

# INFORMATION ON THE MARITIME AND TRANSPORT STUDY PROGRAMME

Version (valid from): 2024-1 (01.10.2024)

## Basic information

Programme name	<b>Maritime and Transport</b>
Programme features	
Type	PhD
Rate	third level
CLASS-SRV	Doctoral education (third Bologna cycle)/Doctorate of Science (third Bologna cycle) (18202)
ISCED	• transport services (84)
CLASS-P	• Transport (transport) services (not further specified) (8400)
CLASS-P-16	• Transport (1041)
Frascati	• Technical sciences (2)
Raven SOK	Raven SOK 10
Raven EOC	Raven EOK 8
Raven EOVK	Third level
Areas/modules/targets	• No articulation (study programme) • Maritime (scientific) • Transport (scientific)
Members of the University of Ljubljana	Faculty of Maritime Studies and Transport, Pot pomorščakov 4, 6320 Portorož, Slovenia
Duration (years)	4
Number of KT per year	60
Study delivery methods	Associate

## The main objectives of the programme

The main objective of the **Maritime and Transport** Doctoral Programme is to educate above-average students of Bologna Level II study programmes into highly qualified professionals who will be able to carry out independent scientific research and create new knowledge in the field of maritime and transport studies.

Upon completion of the doctoral studies, the PhD student will be able to carry out creative and independent scientific research and to solve scientific problems in the field of maritime and transport issues facing contemporary society. He/she will acquire the ability to understand and exercise critical judgement in the resolution of complex and wide-ranging scientific research questions.

## General competences (learning outcomes)

The general competences acquired through the programme relate to the ability to critically analyse, evaluate and synthesise complex systems and processes, as well as to develop new methodological scientific research procedures in maritime and transport.

Accordingly, the general competences of a doctoral student upon completion of his/her studies are as follows

- the ability to identify, understand and define fundamental scientific problems and to solve complex application-oriented scientific challenges and to organise and manage scientific research and development work in the field of maritime and transport,
- Ability to abstract, with developed critical, analytical and synthetic thinking skills,
- the ability to identify the data needed to generate new knowledge and technical, technological and organisational solutions,
- the ability to integrate scientific knowledge in an interdisciplinary way,
- the ability to work as part of a team in a narrow and broad interdisciplinary field,
- the ability to develop new theoretical knowledge and applied engineering solutions based on it, taking into account environmental and social responsibility and respect for the engineering code of conduct,
- the ability to apply modern research methods and procedures,

- the ability to communicate with professional audiences in a variety of formats,
- the ability to critically evaluate and present their own research results, to accept developments in the world and to continue their independent education, research and monitoring of the literature.

### **Subject-specific competences (learning outcomes)**

The subject-specific competences for the *Maritime* domain relate to the acquisition of the ability to build on fundamental knowledge, to develop a deeper understanding and to implement developments in the fields of:

- nautical,
- marine engineering,
- port systems,
- protecting the marine environment and coasts

For *Transport*, the subject-specific competences relate specifically to the acquisition of the ability to build on core knowledge, to develop a deeper understanding and to implement developments in the fields of:

- transport technologies,
- transport logistics,
- traffic safety,
- an integrated transport policy.

The subject-specific competences are set out in more detail in the curricula of each subject.

### **Conditions for enrolment**

The Maritime and Transport Doctoral Programme is open to applicants who have completed:

- a second-level Bologna study programme, regardless of the course or field of study,
- a single master's degree programme which provides training for professions governed by European Union directives, if it is awarded 300 ECTS, or another single master's degree programme awarded 300 ECTS,
- your current (old) bachelor's degree programme,
- previous (old) specialisation studies, who have previously completed a higher professional programme in the field of maritime-transport-transport-logistics and natural, technical and social sciences. The additional study requirements for individual fields of study in the range of 30 to 60 ECTS shall be determined by the Doctoral Studies Committee of the UL FPP prior to the candidates' enrolment in the doctoral study programme,
- who have completed a Master's degree or specialisation programme and who have previously completed a university degree programme in maritime-transport-transport-logistics and natural sciences, technical economics. Candidates will be credited with 60 ECTS.

Graduates of foreign universities can also enrol in the Doctoral Programme in Maritime Studies and Transport. The equivalence of previously acquired education abroad is determined in the process of recognition of foreign education for the purpose of continuing education, in accordance with the regulations applicable to the University of Ljubljana.

### **Selection criteria in the event of an enrolment limitation**

Selection will be based on performance in the second cycle of studies (average grade, master's thesis grade), performance in the optional examination set by the study programme and achievements in scientific and professional fields.

The selection of candidates will be based on:

- average study grade (15%)
- the grade of your bachelor's or master's thesis (5%); and
- a pass mark (80%) in the optional examination, which consists of a written examination in the field of maritime and transport studies.

The candidate may replace 40% of the mark in the written examination by an assessment of previous scientific and professional work in the field of the study programme.

The main criteria for scientific work are publications such as:

- scientific monograph,
- an independent scientific contribution in a monograph,

- original scientific articles in journals with an impact factor (JCR) or in journals indexed in SCI, SSCI or A HCI databases.

The main criteria for professional work are:

- expert monograph,
- an independent expert contribution in a monograph,
- published papers at conferences,
- expert articles,
- editing a monograph or journal,
- other forms of documented professional activity.

5 places are available on the Doctoral programme in Maritime Affairs and Transport.

## **Criteria for the recognition of knowledge and skills acquired before entry to the programme**

Knowledge and skills acquired through formal or experiential learning prior to enrolment in a study programme will be recognised in the selection process at the time of the enrolment cap, in accordance with the Criteria for the Accreditation of Study Programmes. The recognition of knowledge and skills acquired prior to enrolment in the programme will be decided by the Research and Development Committee of the UL FPP.

When recognising such skills, they take into account:

- Professional specialisation,
- a second degree from a higher education institution,
- your scientific research work to date,
- published scientific papers,
- professional development,
- relevant work experience.

## **Assessment methods**

The methods of assessment are in accordance with the [UL Statutes](#) and specified in the curricula.

## **Conditions for progression through the programme**

Students must have completed the teaching and research assignments required by the programme for the previous year and must have obtained the following number of ECTS in order to be admitted to the upper year:

- a minimum of 50 ECTS, of which at least 20 ECTS must have been obtained in organised forms of study in the first year, in order to be admitted to the second year of study,
- for promotion to the 3rd year:
  - have completed all the study requirements of the organised forms of instruction from the 1st and 2nd year,
  - Completion of a doctoral seminar with a successful presentation of your doctoral dissertation topic,
  - confirmation of the positive assessment of the Doctoral Student Supervisory Committee on the suitability of the doctoral dissertation topic by the FPP Senate.

For promotion to the 4th year:

approval of the topic of the doctoral dissertation by the UL Senate.

## **Conditions for switching between programmes**

Transition between programmes is defined as the termination of the student's studies in the programme in which he/she is enrolled and the continuation of his/her studies in the Doctoral Programme in Maritime Affairs and Transport. Applications from candidates for transfer to the Maritime and Transport Doctoral Programme will be considered individually by the UL FPP Research and Development Committee in accordance with the UL Statutory Rules.

## **Conditions for completing your studies**

The completion of studies and the award of the title of Doctor of Science is conditional on the candidate successfully completing all the study requirements set out in the programme and successfully defending a doctoral dissertation totalling 240 KT. The doctoral candidate is also obliged to publish at least one first-authored scientific

article. The article must be published or accepted for publication no later than when the doctoral dissertation is submitted for assessment.

### **Conditions for completion of the individual parts of the programme, if contained in the programme**

The Doctoral Programme in Maritime Affairs and Transport does not have individual programme components.

### **Professional, scientific or artistic title (English title and abbreviation)**

- Doctor of Philosophy (Ph.D.)

# STUDY PROGRAMME CURRICULUM

## TRANSPORT AND MARITIME SCIENCES

2024/2025

Name of study programme	<b>Transport and Maritime Sciences</b>
Programme characteristics	
Type	doctoral
Cycle	doctoral
University of Ljubljana members	Faculty of Maritime Studies and Transport, Pot pomorščakov 4, 6320 Portorož, Slovenija

Year 1, Obvezni predmeti

				Contact hours									
	University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective
1.	0640001	Core elective courses		30	10	0	0	60	150	250	10	1st semester	yes
2.	0640002	Discipline-specific elective courses in Maritime Studies 1 or Discipline-specific elective courses in Transport Studies 1		30	30	0	0	0	190	250	10	2nd semester	yes
3.	0642260	Discipline-specific elective courses in Maritime Studies 2 or Discipline-specific elective courses in Transport Studies 2		30	30	0	0	0	190	250	10	2nd semester	yes
4.	0132952	Research Work Presentation		0	30	0	0	0	120	150	5	2nd semester	no
5.	0132953	Research Work		30	10	0	0	90	520	650	25	All-year	no
		Total		120	110	0	0	150	1170	1550	60		

Year 1, Temeljni izbirni predmeti programa (TIP)

	Contact hours	
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	University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective
1.	0130638	Fuzzy Systems in Transportation	Danijela Tuljak Suban	30	10	0	0	60	150	250	10	1st semester	yes
2.	0130641	Models and Simulations in Traffic	Milan Batista	30	10	0	0	60	190	290	10	1st semester	yes
3.	0130639	Intelligent Maritime and Transport Systems Planning	Evelin Krmac	30	10	0	0	60	150	250	10	1st semester	yes
4.	0130640	Mathematical Methods in Maritime Studies and Transport	Aleksej Turnšek	30	10	0	0	60	150	250	10	1st semester	yes
Total				120	40	0	0	240	640	1040	40		

#### Year 1, Izbirni predmeti področja Pomorstvo (IPO)

				Contact hours									
	University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective
1.	0133521	Management and Leadership in Water Transport	Elen Twrdy	30	30	0	0	0	190	250	10	2nd semester	yes
2.	0132938	Marine Engineering	Peter Vidmar	30	30	0	0	0	190	250	10	2nd semester	yes
3.	0132939	Maritime Systems	Elen Twrdy	30	30	0	0	0	190	250	10	2nd semester	yes
4.	0132937	Modern Methods in Oceanography	Vlado Malačič	30	30	0	0	0	190	250	10	2nd semester	yes
Total				120	120	0	0	0	760	1000	40		

#### Year 1, Izbirni predmeti področja Promet (IPR)

				Contact hours									
	University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective

1.	0132941	Transport Technologies	Bojan Beškovnik	30	30	0	0	0	190	250	10	2nd semester	yes
2.	0132942	Transport Logistics	Bojan Beškovnik	30	30	0	0	0	190	250	10	2nd semester	yes
3.	0132943	Traffic Safety	Milan Batista	30	30	0	0	0	190	250	10	2nd semester	yes
4.	0132940	Holistic Transport Policy	Marko Pavliha	30	30	0	0	0	190	250	10	2nd semester	yes
Total				120	120	0	0	0	760	1000	40		

#### Year 2, Obvezni predmeti

				Contact hours									
	University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective
1.	0640003	Elective courses of the study programme 1		30	10	0	0	60	150	250	10	1st semester	yes
2.	0642261	Elective courses of the study programme 2		30	10	0	0	60	150	250	10	1st semester	yes
3.	0132955	Doctoral Thesis Preparation and Defence		10	0	0	0	40	200	250	10	2nd semester	no
4.	0132954	Research Work		20	0	0	0	130	600	750	30	All-year	no
Total				90	20	0	0	290	1100	1500	60		

#### Year 2, Izbirni predmeti programa (IPP)

				Contact hours									
	University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective
1.	0130624	Systems and Processes in Pipelines	Stojan Petelin	30	10	0	0	60	150	250	10	1st semester	yes
2.	0130625	Systems and Processes in Road Transport	Robert Muha	30	10	0	0	60	150	250	10	1st semester	yes





1.	0132956	Doctoral seminar with a presentation of the doctoral dissertation before public defense and public defense		0	0	0	0	25	100	125	5	1st semester	no
2.	0132957	Research Work		35	0	0	0	240	1100	1375	55	All-year	no
		Total		35	0	0	0	265	1200	1500	60		

Maritime Studies (scientific field)

Direction has no subjects.

Transport (scientific field)

Direction has no subjects.