

# A Research on the Construction of International Training Course for Maritime Talents Based on the Initiative of “One Belt and One Road”

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**Abstract:** Based on the initiative of “One Belt and One Road” and the demand analysis of the international shipping market for high-quality maritime talents with good skills of communicating ability and international vision, this paper analyzes the feasibility, necessity, construction goal, construction principle, construction content, tutorial setting, tutorial structure and tutorial demonstration and explore how to make China maritime universities’ have ability to train the international students in an efficient and orderly manner; by investigating the relevant enterprises and institutions, and presents a plan for the construction of “One Hundred Courses, One Thousand Class-Hours”.

**Key words:** The initiative of “One Belt and One Road”, maritime talents, One Hundred Courses, One Thousand Class-Hours.

President Xi Jin-ping pointed out in the report of the 19th CP Congress that China will stick to its basic state policy of opening up and actively promote the international cooperation of “One Belt and One Road”. In order to build China into a strong maritime power, education must come first, especially the maritime education, based on this and the demand analysis of international shipping market for high-quality maritime talents with good language ability and international vision, so China’s maritime universities are faced with how to take the opportunities to transform the development and upgrade of traditional subjects construction and focus on the national development needs of applied maritime talents and the development of “One Belt and One Road” initiative. How China maritime universities have the ability to develop the international education and train the maritime talents with good language ability and international vision efficiently is the core elements for

future development of maritime education to raise the voice of China in the international maritime field. Based on the latest development of maritime course and its characteristics from the international perspective and exploring how to broaden our vision, this paper analyzes and studies the construction of international maritime course and how to use it to promote the transformation of international maritime personnel training, at last to form an international maritime curriculum system that can meet the requirements of “One Belt and One Road” initiative.

## 1. Necessity and Feasibility

### 1.1 Necessity

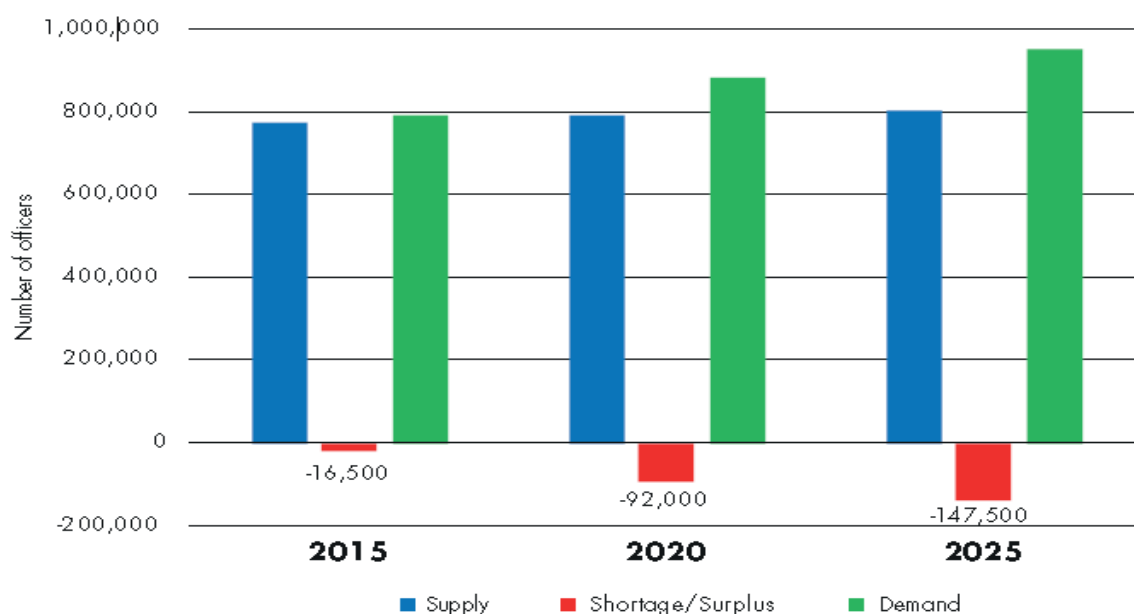
#### 1.1.1 Dem in the Shipping Markets

With the development of international shipping market, a large number of maritime talents with international vision are needed, such as, personnel engaged in international shipping, port, water safety and pollution control, insurance, actuarial, legal consulting and related services. Based on the Manpower Report 2015 of BIMCO/ICS global seamen

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**Fig. 1 Basic forecast for the future supply-demand balance for officers**

supply and demand, this paper takes the international seaman market as an example to analyze that today the shortfall of the global seamen market is 2.1%, or about 16,500 crewmember, and by 2025 is 147,500 crewmember.

#### 1.1.2 The Needs of the Development of China's Maritime Universities

At present, the internationalization of China's maritime education is insufficient and there appear a lot of problems, especially in training maritime talents with international vision. Such as, the construction of international courses and the serious shortage of “international teachers”, the mutual recognition of certificates issued by Chinese seafarers and certificates issued by international seafarers and so on, which cannot promote maritime universities to attract excellent professional and technical personnel to participate in the training of maritime talents with an international vision.

#### 1.2 Feasibility

##### 1.2.1 Support from “One Belt and One Road” Initiative and Relevant National Policies

Vision and Actions on Jointly Building Silk Road

Economic Belt and 21st-Century Maritime Silk Road points out that people-to-people bond is the key to provide the public support for implementing the initiative, and we should carry forward and integrate the spirit of silk road friendship and cooperation by promoting extensive cultural and academic exchanges, personnel exchanges and cooperation etc., so as to win public support for deepening bilateral and multilateral cooperation. And Chinese government has pledged to provide 10,000 government scholarships each year and other measures to deepen personnel exchanges and cooperation between countries along the belt and road.

##### 1.2.2 The Internationalization Development Engaged by Some Maritime Universities

At present, some maritime universities have made some beneficial explorations in international construction and invested a lot of capital, manpower and equipment. Such as Jiangsu Maritime College has taken a series of measures to promote international development by designating 2017 as the year of international construction, in 2016, founded L'institute de JMI & Winning Group de Guinée and arranged teachers to guinea teaching, and in 2017 set up the institute of international education to organize

international students to China to study and Chinese students to study abroad, such as, successively hosted training courses for Myanmar seafarers, Bangladeshi seamen and Maersk company, which have accumulated certain experience for the construction of international courses. On October 27, 2017, Panama maritime department has authorized Jiangsu Maritime College as its training base which means, Jiangsu Maritime College can apply for training and issue Panama crew certificates. According to Panama maritime training requirements, Jiangsu Maritime Institute took a series of measures to design course, improve the professional ability of domestic crew, promote the internationalization of seamen training and lay an important foundation for further strengthening the training of Chinese seamen's complementary strength.

The other maritime universities, such as, Shanghai Maritime University, Dalian Maritime University and Nantong Shipping Vocational and Technical College, have also gained considerable experience in training seafarers with foreign interests. In particular, Shanghai Maritime University has taken many measures to build maritime courses to promote international maritime talents training, such as, entrusted by China's ministry of commerce, Shanghai Maritime University undertook the China-Myanmar economic and technological cooperation project to train students for Myanmar, and set up the “Shanghai Maritime University Regional Center for Africa” in Ghana. In 2010, it began to conduct overseas education programs for undergraduate majors (logistics management) in Africa, and since 2011, it undertaken the “Turbine Duty and Basic Safety Training Program” for the Danish Copenhagen institute of Marine engineering, and nearly 200 students from Denmark studying here.

#### 1.2.3 Support from Relevant Shipping Enterprises

With the rapid development of economy, the salary gap between working on-board and on-shore has narrowed considerably, and the income-advantages of work on board have been significantly reduced or even

reversed. In addition, many seafarers are unwilling to work on board due to the danger and the boring of working on board, which causes the shortage of high-quality international crew to restrict the vigorous development of China's shipping industry, so some shipping companies, such as, Singapore Winning International Group, Shanghai Tai-hua Shipping Management Co. LTD, etc., have been actively exploring the effective allocation of global seafarers' supply and demand and expanding the recruitment of foreign seamen, especially, high-quality foreign special ship seamen who are sent to relevant institutions for training, and respected their cultural differences and customs to promote the integration of Chinese and foreign sailors.

#### 1.2.4 Course Accreditation of Chinese Maritime Authorities

According to STCW Convention Manila Amendments, Seafarer-training Rules of the People's Republic of China (2016 edition), IMO MODEL COURSE and relevant curriculum requirements, China's MSA is certifying the relevant professional courses of maritime universities.

## **2. Build a Proper Construction Program for International Course**

### *2.1 Guiding Ideology for Curriculum Construction*

Based on the existing situation of China's maritime universities and the demand for talents in shipping, port, logistics, government management and related services under the initiative of “One Belt and One Road”, the guiding ideology of the course construction is to solve the problem in international course construction for maritime talents and the shortage of international faculty, regulate and improve China's international maritime talents training and determine the guiding ideology, construction target and construction content of the international maritime course.

#### 2.1.1 The Target of Course Construction

The target of cultivating international maritime talents is realized by internationalized courses, which

aims to develop the students to not only have strong professional skills, but also have rich knowledge and the corresponding international communication ability, such as, the knowledge of international laws and regulations, of humanities and so on. We should construct the international course of "Hundred Courses and a Thousand Learning Hours", by learning from the experience of course construction of foreign related universities, and emphasizing people-oriented and cultural-integration. In constructing, we should always put the ability-training as the main line to focus on internationalization, and then adjust the existing curriculums step by step, updating the course with the latest development trend of navigation technology, to make the course suitable for international students and Chinese students for international maritime vocational study, simultaneously, which can promote teachers' teaching abilities in the Chinese/English bilingual international course.

In order to promote the development of this program, we selected five majors, including navigation-technology, marine-engineering management, port-operation, shipping-business and maritime-management to carry out the construction of Chinese-English bilingual international maritime course, which can make the development of the international maritime academic education and specification be canonical, scientific and in good order, to attract maritime professionals in developing countries to study in China maritime colleges.

#### 2.1.2 The Contents of Course Construction

Five professional courses, such as navigation technology etc., are selected for setting up and accreditation, and construct the international maritime course with "One Hundred Courses, One Thousand Class-Hours" across these five types of majors.

➤ Study relevant overseas maritime universities and WMU and expand the idea of international maritime education

Based on the corresponding practices of some international universities, when constructing the

courses, we will combine the different cultures to determine the maritime talent education policy to meet the demands of the international development of maritime professional knowledge and skill requirements. Teachers are mainly innovative education skills of existing school teachers, and widely absorbed by professionals with international vision, strong language skills and professional knowledge. According to analyzing the five professional majors' courses, we develop the comprehensive international courses in both English and Chinese and the ability to teach Chinese and English maritime professional modules in every subject which is carried out as a project and protect the intellectual property and aim to promote the development of bilingual competence of in-service teachers by systematic, integrated and standardized discipline development.

➤ Panning the international maritime course of "One Hundred Courses, One Thousand Class-Hours"

In construction, by planning properly and organizing carefully, we will try to complete the relevant course construction in one year and implement it initially and then take 1-2 years to further improve the course construction; at the same time, it is suggested that the competent authorities systematize various administrative procedures and improve the international student enrollment, education, graduation and vocational qualification examinations, and develop operational, financial, logistic and administrative plans. In addition, based on the construction of course, student entry requirements, administrative management, and other basic work, relevant specification management mechanism is established and the international maritime vocational training system is developed to guarantee the international maritime tutorial run on a certain height of platform.

➤ Gradually establish the corresponding management system for international students

Establish the mechanism for international students and Chinese students, learn together and make the management system suitable for international students

studying, which makes them actively choose to study the same courses as Chinese students.

## *2.2 The Program for Constructing “One Hundred Courses, One Thousand Class-Hours”*

### *2.2.1 Curriculum Setting*

Training systems of different levels and classes are formulated for the five majors of navigation-technology, marine-engineering-technology, port-operation, shipping-business and maritime management which can be classified into general-courses, feature-courses and major courses (including professional practice). General courses are designed for international students which include Chinese language, Chinese culture and Chinese customs and so on. Feature-courses and major courses are set up according to the actual needs of the major and can also be selected from the existing courses for Chinese students which can make the international students choose to attend classes with Chinese students. First of all, the curriculum development of relevant universities and the requirements of the industry should be investigated, the curriculum setting is determined, and then expert is organized to demonstrate, and then the courses of “One Hundred Courses, One Thousand Class-Hours” and their description are proposed, trying to achieve scientific configuration and comprehensive consideration of five professional courses. At last, the teaching syllabus, course certification procedures and standards are formed.

### *2.2.2 Curriculum Organization*

In order to make the selected majors better, every maritime university may, in accordance with its actual situation, determine five majors and the size and make it distinctive. The course can be divided into three parts which are general courses, feature courses and major courses. (1) General courses are designed for international students, which include Chinese language, Chinese culture and Chinese customs and so on. Determined by different learning systems, general-courses are mainly conducted on culture,

custom and language exchange. (2) Feature-courses mainly combine specialty and culture and explain navigation culture, navigation background and so on. (3) Major courses and its professional practice enable students to master the necessary professional basic theory, professional knowledge and professional skills, trends in the frontier science and technology and the development of this major, training the analyzed abilities to solve practical problems. Then the courses are arranged according to different academic systems.

Taking 4-year education for example, we can divide it into three stages. The first stage is about 1-1.5 years, mainly studying general courses and some feature courses, such as, Chinese language and culture, China’s national conditions and customs, navigation culture, etc., and giving a general overview of all the courses in the five majors which make international students get a comprehensive understanding of international shipping industry, port industry, maritime industry, maritime trade, navigation technology, marine engineering and other related majors, and attract their interests in maritime education and then make them love their profession. The second stage is about 1.5-2.5 years, conducting comprehensive professional study. The progressive nature of maritime education should be fully considered, and teaching should be arranged step by step according to the curriculum system. The third stage is about 0.5 to 1 year, mainly for internship.

### *2.2.3 Curriculum Certification*

Based on the above setup ideas on five professional courses, certification procedures and standard for international maritime personnel education courses are established, which determine the course certification procedures and processes, and set up a permanent school certification body which organizes experts to evaluate, choose the best, and determine the Chinese and English courses of relevant majors scientifically and reasonably. Meanwhile, teachers and scholars are encouraged to complete the special English and Chinese course projects in the way of

project research.

#### 2.2.4 Certification Process

The process is divided into three stages. The first stage is the teaching materials review. Teachers who are required to take part in the course should prepare a Chinese and English course at least 8 hours by the selected course, and the compilation is based on the specific topics under each course. The contents of the courses can be directly derived from existing domestic and foreign textbooks, technical standards and the related articles, and then the compiled textbooks are submitted to the certification body which organizes relevant experts to review, and then the teacher shall revise it according to the expert's proposes and submit it for review again. The audited materials shall be formally approved and issued by the certification body, and it is necessary to publish the materials to protect intellectual property rights.

The second stage is to review the relevant teaching documents, such as, teaching PPT, teaching plan, etc. Teachers should make teaching plans and teaching PPT according to the approved textbooks, and then submit them to the certification body for review and get the suggestions for modification and improvement.

The third stage is the judgment lecture. The certification body shall review the approved textbooks and PPT as well as the teachers' lectures, and put forward suggestions for improvement, and teachers can give lectures in English to Chinese students, but can be in English or in Chinese with English materials or translators to international students. As for the certified international maritime professional course, it will be directly transferred to the teaching activities of Chinese and foreign students in the next semester, and require teachers to give bilingual lectures according to the actual situation. At the same time, the class remuneration is increased to a certain extent on the current basis, so as to encourage teachers to keep innovating and improving which can improve the teaching ability.

The existing foreign related courses and domestic

professional courses, which can be used for international maritime talents education, refer to the above procedures. However, teachers who teach this course should be required to modify and improve the teaching materials, PPT and on-site lectures, and provide relevant translations and establish the appropriate reward and incentive system.

#### 2.2.5 Program Execution

After the program is approved, the corresponding financial annual plan shall be formulated. It is recommended to use each teaching-hour or each corresponding teaching module as a reward unit and each course is no less than 10 teaching-hours. Special funds are set up for curriculum development. The developing achievements or the Chinese and English courses and teaching services etc., and all intellectual properties purchased by the school shall be owned by the school.

Based on extensive research, consultation, review and determination of the course, the experts are invited to participate in the planning of “One Hundred Courses, One Thousand Class-Hours”, and then ask teachers to submit lectures on subjects they are good at. The academic leaders selected must have academic authority, good knowledge in both Chinese and English and experts or scholars with certain teaching experience in both Chinese and English, who can guide the other teachers to teach the related professional courses.

### 3. Conclusion

In all, with the deepening of “One Belt and One Road” initiative, every maritime university should integrate their internal and external resources based on their own conditions, and learn from the successful experience of relevant foreign universities, and overcome their own shortcomings, and make full use of all kinds of modern education technology to determine the major and courses properly, and to adopt modular design thought by project management course so in this article, the Program “One Hundred Courses, One

Thousand Class-Hours” is proposed which aims to provide references for relevant institutions striving to treat pupils as individuals and to help each one to achieve their full potential and cultivate more international maritime talents with high quality and skills.

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