PhD in Maritime Affairs
2015
WMU students on field study, photo courtesy of the Swedish Sea Rescue Society
Welcome to the World Maritime University PhD Program

Since WMU was founded some 30 years ago by the International Maritime Organization (IMO), the University has established a reputation as a global center for postgraduate maritime education, research, and capacity building. Our mission is to be the world’s leading maritime university and based on a great deal of feedback from our alumni and their employers, we are succeeding in the task.

The WMU PhD Program offers candidates the opportunity to further develop their maritime specialization to the highest academic level. Our focus areas are related to the maritime sector and include safety, security, technology and energy, education, environment, shipping management, administration, and law and policy. Research at WMU directly relates to current and future issues of importance to the maritime sector and the results are contributing to policy development at IMO and its Technical Cooperation mission.

Flexible enrollment patterns allow candidates to carry out their research either at WMU or their location of choice such as with their employer. Our world-renowned faculty serve as supervisors and we often seek advice from top specialists in the world as co-supervisors.

If you are interested in pursuing a PhD at the IMO’s apex institution for postgraduate studies and research, and becoming part of our diverse and international community of maritime experts, we look forward to hearing from you.

Olof Lindén, PhD
Professor, Nippon Foundation Chair
Director, Research and Doctoral Program
phd@wmu.se
wmu.se/phd
About WMU

The World Maritime University is a unique, global maritime institution founded in 1983 by the International Maritime Organization, a specialized agency of the United Nations. As a center of excellence for maritime postgraduate education and research, WMU offers MSc and PhD Programs as well as Executive and Professional Development Courses with the highest standards in maritime affairs. WMU promotes the international exchange and transfer of maritime ideas and knowledge.

WMU offers:

- A global maritime network of nearly 4,000 alumni from 165 countries by the end of 2014
- Highly specialized and internationally renowned faculty and research associates that represent the core maritime fields
- International connections with the commercial shipping sector and alliances with national maritime administrations
About the program

WMU’s PhD program offers candidates the opportunity to carry out research across the maritime field, but with an emphasis on issues related to the International Maritime Organization’s mission of maritime safety, security and environmental protection. Our doctoral program offers unrivaled access to international maritime experts both inside and outside academia, and to organizations working at the forefront of research and development. Doctoral students at WMU come from industry, academia, and the government sector. The program offers a flexible solution during the period of enrollment. Candidates may be based at the University or elsewhere, such as their place of employment.

Principal areas of research include:

- Maritime Administration: Law, Policy and Security
- Maritime Risk and System Safety (MaRiSa Group)
- Marine Environmental Research (MER Group) / Ocean Policy and Management
- Shipping and Port Management
- Maritime Energy Management
- Maritime Technology and Education
Student profile

Jennie Folkunger
WMU Research Assistant
Sweden

What attracted you to WMU?
I first came to hear about WMU in quite a serendipitous manner but I knew within minutes that this was the right place for me. I have a double masters in law and biology and at WMU I was given the opportunity to formulate my research so that I could make the most of both and work with what I’m really passionate about.

What are you researching now?
I’m researching the implementation of the Ballast Water Management Convention and issues in regard to its enforcement. I study ballast water regimes around the world and their approaches to dealing with this type of biological pollution. I’m also working on a project investigating invasive species in the Arctic and how we can mitigate their potential negative impacts.

What is the highlight of being a student at WMU?
Definitely the diversity, both in terms of people and opportunities. Faculty, students and visiting professors are extremely diverse and you never run out of interesting people to get to know and discuss maritime issues with. At WMU you also have endless opportunities to work with various projects, conferences and to do a great deal of traveling to fascinating places.
“At WMU you have endless opportunities to work with various projects, conferences and to do a great deal of traveling to fascinating places.”
WMU faculty and their research interests

Michael Baldauf, Dr-Ing
Associate Professor
Germany
- transport engineering
- VTS traffic monitoring
- collision risk detection

Neil Bellefontaine, MMM
Professor
Canada
- environmental protection
- fisheries
- marine aquaculture
- coastal and oceans management
- marine oil spills
- transboundary management

Johan Bolmsten, MSc
Lecturer
Sweden
- oriented design and development
- evolvable software products
- end user development training

Clive Cole, BEd (Hons)
Associate Professor
United Kingdom
- maritime english
- maritime education and training

Dimitrios Dalaklis, PhD
Assistant Professor
Greece
- electronic navigation
- navigation simulators
- maritime security

Jarrod DeWitz, MBA
Lecturer
United States of America
- risk management
- human element
- environmental protection
- maritime safety

Patrick Donner, LLM
Associate Professor
Finland
- maritime law
- marine insurance

Aref Fakhry, PhD
Associate Professor
Lebanon / Canada
- maritime law and policy
- maritime security (piracy, terrorism, human trafficking)
- commercial shipping law
- ocean governance
- marine environmental protection

Lisa Froholdt, PhD
Assistant Professor
New Zealand / Denmark
- human factors
- communication (crisis, routine & cross-cultural)
- educational psychology
- psychotraumatology in pirate hijacking
- maritime education and training

Larry Hildebrand, PhD
Professor
Canadian Chair
Canada
- integrated coastal and ocean management
- ocean governance
- maritime spatial planning
- marine environmental protection
- training and capacity building
Momoko Kitada, PhD
The Nippon Foundation Lecturer
Japan
- multi-cultural work environment
- women seafarers
- cultural issues

Olof Lindén, PhD
Professor
The Nippon Foundation Chair
Sweden
- marine pollution
- oil spills
- climate change
- ballast water and invasive species

Shuo Ma, PhD
Professor
China
- shipping and port economics
- policy and management
- marine environmental economics
- Chinese shipping and ports

Michael Manuel, PhD
Associate Professor
The Nippon Foundation Chair
Ghana
- operational risk governance and policy
- management
- organizational behavior and learning
- knowledge management
- maritime education and training

Daniel Moon, PhD
Professor
INMARSAT Chair
Republic of Korea
- port economics
- port management
- port operation & logistics
- maritime education and training

Aykut Ölçer, PhD
Associate Professor
Turkey
- maritime energy management
- naval architecture
- maritime technology
- marine engineering
- ship design and production
- decision making and optimization

María Carolina Romero Lares, PhD
Associate Professor
Venezuela
- international maritime conventions
- ocean governance
- law related to the marine environment
- law of the sea
- maritime delimitation

Jens-Uwe Schröder-Hinrichs, Dr-Ing
Professor
The Nippon Foundation Chair
Germany
- maritime casualties
- ship safety
- maritime risk

Yoshinobu Takei, PhD
Associate Professor
Japan
- maritime law and policy
- law of the sea
- ocean policy
- public international law
- arctic governance

Ilias Visvikis, PhD
Associate Professor
Greece
- shipping finance
- maritime financial management
- financial and shipping derivatives
- risk management
- econometrics
"We offer an intimate and broadly interdisciplinary PhD program that allows students to explore current and emerging topics from their own base of knowledge and experience."
Faculty profile

Lawrence Hildebrand, PhD
Canadian Professorial Chair

Why is WMU a good place for you to be?

WMU is a unique and dynamic academic setting in beautiful Malmö, Sweden where the maritime and marine communities intersect, complement each other and provide an inter-disciplinary education for the future leaders in ocean affairs. I joined WMU after a 35-year career with the Canadian federal government, where I served in research, policy, program management, and strategic planning capacities in coastal and ocean management; the practical side of maritime and marine affairs, if you will. My background allows me to bring this on-the-water experience to our students and, in combination with current theory, practice, and the students’ perspectives, provide a rich learning experience for students and faculty alike.

How do you benefit from advising PhD students?

There is no greater satisfaction than that which comes from working directly with bright, enthusiastic and highly motivated PhD students from around the world. They challenge my assumptions, pose new questions and open doors and minds to emerging topics for consideration, debate and exploration. I learn from our PhD students every day and am inspired to enhance my own learning, understanding and perspective.

What does WMU offer to PhD students that is unique?

There is no place quite like WMU for higher-education in maritime affairs. We offer an intimate and broadly interdisciplinary PhD program that allows students to explore current and emerging topics from their own base of knowledge and experience. That perspective is enriched through their research and by exposure to and collaboration with leading experts and practitioners in core components of maritime affairs, including maritime administration and safety, shipping and ports, law and policy, education, and ocean planning, management and governance. Our PhD students graduate with a rich understanding of the depth and breadth of maritime affairs and a world view that prepares them to be leaders in our complex, changing and multi-disciplinary ocean world.
Graduates

Dissertation titles

**Abhinayan Basu Bal, India**
A Critical Evaluation of the Rotterdam Rules: Selected Issues in Perspective

**Kevin Ghirxi, Malta**
The Stopping Rule is No Rule at All: Exploring Maritime Safety Investigation as an Emergent Process within a Selection of IMO Member States

**Ying Li, China**
Multimodal Transportation under the Rotterdam Rules: Law and Policy Implications in the Chinese Context

**Mikis Manolis, Canada**
UNCITRAL and the Draft Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea: Treaty Interpretation and Forum Selection Clauses in the United States, the United Kingdom, Canada and Australia (Joint PhD Program with Swansea University)

**Michael Manuel, Ghana**
Safety-Related Organizational Learning and Risk Construal in Shipping Companies

**Kofi Mbiah, Ghana**
Balancing Shipper and Carrier Interests: A Comparative Analysis of Some Salient Features of the Rotterdam Rules and its Predecessor Treaties

**Azfar Mustafar, Malaysia**
An Inquiry into the Regimes of Piracy, Unlawful Acts and Related Preventative Measures under International Maritime Law (Joint PhD Program with Swansea University)

**Rajendra Prasad, India**
The Role of Collaborative Learning in Promoting Safety in Shipboard Machinery Spaces

**Jong-Kyun Woo, Republic of Korea**
The Impacts of Voyage Optimization and Slow Steaming on the Liner Shipping Strategy through Dynamic Simulation

“The WMU PhD program gave me a unique opportunity to explore my research questions in a stimulating academic environment. The multi-cultural WMU community allows one to place one’s own research in a global context and to benefit from optimum diversity in interrogating research questions. The support of the University was excellent, particularly from the faculty, library and IT staff. The enthusiastic participation in WMU of leaders in the maritime world creates a superior context for learning at the University. My time at WMU was a memorable period in my academic life and I have no regrets choosing to study for a PhD at the World Maritime University.”

Michael Manuel, PhD
WMU Associate Professor
Graduate 2009
Ghana
Current candidates

Proposed dissertation titles

**Safaa Al-Fayyadh, Iraq**
Development of the Framework for a Lean, Energy Efficient and Environmentally Friendly Port: Umm Qasr Port as a Case Study

**Syed Raza Ali Mehdi, Pakistan**
Risk Assessment of Vessels Operating Near Offshore Wind-farms

**Peter Egbegi, Nigeria**
Towards a Legal and Regulatory Framework for the Development of an Oceans Policy in Nigeria

**Osatohanmwen Anastasia Eruaga, Nigeria**
An Examination of Private Security Companies’ Participation in Maritime Security: The Nigerian Perspective

**Jennie Folkunger, Sweden**
Challenges in Ballast Water Compliance, Monitoring and Enforcement

**Armando Graziano, Italy**
Development of Innovative, Unified and Proactive Risk-Based Tools for Ships Safety Inspections

**Tafsir Johansson, Bangladesh**
Insurance, Wreck Removal and Ship Recycling: Towards a Comprehensive Order for the Legal Framework of Shipwrecks

**Lawrence Kuroshi, Nigeria**
Pre-loading Onshore Ballast Water Treatment System (PreOBWTS): A Methodology for Risk Assessment of the Management Strategy

**Derek Lambert, South Africa**
Meeting the Challenges Facing South African Shipping: Towards the Development of a Computer Based Education Model for Marine Engineering

**Anete Logina, Latvia**
An Analysis of Fairness of Criminal Procedures and Sanctions Applied against Seafarers after Large Scale Ship-Source Oil Pollution Accidents

**Justin Moyer, USA**
Revisiting ISPS Code Requirements: An Alternative Approach for Addressing Port Facility Security and Portwide Continuity

**Kana Mutombo, South Africa**
A Holistic Risk-Oriented Framework for Port Infrastructure Adaptation to Climate Change

“As a seafarer I appreciate the wealth of research done and knowledge offered on maritime matters and as a student from Southern Africa I continue to be humbled by the embracing and accepting nature of all academic and hostel staff. The program planning and management thereof is simply world class ranging from technological support, research supervisory elements, engagement platforms to simply catching a bus. A United Nations beacon of light...no doubt.”

Theresa Williams
PhD Candidate
South Africa
Current candidates (cont.)

Proposed dissertation titles

**Adriana Zuñiga Nordfjeld, Mexico / Norway**
The Establishment and Development of Dry Ports as a Source of Economic Growth

**Sindiswa Nhlumayo, South Africa**
The Link between National Maritime Policy and Job Creation: A Comparative Analysis with South Africa as a Frame of Reference

**Olugbenga Leke Oyewole, Nigeria**
Effectiveness of Inter-Agency Collaboration on Maritime Security: Sea Robbery, Crude Oil Theft and Petroleum Products Smuggling in Nigeria

**Crystal Dawn Patten, Canada**
Safety Culture: Key Theoretical Issues in Today’s Marine Environment

**Annukka Pekkarinen, Finland**
Mitigating the Threat of Ship Strikes with Marine Mammals in Southern Sri Lanka

**Jonas Pålsson, Sweden**
Oil Spill Preparedness and Impacts in Sensitive Marine Areas

**Unni Ramachandran, India**
Occupational Health and Safety as a Human Right - A Legal Study on Indian Fishermen and Seafarers

**Daisy Romanini, Italy**

**Omran Radhi Thani, Iraq**
Study of the Coastal and Offshore Hydrography and Ballast Water Management of the Northern Arabian Gulf

**Theresa Williams, South Africa**
Catering for the Human Resource Element in an Emerging African Maritime Economy

**Glenn Wright, USA**
Ship-Centric Dynamic Electronic Aids to Navigation

**Kyaw Zeya, Myanmar**
A Socio-Cultural Analysis of Impediments to the Optimum Implementation of the STCW Convention/Code

**Jian Zhao, China**
The Research on Policies, Strategies and Governance in the Chinese Port Sector with Respect to Investment and Finance
Applications are welcome from suitably qualified individuals who wish to undertake research leading to a doctoral degree either on a full-time basis in Malmö, or part-time basis at their location of choice such as their place of employment. Acceptance into the program is based on the evaluation of academic ability as well as the availability of suitable supervisors.

Entrance requirements
Applicants should typically hold a good Master’s degree in a relevant discipline. In exceptional cases, substantial professional, business or industrial qualifications/experience may also be taken into consideration. The Admissions Board will select only the best-qualified candidates, taking into account all qualifications and achievements.

Application for admission
All candidates must submit the application form and a detailed research proposal. In addition, two letters of academic reference from people familiar with the applicant’s suitability for doctoral research should be sent directly by the referees to the doctoral office. Certified copies of transcripts of all academic qualifications should be included with the application form, including the results of an internationally recognized test of English language.

Individuals who have not yet completed their Master’s degree should include a transcript of the marks received to date, understanding that an offer of placement is conditional on successful completion of the Master’s degree as well as evaluation of the final marks by the Admissions Board.

Prospective candidates are encouraged to visit wmu.se/phd-apply to download all required forms and to find further information and guidance.

Research proposal
All applicants must submit a research proposal that clearly indicates the area in which their research will be conducted, including the key issues to be examined in detail. The research proposal should identify an original research question, and demonstrate that the applicant understands what research at the postgraduate level entails. The quality of the research proposal is extremely important. It is a crucial part of the application and will be used to match prospective candidates with research supervisors.

To download the research proposal form and find more information and guidance on the length and content of the proposal, please visit wmu.se/phd-apply.

English language requirements
Applicants must offer results from one of the following internationally recognized standard tests of English language:

Test of English as a Foreign Language (TOEFL)
- 96+ in the internet-based test
- 590+ in the paper-based test
WMU’s TOEFL institution code is 9198

International English Language Testing System (IELTS)
- band 7.0 or above

Cambridge Examinations
- Cambridge Proficiency Examination at grade A or B
- GCE O-level or the equivalent
  - a good pass grade

Closing dates and application outcomes
There are no cut-off dates for submitting your application. Applicants, who have provided the University with all of the supporting documents required for an assessment to proceed, should receive their application outcome by e-mail within 12 weeks from the date of application.
Student profile

Glenn Wright
President at GMA Industries, Inc. / GMATEK, Inc.
United States of America

What attracted you to WMU?

There are many educational institutions that can support research, even technical research at the PhD level applicable to the maritime community. However, WMU is unique in the world in providing the resources, environment and authority to pursue research that can effectively contribute towards solving the most challenging issues faced today by the shipping industry.

What are you researching now?

My research investigates how ships may make passages through remote areas of the world that are uncharted and have none of the traditional infrastructure needed to ensure safe and efficient navigation. This applies to the Arctic, much of which has not been surveyed and where buoys cannot be placed because of ice movement that sweeps them away. However, the same concepts also apply to the tropics where buoys cannot be placed in sensitive reef environments, in underdeveloped regions with inadequate financial resources to implement modern navigation systems, and to rapidly rebuild areas affected by natural disaster and war.

What is the highlight of being a student at WMU?

There are many, not the least of which is an environment rich with different viewpoints, perspectives and experience in both the faculty and the students. At WMU there can be interaction between individuals affiliated with mariners, port operators, shipbuilders, class societies, government, insurance, legal and other professions throughout the world. Experiences may be shared, approaches to solving problems explored, and strategies for improving the maritime industry developed unlike at any other institution.
“WMU is unique in the world in providing the resources, environment and authority to pursue research that can effectively contribute towards solving the most challenging issues faced today by the shipping industry.”
The credit system
The PhD program is structured on the European Credit Transfer and Accumulation System (ECTS) and consists of 240 ECTS credits completed usually over a registration period of three to six years. Within these time limits, candidates may work at their own pace, which can also vary during their period of enrollment.

Progression
1 ECTS credit (EC) is approximately 26 to 28 study load hours. An approved research proposal earns 20 EC, while successful participation in the Research Methods Course earns 20 EC. Each of the four progression seminars, successfully completed, earns 30 to 40 EC and successful defense of a finalized dissertation earns a candidate 60 EC.

In the initial 6 months of their registration, students complete a research methodology program, and prepare a detailed proposal for their research, including a literature review. At the end of this initial period, the first progression seminar is held, at which the candidates each present their research proposals.

Throughout the doctoral program, further progression seminars are held where the candidates present the results of their research and the plans for further work. After every seminar, the Progression Board meets and considers whether the candidate should proceed to the next stage of the research.

The defense of each PhD dissertation is assessed by a specially established committee that includes at least one senior and well recognized external expert in the relevant field and from an established organization.

Advanced standing
A candidate who has completed part of a doctoral degree elsewhere may transfer into the WMU program with advanced standing. For details about the conditions, please visit wmu.se/phd.

Supervision
All doctoral students have a principal supervisor who is a member of the resident faculty. According to the topic of research, a student may also have one or two co-supervisors who may be another member of the resident faculty, an Adjunct Professor, a Visiting Professor, or a suitable person from outside the University.
## Tuition fees

The full University fee is US$ 33,400, and is charged by the credits obtained. It includes supervision, library and laboratory access, IT support and equipment at WMU, and medical, life, and accident insurance. In addition, a student needs around SEK10,000 per month for rent and general living costs in Malmö, plus travel expenses. Since WMU is a UN institution and not part of the national Swedish education system, our students cannot claim study support from the Swedish government or any other EU state.

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Our website is regularly updated with research news. For information about current projects please visit [wmu.se/research](http://wmu.se/research).
Alumnus profile

Kofi Mbiah, PhD
CEO, Ghana Shippers’ Council
Ghana

What attracted you to WMU for your PhD studies?
I have known about the World Maritime University (WMU) as a world-class institution of maritime excellence since the 1980’s. In my line of duty I had the opportunity to work with a number of graduates who had qualified from WMU and greatly appreciated their insights and deep understanding of the issues relating to every maritime endeavour. My interaction with a number of the graduates left a lasting impression on me and kindled my desire to pursue higher learning in this renowned institution. My own search for further information on WMU revealed to me an institution not only imbued with the requisite academic credentials but also an orientation towards the practical application of knowledge. Thus when the time was opportune I had no hesitation whatsoever in choosing to pursue my PhD studies at WMU.

In what ways has your experience from WMU impacted your career?
My experience at WMU could be described as eventful. It provided me with an opportunity to interact and share ideas with students of different backgrounds and culture. The engagement with professors and students from different backgrounds broadened my horizon and served me in many useful ways in addressing multidisciplinary issues on the international scene.

The progression seminars were as useful as they were rewarding. The interactions during these seminars enabled me to make presentations on the progress of the PhD research and to respond to questions from professors with varied areas of expertise. This was to prove a very useful experience for me on the international circuit as I participated in various UNCITRAL seminars around the world to shed light on the new Convention on the Carriage of Goods by Sea - The Rotterdam Rules.

In your role as the Chairman of the Legal Committee of the International Maritime Organization (IMO) do you often cross paths with WMU Alumni?
My association with IMO spans a period of over 15 years. During this period, I have served in various capacities. The alumni of WMU have increasingly performed high-level roles towards the achievement of the objectives of IMO. The WMU network in IMO built over the last couple of years has been formidable. On various fronts, it has provided the needed expertise for the conduct of affairs at meetings of the various committees of IMO. My association with a good number of WMU graduates who are either working within IMO or representing their countries at IMO has been most rewarding. I have no doubt that in the years ahead, WMU graduates performing various roles at IMO will be a veritable source of knowledge, guidance and direction for the work of IMO.
"The engagement with professors and students from different backgrounds, broadened my horizon and served me in many useful ways in addressing multidisciplinary issues on the international scene."
New WMU Building

The City of Malmö has always generously provided WMU with their facilities and that continued generosity will soon mean a new home for the University. In 2015, WMU will move to Tornhuset, the historic Old Harbor Master’s Building in the center of Malmö. The century-old building is a city landmark and will be supplemented by a dramatic new addition designed by the renowned Danish architect, Kim Utzon, of Kim Utzon Architects in collaboration with Tyrone James Cobcroft of Terroir Architects. WMU’s new facilities will essentially double its current floor space and offer immense opportunities to support the growth of WMU with a new auditorium, multiple research labs, seminar rooms, and video-conferencing facilities.

Contact us:
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Director, Research and Doctoral Program
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All information in this brochure was correct at the time of print but is subject to change. For the latest information please visit www.wmu.se/phd

Designed by Saul Isaacson
The World Maritime University PhD program provides candidates with unparalleled supervision by WMU’s expert Faculty, learning side-by-side with scholars from around the world.