 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

Lectures

Lecturer(s)	Name of learning unit	Weekly lessons
Christian Jauernig	Maritime Business	-

Learning Unit: IMM05 – Green Shipping

Semester	Frequency	Duration	Type	ECTS points	Student workload
2	Semesterly	1 Sem.	Mandatory	6	150 hours, comprising contact hours: 6 h self study: 144 h

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	Prof. Ralf Brauner

Learning objectives

Upon completion of this learning unit, students are able to ...

- explain climate changes and evaluate the consequences for the maritime industries.
- compare and interpret collected data of research studies.
- sequence and categorise information of issues related to green shipping.
- understand the basic principles relating to the technical structure of ports and ships.
- describe, evaluate and communicate the impact of research and other accomplishments in green shipping.

Unit contents

- Climate of the ocean and atmosphere and consequences for climate change
- Green ship and ports requirements and legislation
- Emissions of ships and ports to the atmosphere and ocean
- Reduction in emissions and efficiency related to ships and ports
- Environmental aspects, economics and sustainability
- Risk management

Lectures

Lecturer(s)	Name of learning unit	Weekly lessons
Prof. Ralf Brauner	Green Shipping	-

Learning Unit: IMM06 – Cost & Yield Management

Semester	Frequency	Duration	Type	ECTS points	Student workload
3	Semesterly	1 Sem.	Mandatory	6	150 hours, comprising contact hours: 6 h self study: 144 h

Prerequisites for participation	Utility	Examination type and duration (Prerequisite for transferral of ECTS)	Teaching and learning methods	Unit coordinator
-	M.Sc. IMM	Course achievement (Studienleistung): computer test; Examination (Prüfungsleistung): project report	Course book, self study, discussion in bulletin board	Prof. Dr. Peter Wengelowski

Learning objectives

Upon completion of this learning unit, students are able to ...

- recognise and appraise general conditions for commercial success.
- devise goals and strategies in an area of conflict between economy and ecology.
- assess the instruments of cost accounting, investment analysis, product costing and marginal costing.
- solve problems in uncertain situations and solve ambiguities.
- analyse and apply managerial methods for an inter-disciplinary context.
- arrive at decisions within a team by using computer-based planning models.
- evaluate corporate strategies and prepare for Annual Meetings.
- develop team leadership skills and put into practice constructed models of corporation.

Unit contents

- Basic economic functions
- Planning and establishing economic, social and ecological goals by means of the computer simulation software "TOPSIM – General Manager" (Research & Development, Marketing & Distribution, Procurement & Production, Finance & Accounting, Personnel, Economic and Ecological Conditions)
- Economic and ecological conditions
- Annual report

Lectures

Lecturer(s)	Name of learning unit	Weekly lessons
Sebastian Gerken	Cost & Yield Management	-

Learning Unit: IMM0701 – International Marine Insurance

Semester	Frequency	Duration	Type	ECTS points	Student workload
3	Yearly	1 Sem.	Elective	6	150 hours, comprising contact hours: 6 h self study: 144 h

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	Prof. Günter Wichmann

Learning objectives

Upon completion of this learning unit, students ...

- know the scope of cover of the different classes of international marine insurance.
- know the key principles of the different classes of international marine insurance.
- have an understanding of the key principles of English marine insurance law.
- know key features of different sets of international standard clauses.
- are able to assess and deal with typical insurance matters which arise during the normal course of the vessel's trading.
- are able to communicate with interested parties, lawyers and officials in an international environment.
- have gained problem-solving skills to interpret cases of marine insurance and determine managerial courses of action.

Unit contents

International marine insurance (including key elements of English marine insurance law, hull insurance, increased value insurance, war risks insurance, loss of income insurance, P&I insurance, cargo insurance).

Lectures

Lecturer(s)	Name of learning unit	Weekly lessons
Prof. Günter Wichmann	International Marine Insurance	-

Learning Unit: IMM0702 – Green Ship Design and Technology

Semester	Frequency	Duration	Type	ECTS points	Student workload
3	Semesterly	1 Sem.	Elective	6	150 hours, comprising contact hours: 6 h self study: 144 h

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	Prof. Dr. Laurentiu Chitoroiu

Learning objectives

Upon completion of this learning unit, students are able to ...

- justify the role of hull design optimization in terms of fuel savings and overall hydrodynamic performance of a vessel.
- describe the components of ship powering and propulsion units and machinery and explain their basic principles of operation and practical performance capabilities.
- analyse the power generation and distribution on board ships.
- judge the benefits of advanced propeller- and rudder design in improving the propulsive efficiency and the fuel and energy savings.
- compare and analyse the impact of shipboard emissions to air pollution and modern technologies design to control and reduce the gas emissions.
- explain the purpose and meaning of ship hull cleaning and justify the importance of hull coatings to ship eco-efficiency.
- determine and prioritise operational measures that can reduce the fuel consumption.
- reframe and transform existing management solutions to recommend environmentally friendly measures.

Unit contents

- Energy efficient ship design – Hull optimisation
- Energy – saving devices
- Efficient machinery technologies
- Technologies to reduce and control the gas emissions
- Underwater coatings and hull cleaning
- Energy efficient ship operation – Trim optimisation

Lectures

Lecturer(s)	Name of learning unit	Weekly lessons
Prof. Dr. Laurentiu Chitoroiu	Green Ship Design and Technology	-

Learning Unit: IMM0703 – Maritime Logistics

Semester	Frequency	Duration	Type	ECTS points	Student workload
3	Semesterly	1 Sem.	Elective	6	150 hours, comprising contact hours: 6 h self study: 144 h

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	Christian Jauernig

Learning objectives

Upon completion of this learning unit, students are able to ...

- formulate and prioritise the principles of business logistics in a maritime context.
- evaluate and validate concepts of port terminal and warehouse operations and planning.
- analyse and revise efficiency of maritime transport chains.
- infer and interpret decisions affecting the strategy and management of seaports.

Unit contents

- The concept of maritime logistics
- The role of ports in maritime transport chains
- Port terminal layout planning and operations
- Contemporary and economic issues of Port Management and Hinterland Traffic

Lectures

Lecturer(s)	Name of learning unit	Weekly lessons
Christian Jauernig	Maritime Logistics	-

Learning Unit: IMM0704 – Human Factors in Shipping

Semester	Frequency	Duration	Type	ECTS points	Student workload
3	Semesterly	1 Sem.	Elective	6	150 hours, comprising contact hours: 6 h self study: 144 h

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. Benjamin P. Brooks

Learning objectives

Upon completion of this learning unit, students are able to ...

- identify human factors issues in the marine environment and assess an appropriate response.
- complete a task analysis for a complex task.
- examine a marine accident and disseminate the causes using a theoretical model of accident causation.
- 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.

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

Lectures

Lecturer(s)	Name of learning unit	Weekly lessons
Dr. Benjamin P. Brooks	Human Factors in Shipping	-

Learning Unit: IMM08 – Case Studies

Semester	Frequency	Duration	Type	ECTS points	Student workload
4	Semesterly	1 Sem.	Mandatory	12	300 hours, comprising contact hours: 12 h self study: 288 h

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): presentation	Course book, self study, discussion in bulletin board	Peter John

Learning objectives

Upon completion of this learning unit, students are able to ...

- understand the complexity of organisation and management.
- evaluate theoretical constructs and research activities.
- synthesize and interpret complex organisations and processes.
- apply knowledge and skills to practical issues.
- implement and transform team structures.
- integrating innovative concepts into existing corporate structures by means of projects.
- develop leadership skills in logistics, business and management.
- adopt management practices across geographical and geographic boundaries.

Unit contents

- project management
- development and marketing
- costs and relative objectives
- strategy
- teamwork and leadership

Lectures

Lecturer(s)	Name of learning unit	Weekly lessons
Peter John/Nicolas Nause	Case Studies	-

Learning Unit: IMM09 – Master Thesis

Semester	Frequency	Duration	Type	ECTS points	Student workload
5	Semesterly	1 Sem.	Mandatory	30	750 hours, comprising contact hours: 30 h self study: 720 h

Prerequisites for participation	Utility	Examination type and duration (Prerequisite for transferal of ECTS)	Teaching and learning methods	Unit coordinator
-	M.Sc. IMM	Examination (Prüfungsleistung): Master Thesis including presentation	Self study, discussion in bulletin board	Prof. Dr. Christoph Wand

Learning objectives

Upon completion of this learning unit, students are able to ...

- 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.
- structure the problem to an adequate course of action, work out a scientific approach and propose alternative solutions to answer the research question.
- extract findings from theories and methods and combine them in a new way to solve the on-the-job problem.
- present the results, formulate reasons for the chosen approach, and verify the validity of ideas and quality in the colloquium.
- assess a problem in their own field of expertise in detail and obtain an application-oriented research expertise.
- 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

Lectures

Lecturer(s)	Name of learning unit	Weekly lessons
-	Master Thesis	-