

Provisional report from UPC

Comparison between the syllabus contents in **Latvian Maritime Academy** (LMA) versus UPC.

LMA includes in their bachelors, up to 4 different subjects related with maritime law.

1) LV_A- 2-7. The Maritime Law. BSc in Maritime Transport – Navigation

This is a subject with 3ECTS (80 hours in total, including self-study hours) whose main objective is to monitor and control compliance of regulations coming from SOLAS and MARPOL, conventions. Additionally, to improve and acquire new knowledge of international maritime law and knowledge of the national legislative activities in the maritime field.

STCW competences taught in this subject, are the ones included in the IMO Model courses 7.01 and 7.03; mainly the following topics:

- *STCW A-II/1 MC 7.03 3.1.1.2. Conventions and legislations adopted by various countries*
- *STCW A-II/2 MC 7.01 3.2.1.1. Certificates and other documents required to be carried on-board ships by international conventions*
This chapter deals with certificates required by crew in all kinds of SOLAS ships.
- *STCW A-II/2 MC 7.01 3.2.1.2. Responsibilities under the Relevant Requirements of the International Convention of Load Lines*
In this lecture, Load Lines convention liabilities are considered.
- *STCW A-II/2 MC 7.01 3.2.1.3. Responsibilities under the Relevant Requirements of the International Convention for the Safety of Life at Sea*
In this lecture, SOLAS convention is dealt regarding liabilities considered within it.
- *STCW A-II/2 MC 7.01 3.2.1.5. Maritime declarations of health and the requirements of the International Health Regulations*
In this lecture, Arrival documents and procedures together with FAL forms, are dealt.
- *STCW A-II/2 MC 7.01 3.2.1.6 Responsibilities under other international maritime law embodied in international agreements and conventions, that impact on the role of management level deck officers*
Dealing with UNCLOS '82 convention and shipping regime. ILO MLC 2006 convention, Hague-Visby rules and Latvian freight transport rules and its comparison with Hamburg and Rotterdam rules. Further lectures on Latvian national legislation on civil liability of ships for maritime claims, LLMC Convention, marine insurance, maritime-safety Code, ship registration, international and national provisions and the familiarization with the SOLAS International Convention.
- *STCW A-II/1 MC 7.03 3.2.1.7. Responsibilities under international instruments affecting the safety of the ship, passengers, crew and cargo*
An introductory lecture of International Conventions, EU and Latvian legislation on port state control, flag state control and supervision of classification societies

- *STCW A-II/1. MC 7.03 3.6.1.1. Introduction to Maritime Law*
Dealing with Law of the Sea and maritime history of law-making principles.
- *STCW A-II/1 MC 7.03 3.6.1.2. Law of the Sea.*
Dealing with different conventions like UNCLOS'82 structure marine areas and its implementation, Latvian national regulations, Hague-Visby rules, ship arrest in maritime claims, York-Antwerp rules and its application in Latvian regulations or Lloyd's open forms and Wreck Convention 2009.
- *STCW A-II/1 MC 7.03 3.6.1.3. Safety: SOLAS, 1974 as amended.*
With lectures of SOLAS, Load Lines Convention 66, Tonnage Convention 69, Passenger and their Luggage 74 and STCW conventions, SPACE STP 73, ISO, SSPS and ISM codes.

All of those competences are supported by an exhaustive list of materials of public availability.

2) LV_A- 2-9. Ship management. BSc in Maritime Transport – Navigation

This is a subject with 3ECTS (80 hours in total, including self-study hours) whose main objective is for providing students to use theory and integrate complex knowledge in research work in relation to reducing the environmental and social impact of maritime transport / port professional activities.

The subject includes basics of ship management; organizational structures of management – Ownership, Commercial and Technical managers functions and structural units; Responsibility, and documents regulating technical management, Shipman 2009 forms. Building and disposal of the ships. Company's policy. ISM requirements and Certification. Designated person. Classification societies. Class and Statutory Certification. PSC inspections. OCIMF and CDI inspections and other pollutant control topics included.

STCW competences taught in this subject, are the ones included in the IMO Model courses 7.01 and 7.03; mainly the following topics:

- *STCW A-II/1, A-II/2 and A-VIII/2; (3.,4.,5.d.), 7.03 model course, 1.,2.,3. and 1.39 model course and 7.01 model course, 3.5.1*
These parts are mainly dedicated to energy efficiency of ships aspects like bunker procurement and delivery organization and control, environmental impact of ship power plant operations and environment impact reduction technologies, different technologies for ensuring the requirements of ship energy regulations (EEDI, EEXI, CII, MRV, SEEMP) or decarbonisation and alternative fuel technologies (methanol, ammonia, glycerine, hydrogen, LNG, nuclear, LPG, ethane, shore-side power supply, etc.)
- *MLC Convention*
Dealing with ship's engineering innovation and budgets, implementation of technical novelties and technical running of ships' budget (OPEX), maritime purchasing management and optimization.
- *STCW A-II/1, A-II/2, 1.39 model course and 7.01 model course, 3.5.4*
On manning or management resources on ships, ISM compliances, practical application of drug and alcohol controls or MLC obligations and rights.

In the end, the knowledges to be acquired are to link the fulfilment of technical and regulatory requirements with economic justification and optimal efficiency, knowledge of effective forms of ship management, technologies and future challenges also knowledge of ships' energy resources and technologies.

Related competencies range from the transport of dangerous goods management to a wide spectrum of skills related with the protection of human life and environment; in the maritime business; understanding its main components and regulations.

3) LV_A- 3-15. Environment Maritime Protection. BSc in Maritime Transport – Navigation

This is a subject with 3ECTS (80 hours in total, including self-study hours) whose main objective is one of the professional specialisation study courses of the sector.

This includes standards determined by the International Maritime Organisation (IMO), Helsinki Commission (hereinafter HELCOM), EU and their application in international navigation; together with the knowledge and skills for mastering the MARPOL 73/78 Convention and duties of an officer on the ship associated with this Convention. In this sense it is harmonized with the STCW Code competence standards A-II/1 and A-II/2, updated to the Protocol of 2010.

STCW competences taught in this subject, are the ones included in the IMO Model courses 7.01 and 7.03; regarding the protection of marine environment:

In its part I, the subject enters in the following competences:

- STCW A-II/2 MC 7.01 3.2.1.4. Responsibilities under the International Convention for the prevention of pollution from ships
- STCW A-II/2 MC 7.01 3.2.1.7 Responsibilities under international instruments affecting the safety of the ship, passengers, crew and cargo
- STCW A-II/1 MC 7.03 3.1.3.1. Importance of proactive measures to protect the marine environment
- STCW A-II/1 MC 7.03 3.1.1.1. MARPOL 73/78
- STCW A-II/1 MC 7.03 3.1.1.2. Convention and legislations adopted by various countries,
- STCW A-II/1 3.1.2.1 Control of discharge of oil; 3.1.2.2. Oil Record Book (Part I – Machinery space Operations) and Part II – Cargo/Ballast operations)
- STCW A-II/1 MC 7.03 3.1.2.3. Shipboard Oil Pollution Emergency Plan (SOPEP) including Shipboard Marine Pollution Emergency Plans (SMPEP) for Oil and/or Noxious Liquid Substances and Vessel Response Plan (VRP
- STCW A-II/1 MC 7.03 3.1.2.4. Operating procedures of anti-pollution equipment, Sewage plant, incinerator, comminutor, ballast water treatment plant
- STCW A-II/1 MC 7.03 3.6.1.3. Safety (International Convention on the Control of Harmful Anti-fouling Systems on Ship, 2001 and International Convention for the Control and Management of Ship's Ballast Water and Sediments, 2004)

In its part II, the subject enters in the following competences:

- STCW A-II/2 MC 7.01 2.1.6.2. Contents and application of ISGOTT
- STCW A-II/2 MC 7.01 2.1.9.1. Establish Procedures for safe cargo handling in accordance with the provisions of the relevant instruments
- STCW A-II/2 MC 7.01 2.3.1.1. International regulations and codes including the International Maritime Dangerous Goods (IMDG) Code and the International Maritime Solid Bulk Cargoes (IMSBC);
- STCW A-II/2 MC 7.01 2.3.2.1. Dangerous goods in packages

- STCW A-II/2 MC 7.01 3.2.1.4. Responsibilities under the International Convention for the prevention of pollution from ships
- STCW A-II/2 MC 7.01 3.2.1.8. Methods and aids to prevent pollution of the marine environment by ships

This subject is the one dedicated to pollution prevention, as its content focus in MARPOL 73/78 convention, together to all its 6 annexes, additionally to SOLAS Chapter VII dealing with transportation of packaged dangerous cargo and related with as IMDG code.

Additionally other conventions, related to environment protection as Anti-fouling Systems on Ship, 2001 or BWM 2004; are also included together with other regional agreements like HELCOM, Barcelona Convention, OSPAR and some other regulations related to interactions between port and ship or related to the Port Facilities, inter alia.

4) LV_A- 3-4. Technology of Cargo Transportation. BSc in Maritime Transport – Navigation

This is a subject with 6 ECTS (160 hours in total, including self-study hours) whose main objective is to provide theoretical knowledge and practical skills on maritime transport technologies, loading, placement, securing and monitoring of cargoes during the trip, cargo calculations and methods of drawing up the cargo plan, impact of cargo and cargo operations on the condition and stability of the ship.

The relevant competence level specified in the STCW Convention for this subject is regarding cargo transportation, including regarding the carriage of dangerous goods, it also includes activities in which provisions of international codes and recommendations related to cargo operations are examined, as the International Maritime Dangerous Goods Code, Grain Code, IMSBC and others, including inspection procedures for ships.

STCW Code A-II/1 and A-II/2 competences taught in this subject, includes sections corresponding to IMO Model courses 7.01 and 7.03.

In its part 1, the following competences are taught:

General definitions and concepts

- STCW A-II/1 MC 7.03 2.1.1.1. Draught, trim and stability and STCW A-II/2 MC 7.01 2.1.2.1. Draught, Trim and Stability

Specifically, for bulkcarriers:

- STCW A-II/1 MC 7.03 2.1.1.1. Draught, trim and stability, 2.1.1.5. Bulk cargo, 2.1.1.6. Bulk grain cargo, 2.1.2.3. Cargo handling equipment and safety, 3.2.1.10. Effect of slack tank
- STCW A-II/2 MC 7.01 2.1.7.1. Operational and design limitations of Bulk carriers; 2.1.7.2. SOLAS Chapter XII Additional Safety Measures for Bulk Carriers; 2.1.7.3. CSR Bulk
- STCW A-II/2 MC 7.01 2.1.8.1. Application of all available shipboard data related to loading, care and unloading of bulk cargoes
- STCW A-II/2 MC 7.01 2.2.2.1. Methods to avoid the detrimental effects on bulk carriers of corrosion, fatigue and inadequate cargo handling
- STCW A-II/2 MC 7.01 2.2.1.1. Limitations on strength of the vital constructional parts of a standard bulk carrier and interpret given figures for bending moments and shear forces
- STCW A-II/2 MC 7.01 2.3.2.2. Solid bulk cargoes; 2.3.1.1. International regulations and codes including the International Maritime Dangerous Goods (IMDG) Code and the International Maritime Solid Bulk Cargoes (IMSBC) Code

Specifically, for Oil tankers:

- STCW A-II/2 MC 7.01 2.1.6.1. Terms and definition
- STCW A-II/2 MC 7.01 2.1.6.2. Contents and Application of the International Safety Guide for Oil Tankers and Terminals (ISGOTT)
- STCW A-II/2 MC 7.01 2.1.6.3. Oil Tanker Operations and Related Pollution-prevention Regulations
- STCW A-II/1 MC 7.03 2.1.2.4. Oil tanker piping and pumping arrangements

Specifically, for Chemical tankers:

- STCW A-II/1 MC 7.03 2.1.2.2. Dangerous, hazardous and harmful cargoes; STCW A-II/2 MC 7.01 2.1.6.4. Chemical Tankers; 2.3.1.1. International regulations and codes including the International Maritime Dangerous Goods (IMDG) Code and the International Maritime Solid Bulk Cargoes (IMSBC) Code
- STCW A-II/2 MC 7.01 2.1.6.5. Tank Cleaning and Control of Pollution in Chemical Tankers

- STCW A-II/2 MC 7.01 2.1.6.6. Gas Tanker; 2.1.6.7. Cargo operations in Gas Tanker; 2.3.1.1. International regulations and codes including the International Maritime Dangerous Goods (IMDG) Code and the International Maritime Solid Bulk Cargoes (IMSBC) Code

Regarding deck cargo procedures in other ships:

- STCW A-II/1 MC 7.03 2.1.1.3. Deck cargo
- STCW A-II/1 MC 7.03 2.1.2.1. Cargo care; 2.1.2.5. Precautions before entering enclosed or contaminated spaces
- STCW A-II/1 MC 7.03 2.1.2.6. Cargo calculations and cargo plans
- STCW A-II/1 MC 7.03 2.1.1.3. Deck cargo, 2.1.1.4. Container cargo

Regarding cargo handling according to procedures and inspection of the cargo premises and notification of defects:

- STCW A-II/2 MC 7.01 2.1.9.1. Establish Procedures for safe cargo handling in accordance with the provisions of the relevant instruments; 2.3.1.1. International Regulations and Codes
- STCW A-II/1 MC 7.03 2.2.1. Cargo spaces inspection, 2.2.3. Ballast tanks inspection; 2.2.2 Hatch covers inspection, 2.2.4. Damage report
- STCW A-II/1 MC 7.03 2.2.5. Enhanced survey programme, 3.6.1.3 Safety (Guidelines on the Enhanced Programme of Inspections During Surveys of Bulk Carriers and Oil Tankers)
- STCW A-II/2 MC 7.01 2.1.8.2. BLU code; 2.1.10.1. Basic principles for establishing effective communications and improving working relationship between ship and terminal personnel

Part 2 in the subject is more dedicated to transportation of dangerous goods:

- STCW A-II/1 MC 7.03 3.6.1.3.8. SOLAS - Carriage of dangerous goods
- STCW A-II/1 MC 7.03 2.1.2.2. Dangerous, hazardous and harmful cargoes
- STCW A-II/1 MC 7.03 2.1.2.2. Dangerous, hazardous and harmful cargoes; STCW A-II/2 MC 7.01 2.3.2.1 Dangerous Goods in Packages
- STCW A-II/2 MC 7.01 2.1.1.1. Plans and Actions Conform with International Regulations
- STCW A-II/2 MC 7.01 2.1.3.1. Shear Forces, Bending Moments and Torsional Moments
- STCW A-II/2 MC 7.01 2.1.3.4. Knowledge of loading cargoes and ballasting in order to keep hull stress within acceptable limit
- STCW A-II/2 MC 7.01 2.1.3.2. Compliance with the Minimum Freeboard Requirements of the Load Line Regulations
- STCW A-II/2 MC 7.01 2.1.3.3. Use of Automatic Data Based (ADB) Equipment

Regarding Timber deck Cargoes:

- STCW A-II/2 MC 7.01 2.1.4.1. Timber Deck Cargoes
- STCW A-II/2 MC 7.01 2.1.4.2. Procedures for Receiving and Delivering Cargo
- STCW A-II/2 MC 7.01 2.1.4.4. Requirements Applicable to Cargo-handling Gear; 2.1.4.5. Maintenance of Cargo Gear; 2.1.4.6. Maintenance of Hatch Covers

Regarding Heavy weights and general care of cargo spaces and medical aid guide in case of accidents involving dangerous goods:

- STCW A-II/2 MC 7.01 2.1.5.1. Loading, Stowage and Discharge of Heavy Weights
- STCW A-II/2 MC 7.01 2.1.4.3. Care of Cargo During Carriage; 2.1.5.2. Care of Cargo During Carriage; 2.1.5.3. Methods and Safeguards When Fumigating Holds
- STCW A-II/2 MC 7.01 3.6.1.3. Medical First Aid Guide for Use in Accidents Involving Dangerous Goods

Preliminary evaluation of the similarities in between the UPC syllabus and the Latvian syllabus dedicated to marine legislation topics.

Similarities in between both syllabuses are mainly observed in the 2-7 Maritime Law subject with the 280604 Maritime Legislation in the UPC case.

However, and due to the difference not in in ECTS credits weight but in the number of hours dedicated to teaching activities, in the Barcelona case the subject deals with mainly UNCLOS'82 convention and basic knowledge of main IMO conventions.

In the Barcelona case, the different chapters are not clearly specified as in the Latvian case but a general overview of maritime legislation is provided. In the Riga syllabus clearly before a general part of the UNCLOS convention and other main IMO conventions; there is dedicated an important part of the subject to the certification, documentation, responsibilities, health declaration and other requirements related to the ship to shore; interactions.

In the case of the 2-9 subject on Ship management, there is a similarity in between this subject and Barcelona subject 280622 subject on Regulation, exploitation and ship logistics. For the Riga case, the subject is mainly dedicated to Energy efficiency of ships, MLC and ISM; conventions, but in the Barcelona case the subject is focused in one hand to the port logistics and in the other side to the ship's registry, flag and registry issues, fiscality and second registry in Spain as Canary Islands case.

Another part dedicated to maritime contracts and a third part dedicated to marine stakeholders, from the shore point of view.

We can say that the similarities between those two subjects is not clearly visible.

For the case of the subject 3.15. Environment Maritime Protection, there is a clear no coincidence with the Barcelona case, even that there is a subject in the syllabus that is identified as 280621 Pollution prevention and sustainability that is fully coincident, as it is mainly focused on MARPOL convention and other related regulations.

In the 3.4 case, there is not a clear similarity with the Barcelona case, because in this last scenario, a full subject named 280618 Stowage, with 12 ECTS that is dealing not only in Bulk carriers and Oil Tankers, but also in general premises of stowage as basic calculations, but also a different typology of ships from container, to Ro/Ro or heavy weight transports but also reefers, timber deck and mainly Bulk and grain carriers. However, this subject is more dedicated to operational and calculation aspects than from the legal point of view.

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Comparison between the syllabus contents in **Split Maritime University** (SMU) versus UPC.

SPLIT maritime University includes in their bachelors, up to 3 different subjects related with maritime law.

1) PFP128. MARITIME LAW. Nautical engineering

This is a subject with 3 ECTS (30 hours of lectures) that is offered during the first year, that is mandatory.

Its main objective is to introduce students with international and national regulations, governing borders at sea, the rights and obligations of the states and other subjects of international law at sea, their mutual relations in connection with the exploitation of sea resources and seabed and their protection; complying with regulations on maritime safety, particularly on the protection of human life at sea and protection of the marine environment.

It is explained that an organization entitled Maritime Administration Office of the Republic of Croatia (Pomorska uprava RH) is the one that develops control of state flag and state port; maintaining order in ports; regime of sea ports and maritime domain; procedures when performing marine administrative formalities upon arrival at a port, calling into a port and departure of ship from a port; legal status of a ship; labour conditions of mariners and the rights and obligations of a shipmaster and other crew members.

The course content of the subject is the following:

- 1) Definition, classification, meaning and origins of Maritime Law and international Law of the Sea. (National organizations, IMO, EMSA; ...). *STCW A-II/1. MC 7.03 3.6.1.1.*
- 2) Legal concept of a ship and marine facilities and their registration.
- 3) Sources of international Law of the Sea. UNCLOS'82. *STCW A-II/1 MC 7.03 3.6.1.2.*
- 4) The right of hot pursuit
- 5) Categorization of regulations on the protection of Marine Environment and International Law of War at Sea
- 6) Organization of Navigation Safety Services in the Republic of Croatia, Port authority and Coast Guard
- 7) Pilotage, inspection, Paris MoU and categories of navigation in the Republic of Croatia
- 8) SOLAS Convention. *STCW A-II/1 MC 7.01 3.2.1.3*
- 9) MARPOL Convention
- 10) Ship's documents and books. *STCW A-II/2 MC 7.01 3.2.1.1*
- 11) Rules on the classification of ships and classification documents
- 12) Report on ships' arrivals and necessary documentation. *STCW A-II/2 MC 7.01 3.2.1.1.*
- 13) Maritime Labour Law. MLC 2006 (nº.186)
- 14) Certificates and declarations to the conventions MLC.
- 15) Ordinance on Vocations and certificates of Competency

It is a basic subject that has written material available in the library of the faculty and additional optional literature is provided also in the programme proposal.

2) PFP130. MARITIME LAW II. Nautical engineering

This is a subject with 3ECTS (corresponding to 45 hours of lectures) that is offered during the second year, that is mandatory.

Its main objective is to widen the knowledge obtained in the previous year, through a thorough knowledge of maritime law institutes and to learn the contents of international and Croatian maritime law.

Also, the acquisition of knowledge which is necessary for the performance of management positions in shipping, as well as for continuation of professional and scientific work in the field of maritime science. This subject is focused to maritime transport with a special incidence on transport of goods by sea and including cases of typical maritime disasters. Special emphasis is placed on the provisions on liabilities.

The course content of the subject is the following:

- 1) Legal sources of maritime property law; Ship in property law; Persons in maritime trade business. Maritime agent services.
- 2) Contractual and non-contractual liability of ship owners and shipping companies in marine business; Convention on Limitation of Liability for Maritime Claims, 1976 (LLMC).
- 3) Legal aspect of ship exploitation – definition of term and contract layout; International regulations on transport of goods by sea; International Convention for the Unification of Certain Rules of Law relating to Bills of Lading, 1924 (Hague Rules) with Protocol 1968 (Hague-Visby Rules) and the Protocol, 1979 (SDR Protocol); United Nations Convention on the Carriage of Goods by Sea, 1978 (Hamburg Rules); UN Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea, 2009 (Rotterdam Rules).
- 4) Transport of goods by sea; Definition, elements and contractual parties; Time charter; Voyage charter.
- 5) Legal affairs on transportation of goods by sea; Bills of lading; Sea Waybills; Electronic transport document.
- 6) Carrier's liability for cargo damage and delays; Limitation of liability; Special cases of carrier's exclusion of liability. *STCW A-II/1 MC 7.03 3.2.1.6*
- 7) Legal affairs on transportation of passengers and luggage by sea; Athens Convention relating to the Carriage of Passengers and their Luggage by Sea; Legal status of stowaways; Legal affairs on towing. *STCW A-II/1 MC 7.03 3.2.1.6*
- 8) Multi-carrier transportation; Bareboat charter.
- 9) Definition of maritime accidents; Legal sources; General average - definition, liquidation; York Antwerp Rules.
- 10) Marine salvage - legal sources, definition of salvage, types of salvage; Salvage Award; Removal of sunken wrecks; Removal of wrecks.
- 11) Modern Salvage Law; International Convention on Salvage, 1989 (London); Forms - LOF 1995, 2000 and 2011.
- 12) Legal aspects of pollution of marine environment; International Convention on Civil Liability for Oil Pollution Damage, 1992 and International Convention on the Establishment of an

International Fund for Compensation for Oil Pollution Damage, 1992; The International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (HNS); International Convention on Civil Liability for Bunker Oil Pollution Damage (BUNKER); Responsibility of ship owner for damage; Responsibility under the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM).

13) Ship collision; Legal sources; Definition and types of collisions; Compensation from ship collision.

14) Definition of maritime insurance; Institute clauses; Premium insurance and mutual insurance.

15) Role of insurance in maritime disasters; Liability insurance of shipping companies; P & I club.

It is an advanced subject that has written material available in the library of the faculty and additional optional literature is provided also in the programme proposal.

3) PFP129. MARITIME LAW, AVERAGE AND DAMAGE. Marine engineering

This is a subject with 3ECTS (corresponding to 30 hours of lectures) that is offered during the third year, that is mandatory.

Its main objective is to familiarise students with international and national regulations on the rights and obligations of the states in marine and submarine areas, procedures for carrying out maritime administrative formalities on arrival, stay and departure of the ship from the port, the state-legal position of the ship, meeting the (international) requirements on the safety of navigation, particularly on the protection of human life at sea and protection of the marine environment, rights and obligations of the master and other crew members, and all persons involved in the maritime industry, liability of shipowners (shippers), maritime property institutes and the overview of the Croatian and international maritime property law.

This is a subject that is understood as an integration of the two courses of maritime legislation offered to the nautical engineering students but in this case to Marine engineering.

The course content of the subject is the following:

- 1) Definition, classification, meaning and origins of Maritime Law and international Law of the Sea. (National organizations, IMO, EMSA; ...). *STCW A-II/1. MC 7.03 3.6.1.1.*
- 2) International Law of the Sea. UNCLOS'82. *STCW A-II/1 MC 7.03 3.6.1.2.*
- 3) Responsibilities required by SOLAS Convention. Ascertaining the vessel's seaworthiness. *STCW A-II/1 MC 7.03 3.6.1.3*
- 4) Liability according to Load Lines Convention, 1966/68. *STCW A-II/2 MC 7.01 3.2.1.2.*
- 5) Regulations on Marine Environment protection. *STCW A-II/1 MC 7.03 3.1.1.1.*
- 6) Convention on the prevention of pollution by dumping waste and other matter (London Convention, 1972). International Convention relating to intervention on high seas in case of an accident, causing oil pollution, 1969. International Convention on civil liability for oil pollution damage (1992), and Convention on the establishment of an international fund for compensation for damage caused by pollution, 1992. International Convention on civil liability for oil pollution damage, 2001. International convention on the liability and compensation for damage related to transport of dangerous and harmful substances by sea, 1996.
- 7) Ship's documents and books: Certificate of registry, International load lines convention (1966) and other certificates.



- 8) International Certificate of oil pollution prevention, International pollution prevention Certificate for the carriage of noxious liquid substances in bulk (NLS certificate); Certificate of class for hull, machinery and machine cooling system. Different logbooks onboard, Crew list, Passenger list, Fumigation certificate or Certificate of exemption from fumigation.
- 9) Maritime labour law; ship's crew - generally, division into departments, rights and obligations of members of the crew. Maritime labour convention (No. 186), Convention on minimum standards on merchant ships, 1976 (No. 147), Convention on the contract for seafarers, 1926 (No. 22), Convention on the minimum age for employment, 1973 (No. 138), Convention on the procurement, preparation and serving of food, 1946 (No. 68). Convention on the certification of ships' cooks, 1946 (No. 69). Convention on the certification of qualified sailors, 1946 (No. 74) Convention on wages, working hours on board and manning levels (revised), 1958 (No. 109), Convention on paid vacation for seafarers (revised), 1949 (No. 91); Convention on the compulsory medical examination of children and young persons employed on board ships, 1921 (No. 16).
- 10) Repatriation of seafarers convention, 1926 (No. 23), Repatriation of seafarers convention (revised), 1987 (No. 166); Recommendation on repatriation of seafarers, 1987 (No. 174), Convention on the accommodation of the crew on board ships (revised), 1949 (No. 92), Provision of medical advice to ships at sea by radio, 1958 (No. 105), Convention on the prevention of accidents with seafarers, 1970 (No. 134); Recommendation on the prevention of accidents with Seafarers in 1970 (No. 142), Convention on the medical examination of seafarers, 1946 (No. 73), Convention on seafarers' health insurance, 1936 (No. 56).
- 11) Collision, legal sources: International convention for the unification of certain rules regarding ship collisions, 1910.
- 12) Rescue at sea: legal sources, the concept of salvage, types of salvage, navigation procedures. Modern salvage law: International convention on salvage, 1989. (London) Salvage Contract (LOF 1995 and 2000).
- 13) Limitation of liability of shipowners (shipping): Convention on limitation of liability for maritime claims, 1976 (LLMC Convention).
- 14) International regulations on the carriage of goods by sea, International Convention for the unification of certain rules relating to Bills of Lading, 1924 (Hague Rules) with the Protocol, 1968 (The Hague-Visbi rules). The contract of carriage of goods by sea (charter-party), concept and elements of the contract, the contract parties. Contract on towing; Hamburg Rules; Rotterdam Rules.
- 15) The concept of maritime average, legal sources. Common average; York-Antwerp Rules. Notion of marine insurance, marine insurance contract; institute clauses; premium and mutual insurance, liability insurance; P. & I. clubs

The contents of this basic course, provide a general overview of the main legal topics, ruling the maritime transport, for the students of Marine engineering.

There are available basic publications that are the same that the ones offered in the Maritime Law I and II, subjects in the Nautical engineering studies; available in the library of the faculty and additional optional literature is provided also in the programme proposal.

Preliminary evaluation of the similarities in between the UPC syllabus and the Split syllabus dedicated to marine legislation topics.

Similarities in between both syllabuses are mainly observed in the PFP128 Maritime Law subject with the 280604 Maritime Legislation in the UPC case.

However, and due to the difference not in in ECTS credits weight but in the number of hours dedicated to teaching activities, in the Barcelona case the subject deals with mainly UNCLOS'82 convention and basic knowledge of main IMO conventions.

In the Barcelona case, the different chapters are not clearly specified as in the Split case, but a general overview of maritime legislation is provided. In the Split syllabus clearly before a general definition of main concepts, regarding the ship or marine facilities and their registration, there is analysed Maritime Code of the Republic of Croatia, the IMO, the EMSA and the UNCLOS convention. Other organizational services, pilotage, inspection, Memorandum of understanding and other main conventions as SOLAS or MARPOL; are dealt also.

There is also an important part of the subject teaching aspects related to the certification, documentation, rules related to classification societies, health declaration and other requirements related to the ship to shore, interactions; like the case of ship's arrival to port and necessary documentation required. MLC convention (nr. 186) is also explained.

In the case of the 130PFP subject on Maritime Law II, it is possible to establish link in between this and Barcelona subject 280622 subject on Regulation, exploitation and ship logistics.

In the case of Split contents, there are main blocks dealing with:

- 1) maritime property law,
- 2) the legal aspects on ship exploitation and liability of shipowners and shipping companies in marine business and the legal aspects of transport of goods, passengers and luggage; by sea and a block on
- 3) maritime insurance and accidents, collision and their issues like pollution or related liabilities.

For the Barcelona case, where up to 4ECTS are dedicated to this second subject, different topics are included like:

- 1) Maritime transport contracts
- 2) Maritime casualties, average, pollution and salvage.
- 3) Maritime insurance, P&I Clubs, claims or adjustments.
- 4) Tax customs, its legislation and economic issues and the example of the economic operator
- 5) Shipping market functioning
- 6) Strategies, objectives, goals and measure sin the shipping business
- 7) Business development implementation in shipping companies

In this case, the subject covers also an economic point of view from the shipping company side, together with the matters related to contract transports and their supporting documents, the part dedicated to maritime casualties and the consequences coming from them, like pollution, liabilities or other actions related with the salvage and limitation of damages. And a part dedicated also to Maritime insurances, P&I clubs, together with claims and adjustments.

The case of the subject PFP129 dedicated to Marine engineering students seems to be thought and synthesized to provide a general overview of law concepts and knowledge to engineer officers.

Provisional report from UPC

Comparison between the syllabus contents in **Split Maritime University** (SMU) versus UPC.

SPLIT maritime University includes in their bachelors, up to 3 different subjects related with maritime law.

1) PFP128. MARITIME LAW. Nautical engineering

This is a subject with 3 ECTS (30 hours of lectures) that is offered during the first year, that is mandatory.

Its main objective is to introduce students with international and national regulations, governing borders at sea, the rights and obligations of the states and other subjects of international law at sea, their mutual relations in connection with the exploitation of sea resources and seabed and their protection; complying with regulations on maritime safety, particularly on the protection of human life at sea and protection of the marine environment.

It is explained that an organization entitled Maritime Administration Office of the Republic of Croatia (Pomorska uprava RH) is the one that develops control of state flag and state port; maintaining order in ports; regime of sea ports and maritime domain; procedures when performing marine administrative formalities upon arrival at a port, calling into a port and departure of ship from a port; legal status of a ship; labour conditions of mariners and the rights and obligations of a shipmaster and other crew members.

The course content of the subject is the following:

- 1) Definition, classification, meaning and origins of Maritime Law and international Law of the Sea. (National organizations, IMO, EMSA; ...). *STCW A-II/1. MC 7.03 3.6.1.1.*
- 2) Legal concept of a ship and marine facilities and their registration.
- 3) Sources of international Law of the Sea. UNCLOS'82. *STCW A-II/1 MC 7.03 3.6.1.2.*
- 4) The right of hot pursuit
- 5) Categorization of regulations on the protection of Marine Environment and International Law of War at Sea
- 6) Organization of Navigation Safety Services in the Republic of Croatia, Port authority and Coast Guard
- 7) Pilotage, inspection, Paris MoU and categories of navigation in the Republic of Croatia
- 8) SOLAS Convention. *STCW A-II/1 MC 7.01 3.2.1.3*
- 9) MARPOL Convention
- 10) Ship's documents and books. *STCW A-II/2 MC 7.01 3.2.1.1*
- 11) Rules on the classification of ships and classification documents
- 12) Report on ships' arrivals and necessary documentation. *STCW A-II/2 MC 7.01 3.2.1.1.*
- 13) Maritime Labour Law. MLC 2006 (nº.186)
- 14) Certificates and declarations to the conventions MLC.
- 15) Ordinance on Vocations and certificates of Competency

It is a basic subject that has written material available in the library of the faculty and additional optional literature is provided also in the programme proposal.

2) PFP130. MARITIME LAW II. Nautical engineering

This is a subject with 3ECTS (corresponding to 45 hours of lectures) that is offered during the second year, that is mandatory.

Its main objective is to widen the knowledge obtained in the previous year, through a thorough knowledge of maritime law institutes and to learn the contents of international and Croatian maritime law.

Also, the acquisition of knowledge which is necessary for the performance of management positions in shipping, as well as for continuation of professional and scientific work in the field of maritime science. This subject is focused to maritime transport with a special incidence on transport of goods by sea and including cases of typical maritime disasters. Special emphasis is placed on the provisions on liabilities.

The course content of the subject is the following:

- 1) Legal sources of maritime property law; Ship in property law; Persons in maritime trade business. Maritime agent services.
- 2) Contractual and non-contractual liability of ship owners and shipping companies in marine business; Convention on Limitation of Liability for Maritime Claims, 1976 (LLMC).
- 3) Legal aspect of ship exploitation – definition of term and contract layout; International regulations on transport of goods by sea; International Convention for the Unification of Certain Rules of Law relating to Bills of Lading, 1924 (Hague Rules) with Protocol 1968 (Hague-Visby Rules) and the Protocol, 1979 (SDR Protocol); United Nations Convention on the Carriage of Goods by Sea, 1978 (Hamburg Rules); UN Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea, 2009 (Rotterdam Rules).
- 4) Transport of goods by sea; Definition, elements and contractual parties; Time charter; Voyage charter.
- 5) Legal affairs on transportation of goods by sea; Bills of lading; Sea Waybills; Electronic transport document.
- 6) Carrier's liability for cargo damage and delays; Limitation of liability; Special cases of carrier's exclusion of liability. *STCW A-II/1 MC 7.03 3.2.1.6*
- 7) Legal affairs on transportation of passengers and luggage by sea; Athens Convention relating to the Carriage of Passengers and their Luggage by Sea; Legal status of stowaways; Legal affairs on towing. *STCW A-II/1 MC 7.03 3.2.1.6*
- 8) Multi-carrier transportation; Bareboat charter.
- 9) Definition of maritime accidents; Legal sources; General average - definition, liquidation; York Antwerp Rules.
- 10) Marine salvage - legal sources, definition of salvage, types of salvage; Salvage Award; Removal of sunken wrecks; Removal of wrecks.
- 11) Modern Salvage Law; International Convention on Salvage, 1989 (London); Forms - LOF 1995, 2000 and 2011.
- 12) Legal aspects of pollution of marine environment; International Convention on Civil Liability for Oil Pollution Damage, 1992 and International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992; The International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (HNS); International Convention on Civil Liability

for Bunker Oil Pollution Damage (BUNKER); Responsibility of ship owner for damage; Responsibility under the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM).

- 13) Ship collision; Legal sources; Definition and types of collisions; Compensation from ship collision.
- 14) Definition of maritime insurance; Institute clauses; Premium insurance and mutual insurance.
- 15) Role of insurance in maritime disasters; Liability insurance of shipping companies; P & I club.

It is an advanced subject that has written material available in the library of the faculty and additional optional literature is provided also in the programme proposal.

3) PFP129. MARITIME LAW, AVERAGE AND DAMAGE. Marine engineering

This is a subject with 3ECTS (corresponding to 30 hours of lectures) that is offered during the third year, that is mandatory.

Its main objective is to familiarise students with international and national regulations on the rights and obligations of the states in marine and submarine areas, procedures for carrying out maritime administrative formalities on arrival, stay and departure of the ship from the port, the state-legal position of the ship, meeting the (international) requirements on the safety of navigation, particularly on the protection of human life at sea and protection of the marine environment, rights and obligations of the master and other crew members, and all persons involved in the maritime industry, liability of shipowners (shippers), maritime property institutes and the overview of the Croatian and international maritime property law.

This is a subject that is understood as an integration of the two courses of maritime legislation offered to the nautical engineering students but in this case to Marine engineering.

The course content of the subject is the following:

- 1) Definition, classification, meaning and origins of Maritime Law and international Law of the Sea. (National organizations, IMO, EMSA; ...). *STCW A-II/1. MC 7.03 3.6.1.1.*
- 2) International Law of the Sea. UNCLOS'82. *STCW A-II/1 MC 7.03 3.6.1.2.*
- 3) Responsibilities required by SOLAS Convention. Ascertaining the vessel's seaworthiness. *STCW A-II/1 MC 7.03 3.6.1.3*
- 4) Liability according to Load Lines Convention, 1966/68. *STCW A-II/2 MC 7.01 3.2.1.2.*
- 5) Regulations on Marine Environment protection. *STCW A-II/1 MC 7.03 3.1.1.1.*
- 6) Convention on the prevention of pollution by dumping waste and other matter (London Convention, 1972). International Convention relating to intervention on high seas in case of an accident, causing oil pollution, 1969. International Convention on civil liability for oil pollution damage (1992), and Convention on the establishment of an international fund for compensation for damage caused by pollution, 1992. International Convention on civil liability for oil pollution damage, 2001. International convention on the liability and compensation for damage related to transport of dangerous and harmful substances by sea, 1996.
- 7) Ship's documents and books: Certificate of registry, International load lines convention (1966) and other certificates.

- 8) International Certificate of oil pollution prevention, International pollution prevention Certificate for the carriage of noxious liquid substances in bulk (NLS certificate); Certificate of class for hull, machinery and machine cooling system. Different logbooks onboard, Crew list, Passenger list, Fumigation certificate or Certificate of exemption from fumigation.
- 9) Maritime labour law; ship's crew - generally, division into departments, rights and obligations of members of the crew. Maritime labour convention (No. 186), Convention on minimum standards on merchant ships, 1976 (No. 147), Convention on the contract for seafarers, 1926 (No. 22), Convention on the minimum age for employment, 1973 (No. 138), Convention on the procurement, preparation and serving of food, 1946 (No. 68). Convention on the certification of ships' cooks, 1946 (No. 69). Convention on the certification of qualified sailors, 1946 (No. 74) Convention on wages, working hours on board and manning levels (revised), 1958 (No. 109), Convention on paid vacation for seafarers (revised), 1949 (No. 91); Convention on the compulsory medical examination of children and young persons employed on board ships, 1921 (No. 16).
- 10) Repatriation of seafarers convention, 1926 (No. 23), Repatriation of seafarers convention (revised), 1987 (No. 166); Recommendation on repatriation of seafarers, 1987 (No. 174), Convention on the accommodation of the crew on board ships (revised), 1949 (No. 92), Provision of medical advice to ships at sea by radio, 1958 (No. 105), Convention on the prevention of accidents with seafarers, 1970 (No. 134); Recommendation on the prevention of accidents with Seafarers in 1970 (No. 142), Convention on the medical examination of seafarers, 1946 (No. 73), Convention on seafarers' health insurance, 1936 (No. 56).
- 11) Collision, legal sources: International convention for the unification of certain rules regarding ship collisions, 1910.
- 12) Rescue at sea: legal sources, the concept of salvage, types of salvage, navigation procedures. Modern salvage law: International convention on salvage, 1989. (London) Salvage Contract (LOF 1995 and 2000).
- 13) Limitation of liability of shipowners (shipping): Convention on limitation of liability for maritime claims, 1976 (LLMC Convention).
- 14) International regulations on the carriage of goods by sea, International Convention for the unification of certain rules relating to Bills of Lading, 1924 (Hague Rules) with the Protocol, 1968 (The Hague-Visbi rules). The contract of carriage of goods by sea (charter-party), concept and elements of the contract, the contract parties. Contract on towing; Hamburg Rules; Rotterdam Rules.
- 15) The concept of maritime average, legal sources. Common average; York-Antwerp Rules. Notion of marine insurance, marine insurance contract; institute clauses; premium and mutual insurance, liability insurance; P. & I. clubs

The contents of this basic course, provide a general overview of the main legal topics, ruling the maritime transport, for the students of Marine engineering.

There are available basic publications that are the same that the ones offered in the Maritime Law I and II, subjects in the Nautical engineering studies; available in the library of the faculty and additional optional literature is provided also in the programme proposal.

Preliminary evaluation of the similarities in between the UPC syllabus and the Split syllabus dedicated to marine legislation topics.

Similarities in between both syllabuses are mainly observed in the PFP128 Maritime Law subject with the 280604 Maritime Legislation in the UPC case.

However, and due to the difference not in in ECTS credits weight but in the number of hours dedicated to teaching activities, in the Barcelona case the subject deals with mainly UNCLOS'82 convention and basic knowledge of main IMO conventions.

In the Barcelona case, the different chapters are not clearly specified as in the Split case, but a general overview of maritime legislation is provided. In the Split syllabus clearly before a general definition of main concepts, regarding the ship or marine facilities and their registration, there is analysed Maritime Code of the Republic of Croatia, the IMO, the EMSA and the UNCLOS convention. Other organizational services, pilotage, inspection, Memorandum of understanding and other main conventions as SOLAS or MARPOL; are dealt also.

There is also an important part of the subject teaching aspects related to the certification, documentation, rules related to classification societies, health declaration and other requirements related to the ship to shore, interactions; like the case of ship's arrival to port and necessary documentation required. MLC convention (nr. 186) is also explained.

In the case of the 130PFP subject on Maritime Law II, it is possible to establish link in between this and Barcelona subject 280622 subject on Regulation, exploitation and ship logistics.

In the case of Split contents, there are main blocks dealing with:

- 1) maritime property law,
- 2) the legal aspects on ship exploitation and liability of shipowners and shipping companies in marine business and the legal aspects of transport of goods, passengers and luggage; by sea and a block on
- 3) maritime insurance and accidents, collision and their issues like pollution or related liabilities.

For the Barcelona case, where up to 4ECTS are dedicated to this second subject, different topics are included like:

- 1) Maritime transport contracts
- 2) Maritime casualties, average, pollution and salvage.
- 3) Maritime insurance, P&I Clubs, claims or adjustments.
- 4) Tax customs, its legislation and economic issues and the example of the economic operator
- 5) Shipping market functioning
- 6) Strategies, objectives, goals and measure sin the shipping business
- 7) Business development implementation in shipping companies

In this case, the subject covers also an economic point of view from the shipping company side, together with the matters related to contract transports and their supporting documents, the part dedicated to maritime casualties and the consequences coming from them, like pollution, liabilities or other actions related with the salvage and limitation of damages. And a part dedicated also to Maritime insurances, P&I clubs, together with claims and adjustments.

The case of the subject PFP129 dedicated to Marine engineering students seems to be thought and synthesized to provide a general overview of law concepts and knowledge to engineer officers.

Provisional report from UPC

Comparison between the syllabus contents in **Latvian Maritime Academy** (LMA) versus UPC.

LMA includes in their bachelors, up to 4 different subjects related with maritime law.

1) LV_A- 2-7. The Maritime Law. BSc in Maritime Transport – Navigation

This is a subject with 3ECTS (80 hours in total, including self-study hours) whose main objective is to monitor and control compliance of regulations coming from SOLAS and MARPOL, conventions. Additionally, to improve and acquire new knowledge of international maritime law and knowledge of the national legislative activities in the maritime field.

STCW competences taught in this subject, are the ones included in the IMO Model courses 7.01 and 7.03; mainly the following topics:

- *STCW A-II/1 MC 7.03 3.1.1.2. Conventions and legislations adopted by various countries*
- *STCW A-II/2 MC 7.01 3.2.1.1. Certificates and other documents required to be carried on-board ships by international conventions*
This chapter deals with certificates required by crew in all kinds of SOLAS ships.
- *STCW A-II/2 MC 7.01 3.2.1.2. Responsibilities under the Relevant Requirements of the International Convention of Load Lines*
In this lecture, Load Lines convention liabilities are considered.
- *STCW A-II/2 MC 7.01 3.2.1.3. Responsibilities under the Relevant Requirements of the International Convention for the Safety of Life at Sea*
In this lecture, SOLAS convention is dealt regarding liabilities considered within it.
- *STCW A-II/2 MC 7.01 3.2.1.5. Maritime declarations of health and the requirements of the International Health Regulations*
In this lecture, Arrival documents and procedures together with FAL forms, are dealt.
- *STCW A-II/2 MC 7.01 3.2.1.6 Responsibilities under other international maritime law embodied in international agreements and conventions, that impact on the role of management level deck officers*
Dealing with UNCLOS '82 convention and shipping regime. ILO MLC 2006 convention, Hague-Visby rules and Latvian freight transport rules and its comparison with Hamburg and Rotterdam rules. Further lectures on Latvian national legislation on civil liability of ships for maritime claims, LLMC Convention, marine insurance, maritime-safety Code, ship registration, international and national provisions and the familiarization with the SOLAS International Convention.
- *STCW A-II/1 MC 7.03 3.2.1.7. Responsibilities under international instruments affecting the safety of the ship, passengers, crew and cargo*
An introductory lecture of International Conventions, EU and Latvian legislation on port state control, flag state control and supervision of classification societies

- *STCW A-II/1. MC 7.03 3.6.1.1. Introduction to Maritime Law*
Dealing with Law of the Sea and maritime history of law-making principles.
- *STCW A-II/1 MC 7.03 3.6.1.2. Law of the Sea.*
Dealing with different conventions like UNCLOS'82 structure marine areas and its implementation, Latvian national regulations, Hague-Visby rules, ship arrest in maritime claims, York-Antwerp rules and its application in Latvian regulations or Lloyd's open forms and Wreck Convention 2009.
- *STCW A-II/1 MC 7.03 3.6.1.3. Safety: SOLAS, 1974 as amended.*
With lectures of SOLAS, Load Lines Convention 66, Tonnage Convention 69, Passenger and their Luggage 74 and STCW conventions, SPACE STP 73, ISO, SSPS and ISM codes.

All of those competences are supported by an exhaustive list of materials of public availability.

2) LV_A- 2-9. Ship management. BSc in Maritime Transport – Navigation

This is a subject with 3ECTS (80 hours in total, including self-study hours) whose main objective is for providing students to use theory and integrate complex knowledge in research work in relation to reducing the environmental and social impact of maritime transport / port professional activities.

The subject includes basics of ship management; organizational structures of management – Ownership, Commercial and Technical managers functions and structural units; Responsibility, and documents regulating technical management, Shipman 2009 forms. Building and disposal of the ships. Company's policy. ISM requirements and Certification. Designated person. Classification societies. Class and Statutory Certification. PSC inspections. OCIMF and CDI inspections and other pollutant control topics included.

STCW competences taught in this subject, are the ones included in the IMO Model courses 7.01 and 7.03; mainly the following topics:

- *STCW A-II/1, A-II/2 and A-VIII/2; (3.,4.,5.d.), 7.03 model course, 1.,2.,3. and 1.39 model course and 7.01 model course, 3.5.1*
These parts are mainly dedicated to energy efficiency of ships aspects like bunker procurement and delivery organization and control, environmental impact of ship power plant operations and environment impact reduction technologies, different technologies for ensuring the requirements of ship energy regulations (EEDI, EEXI, CII, MRV, SEEMP) or decarbonisation and alternative fuel technologies (methanol, ammonia, glycerine, hydrogen, LNG, nuclear, LPG, ethane, shore-side power supply, etc.)
- *MLC Convention*
Dealing with ship's engineering innovation and budgets, implementation of technical novelties and technical running of ships' budget (OPEX), maritime purchasing management and optimization.
- *STCW A-II/1, A-II/2, 1.39 model course and 7.01 model course, 3.5.4*
On manning or management resources on ships, ISM compliances, practical application of drug and alcohol controls or MLC obligations and rights.

In the end, the knowledges to be acquired are to link the fulfilment of technical and regulatory requirements with economic justification and optimal efficiency, knowledge of effective forms of ship management, technologies and future challenges also knowledge of ships' energy resources and technologies.

Related competencies range from the transport of dangerous goods management to a wide spectrum of skills related with the protection of human life and environment; in the maritime business; understanding its main components and regulations.

3) LV_A- 3-15. Environment Maritime Protection. BSc in Maritime Transport – Navigation

This is a subject with 3ECTS (80 hours in total, including self-study hours) whose main objective is one of the professional specialisation study courses of the sector.

This includes standards determined by the International Maritime Organisation (IMO), Helsinki Commission (hereinafter HELCOM), EU and their application in international navigation; together with the knowledge and skills for mastering the MARPOL 73/78 Convention and duties of an officer on the ship associated with this Convention. In this sense it is harmonized with the STCW Code competence standards A-II/1 and A-II/2, updated to the Protocol of 2010.

STCW competences taught in this subject, are the ones included in the IMO Model courses 7.01 and 7.03; regarding the protection of marine environment:

In its part I, the subject enters in the following competences:

- STCW A-II/2 MC 7.01 3.2.1.4. Responsibilities under the International Convention for the prevention of pollution from ships
- STCW A-II/2 MC 7.01 3.2.1.7 Responsibilities under international instruments affecting the safety of the ship, passengers, crew and cargo
- STCW A-II/1 MC 7.03 3.1.3.1. Importance of proactive measures to protect the marine environment
- STCW A-II/1 MC 7.03 3.1.1.1. MARPOL 73/78
- STCW A-II/1 MC 7.03 3.1.1.2. Convention and legislations adopted by various countries,
- STCW A-II/1 3.1.2.1 Control of discharge of oil; 3.1.2.2. Oil Record Book (Part I – Machinery space Operations) and Part II – Cargo/Ballast operations)
- STCW A-II/1 MC 7.03 3.1.2.3. Shipboard Oil Pollution Emergency Plan (SOPEP) including Shipboard Marine Pollution Emergency Plans (SMPEP) for Oil and/or Noxious Liquid Substances and Vessel Response Plan (VRP
- STCW A-II/1 MC 7.03 3.1.2.4. Operating procedures of anti-pollution equipment, Sewage plant, incinerator, comminutor, ballast water treatment plant
- STCW A-II/1 MC 7.03 3.6.1.3. Safety (International Convention on the Control of Harmful Anti-fouling Systems on Ship, 2001 and International Convention for the Control and Management of Ship's Ballast Water and Sediments, 2004)

In its part II, the subject enters in the following competences:

- STCW A-II/2 MC 7.01 2.1.6.2. Contents and application of ISGOTT
- STCW A-II/2 MC 7.01 2.1.9.1. Establish Procedures for safe cargo handling in accordance with the provisions of the relevant instruments
- STCW A-II/2 MC 7.01 2.3.1.1. International regulations and codes including the International Maritime Dangerous Goods (IMDG) Code and the International Maritime Solid Bulk Cargoes (IMSBC);
- STCW A-II/2 MC 7.01 2.3.2.1. Dangerous goods in packages

- STCW A-II/2 MC 7.01 3.2.1.4. Responsibilities under the International Convention for the prevention of pollution from ships
- STCW A-II/2 MC 7.01 3.2.1.8. Methods and aids to prevent pollution of the marine environment by ships

This subject is the one dedicated to pollution prevention, as its content focus in MARPOL 73/78 convention, together to all its 6 annexes, additionally to SOLAS Chapter VII dealing with transportation of packaged dangerous cargo and related with as IMDG code.

Additionally other conventions, related to environment protection as Anti-fouling Systems on Ship, 2001 or BWM 2004; are also included together with other regional agreements like HELCOM, Barcelona Convention, OSPAR and some other regulations related to interactions between port and ship or related to the Port Facilities, inter alia.

4) LV_A- 3-4. Technology of Cargo Transportation. BSc in Maritime Transport – Navigation

This is a subject with 6 ECTS (160 hours in total, including self-study hours) whose main objective is to provide theoretical knowledge and practical skills on maritime transport technologies, loading, placement, securing and monitoring of cargoes during the trip, cargo calculations and methods of drawing up the cargo plan, impact of cargo and cargo operations on the condition and stability of the ship.

The relevant competence level specified in the STCW Convention for this subject is regarding cargo transportation, including regarding the carriage of dangerous goods, it also includes activities in which provisions of international codes and recommendations related to cargo operations are examined, as the International Maritime Dangerous Goods Code, Grain Code, IMSBC and others, including inspection procedures for ships.

STCW Code A-II/1 and A-II/2 competences taught in this subject, includes sections corresponding to IMO Model courses 7.01 and 7.03.

In its part 1, the following competences are taught:

General definitions and concepts

- STCW A-II/1 MC 7.03 2.1.1.1. Draught, trim and stability and STCW A-II/2 MC 7.01 2.1.2.1. Draught, Trim and Stability

Specifically, for bulkcarriers:

- STCW A-II/1 MC 7.03 2.1.1.1. Draught, trim and stability, 2.1.1.5. Bulk cargo, 2.1.1.6. Bulk grain cargo, 2.1.2.3. Cargo handling equipment and safety, 3.2.1.10. Effect of slack tank
- STCW A-II/2 MC 7.01 2.1.7.1. Operational and design limitations of Bulk carriers; 2.1.7.2. SOLAS Chapter XII Additional Safety Measures for Bulk Carriers; 2.1.7.3. CSR Bulk
- STCW A-II/2 MC 7.01 2.1.8.1. Application of all available shipboard data related to loading, care and unloading of bulk cargoes
- STCW A-II/2 MC 7.01 2.2.2.1. Methods to avoid the detrimental effects on bulk carriers of corrosion, fatigue and inadequate cargo handling
- STCW A-II/2 MC 7.01 2.2.1.1. Limitations on strength of the vital constructional parts of a standard bulk carrier and interpret given figures for bending moments and shear forces
- STCW A-II/2 MC 7.01 2.3.2.2. Solid bulk cargoes; 2.3.1.1. International regulations and codes including the International Maritime Dangerous Goods (IMDG) Code and the International Maritime Solid Bulk Cargoes (IMSBC) Code

Specifically, for Oil tankers:

- STCW A-II/2 MC 7.01 2.1.6.1. Terms and definition
- STCW A-II/2 MC 7.01 2.1.6.2. Contents and Application of the International Safety Guide for Oil Tankers and Terminals (ISGOTT)
- STCW A-II/2 MC 7.01 2.1.6.3. Oil Tanker Operations and Related Pollution-prevention Regulations
- STCW A-II/1 MC 7.03 2.1.2.4. Oil tanker piping and pumping arrangements

Specifically, for Chemical tankers:

- STCW A-II/1 MC 7.03 2.1.2.2. Dangerous, hazardous and harmful cargoes; STCW A-II/2 MC 7.01 2.1.6.4. Chemical Tankers; 2.3.1.1. International regulations and codes including the International Maritime Dangerous Goods (IMDG) Code and the International Maritime Solid Bulk Cargoes (IMSBC) Code
- STCW A-II/2 MC 7.01 2.1.6.5. Tank Cleaning and Control of Pollution in Chemical Tankers

- STCW A-II/2 MC 7.01 2.1.6.6. Gas Tanker; 2.1.6.7. Cargo operations in Gas Tanker; 2.3.1.1. International regulations and codes including the International Maritime Dangerous Goods (IMDG) Code and the International Maritime Solid Bulk Cargoes (IMSBC) Code

Regarding deck cargo procedures in other ships:

- STCW A-II/1 MC 7.03 2.1.1.3. Deck cargo
- STCW A-II/1 MC 7.03 2.1.2.1. Cargo care; 2.1.2.5. Precautions before entering enclosed or contaminated spaces
- STCW A-II/1 MC 7.03 2.1.2.6. Cargo calculations and cargo plans
- STCW A-II/1 MC 7.03 2.1.1.3. Deck cargo, 2.1.1.4. Container cargo

Regarding cargo handling according to procedures and inspection of the cargo premises and notification of defects:

- STCW A-II/2 MC 7.01 2.1.9.1. Establish Procedures for safe cargo handling in accordance with the provisions of the relevant instruments; 2.3.1.1. International Regulations and Codes
- STCW A-II/1 MC 7.03 2.2.1. Cargo spaces inspection, 2.2.3. Ballast tanks inspection; 2.2.2 Hatch covers inspection, 2.2.4. Damage report
- STCW A-II/1 MC 7.03 2.2.5. Enhanced survey programme, 3.6.1.3 Safety (Guidelines on the Enhanced Programme of Inspections During Surveys of Bulk Carriers and Oil Tankers)
- STCW A-II/2 MC 7.01 2.1.8.2. BLU code; 2.1.10.1. Basic principles for establishing effective communications and improving working relationship between ship and terminal personnel

Part 2 in the subject is more dedicated to transportation of dangerous goods:

- STCW A-II/1 MC 7.03 3.6.1.3.8. SOLAS - Carriage of dangerous goods
- STCW A-II/1 MC 7.03 2.1.2.2. Dangerous, hazardous and harmful cargoes
- STCW A-II/1 MC 7.03 2.1.2.2. Dangerous, hazardous and harmful cargoes; STCW A-II/2 MC 7.01 2.3.2.1 Dangerous Goods in Packages
- STCW A-II/2 MC 7.01 2.1.1.1. Plans and Actions Conform with International Regulations
- STCW A-II/2 MC 7.01 2.1.3.1. Shear Forces, Bending Moments and Torsional Moments
- STCW A-II/2 MC 7.01 2.1.3.4. Knowledge of loading cargoes and ballasting in order to keep hull stress within acceptable limit
- STCW A-II/2 MC 7.01 2.1.3.2. Compliance with the Minimum Freeboard Requirements of the Load Line Regulations
- STCW A-II/2 MC 7.01 2.1.3.3. Use of Automatic Data Based (ADB) Equipment

Regarding Timber deck Cargoes:

- STCW A-II/2 MC 7.01 2.1.4.1. Timber Deck Cargoes
- STCW A-II/2 MC 7.01 2.1.4.2. Procedures for Receiving and Delivering Cargo
- STCW A-II/2 MC 7.01 2.1.4.4. Requirements Applicable to Cargo-handling Gear; 2.1.4.5. Maintenance of Cargo Gear; 2.1.4.6. Maintenance of Hatch Covers

Regarding Heavy weights and general care of cargo spaces and medical aid guide in case of accidents involving dangerous goods:

- STCW A-II/2 MC 7.01 2.1.5.1. Loading, Stowage and Discharge of Heavy Weights
- STCW A-II/2 MC 7.01 2.1.4.3. Care of Cargo During Carriage; 2.1.5.2. Care of Cargo During Carriage; 2.1.5.3. Methods and Safeguards When Fumigating Holds
- STCW A-II/2 MC 7.01 3.6.1.3. Medical First Aid Guide for Use in Accidents Involving Dangerous Goods

Preliminary evaluation of the similarities in between the UPC syllabus and the Latvian syllabus dedicated to marine legislation topics.

Similarities in between both syllabuses are mainly observed in the 2-7 Maritime Law subject with the 280604 Maritime Legislation in the UPC case.

However, and due to the difference not in in ECTS credits weight but in the number of hours dedicated to teaching activities, in the Barcelona case the subject deals with mainly UNCLOS'82 convention and basic knowledge of main IMO conventions.

In the Barcelona case, the different chapters are not clearly specified as in the Latvian case but a general overview of maritime legislation is provided. In the Riga syllabus clearly before a general part of the UNCLOS convention and other main IMO conventions; there is dedicated an important part of the subject to the certification, documentation, responsibilities, health declaration and other requirements related to the ship to shore; interactions.

In the case of the 2-9 subject on Ship management, there is a similarity in between this subject and Barcelona subject 280622 subject on Regulation, exploitation and ship logistics. For the Riga case, the subject is mainly dedicated to Energy efficiency of ships, MLC and ISM; conventions, but in the Barcelona case the subject is focused in one hand to the port logistics and in the other side to the ship's registry, flag and registry issues, fiscality and second registry in Spain as Canary Islands case.

Another part dedicated to maritime contracts and a third part dedicated to marine stakeholders, form the shore point of view.

We can say that the similarities between those two subjects is not clearly visible.

For the case of the subject 3.15. Environment Maritime Protection, there is a clear no coincidence with the Barcelona case, even that there is a subject in the syllabus that is identified as 280621 Pollution prevention and sustainability that is fully coincident, as it is mainly focused on MARPOL convention and other related regulations.

In the 3.4 case, there is not a clear similarity with the Barcelona case, because in this last scenario, a full subject named 280618 Stowage, with 12 ECTS that is dealing not only in Bulk carriers and Oil Tankers, but also in general premises of stowage as basic calculations, but also a different typology of ships from container, to Ro/Ro or heavy weight transports but also reefers, timber deck and mainly Bulk and grain carriers. However, this subject is more dedicated to operational and calculation aspects than from the legal point of view.