

COURSE MANUAL

Double-Degree Master-Course Marine Transportation

Hochschule Wismar



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Nomenclature

CR	Credit points (Credits) according the European Credit Transfer System
MMT	short for Master-Degree Marine Transportation
PM	Compulsory Module
WPM	Elective Module
EC	Extra Curricular
SWH	Semester week hours, explain how much time in attendance is intended to teach the content (1 SWH corresponds to 45 minutes)
h	one hour (60 minutes)
L	Lecture / Lessons
SU	Seminar-based teaching and seminars - is used to gain and deepen new knowledge by interactive acting in small or medium sized groups
E	Exercise, is used to apply and deepen the theoretical content by practical problems in small groups. Students try to solve such exercise task during the self-study and getting supervised
ST	Simulator Training
K	Written exam test (figure behind explains the maximum time for the test)
M	Oral exam test (figure behind explains the maximum time for the Test)
APL	Alternative exam test according to the academic rules
LN	precondition to earn credit points and examination pre-conditions
B	Assignment or report to create during the semester and finished before examination
PA	Written project report



Module number/Code	Will be filled by the IT System
Subject	PM 01 Advanced Maritime Transportation
Responsible lecturer	Dr.-Ing. Setyo Nugroho
Lecturer	Dr.-Ing. Setyo Nugroho
Subject description	Transport geography, theory of bounded rationality, design thinking, digitalization in maritime industry
Objectives	Understanding the origin of transport, principles of marine transport, role of ships and ports, information integrity and complexity of addressing maritime transport phenomenon
Language	English
Teaching and learning methods	Lesson, exercise, team presentation
Type and usability	Applicable in Master Marine Transportation
Duration	1 semester
Frequency	winter semester
Requirements for participation	None
Examination pre-conditions	Mid semester exam: oral presentation
Requirements for awarding credit points	Successful passing of oral presentation or APL
ECTS credit points	6 CR according to ECTS
Workload	180 h: 2 swh lesson, 2 swh seminar
Maximum attendees	Not limited
Literature	<ul style="list-style-type: none">- Rodrigue, Jean-Paul. Intermodal Transportation and Integrated Transport Systems: Spaces, Network and Flows. 2006- Intelligent Transportation Systems: Webster's Timeline History, 1990 – 2007- Economic Impacts of Intelligent Transportation Systems, Volume 8: Innovations and Case Studies.- Planning An Intelligent Transport System: A Guide to System Architecture, European ITS Framework Architecture, 2002- The Challenge of Digitalization for Firms in Developing Countries, UNDP, 2019- Design Thinking Toolbox, M. Lewrick & Larry Leifer, 2020



Module number/Code	Will be filled by the IT System
Subject	PM 02 Maritime Business Statistic
Responsible lecturer	Dr. Agnes Tuti
Lecturer	Dr. Agnes Tuti
Subject description	Descriptive statistics, big data, forecasting, hypothesis test, and regression analysis
Objectives	Provide understanding/knowledge on the role of statistics to make informed decisions and solve complex problems in the maritime business sector...
Language	English
Teaching and learning methods	Lesson/lecturer, Seminar, Class exercise, Project
Type and usability	Applicable in Master Marine Transportation
Duration	1 semester
Frequency	winter semester
Requirements for participation	None
Examination pre-conditions	None
Requirements for awarding credit points	Successful passing of examination: written, oral or assignment
ECTS credit points	6 CR according to ECTS
Workload	180 h: 2 swh lesson, 2 swh seminar
Maximum attendees	Not limited
Literature	<ul style="list-style-type: none">- Applied Statistics and Probability for Engineers Third Edition Douglas C. Montgomery (Arizona State University) George C. Runger (Arizona State University) John Wiley & Sons, Inc. 2003- Probability & Statistics for Engineers & Scientists NINTH EDITION Ronald E. Walpole (Roanoke College) Raymond H. Myers (Virginia Tech) Sharon L. Myers (Radford University) Keying Ye (University of Texas at San Antonio) Prentice Hall, 2011- Data Analysis in the Maritime Domain Publisher: PUEB Press, 2022 ISBN: 978-83-8211-137-8 Author: <u>Milena Stróżyna</u> (Poznań University of Economics and Business) <u>Witold Abramowicz</u> (Poznań University of Economics and Business) <u>Krzysztof Węcel</u> (Poznań University of Economics and Business) <u>Dominik Filipiak</u> (University of Innsbruck)



Module number/Code	Will be filled by the IT System
Subject	PM 03 International Communication
Responsible lecturer	Dr.-Ing. Setyo Nugroho
Lecturer	English First (an independent reputable English course institution)
Subject description	English language: - IELTS preparation test - Daily and professional business communication covering reading, conversation, presentation, and report writing German language: - Develop Basic communication skills - Acquire foundational grammar and vocabulary - Improve listening and reading comprehension
Objectives	Improve the English proficiency orally and in writing, with IELTS score ≥ 6.5 or Level B2
Language	English
Teaching and learning methods	Seminar, Exercises
Type and usability	Applicable in Master Marine Transportation
Duration	2 semester
Frequency	winter and summer semester
Requirements for participation	English basics
Examination pre-conditions	None
Requirements for awarding credit points	APL
ECTS credit points	6 CR according to ECTS each semester
Workload	180 h: 4 swh seminar each semester
Maximum attendees	Not limited
Literature	Internal developed curriculum for IELTS and other special subject such as correspondence, presentations, and several social skills.



Module number/Code	Will be filled by the IT System
Subject	PM 04 Ship Theory
Responsible lecturer	Prof. Heri Supomo
Lecturer	Prof. Heri Supomo
Subject description	Types of cargo, concept of floating structure, carrying capacity, cargo handling and propulsion system
Objectives	Provide essential of ship design concepts covering typology of ships, meaning of principal dimensions of ship and role of design properties to meet transportation functionalities; most students' educational backgrounds are neither naval architecture nor marine engineering
Language	English
Teaching and learning methods	Lesson, exercises
Type and usability	Applicable in Master Marine Transportation
Duration	1 semester
Frequency	winter semester
Requirements for participation	None
Examination pre-conditions	None
Requirements for awarding credit points	Successful passing of examination: written, oral or assignment
ECTS credit points	6 CR according to ECTS
Workload	180 h: 1 swk lesson, 3 swk exercise
Maximum attendees	Not limited
Literature	- "Naval Architecture for Non-Naval Architects", H. Benford, 1999 - "Practical Ship Design", D.G.M. Watson, 1998



Module number/Code	Will be filled by the IT System
Subject	PM 05 Maritime Business
Responsible lecturer	Dr. Tri Achmadi
Lecturer	Dr. Tri Achmadi
Subject description	International trade, seaborne transport, shipping operations, ship finance, and shipping markets
Objectives	<ul style="list-style-type: none"> - Understanding the functioning of maritime business... - Enable students to recognize the link between business strategies within a company and public policies, particularly in the economic sector, which forms the context of company operations - Learn to (1) link business strategies with relevant public policies, (2) utilize related public policies for business strategies, (3) professionally influence public policy in relevant businesses, (4) understand the macro context of public policy, (5) develop public policies that build a healthy and competitive business ecosystem.
Language	English
Teaching and learning methods	Lesson/class lecture, Seminar, Laboratory/class exercise, Project
Type and usability	Applicable in Master Marine Transportation
Duration	1 semester
Frequency	winter semester
Requirements for participation	None
Examination pre-conditions	None
Requirements for awarding credit points	Successful passing of examination: written, oral or assignment
ECTS credit points	6 CR according to ECTS
Workload	180 h: 1 swh lesson, 2 swh seminar, 1 swh exercise
Maximum attendees	Not limited
Literature	<ul style="list-style-type: none"> - Principles of maritime business management, Routledge, 2019 - Stopford, Martin, Maritime Economics, Routledge, 2009 - F.R. David. Strategic Management Concepts and Cases. 13th edition. 2011. Prentice Hall - Shipping Management and Logistics Strategy: Shipping, Logistics, Supply Chain, 2010 - Abeng, Tanri, & Nugroho, Riant, 2024, Manajemen sebagai Profesi, Jakarta: Elex/Gramedia - Achmadi, Tri, & Riant Nugroho, eds., 2022, Indonesia's Maritime Policy: Macro and Micro, Surabaya: ITS Press eds, 2022, Navigating Indonesia Maritime Policies: Constructive, Distortive, and Accelerative, Surabaya: ITS Press - Chandler Jr., Alfred D. ,1977, The Visible Hand: The Managerial Revolution in American Business, Boston; Belknap/Harvard Business Review Press - Collins, Jim, 1998, Good to Great, New York: Free Press - & Morten T. Hansen, 2011, Great by Choice: How to Manage Through Chaos, New York: Free Press



- De Geus, Arie, 1996, The Living Company, Boston: HBR Press
- Drucker, Peter, 2013 (1972), Management: Task, Practices, Responsibility, New York: Free Press.
- Drucker, Peter, 1999, Managing for the Next Society, New York: Free Press.
- Kaplan, Robert, & Norton, David K., 1996, Balance Score Card, Boston: HBR Press
- 2002, Strategy Focused Company, Boston: HBR Press
- 2004, Strategy Map, Boston: HBR Press
- Kim, W. Chan, & Mauborgne, Renée, 2005, Blue Ocean Strategy, Boston: Harvard Business Review Press.
- Mazzucatto, Mariana, 2016, The Entrepreneurial State: Debunking Public Vs. Private Sector Myths, NY: Anthem Press
- 2022, Mission Economy: A Moonshot Guide to Changing Capitalism, NY: Anthem Press
- 2023, The Big Con: How the Consulting Industry Weakens Our Businesses, Infantilizes Our Governments and Warps Our Economies, NY: Anthem Press
- Mintzberg, Henry, Bruce Ahlstrand, Joseph Lampel, 1998, Strategy Safari, New York: Free Press
- 1994, The Rise and Fall of Strategic Planning, New York: Free Press
- Nugroho, Riant, 2022, Korporasi Konstitusi, Jakarta: Balai Pustaka
- 2023, Public Policy, Jakarta: Elex/Gramedia
- Patton, Carl V., Sawicki, David S., & Clark Jennifer J., 2016, Basic methods of policy analysis and planning, New York: Routledge
- Porter, Michael E., 1980, Competitive Strategy: Techniques for Analyzing Industries and Competitors. New York: Free Press
- 1985, The Competitive Advantage: Creating and Sustaining Superior Performance. NY: Free Press,
- 1990, Competitive Advantage of Nations, New York: Free Press
- 1998, On Competition, Boston: HBR Press
- Reeves, Martin, Haanaes, Knut, & Sinha, Janmejaya Penerbit, 2015, Your Strategy Needs a Strategy, Boston, Harvard Business Review Press
- Rice, Condoleezza, & Zegart, Amy, 2018, Political Risks, New York: Weidenfeld & Nicolson
- Schwab, Klaus, 2016 The Fourth Industrial Revolution, Geneva: World Economic Forum
- Weimer, David I, & Vinning, Aidan L, 2011, Policy Analysis, New York: Routledge



Module number/Code	Will be filled by the IT System
Subject	PM o6 Maritime Law
Responsible lecturer	Dr. Achmad Rizki
Lecturer	Dr. Achmad Rizki
Subject description	Maritime law and law of the sea, flag state and cabotage, the carriage of goods by sea and marine insurance, key topics such as shipbuilding contracts, charterparties, cargo claims, and the liabilities of vessels...
Objectives	Provide knowledge about legal framework governing marine commerce, safety and environment control...
Language	English
Teaching and Learning methods	Lesson/class lecture, seminar and class exercise
Type and usability	Applicable in Master Marine Transportation
Duration	1 semester
Frequency	sommer semester
Requirements for participation	None
Examination pre-conditions	None
Requirements for awarding credit points	Successful passing of examination: written, oral or assignment
ECTS credit points	6 CR according to ECTS
Workload	180 h: 1 swh class lecture, 3 swh seminar
Maximum attendees	Not limited
Literature	<ul style="list-style-type: none"> - Maritime Law. Baatz, Yvonne et al. 2014. Third Edition. Informa Law from Routledge - Law of Marine Insurance. Hodge, Susan. 1996. Cavendish Publishing Limited - The Due Diligence in Maritime Transportation in Technological Era. Chaco, Victor Hugo. 2017. Volume 5. Springer - Maritime Law for Shipping Executives. Corres, A.J. 2012. Aegean University - Shipping Law. Baughen, Simon. 2015. Sixth Edition. Routledge. Taylor & Francis Group - International Trade and Carriage of Goods. 2017. Informa Law from Routledge. - Indonesia Commercial Law - Indonesia Civil Code - Black's Law Dictionary. 1994...



Module number/Code	Will be filled by the IT System
Subject	PM 07 Maritime Logistics
Responsible lecturer	Dr. I. G. N. S. Buana
Lecturer	Dr. I. G. N. S. Buana
Subject description	Port operations, shipping logistics, and the impact of technology on maritime logistics, network/routing analysis
Objectives	Port operations, shipping logistics, and the impact of technology on maritime logistics, network/routing analysis...
Language	English
Teaching and Learning methods	Class lesson/lecturer, laboratory/exercise, excursion and presentation
Type and usability	Applicable in Master Marine Transportation
Duration	1 semester
Frequency	summer semester
Requirements for participation	None
Examination pre-conditions	None
Requirements for awarding credit points	Successful passing of examination: written, oral or assignment
ECTS credit points	6 CR according to ECTS
Workload	180 h: 1 swh lesson, 3 swh seminar
Maximum attendees	Not limited
Literature	<ul style="list-style-type: none"> - Martin Stopford, 2009. Maritime Economics, Third Edition, Routledge - Martin Christopher, 2016. Logistics & Supply Chain Management, Fifth Edition, Pearson Education Limited - Dong-Wook Song and Photis M Panayides, 2015. Maritime Logistics: A guide to contemporary shipping and port management, Second Edition, Kogan Page Limited - Other up-to-date sources related to the development of technology particularly in advanced and practical marine transportation/logistics operation



Module number/Code	Will be filled by the IT System
Subject	PM o8 Maritime Market Research
Responsible lecturer	Dr. Agnes Tuti
Lecturer	Dr. Agnes Tuti
Subject description	Data management and processing techniques, servqual analysis, project presentation, market research design and implementation, maritime business digitalization...
Objectives	Students will be able to evaluate market size, growth forecasts, and the impact of technological advancements on maritime trade
Language	English
Teaching and Learning methods	Lesson, project, exercise, presentation
Type and usability	Applicable in Master Marine Transportation
Duration	1 semester
Frequency	sommer semester
Requirements for participation	None
Examination pre-conditions	None
Requirements for awarding credit points	Successful passing of examination: written, oral or assignment
ECTS credit points	6 CR according to ECTS
Workload	180 h: 1 swh lesson, 3 swh seminar
Maximum attendees	Not limited
Literature	<ul style="list-style-type: none"> - Market Research in Practice, An introduction to gaining greater market insight Paul Hague, Matthew Harrison, Julia Cupman and Oliver Truman 3rd edition, 2016 Koganpage, United Kingdom - Statistics in Market Research Leo Cremonezi Statistical Scientist 2nd Edition, 2018 Ipsos connect - Handbook of Research on the Future of the Maritime Industry by Nihan Senbursa (University of Ordu, Turkey) 1st edition, 2022



Module number/Code	Will be filled by the IT System
Subject	PM 09 Ship Design Innovation
Responsible lecturer	Dr. Wasis D. Aryawan
Lecturer	Dr. Wasis D. Aryawan
Subject description	Global economy and seaborne trade, global shipbuilding and shipowning, recent innovation ship design, e.g., in tanker and gas as well as container shipping, AI and sustainability in innovation
Objectives	Provide adequate knowledge in ship design related to ship operation and shipping as well as the role of innovation in shipping business
Language	English
Learning and Teaching methods	Lesson, Seminar, exercise
Type and usability	Applicable in Master Marine Transportation
Duration	1 semester
Frequency	sommer semester
Requirements for participation	None
Examination pre-conditions	None
Requirements for awarding credit points	Successful passing of examination: written, oral or assignment
ECTS credit points	6 CR according to ECTS
Workload	180 h: 1 swh lesson, 3 swh exercise
Maximum attendees	Not limited
Literature	- "Shipping Innovation", N. Wijnolst, 2009 - "Innovations in Shipping", P. Lorange, 2020



Module number/Code	Will be filled by the IT System
Subject	PM 10 Commercial Ship Management
Responsible lecturer	Prof. Dr. rer. pol. Ali Arnaout
lecturer	Prof. Dr. rer. pol. Ali Arnaout
Subject description	<ul style="list-style-type: none"> - Introduction to Commercial Ship Management - Concepts Ship Ownership and Commercial Effects - Ship Market Analysis (Freight Indices, Asset Values, Shipping Cycles) - Commercial Ship Charter: Standards, Contracts, Costs - Technical Management & Operations - Regulatory Compliance & Decarbonization - Bunker & Fuel Management - Crewing & HR Management - Insurance & Risk Management - Digitalization - Commercial Disputes & Claims Handling - Integrated Case Study
Objectives	<p>After completion of modules students shall be able to</p> <ul style="list-style-type: none"> - analyze ship management models commercially and financially and decide how to design commercial ship operations. - design and optimizes budget and cash-flow projections for ship management operations throughout market cycles and the asset life cycle. - evaluate vessel OPEX and CAPEX options - analyze operational functions within commercial ship management (charter, bunkers, crewing, R&M, P&I, regulation) - apply ESG and digitalization concepts in light of global decarbonization regulation for the future
Language	English
Teaching and learning methods	Seminar, exercise
Type and usability	Applicable in Master Marine Transportation
Duration	1 semester
Frequency	winter semester
Requirements for participation	None
Examination pre-conditions	None
Requirements for awarding credit points	Successful passing of examination: written, oral or assignment
ECTS credit points	6 CR according to ECTS
Workload	180 h: 4 swh seminar
Maximum attendees	Not limited
Literature	<ul style="list-style-type: none"> - BIMCO – Shipman 2009 & 2024 explanatory notes - Branch, Alan & Michael Roberts (2014). Branch's Elements of Shipping, 9. Auflage. - Grammenos, C. Th. (Hrsg.) (2010, Nachdruck 2024). The Handbook of Maritime Economics and Business, 2. Auflage - IMO–Operational Carbon Intensity Indicator (CII)-Regelwerk & zugehörige Guidelines - Song, Dong-Wook & Photis Panayides (Hrsg.) (2021). Maritime Logistics: A Guide to Contemporary Shipping and Port Management, 3. Auflage.



- Stopford, Martin (2009). Maritime Economics, 3. Auflage.



Module number/Code	Will be filled by the IT System
Subject	PM 11 International Transportation Law
Responsible lecturer	Prof. Dr. iur. Robert Peetz
Lecturer	Prof. Dr. iur. Robert Peetz
Subject description	<p>Introduction to International Transportation Law Sources and scope of transportation law; Public and private international law frameworks; Contract of carriage vs. contract of sale</p> <p>Carriage of Goods by Sea –Recap & Extension Port state control; Hague-Visby Rules; Charterpartiers, Cargo Claims and Bills of Lading</p> <p>Carriage by Air Warsaw and Montreal Conventions; Liabilities and limits, air waybills; Cargo claims in air transport</p> <p>Carriage by Road The CMR Convention: scope and liability system; Jurisdiction and governing law</p> <p>Carriage by Rail The CIM Convention and its role in international rail carriage; Key liability provisions and claims structure</p> <p>Multimodal Transport Legal complexity of multimodal carriage; Network vs. uniform liability systems; Legal instruments and practical documentation (FIATA, UNCTAD)</p> <p>International Sales Law – The CISG and Its Connection to Transport Scope and application of the CISG; Obligations of buyer and seller related to delivery and transport; Risk transfer; Interaction of sales contracts and carriage contracts; Practical implications for logistics professionals and carriers</p> <p>Freight Forwarding & Logistics Contracts Legal status of forwarders, NVOCCs, and 3PLs; Legal duties in managing transport and documentation; Standard contractual terms (e.g., FIATA Model Rules)</p> <p>Transport Insurance Hull & machinery, cargo and P&I; Legal framework for cargo insurance; General average and salvage from a legal perspective; Coordination between transport liability and insurance claims</p> <p>Dispute Resolution in International Transport and Sales Litigation, arbitration, and mediation; Jurisdiction and conflict of law issues in transport and sales disputes; Enforcement of judgments and arbitral awards (New York Convention)</p> <p>Digitalization & Sustainability E-documents (eCMR, eBL) and blockchain logistics; Legal implications of IMO decarbonization goals; ESG, emissions trading and green transport compliance</p>
Objectives	Demonstrate advanced knowledge of the legal frameworks governing international transportation by sea, air, road, rail, and multimodal systems, including public international law, private law instruments, and relevant conventions. Critically



	<p>analyze and evaluate the interaction between contracts of sale and contracts of carriage in international trade, with a specific focus on the United Nations Convention on Contracts for the International Sale of Goods (CISG) and its implications for risk transfer, delivery obligations, and logistics coordination.</p> <p>Assess legal risks and liabilities related to the carriage of goods in a global context, including the rights and obligations of carriers, forwarders, shippers, and consignees, and interpret standard contractual clauses and documentation.</p> <p>Understand complex legal problems relating to jurisdiction, conflict of laws, and dispute resolution mechanisms (litigation, arbitration, mediation), including the enforcement of international judgments and arbitral awards.</p> <p>Evaluate the legal and regulatory implications of current developments in digitalization and sustainability in transport law. Communicate and argue legal positions clearly and effectively in an international and interdisciplinary context, demonstrating the ability to work with stakeholders from legal, commercial, and logistics sectors to manage transport operations and resolve disputes.</p>
Language	English
Teaching and learning methods	Lesson, seminar, exercise
Type and usability	Applicable in Master Marine Transportation
Duration	1 semester
Frequency	winter semester
Requirements for participation	none
Examination pre-conditions	Presentation
Requirements for awarding credit points	Successful passing of examination: written, oral or assignment
ECTS credit points	6 CR according to ECTS
Workload	180 h: 4 swh seminar
Maximum attendees	Not limited
Literature	<ul style="list-style-type: none"> - Baughen, Simon: Shipping Law, latest edition. - Bokareva, Olena: Uniformity of Transport Law through International Regimes, latest edition. - Lookofsky, Joseph: Understanding the CISG, latest edition. - Schwenger, Ingeborg; Schroeter, Ulrich: Commentary on the UN Convention on the International Sale of Goods (CISG), latest edition. - Eftestøl, Ellen; Bask, Anu; Huemer, Maximilian: Towards a Zero-Emissions and Digitalized Transport Sector: Law, Regulation and Logistics, latest edition.



Module number/Code	Will be filled by the IT System
Subject	PM 12 Marine Transport Communication Complex administrative communication
Responsible lecturer	Dipl.-EB Uta Buttler
Lecturer	Dipl.-EB Uta Buttler
Subject description	English business communication in the field of Maritime Systems: Written administrative communication: - Business vocabulary for business organization and financial planning, reports on inspections, incidents and evaluate and create comments - Company publications: Profiles, balance sheets, trends, reports and presentations - Discussion of business strategies, analyses and marketing - Dealing with administrative correspondence: e-mails/ letters/memos: layout and forms Oral administrative communication: - Implementation of negotiation and discussion rhetoric (leadership and participation) - Dealing with complaints and departments - Company presentations: Portfolio evaluation and presentation
Objectives	Students are able to understand business-specific texts in administrative correspondence and the relevant communication procedures and - if necessary - to react productively. They can participate effectively in negotiations and discussions and control them, if appropriate, by using linguistic strategies.
Language	English
Teaching and learning methods	Seminar
Type and usability	Applicable in Master Marine Transportation
Duration	1 semester
Frequency	winter semester
Requirements for participation	English B2+
Examination pre-conditions	None
Requirements for awarding credit points	Module examination: Alternative examination
ECTS credit points	6 CP according to ECTS
Workload	180 h: 4 swh seminar incl. self-study units
Maximum attendees	Not limited
Literature	- Book: Business Advantage B2; Cambridge University Press 2011 - Script (updated annually)



Module number/Code	Will be filled by the IT System
Subject	WPM 13 Maritime Management and Port Operations Business management correlations in the context of the maritime industry, port planning, Modeling of processes and simulation
Responsible lecturer	Prof. Dr.-rer. pol. Sönke Reise
Lecturer	Prof. Dr.-rer. pol. Sönke Reise / Prof. Dr. math. Gunnar Prause
Subject description	<p>1. Maritime Management and Economics:</p> <ul style="list-style-type: none"> - Advanced Business Administration - Maritime Economics and Global Supply Chains - Maritime strategic management - Maritime Capital Budgeting - Multimodal transportation chains and case studies - Controlling and Decision-oriented accounting <p>2. Modern port and terminal operations:</p> <ul style="list-style-type: none"> - Importance and functions of ports and terminals - Characteristics of transshipment goods and their influence on handling processes - Types of container terminals - Operational and administrative processes of a container terminal
Objectives	<p>Graduates have extended and in-depth knowledge and skills in the field of the maritime economy as a basis for entrepreneurial decisions.</p> <p>After successfully completing the program, students will have extended knowledge in the field of port planning and the operation of modern terminals and have a comprehensive overview of development trends in the equipment and design of modern cargo handling terminals.</p>
Language	English
Teaching and learning methods	Seminar-style lessons
Type and usability	Applicable in Master Marine Transportation
Duration	1 semester
Frequency	winter semester
Requirements for participation	none
Examination pre-conditions	none
Requirements for awarding credit points	<p>Module examination consists of two examinations:</p> <ul style="list-style-type: none"> - 1. Examination performance: alternative examination performance (APL) - 2. Examination performance: oral examination (20 minutes) or alternative examination performance (APL)
ECTS credit points	6 CP according to ECTS
Workload	270 h: 6 swh lesson
Maximum attendees	Not limited
Literature	Burns, M.: Port Management and Operations



Module number/Code	Will be filled by the IT System
Subject	WPM 14 Safety and Ecology in Maritime Systems Aspects of safety and security in efficiently operating maritime systems and maritime accident response/rescue
Responsible lecturer	Prof. Dr.-Ing. Jürgen Siegl
Lecturer	Dr.-Ing. Michèle Schaub
Subject description	<ul style="list-style-type: none"> - Legal framework and regulations for safety, security and ecology in maritime systems, such as SOLAS, MARPOL, ISPS Code. Visit to our Campus library, students prepare pitches for various regulations and codes. - Marine casualty response/rescue: analyzing and classifying marine casualties, casualty response/rescue methods - Ship efficiency measures: familiarization with various technical and operational efficiency measures to meet current and future environmental protection requirements. - Artificial intelligence and neural networks as methods in maritime systems. Students learn about the mathematical and historical background of artificial neural networks and AI as well as their applications. - Creation of a MATLAB program to calculate the indicators currently used (CII, GFI, ...) with the following objectives: <ul style="list-style-type: none"> - To really understand the selected indicators and their influencing variables - Logical realization with standard software - Learning basic programming skills. - Dealing with measurement data - Interpretation of the results - Discussing the effectiveness of the indicators - Student project as an examination: Students choose a topic relevant to the module, write a scientific paper on it, present the topic to their fellow students and discuss the issues involved.
Objectives	Students develop an awareness of what legal frameworks are for and how they can be practically implemented in maritime systems. Through active learning of methods, students engage intensively with the module content, thereby learning critical thinking and questioning.
Language	English
Teaching and learning methods	Seminar-style lessons, including in the PC laboratory
Type and usability	Applicable in Master Marine Transportation
Duration	1 semester
Frequency	winter semester
Requirements for participation	none
Examination pre-conditions	Scientific paper
Requirements for awarding credit points	Module examination consists of three parts (APL): <ul style="list-style-type: none"> - Scientific paper - Presentation of the paper content - Answering questions about the paper and discussion with fellow students



ECTS credit points	6 CP according to ECTS
Workload	180 h: 3 swh seminar, 1 swh exercise
Maximum attendees	Not limited
Literature	When visiting the campus library, students learn about various regulations, guidelines, codes...) and current contributions from conferences (e. g. Rostock Large Engines Conference, Ship Machinery Conference, ...), MCN Ship Efficiency Guideline and online contributions from DNV on various current maritime topics that have developed and changed rapidly in recent years and will continue to do so in the future.



Module number/Code	
Subject	WPM 15: Maritime Project Management Planning, managing and successfully implementing of maritime projects
Responsible lecturer	Dr.-Ing. Carsten Hilgenfeld
Lecturer	Dr. Ing. Carsten Hilgenfeld
Subject description	The Maritime Project Management module provides in-depth knowledge and practical methods for the management of projects in the maritime sector. There is a particular focus on the integration of maritime data in IT systems and on the specific challenges of the industry with regard to maritime operations. <ul style="list-style-type: none"> - Differentiation between day-to-day business and projects - Formulating requirements deliverables - Creating a business case user story - Prioritization techniques for competing requirements - Management phases in the course of a maritime project - Necessary framework conditions for starting a project - management phases transitions - Roles in project teams and demarcation - Planning and monitoring techniques - Risks, tolerances and exception handling - Requirement profiles and quality criteria - Integration of agile frameworks such as Scrum
Objectives	Students acquire the ability to plan, manage and successfully implement maritime projects in a targeted manner, taking into account industry-specific requirements and modern management methods.
Language	English
Teaching and learning methods	Seminar-style lessons
Type and usability	Applicable in Master Marine Transportation
Duration	1 semester
Frequency	winter semester
Requirements for participation	none
Examination pre-conditions	Project work with written elaboration and presentation Alternatively: written exam with practice-oriented questions
Requirements for awarding credit points	Module examination: Written examination (120 minutes) or oral examination (30 minutes) or alternative examination
ECTS credit points	6 CP according to ECTS
Workload	180 h: 4 swh seminar-style lessons x 16 presence time
Maximum attendees	not limited
Literature	The PRINCE2 Agile Practical Implementation Guide, itgp, 2021, 9781787783348



Module number/Code	Will be filled by the IT System
Subject	WPM 16 HR and Organizational Management Employee management, management of projects and organizational development
Responsible lecturer	Prof. Dr. math. Gunnar Prause
Lecturer	Prof. Dr. math. Gunnar Prause
Subject description	<ul style="list-style-type: none"> - Organizational Theory: Fundamental economic and organizational theories; Business strategy and business models; Business Processes and organizational structuring; Evaluation of Organizational Structures; Organizational Aspects of Maritime Industry - Organizational development: Management and organization Organizational life cycles and conflict management; Change Management; Personnel management and Development, Intercultural Management and Business Culture - Project management and control: Problem definition and project planning; Project organization: processing, controlling and evaluation - Media competence and Soft-Skills: Technical and graphical support tools; Presentation and Moderation Techniques; self-organization and individual time Management; Soft-skills and organizational Psychology
Objectives	The students are sensitized to the background of leadership and are able to lead employees, projects and organizations and to impart the relevant qualifications and skills.
Language	English
Teaching and learning methods	Seminar-style lessons
Type and usability	Applicable in Master Marine Transportation
Duration	1 semester
Frequency	winter semester
Requirements for participation	none
Examination pre-conditions	none
Requirements for awarding credit points	Module examination: Written examination (120 minutes) or oral examination (20 minutes) or alternative examination
ECTS credit points	6 CP according to ECTS
Workload	180 h: 4 swh seminar-style lessons x 16 presence time
Maximum attendees	Not limited
Literature	Will be given later



Module number/Code	Will be filled by the IT System
Subject	WPM 17 International Relations/Transversal skills
Responsible lecturer	Steffen Loest M.Sc.
Lecturer	Simona Rau Dipl. Kffr.
Subject description	<u>German relations</u> Familiarization with German culture and political aspects, industrial work and the German spirit including interest of German's <u>Challenges and extraordinary task</u> Handle challenges responsible and aim oriented, learning maximizing the negotiation results and being <u>Building competencies and capacities</u> Getting awareness and understanding of different cultures and behaviour, Control loop-recognize problems, assess problems, develop solutions and monitor the results <ul style="list-style-type: none">• Develop resilience• Perseverance• Adaptability.• Creativity.• Motivation and commitment.• Self-motivation.• Management-skills.
Objectives	Understanding of thinking, kind of decision making and industrial behaviour, including option for the German labour market. The students learn to move skilfully in the international business field, they understand how to develop strategies and achieve their goals. They can maximise results in negotiations through the ability to compromise. They are able to work effectively under pressure, take on new challenges and know how to motivate and lead a team.
Language	English/Deutsch
Teaching and learning methods	Seminar
Type and usability	Applicable in Master Marine Transportation
Duration	1 semester
Frequency	winter semester
Requirements for participation	Deutsch A1
Examination pre-conditions	Assignment and presentation
Requirements for awarding credit points	Successful passing of examination, written, oral or assignment oral (30) oder APL
ECTS credit points	6 CR according to ECTS
Workload	180 h: 4 swh seminar
Maximum attendees	Not limited
Literature	Will be given later



Module number/Code	Will be filled by the IT System
Subject	PM 18 Master's Thesis and Colloquium
Responsible lecturer	To designate
Lecturer	none
Subject description	<p>The topic of the Master's thesis is determined in consultation with the supervisor, taking into account the following points:</p> <ul style="list-style-type: none"> - Classification in the degree program - scope - scientific claim - practical relevance - sufficient availability of relevant literature <p>The colloquium deals with the topic of the student's Master's thesis as well as related content concerning the degree program.</p> <p>It is a practice-related theoretical examination of current issues from a sub-area of the Master's degree course in Maritime Transportation. The Master's thesis should be demanding in terms of content, scientifically and theoretically sound and at the same time practice-oriented.</p> <p>By analyzing and evaluating current findings in the field, students should establish their own points of view on the basis of their knowledge, develop solutions and present them in an appropriate manner.</p> <p>The main content of the colloquium is the oral presentation of the content and results of the student's previous Master's thesis.</p> <p>The oral presentation is followed by a discussion on any ambiguities or weaknesses in the thesis as well as on cross-thematic content relating to the degree course.</p>
Objectives	<p>The Master's thesis is intended to document that the students are able to independently work on a subject-specific problem within a specified period of time using the specialist and methodological knowledge acquired during their studies according to scientific methods, as well as to analyze and further develop a subject area in depth and to classify the results obtained in the scientific and practical discussion.</p> <p>The Master's thesis is supplemented by the colloquium. The aim of the colloquium is to determine whether the students are able to present the results of their Master's thesis in a convincing manner, taking into account the subject-specific principles and interdisciplinary contexts, orally in front of an audience and to justify them independently and, if necessary, to include the significance for practice.</p>
Language	English
Teaching and learning methods	Own processing
Type and usability	Applicable in Master Marine Transportation
Duration	19 weeks processing time
Frequency	summer semester
Requirements for participation	60 CR according to the test regulations
Examination pre-conditions	



Requirements for awarding credit points	Assessment of the Master's thesis; If assessed as “passed”, colloquium (30 to 45 minutes presentation and answering questions about the thesis and presentation) The colloquium accounts for 30% of the grade for the Master's thesis.
ECTS credit points	30 CR according to ECTS
Workload	900 h
Maximum attendees	Not limited
Literature	