

Development of Postgraduate Maritime Education at Turkey

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Abstract There are several faculties which give maritime related education. Post graduate degree is offered at the following subjects; Naval architecture, marine engineering, nautical science, maritime transportation, maritime management and port management.

Finding post graduate students are difficult in engineering subjects. On the contrary, it is not in social areas like maritime management, port management, and marine law. Because, some of students studying at these subjects are not from maritime departments. Especially, marine law subjects are covered at Law faculties. Marine engineering and Nautical (deck) departments have difficulties finding graduate candidate students due to working on board with high salary. Also there are others hardness to become a graduate students. This is also same for universities all over the world.

In order to solve this, post graduate studies should be supported by maritime industry and government to improve economical condition. Additionally, their project can economically be supported.

Keyword: *Turkish Education, Maritime, Postgraduate*

1. Introduction

Postgraduate education involves learning and studying for degrees for which a first or bachelor's degree is required, and is normally considered to be part of tertiary or higher education. In Turkey, this level is generally referred to as graduate level. The organization and structure of postgraduate education varies in different countries, and also in different institutions within countries.

In most countries, the hierarchy of post-graduate degrees is as follows:

- Master's degrees (Postgraduate)

These are sometimes placed in a further hierarchy, starting with degrees such as the Master of Arts and Master of Science, then Master of Philosophy, and finally Master of Letters (all formerly known in France as DEA or DESS before 2005, and nowadays Masters to.) In many fields such as clinical social work, or library science in North America, a Master's is the terminal degree. In the UK, Master's degrees may be taught or by research: taught Master's include the MSc and MA degrees which last 1 year and are worth 180 CATS credits (equivalent to 90 ECTS European credits), whereas the Master's by research degrees include the MRes (Master of Research) which also lasts 1 year and worths 180 CATS or 90 ECTS credits (the difference compared to the MA/MSc being that the research is much more extensive), and the MPhil (Master of Philosophy) degree which lasts 2 years (and is often granted to failed doctorates) [1].

- Doctorates (Postgraduate)

These are often further divided into academic and professional doctorates. An academic doctorate can be awarded as a PhD (Philosophiæ Doctor), or as a DSc (Scientiæ Doctor). The scientiæ doctor degree can also be awarded in specific fields, such as a Dr.sc.math (Doctor scientiarum mathematicarum, Doctor of Mathematics), Dr.sc.agr. (Doctor scientiarum agrariarum, Doctor of Agricultural science), DBA (Doctorate in Business Administration) etc. In some parts of Europe,

doctorates are divided into the PhD or 'junior doctorate', and the 'higher doctorates' such as the DSc, which is generally awarded to highly distinguished professors. A doctorate is the terminal degree in most fields. In the United States, there is little distinction between a PhD and DSc. In the UK, PhD degrees are often equivalent to 540 CATS credits or 270 ECTS European credits, but this is not always the case as the credit structure of doctoral degrees is not officially defined [1].

This article sets out the basic types of course and of teaching and examination methods in Turkish maritime postgraduate education system.

2. General Structure of the Turkish Educational System

The basic structure of the Turkish national education system is outlined in Basic Law on National Education (Law no. 1739) [2]. This system can be summarized as follows:

Pre-school education, which is optional, aims at contributing to the physical, mental and emotional development of the children, to help them acquire good habits, and to prepare them for basic education. Pre-school education institutions include independent kindergartens, nursery classes in primary schools and preparation classes. Basic education provides children with basic knowledge and ensures their physical, mental and moral development in accordance with national objectives. It generally comprises the education of children in the 6-14 year age group. Eight years of basic education is compulsory for all Turkish citizens who have reached the age of six. This level of education is free of charge in public schools. There are also private schools under state control. Secondary education encompasses two categories of educational institutions, namely general high schools and vocational and technical high schools (*lycées*) where a minimum of four years of schooling is implemented after basic education. The aims of secondary education are to provide students with a knowledge of general culture, to acquaint them with problems of individual and societal nature and to motivate them to find solutions; to instill in them the strength and knowledge to participate in the economic, social and cultural development of the country and to prepare them, in line with their interests and talents, for institutions of higher learning. General high schools are educational institutions that prepare students for institutions of higher learning. They implement a four-year program over and above basic education, and comprise students in the 15-18 year age group. Vocational and technical high schools provide specialized instruction with the aim of training qualified personnel. The duration of instruction in these schools is also four years. Higher education the purpose of higher education is to train manpower within a system of contemporary educational and training principles to meet the needs of the country. It provides high level specialized education in various fields for students who have completed secondary education. The Higher Education Law (Law no. 2547) which went into effect in 1981, covers all higher education institutions and regulates their organization and functions [3]. Universities comprising several units are established by the state and by law as public corporations having autonomy in teaching and research. Furthermore, institutions of higher education, under the supervision and control of the state, can also be established by private foundations in accordance with procedures and principles set forth in the law provided that they are non-profit in nature [4].

The university is the principal higher education institution. It possesses academic autonomy and a public legal personality. It is responsible for carrying out high level educational activities, scientific research and publications. It is made up of faculties, graduate schools, schools of higher education, conservatories, two-year vocational training schools and centers for applied work and research. A faculty is a higher education unit which is responsible for high level education, as well as for scientific research and publications. Units such as departments, schools of higher education, etc., may be affiliated with a faculty. A graduate school in universities and in faculties is concerned with graduate study, scientific research and applied studies in more than one related subject area [4]. Fig. 1 shows the general structure of the educational system.

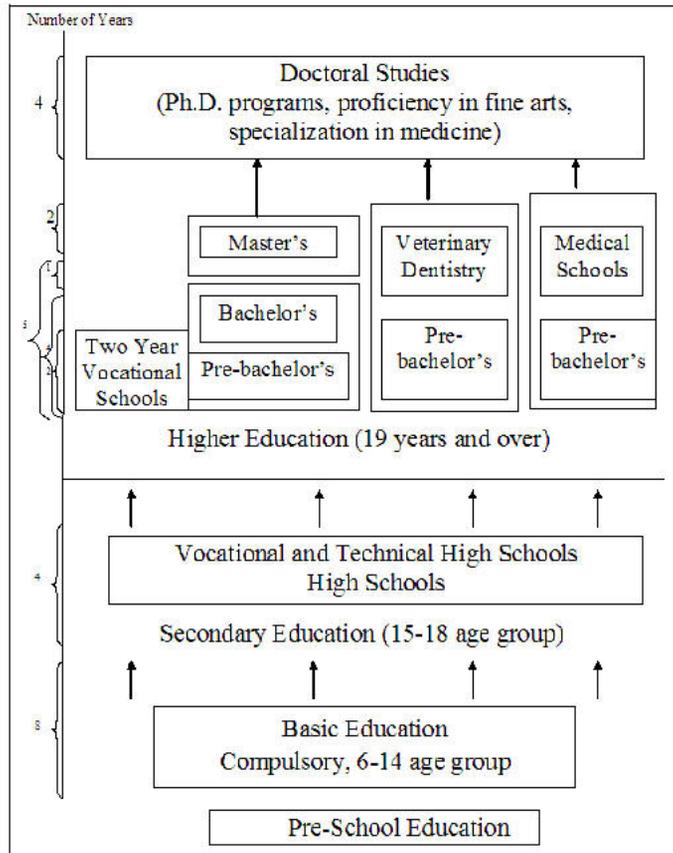


Fig. 1 General Structure of the Turkish Educational System [4]

3. Turkish Postgraduate Maritime Education

Maritime education in Turkey starts at high school level. Students who want to go to maritime high school have to pass an exam. These high schools are four years. After graduating from these schools students can work onboard or continue their education. In order to continue higher education in Turkey, students have to pass General Higher Education Examination (LYS). According to grades they get from this examination, they are placed to either vocational schools or faculties. All students passed this exam and want to go to marine engineering and nautical science have to obtain medical examination certificate to obey STCW rules.

3.1 Admission

Admission to graduate school usually requires a bachelor's degree. Standardized test (e.g., Graduate Record Examination (GRE), The Entrance Examination for Graduate Studies (ALES)), scores are required by all institutions and, especially, good letters of recommendation from undergraduate instructors are often essential. Strong recommendation letters from mentors or supervisors of undergraduate research experience provide evidence that the applicant can perform research.

Some schools set minimum ALES scores below which they will not accept any applicants; this reduces the time spent reviewing applications. Additionally, some schools claim to consider many factors, the compatibility between the applicant's research interest and that of the faculty, the statement

of purpose and the letters of reference, as stated above. Finally, applicants from non-English speaking countries must take the Test of English as a Foreign Language (TOEFL) [5].

At most institutions, decisions regarding admission are not made by the institution itself but the department to which the student is applying. Some departments may require interviews before making the decision to accept an applicant.

3.2 Degree Requirements

Many graduate programs require students to pass one or several examinations in order to demonstrate their competence. Doctoral students generally spend roughly their first two to three years taking coursework, and begin research by their second year if not before. Many masters and all specialist students will perform research culminating in a paper, presentation, and defense of their research. This is called the master's thesis.

In the second and third years of study, doctoral programs often require students to pass a Qualifying Examination ("Quals"), examinations designed to students' grasp of a broad sample of their discipline, and/or one or several Special Field Examinations ("Specials"), which test students in their narrower selected areas of specialty within the discipline.

For the next several years the doctoral candidate primarily performs his or her research. Usually this lasts three to four years. In total, the typical doctoral degree takes between 4 and 6 years from entering the program to completion, though this time varies depending upon the department, thesis topic, and many other factors.

4. Institutes in Turkey

There are 5 universities which offers postgraduate degrees in Maritime areas. These are:

- İstanbul Technical University, Maritime Faculty and Faculty of Naval Architecture and Marine Science
- Karadeniz Technical University, Faculty of Marine Science
- İstanbul University, Faculty of Engineering, Institute of Marine Science and Management
- Dokuz Eylül University, Maritime Faculty, Marine Science and Technology Institute
- Yıldız Technical University, Faculty of Naval Architecture and Maritime

Their yearly quotas are given in table 1. Quotas can be changed according to Institutes requirements.

Institution Name	Maritime Transportation		Naval Architecture		Marine Engineering		Maritime Business	
	# of MSc	# of PhD	# of MSc	# of PhD	# of MSc	# of PhD	# of MSc	# of PhD
İstanbul Technical University	15	10	25	5	10	5	N/A	N/A
Karadeniz Technical University	15	N/A	15	N/A	N/A	N/A	N/A	N/A
İstanbul University	20	10	N/A	N/A	N/A	N/A	15	10
Dokuz Eylül University	N/A	N/A	7	5	N/A	N/A	20	10
Yıldız Technical University	N/A	N/A	10	7	N/A	N/A	N/A	N/A

Table 1. Yearly quotas of each Institutes

5. Discussions

Postgraduate education in Turkey consists of the following subjects: Maritime Transportation, Naval Architecture, Marine Engineering and Maritime Business. Some of them only offer MSc. others offer both MSc and PhD.

Postgraduate education in Naval Architecture has been offered for five decades and it was started at İstanbul Technical University, Faculty of Naval Architecture and Marine Science. Laboratories are very well equipped and academicians are very well qualified. They have relationship with most Naval Architecture Faculties in the world. Additionally, they pioneered the establishment of new Naval Architecture Departments in Turkey. Yıldız Technical University Naval Architecture Department was established in 1967 and offers postgraduate degree since 1982. Karadeniz Technical University Naval Architecture Department was established in 1996 and offer MSc degree since 2007. Postgraduate education in Naval Architecture covers the requirements of business and faculties.

Postgraduate education in Marine Engineering is offered in İstanbul Technical University, Maritime Faculty. But mostly students can do postgraduate degree in different departments like Naval Architecture and Mechanical Engineering. Therefore there is no gap for academician for this area.

Postgraduate education in Maritime transportation was started at İstanbul University, Institute of Marine Science and Management. Then other three faculties İstanbul Technical University Maritime Faculty and Karadeniz Technical University Faculty of Marine Science and Dokuz Eylül University Maritime Faculty started offering postgraduate degrees in Maritime Transportation areas.

Postgraduate studies in Maritime Business are offered by İstanbul and Dokuz Eylül Universities. But these degrees can also be obtained in economy and business departments. Subject of Marine Law is usually covered at law faculties. There is no specific faculty on Marine law at Turkey.

It can easily be seen that there is lack of postgraduate personal in all maritime areas.

6. Conclusions

Although, there are enough academic staff for postgraduate education in Naval Architecture and Marine Engineering, but there is not enough application for these.

In case of Maritime transportation, there is neither enough academic staff nor enough application. The reason for lacking of application is that graduates from these departments usually earn more money than if they stay at the university.

In order to solve this;

- Postgraduate studies should be supported by scholarships,
- Projects from these departments should be given priority,
- The number of graduate students should be increased to get more postgraduates
- International relationships should be increased

References

- [1] EUROPA - Education and Training - The Bologna process, http://ec.europa.eu/education/higher-education/doc1290_en.htm (2010)
- [2] Official gazette 1739 sayılı Millî Eğitim Temel Kanunu date:14/6/1973
- [3] Official gazette 2547 Sayılı Yükseköğretim Kanunu date:4/11/1981
- [4] ÖSYM, <http://osym.gov.tr/Genel/BelgeGoster.aspx?F6E10F8892433CFF7A2395174CFB32E15F640FC6104C033D> (2010).
- [5] TOEFL, <http://www.ets.org/toefl/> (2010)