

UNIwersytet Morski w Gdyni - Wydział Nawigacyjny

Nr:		Przedmiot:	PRAKTYKA MORSKA
Kierunek / Poziom kształcenia:	NAWIGACJA / PIERWSZEGO STOPNIA		
Forma studiów:	STACJONARNE		
Profil kształcenia:	PRAKTYCZNY		
Specjalność:			

SEMESTR	ECTS	Liczba godzin w tygodniu					Liczba godzin w semestrze					
		W	C	L	P	S	W	C	L	P	S	
VII	30											
Razem w czasie studiów:							0					

Wymagania wstępne w zakresie wiedzy, umiejętności i innych kompetencji (jeśli dotyczy przedmiotu)

1	Minimum kurs zintegrowany bezpieczeństwa i ochrony na statku
2	Kursy specjalistyczne w zależności od wyboru typu statku, na którym odbywa się praktyka eksploatacyjna

Cele przedmiotu

1	Uzyskanie łącznego czasu praktyki 12 miesięcy koniecznego do uzyskania CoC - OOW
2	Zapoznanie z procesami eksploatacyjnymi na statkach różnego typu oraz zapoznanie z systemem zarządzania bezpieczną eksploatacją statku.
3	Wypełnianie obowiązków w zakresie uczestnictwa w wachcie nawigacyjnej na mostku, podczas manewrowania, kotwiczenia i cumowania statku.
4	Wypełnianie zadań i czynności związanych z utrzymaniem i konserwacją statku.

Efekty kształcenia dla całego przedmiotu (EKP) – po zakończeniu cyklu kształcenia

EKP1	
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Treści programowe

Semestr VII

Lp.	Zagadnienia	Liczba godzin					Odniesienie do EKP dla przedmiotu	Odniesienie do RPS
		W	C	L	P	S		
1	1. Zasady bezpieczeństwa pracy na statku							
2	2. Wiedza okrętowa							
3	3. Przeglądy, konserwacja urządzeń i mechanizmów pokładowych, prace pokładowe							
4	4. Podstawowe procedury ochrony środowiska							
5	5. Zaznajomienie z siłownią							
6	6. Monitorowanie i kontrolowanie bezpieczeństwa wachty							
7	7. Prowadzenie prawidłowej obserwacji wzrokowej i słuchowej. Obowiązki obserwatora							
8	8. Sterowanie i komendy na ster							
9	9. Procedury w sytuacjach zagrożenia, ratowania życia, poszukiwania i ratowania							
10	10. Ochrona przeciwpożarowa i sprzęt pożarniczy							
11	11. Pełnienie wacht							
12	12. Kierowanie obsadą wachtową mostka							
13	13. Zrozumienie i stosowanie COLREG							
14	14. Nawigacja							
15	15. Nawigacja radarowa i elektroniczna							
16	16. Meteorologia i oceanografia							

17	17. Łączność								
18	18. Stosowanie języka angielskiego w mowie i piśmie								
19	19. Manewrowanie statkiem								
20	20. Budowa i stateczność statku								
21	21. Przewóz i sztawowanie ładunku								
22	22. Procedury w sytuacjach zagrożenia								
23	23. Zapobieganie zanieczyszczeniom środowiska morskiego								
24	24. Zastosowanie pierwszej pomocy medycznej na statkach								
25	25. Kierowanie i umiejętność pracy zespołowej								
26	26. Zapoznanie z systemem bezpiecznego zarządzania								

Metody weryfikacji efektów kształcenia (w odniesieniu do poszczególnych efektów)

Symbol EKP	Test	Egzamin ustny	Egzamin pisemny	Kolokwium	Sprawozdanie	Projekt	Prezentacja	Zaliczenie praktyczne	Inne
EKP1								X	

Kryteria zaliczenia przedmiotu

Semestr	Ocena pozytywna (min. dostateczny)
VII	Wypełnienie 70% zadań w Części 5 KPM, co odpowiada 4-6 miesiącom praktyki eksploatacyjnej. Realizacja 70% zadań z KPM umożliwia podejście do egzaminu praktycznego i kursu ARPA.

Nakład pracy studenta

Forma aktywności	Szacunkowa liczba godzin na zrealizowanie aktywności				
	W	C	L	P	S
Godziny kontaktowe					
Czytanie literatury	240	200		200	
Przygotowanie do zajęć laboratoryjnych, projektowych		75		50	
Przygotowanie do egzaminu, zaliczenia					
Opracowanie dokumentacji projektu/sprawozdania					
Uczestnictwo w zaliczeniach i egzaminach					
Udział w konsultacjach	5	5		5	
Łącznie godzin	245	280		255	
Łączny nakład pracy studenta	780				
Liczba punktów ECTS	9	11		10	
Sumaryczna liczba punktów ECTS dla przedmiotu	30				
Obciążenie studenta związane z zajęciami praktycznymi	50				
Obciążenie studenta na zajęciach wymagających bezpośredniego udziału nauczycieli akademickich	15				

Literatura

Literatura podstawowa

Maritime Safety

SOLAS Consolidated Edition, 2020

ISPS Code 2003 Edition

Guide to Maritime Security & ISPS Code, 2012 edition

ISM Code & Guidelines, 2018 Edition

IMSAS IMO Member State Audit Scheme, Edition 2015

Casualty Investigation Code, 2008 Edition

Fire Safety Systems (FSS) Code, 2015 Edition

High Speed Craft (1994 HSC) Code, 1995 Edition

High Speed Craft (2000 HSC) Code, 2021 Edition

Polar Code, 2016 Edition

Guidelines for Ships Operating in Polar Waters 2010 Edition

Cargoes

IMDG Code Supplement, 2020 Edition

IMDG Code, 2018 Edition (inc. Amendment 39-18)

IMDG Code, 2020 Edition (inc. Amendment 40-20)

Poster: IMDG Code Labels, Marks & Signs

International Grain Code, 1991 Edition
IMSBC Code & Supplement (inc. Amdt 04-17), 2018 Edition
IMSBC Code & Supplement (inc. Amdt 05-19), 2020 Edition
International Code on the Enhanced Programme of Inspection during Surveys of Bulk Carrier & Oil Tanker, 2011 ESP Code, 2020 Edition
BLU Code including BLU Manual, 2011 Edition
2011 Timber Deck Cargoes, TDC 2012 Edition
International Convention for Safe Containers, (CSC 1972) CSC 2014 Edition
Code of Practice for Packing of cargo Transport Unit, IMO/ILO/UNECE CTU Code, 2014 Edition
Informative Material Related to the CTU Code, 2016 Edition,
Code of Safe Practice for the Carriage of Cargoes & Persons by Offshore Supply Vessels, OSV Code, 2000 Edition
Code for the transport & Handling of Hazardous & Noxious Liquid Substances in Bulk on Offshore Support Vessel, OSV Chemical Code, 2018 Edition
Revised Recommendation on the Safe transport of Dangerous Cargoes & Related Activities in Port Areas, 2007 Edition
Cargo Stowage & Securing, CSS Code, 2020 Edition
Guidelines for Liquids Transported in Bulk, 1997 Edition

Marine Environment protection

MARPOL, Consolidated Edition 2017
MARPOL - How to do it, 2013 Edition
Pollution Prevention Equipment, 2006 Edition
Condition Assessment Scheme (CAS) 2006 Edition
Guidelines for the Provisional Assessment of Liquids Transported in Bulk 1997 Edition,
Guidelines for the Implementation of MARPOL Annex V, 2017 Edition
Guidelines for the Control & Management of Ships' Biofouling to Minimize the Transfer of Invasive Aquatic Species 2012 Edition,
MARPOL Annex VI & NTC 2008 with Guidelines for Implementation, 2017 Edition
IMO 2020: Consistent Implementation of MARPOL Annex VI, 2019 Edition
International Convention for the Prevention of Pollution of the Sea by Oil (OILPOL), 1981 Edition
Supplement Relating to the International Convention for the Prevention of Pollution of the Sea by Oil 1954, 1981 Edition,
Provisions Concerning the Reporting of Incidents Involving Harmful Substances Under MARPOL 1999 Edition,
Waste Assessment Guidelines under London Convention & Protocol, 2021 Edition
London Convention & London Protocol, 2016 Edition
London Convention and Protocol Step-by-Step Guidance, 2020 Multilingual Edition
London Protocol: What it is and how to implement it, 2014 Edition
Revised Guidance on the National Implementation of The London Protocol, 2018 Edition
London Convention and Protocol Guidance for Development of Action Lists & Action Levels for Dredged Material 2009 Edition,
Step by Step Guidance on Simple Approaches to Creating & Using Lists & Action Levels for Dredged Material 2020 Edition,
Sampling & Analysis of Dredged Material, 2005 Edition
2012 Guidelines for the Development of Action Lists & Action Levels for Fish Waste 1972, 2012 Edition
Guidelines on Low Cost, Low Technology Assessment of Dredged Material 2015 Edition
Field Monitoring Disposal, 2016 Edition
Particularly Sensitive Sea Areas (PSSA), 2017 Edition
Carbon dioxide sequestration, 2016 Edition
Guide to the Implementation of the OPRC Convention and OPRC-HNS Protocol, 2020 Edition
Low Cost, Low Technology Compliance Monitoring 2017 Edition,
International Convention on Oil Pollution Preparedness, Response & Co-operation 1991 Edition,
Oil Pollution Preparedness, Response & Co-operation OPRC - HNS Protocol 2000, 2002 Edition
Response to a Marine Oil Pollution Incident, 2016 Edition
Manual on Oil Pollution - Section I Prevention, 2011 Edition
Manual on Oil Pollution - Section II Contingency Planning, 2018 Edition
Manual on Oil Pollution - Section III Salvage, 1997 Edition
Manual on Oil Pollution - Section IV Combating Oil Spill, 2005 Edition
Manual on Oil Pollution - Section V Administrative Aspects of Oil Pollution Response, 2009 Edition
Manual on Oil Pollution - Section VI IMO Guidelines for Sampling & Identification of Oil Spill, 1978 Edition
Manual on Oil Spill Risk Evaluation & Assessment of Response Preparedness 2010 Edition,
IMO/UNEP Guidance Manual on the Assessment & Restoration of Environmental Damage Following Marine Oil Spills, 2009 Edition
Guidance Document on the Implementation of an Incident Management System IMS 2012 Edition,
Guidelines for Oil Spill Response in Fast Currents 2013 Edition,
Operational Guidelines on Sunken & Submerged Oil Assessment & Removal Techniques, 2016 Edition
Bioremediation in Marine Oil Spills, 2004 Edition
Guide on oil spill response in ice and snow conditions, 2017 Edition
Guidelines for the Development of Shipboard Marine Pollution Emergency Plans 2010 Edition,
IMO/FAO Guidelines on Managing Seafood Safety during & after Oil Spill 2002 Edition,
Port Reception Facilities - How to do it, 2016 Edition
Guidelines for Ensuring the Adequacy of Port Waste Reception Facilities 2000 Edition,
Crude Oil Washing Systems, 2000 Edition
Dedicated Clean Ballast Tanks, 1982 Edition
BWM Convention and BWMS Code with Guidelines for Implementation, 2018 Edition
IMO In-Situ Burning Guidelines, 2017 Edition
Ballast Water Management – How to do it, 2017 Edition

Manual on Chemical Pollution - Section 1 Problem Assessment & Response Arrangements, 1999 Edition,
Manual on Chemical Pollution - Section 2 Search & Recovery of Packaged Goods Lost at Sea, 2007 Edition,
Manual on Chemical Pollution - Section 3 Legal & Administrative Aspects of HNS Incidents, 2015 Edition
Field Guide for Oil Response in Tropical Waters, 1997 Edition,
Port State Control 2019 Edition,
Instruments Relevant to Port State Control 2019, 2020 Edition
Bunker Sampling Guidelines, 2005 Edition
International Bunkers Convention, 2004 Edition
International Convention on the Control of Harmful Anti-Fouling Systems (AFS) Convention 2001, 2005 Edition
Hong Kong International Convention for the Safe & Environmentally Sound Recycling of Ships 2009 & Guidelines for its Implementation
2013 Edition,
IMO Guidelines on Ship Recycling, 2006 Edition
Operational Guide Use of Sorbents for Oil spill Response 2016 Edition,
Manual on Port Reception Facilities, 1999 Edition
MARPOL Annex V discharge provisions, 2017 Edition
International Conference of the Suppression of Unlawful Acts Against the Safety of Maritime Navigation 1988, 2006 Edition
Oil Spill Dispersant Application Guidelines, 1995 Edition
Oil Spill Risk Evaluation Manual, 2010 Edition
Compensation Fund for Oil Pollution Damage, 1972 Bilingual Edition
Compensation Fund Records for Oil Pollution Damage, 1978 Edition
Compliance Monitoring Disposal, 2017 Edition
Guidelines on Harmful Aquatic Organisms, 1998 Edition
Reporting Incidents under MARPOL, 1999 Edition
Supplement to OILPOL, 1981 Edition

Marine Technology

International Convention on Load Lines 1966, 2005 Edition
International Conference on Tonnage Measurement of Ships 1969, 1970 Edition
International Conference on Special Trade Passenger Ships 1971, 1972 Bilingual Edition
International Conference on Space Requirements for Special Trade Ships, 1973 Bilingual Edition
IBC Code, 2020 Edition
BCH Code, 2008 Edition
IGC Code, 1993 Edition
IGC Code, 2016 Edition
Gas Carrier Code for Existing Ships, 1976 Edition
Gas Carrier Code, 1983 Edition
International Code of Safety for Ships Using Gases or Others Low-Flashpoint Fuels, IGF Code, 2016 Edition
Goal-Based Ship Construction Standards for Bulk Carriers & Oil Tankers & Related Guidelines, 2013 Edition
Guidelines for the Design & Construction of Offshore Supply Vessels OSV 2006, 2007 Edition,
Code of Safety Diving Systems 1995, 1997 Edition
Code for the Construction & Equipment of Mobile Offshore Drilling Units MODU Code 1989, Consolidated 2001 Edition
Code for the Construction & Equipment of Mobile Offshore Drilling Units MODU Code 2009, 2020 Edition
Code on Noise Levels on Board Ships, 2014 Edition
Code of Safety Code for Special Purpose Ships, 2008 Edition
International Code for Application of Fire Test Procedures, FTP Code 2010 2012 Edition
Symbols for Fire Control Plans, 2006 Edition
Inert Gas Systems, 1990 Edition
Code on Alerts and Indicators 2009, 2010 Edition
International Code on Intact Stability, IS 2008, 2020 Edition
Prevention of Corrosion on Ships, 2010 Edition

Navigation & rescue

STCW including 2010 Manila Amendments, 2017 Edition
IMO SMCP with CD (pronunciation guide), 2002 Edition

Life-Saving Appliances inc. LSA Code, 2017 Edition
Pocket Guide to Cold Water Survival, 2012 Edition
Pocket Guide to Recovery Techniques, 2014 Edition
Poster: Symbols related to Life-Saving Appliances & Arrangements
Poster: Escape Route Signs and Equipment Location Markings

International Conference Search & Rescue SAR Convention 1979, 2006 Edition
International Code of Signals, 2005 Edition
IAMSAR Manual: Volume I Organization & Management, 2019 Edition
IAMSAR Manual: Volume II Mission Coordination, 2019 Edition
IAMSAR Manual: Volume III Mobile Facilities, 2019 Edition
IAMSAR Manual Volume III Action Cards, 2019 Edition

GMDSS Manual, 2019 Edition

Guidance on GMDSS distress alerts card, 2013 Edition
GMDSS Operating Guidance Card
NAVTEX Manual, 2017 Edition
International SafetyNET Manual, 2017 Edition
Manual on Maritime Safety Information MSI Manual, 2015 Edition
Performance Standards for Shipborne Radio-Communications & Navigational Equipment, 2020 Edition

Guidelines on Fatigue, 2019 Edition
IMO/ILO Guidelines for the Development of Tables of Seafarers' Shipboard Working Arrangements & Format of Records of Seafarers' Hours of Work or Hours of Rest, 1999 Edition

Convention on the International Regulation for Preventing Collision at Sea (COLREGS), 2003 Edition
Ships' Routing, 2019 Edition

Nautical Publications

The Nautical Almanac - current Edition
ADMIRALTY Routeing Charts
ADMIRALTY Standard Nautical Charts (SNCs)
ADMIRALTY Port Approach Guides
ADMIRALTY Maritime Security Charts (MSCs)
ADMIRALTY Mariners' Routeing Guide

ADMIRALTY Sailing Directions
ADMIRALTY List of Lights and Fog Signals
ADMIRALTY List of Radio Signals
ADMIRALTY Tide Tables
ADMIRALTY Mariner's Handbook (NP100)
Ocean Passages for the World (NP136)

ADMIRALTY Guide to the Practical Use of ENCs (NP231)
ADMIRALTY ENC and ECDIS Maintenance Record (NP133C)
ADMIRALTY Guide to ENC symbols used in ECDIS (NP5012)
ADMIRALTY Guide to ECDIS Implementation, Policy and Procedures (NP232)
ADMIRALTY ECDIS Service
ADMIRALTY Vector Chart Service (AVCS)
ADMIRALTY Raster Chart Service (ARCS)

How to keep your ADMIRALTY Products Up-to-Date (NP294)
Cumulative list of ADMIRALTY Notices to Mariners (NMs)
IALA Maritime Buoyage System (NP735)
Symbols and Abbreviations Used on ADMIRALTY charts (NP5011)
Annual summary ADMIRALTY Notices to Mariners
ADMIRALTY Distance Tables (NP350 1-3)
Catalogue of ADMIRALTY Charts and Publications (NP131)
Paper chart maintenance record (NP133A)

Rapid Sight Reduction Tables for Marine
NavPac and Compact Data (DP330)
The Astronomical Almanac (GP100)
The Star Almanac (NP321)
Astronomical Phenomena (GP200)

ADMIRALTY Manual of Tides (NP120)
ADMIRALTY Tidal Stream Atlases

ADMIRALTY Digital Catalogue (ADC)
ADMIRALTY Digital List of Lights (ADLL)
ADMIRALTY Digital Radio Signals (ADRS)
ADMIRALTY Total Tide (ATT)
ADMIRALTY e-Nautical Publications (AENPs)
Literatura uzupełniająca
Facilitation for travel & transport
Facilitation Convention, FAL Convention 1965, 2017 Edition
International Signs to Provide Guidance to Persons at Airports & Marine Terminals, 1995 Edition
Guidance Signs for Airport and Marine Terminals, 1995 Multilingual Edition

Legal matters

International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties 1969, 1977 Edition
International Civil Liability for Oil Pollution Damage 1969, 1977 Edition
Civil Liability for Oil Pollution Damage, 1996 Edition
Conference on the Establishment of an International Compensation Fund for Oil Pollution Damage 1971, 1972 Edition
International Legal Conference Maritime Carriage of Nuclear Substances, 1972 Multilingual Edition
Athens Convention Relating to the Carriage of Passengers & their Luggage by Sea PAL 1974, 2003 Edition
International Conference on Limitation of Liability for Maritime Claims 1976, 2016 Edition
International Conference on Salvage, 1989 Edition
IMO Liability and Compensation Regime, 2018 Edition
Nairobi International Convention on the Removal of Wreck 2007, 2008 Edition
International Convention on Liability & Compensation for Damage in Connection with the Carriage of Hazardous & Noxious Substances by Sea 2010, 2010 HNS Convention, 2013 Edition
International Convention on Liability for Bunker Oil Pollution Damage 2001, 2004 Edition

Medical

International Health Regulation 3rd Edition
Guide to Ship Sanitation 3rd Edition
International Medical Guide for Ships 3rd Edition
Quantification Addendum International Medical Guide for Ships 3rd Edition
Ship Captain's Medical Guide 23rd Edition

MODEL COURSES

Advanced training for chemical cargo tanker operations, 2016 Edition
Advanced training for liquefied gas tanker cargo operations, 2015 Edition
Advanced training for masters, officers, ratings and other personnel on ships subject to the IGF
Advanced training for oil tanker cargo operations, 2015 Edition
Advanced training for ships operating in polar waters, 2017 Edition
Advanced Training in Fire Fighting, 2000 Edition
Assessment, Examination & Certification of Seafarers, 2017 Edition
Automatic Identification Systems (AIS), 2019 Edition
Basic training for liquefied gas tanker cargo operations, 2014 Edition
Basic training for masters, officers, ratings and other personnel on ships subject to the IGF
Basic training for oil and chemical tanker cargo operations, 2014 Edition
Basic training for ships operating in polar waters, 2017 Edition
Chemical Tanker Cargo & Ballast Handling, 2007 Edition
Chief and Second Engineer Officers on a Fishing Vessel, 2008 Edition
Chief Engineer Officer & 2nd Engineer Officer, 2014 Edition
Code, 2019 Edition
Code, 2019 Edition
Company Security Officer, 2011 Edition
CTUs Workbook, 2001 Edition
Dangerous, hazardous and harmful cargoes, 2014 Edition
Electro-technical Officer, 2014 Edition
Electro-Technical Rating, 2019 Edition
Elementary First Aid, 2000 Edition
Energy Efficient Operation of Ships, 2014 Edition
Engine-Room Simulator, 2017 Edition
Fire Prevention and Fire Fighting, 2000 Edition
Flag State Implementation, 2010 Edition
General Operator's Certificate for GMDSS, 2015 Edition
Hull and Structural Surveys, 2004 Edition
Leadership & Teamwork, 2014 Edition
LNG Tanker Cargo & Ballast Handling Simulator, 2019 Edition
LPG Tanker Cargo & Ballast Handling Simulator, 2007 Edition
Marine Environmental Awareness, 2011 Edition
Maritime English, 2015 Edition
Master and Chief Mate, 2014 Edition
Medical Care, 2000 Edition
Medical First Aid, 2000 Edition
Officer in Charge of a Navigational Watch on a Fishing Vessel, 2008 Edition
Officer in charge of Engineering Watch, 2014 Edition
Officer in charge of Navigational Watch, 2014 Edition
Oil Tanker Cargo & Ballast Handling Simulator, 2002 Edition
Onboard Assessment, 2017 Edition
Operational use of ECDIS, 2012 Edition
Operational Use of Integrated Bridge Systems, 2005 Edition
Passenger Ship Crisis Management Training, 2019 Edition
Passenger Ship Crowd Management Training, 2018 Edition

periodically unmanned engine-room, 2017 Edition
 Personal Safety & Social Responsibilities, 2016 Edition
 Personal Survival Techniques, 2019 Edition
 Piracy & Armed Robbery Prevention, 2011 Edition
 Port Facility Security Officer, 2015 Edition
 Port State Control, 2001 Edition
 Proficiency in Crisis Management, 2000 Edition
 Proficiency in Fast Rescue Boats, 2000 Edition
 Proficiency in Survival Craft & Rescue Boats, 2000 Edition
 Radar Navigation at Management Level, 2019 Edition
 Radar Navigation at Operational level, 2017 Edition
 Ratings as Able Seafarer Deck, 2017 Edition
 Ratings as Able Seafarer Engine, 2019 Edition
 Ratings forming part of a watch in a manned engine-room or designated to perform duties in a
 Restricted Operator's Certificate for GMDSS, 2015 Edition
 Safe Packing of Cargo Transport Units (CTU), 2001 Edition
 Safety Investigation into Marine Casualties & Incidents, 2014 Edition
 Safety of Fishing Operations (Support), 2005 Edition
 Safety Training for Personnel Providing Direct Service to Passengers in Passenger Spaces, 2018
 SAR Administration (IAMSAR Manual, Vol I), 2014 Edition
 SAR Mission Coordinator (IAMSAR Manual, Vol II), 2020 Edition
 SAR On-Scene Coordinator (IAMSAR Manual, Vol III), 2014 Edition
 Second Class Radioelectronic Certificate for GMDSS, 2002 Edition
 Security Awareness Training for all Port Facility Personnel, 2011 Edition
 Security Awareness Training for all Seafarers, 2012 Edition
 Security Awareness Training for Port Facility Personnel w/ Designated Security Duties, 2018 Ed
 Security Training for Seafarers with Designated Security Duties 2012 Edition
 Ship Security Officer, 2012 Edition
 Ship Simulator & Bridge Teamwork, 2002 Edition
 Skipper on a Fishing Vessel, 2008 Edition
 Survey of Electrical Installations, 2004 Edition
 Survey of Fire Appliances & Provisions, 2004 Edition
 Survey of Life-Saving Appliances & Arrangements, 2004 Edition
 Survey of Machinery Installations, 2004 Edition
 Survey of Navigational Aids & Equipment, 2004 Edition
 Train the Simulator Trainer and Assessor, 2012 Edition
 Training Course for Instructors, 2017 Edition
 Use of Leadership & Managerial Skills, 2018 Edition

Prowadzący przedmiot

Tytuł/stopień, imię, nazwisko	Jednostka dydaktyczna
1. Osoba odpowiedzialna za przedmiot:	
dr inż. kpt.ż.w. Przemysław Wilczyński, prof. UMG	KES
2. Pozostałe osoby prowadzące zajęcia:	

