MSc - Master of Science- NAVAL AND PORT ENGINEERING AND MANAGEMENT (90 ECTS)

Name of Study Program

MSc - Master of Science – NAVAL AND PORT ENGINEERING AND MANAGEMENT (90 ECTS)

Introduction

The mission of the "Naval and Port Engineering and Management" Master of Science Program, organized by the Merchant Maritime Faculty of the "Mircea cel Batran" Naval Academy is to continue and to outstand as permanent the Romanian heritage related to maritime transport and port business administration knowledge, through specific acquired competencies and abilities, in order to promote successful careers focused on optimum solution in managing the technical, logistic and financial resources within modern naval industry.

The main values sighted to be implemented in order to assure our institutional success and academic recognition are:

- the professionalism and commitment, the high respect and full responsibility for sustained activities, honesty and correctitude related to the educational and academic desiderates ;

- the respect of the public interest, respect of the law, tolerance and respect of the education traditions, values and virtues, in fully accordance with the universal human values and European ideas.

After completing the studies the graduated student will be able to be appointed on specific positions in naval and port industry, as:

- Consultant and technical manager for planning and conducting cargo shipping activities (river, sea or land);

- Head of Maintenance Department (professional reviewer) or Service/Commercial Planning Department or Head of Technical department;

- Technical Project Manager or Investment Specialist (drafting-development stage, projects' implementation specialist);

- Consultant in feasibility studies, cost analyst, or team leader for project management;

- Engineer with responsibilities in the port operating procedures, transhipment, storage, packing, handling, loading / unloading from / to ships/ berth/ terminals;

- Chief of inventory, specialist in stock management and patrimony administration;

- Specialist in port facilities security, protection and work safety, environmental protection and risk assessment;

- Engineer with responsibilities in safety controlling of related services and goods delivered to ships;

- Logistics Engineer;

- Economic and technical consultant for unimodal or multimodal transport operations;

- Teaching technical disciplines or courses, on vocational or academic level;

- Technical adviser in the shipping industry and business or Technical expert;

Duration

3 semesters on full time education

Credits

90 ECTS

Level

Higher education - post graduation programme

Degree

Master of Science in Naval and Port Engineering and Management

Prerequisites

BSc in naval and port engineering and management, or an equivalent education.

Structure and organization

The study term covers a period length up to two years, consisting in three semesters, as follows: first year of study is organized in two semesters of study consisting in 14 weeks for direct teaching activities and the second year is limited to one semester consisting in also in 14 weeks, being followed by a three weeks time of dissertation work.

Throughout the education period of three semesters of study the students are attending mandatory and optional courses, being educated and instructed as specialists, approaching together engineering and managerial area of studies.

The optional courses are selected from an annual double discipline package, which is available to be chosen by students at the beginning of the first academic year.

The academic studies are cleared through a graduation exam consisting in the sustenance of the graduation thesis namely dissertation.

Aims and Goals. Study Programs' General Objectives

The main objectives of "Naval And Port Engineering and Management" master program are associated generally to engineering and management domain and particularly to naval and port sectors, targeting to acquire those necessary competencies and knowledge, in order to deal into an innovative manner with technical, logistic and managerial problems associated to this sector, specifically attending to approach:

- general knowledge required in order to assume scientific approaches in engineering and port management, in the manner of deepening theoretical and practical framework, with both stimulate innovation and creative capabilities in specialty technical operation and administrative management;

- the general ensemble of knowledge regarding the scientific and practical instruments of execution, planning, control in naval and port operation area;

- the processes and activities developed and organized in naval and port operation sectors, valuing innovative engineering techniques into a multidisciplinary and interdisciplinary manner;

- the managerial aspects related to business administration, in order to organize and

lead international and multicultural teams, in the specific area of naval and port operation;

- the optimum blending usage of drawn resources in naval and port business, referring to financial, economic, technical and logistic dimensions;

- the analytical and syntactical capacity to analyze and to interpret into a innovative manner different data and information, valuing the personal experience, in order to select the optimum decision in dynamic situations;

- the communication capacity within international and multicultural environment, into an international language, using technical and managerial specific concepts or the modern communication techniques and soft solution from naval and port sectors.

All stated objective will be sighted by dedicated courses, in order to acquire declared learning outcomes, designed and transversal competencies.

Learning outcome

The main learning outcomes of "Naval And Port Engineering and Management" master program are focused on acquiring and modelling the capacity of a professional attitude, in order to succeed in solving the strategic and operational problems, within national and international naval and port sectorial activities, defined by the specific issues as:

- forming a creative and innovative manner of acting and thinking, based on specific methods calculation and complex analysis in order to solve specific engineering and managerial tasks, considering and operating with the fundamental science and engineering knowledge;

- developing and implementing technical solutions or investment projects, using technical and managerial knowledge in port and naval sectors;

- transferring advanced knowledge regarding research, design and process management of technical-economic systems in naval and port area;

- developing the capacity of making decisions at managerial level, facing technical or economic problems in naval and port sectors;

- organizing service operation form technical and managerial perspectives, valuing the logistic optimization principles in naval industry;

- managing the logistic system in naval and port companies;

- developing the capability to understand and to use modern computing and communication techniques, acquiring presentation skills of oral and written materials into an international language, getting ability to work within international team and to coordinate groups under uncertainty, stress and risks;

- developing leadership skills in order to get ability to plan, organize, coordinate, manage and control specific processes in naval and port operation;

- acquiring the capability to understand and to identify the training opportunities and learning desired skills through study cases and effective use of information sources or communication resources (as Internet portals, specialized software, databases, online courses, etc.), both in Romanian and into a international language;

- transferring advanced knowledge regarding the principles and fundamentals of naval architecture and port plants and equipments;

- developing skills in engineering and naval and port management at managerial level;

- developing advanced skills in usage of software products (Autoship and Autostructure).

Teaching and working methods

Methods of teaching/lecturing are: lectures, heuristic conversation, explanation, discussion, case study, problem-solving, simulation of situations, methods of group work, individual and frontal methods for developing critical thinking, study references. Class time is primarily devoted to lectures. It will be used different materials from the supplementary readings or other visual elements, in order to illustrate some of the basic points in the daily lecture, and to encourage discussions and debates around these points. Homework and workpapers will be written with accuracy, focusing on the results' interpretation that allows the valuable judgments drafting.

Internationalization

All subjects are taught in Romanian.

CODE	Course title	Credits	0/V *	Credits per semester		
				S1	S2	S3
IMNP-1101A	Modeling and simulation	5	0	5		
IMNP-1102A	Leadership	5	0	5		
IMNP-1103S	Integrated logistics	6	0	6		
IMNP-1104C	Ethics and academic integrity	4	0	4		
IMNP-1105A	Maritime business management	5	0	5		
IMNP-1106S	Professional practice S1	5	0	5		
IMNP-1207S	Maritime administration	5	0		5	
IMNP-1208A	Energy efficiency in the maritime field	6	0		6	
IMNP-1209A	Methods and techniques for preventing pollution of the marine environment	5	0		5	
IMNP-1210C	Maritime terminology in English	4	0		4	
IMNP-1211A	Technical project management	5	0		5	
IMNP-1212S	Professional practice S2	5	0		5	
IMNP-2113S	Transport of dangerous goods	5	0			5
IMNP-2114A	Maritime risk and safety	5	0			5
IMNP-2115A	Practice for the elaboration of master thesis	3	0			3
IMNP-2116A / IMNP-2117A	Human resources management / Maritime quality management	4	v			4
IMNP-2118A / IMNP-2119A	Stability and trim management / Numerical methods for ship design	5	v			5
IMNP-2120A / IMNP-2121A	International conventions in the maritime industry / Strategic management	4	V			4
IMNP-2122A	Elaboration of master thesis	4	0			4
-	Master thesis	10	0			10
-	TOTAL	90+10	-	30	30	30+10

^{*}O - Mandatory course, V - Optional course