

UNIVERSITY OF RIJEKA - FACULTY OF MARITIME STUDIES

**UNDERGRADUATE AND GRADUATE
ACADEMIC PROGRAM**

**MARINE ELECTRONIC ENGINEERING AND
INFORMATION TECHNOLOGY**

RIJEKA, 2014

MAIN DATA AND ORGANIZATION OF THE FACULTY

MANAGEMENT OF THE FACULTY

Dean:

Professor Serdo Kos, Ph.D., FRIN

Vice-Dean for Academic Affairs

Assistant professor Igor Rudan, Ph.D.

Vice-Dean for Business Relations and Finance:

Assistant professor, Alen Jugović Ph.D.

Vice-Dean for Vocational Training and Development:

Assistant professor Dragan Martinović, Ph.D.

Vice-Dean for Scientific and Research Activities:

Associate professor Boris Sviličić, Ph.D.

Secretary:

Željko Ševerdija, L.L.B.

INTERNAL ORGANIZATION

Department of Marine Engineering and Power Supply Systems

- Headed by: Professor Ivica Šegulja, Ph.D.

Department of Marine Electronic Engineering, Automatic Theory and Information Technology

- Headed by: Associated professor Nikola Tomac, Ph.D.

Department of Logistics and Management in Maritime Affairs and Transport

- Headed by: Professor Dragan Čišić, Ph.D.

Department of Nautical Sciences and Maritime Transport Technology

- Headed by: Associated professor Robert Mohović, Ph.D.

Department of Technology and Organization in Maritime Affairs and Transport

- Headed by: Professor Čedomir Dundović, Ph.D.

Department of Social Sciences

- Headed by: Assistant professor Biserka Rukavina, Ph.D.

Department of Natural Sciences

- Headed by: Assistant professor Biserka Drašćić Ban

Department of Foreign Languages

- Headed by: Jadranka Valentić, M.A.

ADMINISTRATIVE STAFF

Dean's Office Secretary:

Blaženka Konjhodžić

Head of the Seafarers Vocational Training Centre and Public Relations Officer:

Marija Šimić Hlača, MSc. (in maritime transport technology)

Student Records Office:

- Headed by: **Mirjana Petelin, MSc.** (educationist and informatician)
 - Administrative Staff: **Jadranka Gumbarević, Željka Vidmar, Vanja Nakičenović**
-

Informatics and Computer Centre:

- Headed by: **Ezio Hafner**
 - Computer Officers: **Slobodan Popić, Marko Bratic**
-

Library:

- Headed by: **Dolores Markotić, MSc.**, librarian
 - Assistant librarian: **Tamara Gržinčić**
-

Course Materials Bookshop:

- Publishing Associate: **Vesna Vranić Kauzlarić, MSc.** (in maritime technology)
-

Accounting Department:

- Headed by: **Spomenka Georgijević, MSc. (Econ.)**
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Personnel and General Administrative Service Department:

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on working days

Library:

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Working hours: Monday, Tuesday, Wednesday, Thursday from 9 a.m. to 7 p.m.

Friday from 9 a.m. to 1 p.m.

Computers available: Monday, Tuesday, Wednesday, Thursday from 9 a.m. to 7 p.m.

Friday from 9 a.m. to 1 p.m.

For detailed information about the rules of lending books please contact the library.

E-mail: bib@pfri.hr

Course Materials Bookshop:

- located in the courtyard of the Faculty.

Working hours: from 10 a.m. to 2 p.m.
on working days

Exam registration and withdrawal forms and books can be bought here.

E-mail: vyranic@pfri.hr

Students' Union, Pom-f-ri, Plima:

Location: a little house in the courtyard of the Faculty, near the gym.

Tel. No.: +385 51 33 84 11

E-mail: sz-plima@net.hr

For any questions or problems concerning your study, please contact your year study programme representative.

Consultations with students are held in the „Plima“ premises on Monday from 10 to 12 a.m.

A HISTORY OF THE FACULTY OF MARITIME STUDIES

The Rijeka Faculty of Maritime Studies can trace its origins back to the year 1866 when, in the premises of the today's City Hospital, the Austro-Hungarian Naval Academy was founded and which flourished in its activities till 1914. In 1889 it became the Imperial and Royal Naval Academy (Marine Academie) .

At the outbreak of the First World War, the Academy was closed and moved from Rijeka to Vienna. It is important to notice that some famous Croats, Admiral Maximilian Njegovan (1858-1930) and the noble Admiral Janko Vuković-Podkapelski (1871-1918), a distinguished officer in the Austro-Hungarian navy appointed as the first commander-in-chief of the navy of the State of the Slovenes, Croats and Serbs, graduated from the Academy.

The education at the Academy included a four-year study programme attended by all those coming from across the Austro-Ungarian Monarchy and holding an A-level secondary school diploma. The Academy ceased its activities in 1914 when it turned into a field hospital functioning as such till 1918, when, after the fall of the Austro-Ungarian Monarchy, it was transformed into the main City Hospital.

This break into the field of maritime higher education lasted till 1949, when, on 4th April 1949, the Rijeka Merchant Marine College was founded by the decree issued by the Government of the Federal People's Republic of Yugoslavia. In the years to follow, the Rijeka Merchant Marine College developed into the Faculty of Maritime Studies and is still today one of the world's leading maritime education and training institutions.

Since the very beginning of its educational activities, the Rijeka Merchant Marine College has experienced several stages in its development:

- In 1978, the Merchant Marine College was transformed into the Faculty of Maritime Studies and Transportation. Its activities continued until 1998, when two independent educational institutions were established – the Rijeka College of Maritime Studies and the University Department of Maritime Studies of the University of Rijeka.
- In the course of the year 2001, the Ministry of Science and Technology of the Republic of Croatia brought a decision on the merge of the Department of Maritime Studies of the University of Rijeka and the Rijeka College of Maritime Studies into the Faculty of Maritime Studies of the University of Rijeka, the one and only maritime education and training institution that has been acting as such since then.

MARINE ELECTRONIC ENGINEERING AND INFORMATION TECHNOLOGY

The undergraduate and graduate study programmes in Marine Engineering and Information Technology represent a development of the existing five-semester study programme in Marine Electronics and Maritime Communications delivered at the Faculty of Maritime Studies in Rijeka. This new study programme is a bridge between theory and practice of modern electronics and information technology. Graduates can pursue careers in coastguard, maritime affairs: technology of transport; installation, maintenance and development of computing electronic and navigational systems; control systems and automation; as well as in all systems where their skills in hardware and software are particularly valued.

Since there will always be a need for holders of a vocational qualification in maritime affairs, some extended courses are offered to students, during or upon completion of their study programmes, who wish to become specialists in profession. These courses lead to obtain the following certificates of competency: GMDSS ROC, GMDSS GOC, Radioelectronic officer 2nd and 1st class, COMPTIA (Computer Technology Industry Association), A+Competence in Computer Maintenance, Network + Competence in Computer Network Maintenance, iNET + Competence in Developing for the Internet, eBIZ + Competence in Business Information Systems.

The undergraduate study programme provides a thorough coverage of fundamental issues in maritime affairs and is thus designed in line with the current trends and needs of the maritime affairs. It provides a sound theoretical grounding in electronics, automation and informatics in maritime affairs. Students who obtain the required grades at the BSc level may progress onto the graduate study programme providing an in-depth knowledge and understanding applicable to merchant marine services and businesses in the field of computing, electronics and information technology.

First year students enrolled at the *undergraduate study of Marine Electronic Engineering and Information Technology* register for the following courses in the academic year 2013/2014:

Winter semester (I)

No.	Course holder	Compulsory course	Lectures	Practical work sessions	ECTS credits
1	Biserka Drašćić Ban	Mathematics 1	3	2	6
2		Physics	2	1	5
3	Antun Kraš	Electrical engineering fundamentals 1	3	2	7
4	Mato Tudor	Informatics fundamentals	2	2	5
5	Igor Rudan	Basics in maritime transport	2	1	3
6	Božana Knežević	English language 1	1	2	3
7	Maja Redžić	Physical training 1	0	2	1

Summer semester (II)

No	Course holder	Compulsory course	Lectures	Practical work sessions	ECTS credits
1	Biserka Drašćić Ban	Mathematics 2	2	2	5
2	Irena Jurdana	Electrical measurements and instrumentation	2	2	5
3	Nikola Tomac	Technology of electric engineering materials	2	1	4
4	Antun Kraš	Electrical engineering fundamentals 2	3	2	7
5	Božana Knežević	English language 2	1	2	3
6	Maja Redžić	Physical training 2	0	2	1

In the second semester, students can register for the following optional courses to the minimum workload of 5 ECTS credits:

No.	Course holder	Compulsory course	Lectures	Practical work sessions	ECTS credits
1	Damir Zec	Safety at sea*	3	1	5
2	Maja Matetić	Advanced computer programming	2	2	5
TOTAL OPTIONAL COURSES*			3	1	5

* Optional course in conformity with the SCTW Convention.

Second year students enrolled at the *undergraduate study of Marine Electronic Engineering and Information Technology* register for the following courses in the academic year 2013/2014:

Winter semester (III)

No.	Course holder	Compulsory course	Lectures	Practical work sessions	ECTS credits
1	Boris Sviličić	Digital electronics	2	2	5
2	Dubravko Vučetić	Marine electrical machines and systems	4	2	6
3	Vinko Tomas	Basics in automation	2	2	5
4	Patrizia Pošćić	Data base systems	2	1	5
6	Božana Knežević	English language 3	1	2	3
7	Albin Redžić	Physical training 3	0	2	1

In the third semester, students can register for the following optional courses to the minimum workload of 5 ECTS credits:

No.	Course holder	Compulsory course	Lectures	Practical work sessions	ECTS credits
1	Damir Zec	Safety at sea	3	1	5
2	Dragan Martinović	Marine auxiliary engines and equipments	2	1	4
3	Predrag Kralj	Marine propulsion systems	2	2	5
4	Alex Luttenberger	Maritime law and marine averages	2	0	3
5	Ante Bukša	Marine hydraulics and pneumatics	2	1	3
6	Maja Matetić	Advanced computer programming	2	2	5

Summer semester (IV)

No.	Course holder	Compulsory course	Lectures	Practical work sessions	ECTS credits
1	Zoran Mrak	Basics in electronic communications	4	2	6
2	Dubravko Vučetić	Power electronics	2	1	4
3	Zoran Mrak	Maritime radiocommunications	2	2	5
4	Boris Sviličić	Micro- and personal computers	2	1	5
5	Vinko Tomas	Automation of ship systems	3	2	6
6	Božana Knežević	English language 4	1	2	3
7	Albin Redžić	Physical training 4	0	2	1

Third year students enrolled at the *undergraduate study of Marine Electronic Engineering and Information Technology* register for the following courses in the academic year 2013/2014:

Winter semester (V)

No.	Course holder	Compulsory course	Lectures	Practical work sessions	ECTS credits
1	Irena Jurdana	Electronic navigational equipments	4	2	6
2	Antun Kraš	Electronic systems maintenance	2	2	4
3	Zoran Mrak	Marine communications equipment	3	2	5
4	Vinko Tomas	Computer controlled ship systems	2	2	5

In the fifth semester, students can register for the following optional courses to the minimum workload of 10 ECTS credits, but only if not pre-registered in the third semester:

No.	Course holder	Compulsory course	Lectures	Practical work sessions	ECTS credits
1	Irena Jurdana	Computer network protocols	2	2	5
2	Tibor Poganj	Signal processing	2	2	5
3	Maja Matetić	Advanced computer programming*	2	2	5
4	Damir Zec	Safety at sea *	3	1	5
5	Dragan Martinović	Marine auxiliary engine and equipments*	2	1	4
6	Predrag Kralj	Marine propulsion systems*	2	2	5
7	Axel Luttenberger	Maritime law and marine averages*	2	0	0
8	Ante Bukša	Marine hydraulics and pneumatics*	2	1	3

* Optional courses may be registered in the fifth semester but only if not pre-registered in the third semester.

Summer semester (VI)

No.			Lectures	Practical work sessions	ECTS credits
1		B.Sc. thesis			15

In the sixth semester, students can register for the following optional courses to the minimum workload of 15 ECTS credits:

No.	Course holder	Compulsory course	Lectures	Practical work sessions	ECTS credits
1	Vinko Tomas	Intelligent transport systems	2	2	5
2	Božidar Kovačić	Internet technologies	2	2	5
3	Nikola Tomac	Robotics	3	1	5

The graduate study programme expands the knowledge gained the undergraduate study level. It aims at helping students to develop an effective knowledge in the field of: ship electronic system, integrated ship navigation, optoelectronics, multimedia communications, operation systems, information systems, biological effects of electromagnetic radiation, information systems, security, processing and programming in transport, diagnostic systems, reliable control systems, modelling and simulation in transport, information networks modelling and analysis, synthesis and analysis of controllable, reliable and safe transport systems. The completion of the programme provides an in-depth knowledge and understanding applicable to the merchant marine services, navy, coastguard and firms engaged in design, installation, maintenance and development of computing, electronic communications and navigational systems as well as power plant and control systems in transport.

First year students enrolled at the *graduate study of Marine Electronic Engineering and Information Technology* register for the following courses in the academic year 2012/2013:

Winter semester (I)

No	Course holder	Compulsory course	Lectures	Practical work sessions	ECTS credits
1	Tibor Poganj	Applied mathematics	2	2	5
2	Čedomir Dundović Ines Kolanović	Research work methodology	2	0	3
3	Dubravko Vučetić Branko Mišljenović	Electromagnetic compatibility of ship equipments	2	2	5
4	Božidar Kovačić	Operating systems	2	2	5
5	Ivo Ipšić	Codes and coding	2	2	5
6	Dragan Čišić	E-business	2	2	5

Summer semester (II)

No.	Course holder	Optional course	Lectures	Practical work sessions	ECTS credits
1	Sandra Martinčić Ipšić	Decision support systems	2	2	5
2	Tibor Poganj	Application of mathematical tools in electrical engineering	2	2	5
3	Vinko Tomas	Radio waves and antennas	4	2	7
4	Maja Matetić	Algorithm and data structures	2	2	5
5	Antun Kraš	Technical systems reliability and safety	2	1	5
6	Dragan Čišić	Management information system	2	1	5

Second year students enrolled at the *graduate study of Marine Electronic Engineering and Information Technology* register for the following courses in the academic year 2012/2013:

Winter semester (III)

No.	Course holder	Compulsory course	Lectures	Practical work sessions	ECTS credits
1	Dragan Čišić	Modelling and simulation*	2	2	5
2	Boris Sviličić	Information system security	2	2	5

3	Irena Jurdana	Optoelectronic systems*	2	2	5
4	Vinko Tomas	New technologies in diagnosis and control	2	2	5

Third semester optional courses:

No.	Course holder	Compulsory course	Lectures	Practical work sessions	ECTS credits
1	Tibor Poganj	Stochastic processes	2	2	5
2	Dubravko Vučetić	Ship electric propulsion	3	1	5
3	Vinko Tomas	Automatic control of floating crafts	2	2	5
4	Serđo Kos	Integral and multimodal transport	3	1	5

Summer semester (VI)

No.			Lectures	Practical work sessions	ECTS credits
1		M.Sc. thesis	12	12	30

* If the student has attended this course in the undergraduate study programme, he can register for the optional course to the minimum workload of 5 ECTS credits.

