Singapore is a premier institution of higher learning, has been involved in the education and training of maritime professionals for 50 years now. Many of our graduates hold positions of responsibility in every sector of the maritime industry.

Today, the Polytechnic’s Singapore Maritime Academy offers a comprehensive range of training programmes. The Academy offers three full-time diploma courses in Marine Engineering, Maritime Business and Nautical Studies. It is the only maritime training institution in the country which offers the entire range of maritime courses and professional courses at Certificate of Competency levels. It also offers the entire mandatory *STCW ‘95 short courses for deck and engineering officers.

This is possible because of the great diversity and experience of our teaching staff in various fields and the Academy’s state-of-the-art facilities. We have more than 50 professionals and academicians in the Academy, including engineers, master mariners and business professionals.

Staff of the Academy are actively involved in developing customised educational and training packages as well as consulting for maritime industries in areas like plant design, operation and maintenance, port and terminal operations, shipbroking, chartering, and container stowage planning. We service some of the largest international shipping companies and oil majors. All these activities with the industry keep our staff continuously updated in the latest technologies and developments in the industry to the benefit of students.

**First-Class Training**
We remain at the forefront of education and training with the aid of sophisticated laboratories and workshops in the areas like controls and automation, electrotechnology and heavy engineering. The Academy is equipped with sophisticated machinery and navigation and GMDSS (Global Maritime Distress and Safety System) training simulators.

The Poly Marina, SMA’s waterfront training facility, provides nautical and engineering students with hands-on experience in survival skills. The Maritime Information Technology Centre has facilities for students to interact “live” with the Portnet and Tradenet systems which are used in the maritime industry.

The Academy’s latest addition is the Maritime Satellite Communication Centre called “SatCom@SMA”, jointly set up with Singapore Telecommunications Ltd and Global Wireless LLC. SatCom@SMA simulates satellite communication between on-board vessels and shipping company’s offices, and offers a suite of maritime communication applications for learning.

The Integrated Simulation Centre (ISC) at the Academy is the result of an investment by the Maritime and Port Authority of Singapore on training manpower for Singapore’s growing maritime industry. The ISC is linked to the Academy’s two simulator buildings and together, they form a modern state-of-the-art facility that integrates more than 12 types of simulators - offering a level of training that is unmatched in the region.
Best in Asia Pacific

Rewarding Future
Singapore is strategically located at the crossroads of the world’s major shipping routes. It is a world-class port and a major maritime centre. Singapore has been one of the busiest sea ports in the world since 1986. Major international shipping and ship management companies, surveying and consulting firms, ship builders and repairers and marine machinery manufacturers have been establishing their bases here in Singapore.

They create a wide variety of jobs for dynamic and ambitious young men and women. Graduates are assured of a bright future in this rapidly growing maritime infrastructure.

Maritime jobs can be both sea-going as well as land based. In a typical sea-going career, you will work onboard modern merchant ships plying to various ports of the world. The length of your seagoing career depends entirely on you. On land, you will be in demand as executives in shipping, port operations, shipbroking, marine surveying, bunkering, marine insurance, machinery servicing, manufacturing, and shipbuilding companies.

The starting salary of a sea-going job is one of the highest among all polytechnic graduates, at around $3,000 tax free! Many of our graduates who pursue a sea-going career for five to six years, earn a monthly salary of over $7,000 tax free as Ship Captain or Chief Marine Engineer at the age of 27 or 28. Your work can also bring you to foreign and exotic ports of call!

Further Studies
For graduates who wish to further their studies, there is a wide selection of local and overseas universities to select from. Furthermore, the Academy has entered into special arrangements with Newcastle University and Maritime Institute Willem Barentsz of The Netherlands for its graduates to pursue their degrees.
# Entry Requirements

Applicants must have the following minimum results taken at not more than two sittings of the GCE ‘O’ Level Examination:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language</td>
<td>1-7</td>
</tr>
<tr>
<td>Mathematics (Elementary / Additional)</td>
<td>1-6</td>
</tr>
</tbody>
</table>

## 1. Marine Engineering

Any one of the following relevant subjects: 1-6

<table>
<thead>
<tr>
<th>Subject</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>Physical Science</td>
</tr>
<tr>
<td>Chemistry</td>
<td>Physics</td>
</tr>
<tr>
<td>Combined Science</td>
<td>Science (Chemistry, Biology)</td>
</tr>
<tr>
<td>Design &amp; Technology</td>
<td>Science (Physics, Biology)</td>
</tr>
<tr>
<td>Fundamentals of Electronics</td>
<td>Science (Physics, Chemistry)</td>
</tr>
</tbody>
</table>

Applicants must ensure that they do not suffer from colour appreciation deficiency.
Applicants must ensure that they do not suffer from medical conditions such as epilepsy. In the interest of general safety, admission of these applicants to a particular course is at the discretion of the Polytechnic.

## 2. Maritime Business

Grade 1 - 6 in any two other subjects*

## 3. Nautical Studies

- Grade 1 - 6 in any other subject*
- Applicants must ensure that they have good eyesight (i.e. visual acuity unaided of 6 / 60 in both eyes and with visual aids of 6 / 6 in the better eye and at least 6 / 9 in the other eye). Applicants must also not suffer from colour appreciation deficiency. Applicants must show proof of having passed the Maritime and Port Authority of Singapore (MPA) Sight Test which is conducted at the Singapore Polytechnic Optometry Centre or by General Practitioners.
- All foreign applicants must be sponsored by a local shipping company. Singaporeans / Singapore Permanent Residents are strongly encouraged to find a Singapore company of their choice which is prepared to offer them an internship or financial sponsorship for Phase 2 of the Nautical Studies course. All prospective candidates will be required to attend a screening interview conducted by the Academy.

* To be eligible for admission, you must also have sat for at least one of the following subjects:

- Additional Combined Science
- Additional Science
- Biology
- Chemistry
- Combined Science
- Computer Studies
- Creative 3D Animation
- Design & Technology
- Engineering Science
- Food & Nutrition
- Fundamentals of Electronics
- General Science
- Human & Social Biology
- Integrated Science
- Physical Science
- Physics
- Science (Chemistry, Biology)
- Science (Physics, Biology)
- Science (Physics, Chemistry)
- Science (Physics, Chemistry, Biology)
A Head Start
Marine engineering encompasses the various engineering disciplines required to make a ship an independent power plant. As such, marine engineering includes elements of mechanical engineering and electrical and electronic engineering, as well as a fair amount of engineering design and, computer and control technology.

To prepare our graduates well for a wide spectrum of career choices in the various sectors of industry, our students are also taught elective modules in Arts & Humanities, Business and Management.

Rewarding Future
Due to the multi-disciplinary nature of marine engineering and our well-balanced curriculum, a whole vista of career opportunities is open to the marine engineering graduate not only in the various sectors of the maritime industry but also in the non-maritime industry. Besides the traditional maritime jobs, we know of graduates who are doing well in relevant jobs in the oil-refining, petrochemical, estate management, hospitality and healthcare sectors, just to name a few.

Further Studies
Our marine engineering graduates are widely accepted in relevant engineering degree programmes, with advanced standing, by local and overseas universities.

With a Diploma in Marine Engineering, you can enrol in the 2-year full-time B.Eng (Hons) degree programme in Naval Architecture conducted by Newcastle University (UK) in Singapore under the Foreign Specialised Institution (FSI) scheme.

Sea-going graduates can also opt to pursue a Degree in Maritime Operations offered by the Maritime Institute Willem Barentsz of The Netherlands, while at sea.

Besides the usual lectures and practical laboratory work, the student will be exposed to advanced ship engineering system simulators and various realistic training software. Our machinery workshops are equipped to provide students with the operational competences they require in the workplace, be it aboard a ship or a land-based establishment.

Our Industrial Training Programme (ITP) is designed to provide real-world workplace experience. Moreover, some students will have a chance to work aboard ocean-going ships for their ITP.
## Many Career Options

<table>
<thead>
<tr>
<th>Age</th>
<th>Sea Salary</th>
<th>Your Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>Diploma in Marine Engineering</td>
<td>Shore Job&lt;br&gt;• Marine Industry&lt;br&gt;• Service Industry&lt;br&gt;• Oil Industry</td>
</tr>
<tr>
<td></td>
<td>Sea Training</td>
<td></td>
</tr>
<tr>
<td>22+</td>
<td>S$3,000++</td>
<td>Junior Engineering</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>S$7,500++</td>
<td>Second Engineer</td>
</tr>
<tr>
<td></td>
<td>International recognised Professional Qualification</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>S$10,000++</td>
<td>Chief Engineer</td>
</tr>
</tbody>
</table>

++ Tax free income plus paid leave

## Course Modules

<table>
<thead>
<tr>
<th>First Year</th>
<th>Second Year</th>
<th>Third Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Applied Mechanics&lt;br&gt;• Basic Mathematics&lt;br&gt;• Basic Safety Training&lt;br&gt;• Basic Thermodynamics&lt;br&gt;• Electric Circuits&lt;br&gt;• Engineering Drawing&lt;br&gt;• Marine Engineering Knowledge 1&lt;br&gt;• Programming and Software Applications&lt;br&gt;• Workshop Practice 1&lt;br&gt;• Workshop Practice 2&lt;br&gt;• Critical Reasoning Skills&lt;br&gt;• Innovation, Design &amp; Enterprise in Action&lt;br&gt;• Our Nation, Our World&lt;br&gt;• General Elective Module 1&lt;br&gt;• General Elective Module 2</td>
<td>• Applied Thermodynamics&lt;br&gt;• Computer-Aided Drafting&lt;br&gt;• Electronics&lt;br&gt;• Engineering Mathematics 1&lt;br&gt;• Engineering Mechanics&lt;br&gt;• Instrumentation&lt;br&gt;• Integrated Workshop Practice&lt;br&gt;• Marine Engineering Knowledge 2&lt;br&gt;• Naval Architecture 1&lt;br&gt;• Tanker Familiarisation&lt;br&gt;• Industrial Training Programme&lt;br&gt;• Communication Skills for Work&lt;br&gt;• General Elective Module 3</td>
<td>• Auxiliary Machinery&lt;br&gt;• Electric Machines &amp; Systems&lt;br&gt;• Engineering Design&lt;br&gt;• Engineering Mathematics 2&lt;br&gt;• IC Engines &amp; Boilers&lt;br&gt;• Integrated Control&lt;br&gt;• Marine Workshop Practice&lt;br&gt;• Naval Architecture 2&lt;br&gt;• Project Work&lt;br&gt;• Advanced Marine Engineering Simulation&lt;br&gt;• Programmable Logic Controllers&lt;br&gt;• Shipboard Drawings&lt;br&gt;• Marine Dynamics and Hydrodynamics&lt;br&gt;• Offshore Technology&lt;br&gt;• Software Application for Naval Architecture&lt;br&gt;• General Elective Module 4</td>
</tr>
</tbody>
</table>

* Modules are continuously assessed and subject to changes, without prior notice
@ Students will do one ITP (Industrial Training Programme) in Year 2
# These modules will be covered by students doing the Ship Board Operations Option.
^ These modules will be covered by students doing the Offshore Technology Option.
Diploma in Maritime Business

The Diploma in Maritime Business (DMB) is your first step towards a challenging and rewarding career in the maritime industry. Furthermore, you do not need to leave our shores as it is a land based career.

The unique feature of this diploma is the five to six-month industrial attachment with prospective employers for students in the second year. The majority of DMB graduates would have secured jobs before graduation or have little difficulty getting jobs.

A Head Start
According to Minister Mentor, Lee Kuan Yew, the maritime industry is “basic” to Singapore. He said it was easier to relocate an aviation hub but more difficult to relocate a maritime hub. Singapore is located in a strategic location in one of the busiest trade lanes in the world. Inspite of its small size and population, Singapore has a competitive advantage in Maritime Business. Ships like to buy their bunkers, ship owners also like to register their ships and maritime logistics related companies like to set-up their operations in Singapore.

Why are graduates of this course so versatile and able to gain employment in a wide range of shipping business activities? The key is in the scope of study. Modules of study are carefully selected to ensure that graduates are equipped to perform tasks expected of them by prospective employers.

Rewarding Future
As graduates of the DMB, you will join the diverse and rapidly growing maritime industry as junior executives. Prospects for upward career mobility are excellent as you will be highly sought after by shipping and logistics sector. These include companies engaged in ship management, ship owning, shipbroking, ship agency, freight forwarding, marine insurance, logistics firms and the Maritime and Port Authority of Singapore.

Further Studies
Graduates of the diploma have advanced standing in the Nanyang Technological University’s Bachelor of Science (BSc) (Hons) programme in Maritime Studies and in relevant BSc (Hons) programmes in the fields of Shipping Management, Maritime Business and Logistics conducted by reputable tertiary institutions located in the UK, Australia and USA. Graduates can pursue a degree in one year in Maritime Operations offered by the Maritime Institute Willem Barentsz of The Netherlands, and University of Plymouth, UK.
## Course Modules

<table>
<thead>
<tr>
<th>First Year</th>
<th>Second Year</th>
<th>Third Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Financial Accounting in Shipping</td>
<td>• Financial Management in Shipping</td>
<td>• Bunkering Practices</td>
</tr>
<tr>
<td>• Fundamentals of Commercial Shipping</td>
<td>• Law of Carriage of Goods by Sea</td>
<td>• Electronic Commerce</td>
</tr>
<tr>
<td>• IT for Shipping Business</td>
<td>• Maritime Personnel Management</td>
<td>• HSSE Management</td>
</tr>
<tr>
<td>• Logistics Management</td>
<td>• Port Agency</td>
<td>• Marine Insurance</td>
</tr>
<tr>
<td>• Marine Engineering Knowledge</td>
<td>• Port Management</td>
<td>• Maritime Law</td>
</tr>
<tr>
<td>• Maritime Economics</td>
<td>• Statistics for Shipping Business I</td>
<td>• Marine Offshore Operations</td>
</tr>
<tr>
<td>• Port Operations</td>
<td>• Internship Programme</td>
<td>• Marketing of Shipping Services</td>
</tr>
<tr>
<td>• Ship Operations</td>
<td>• Communication Skills for Work</td>
<td>• Project</td>
</tr>
<tr>
<td>• Statistics for Shipping Business I</td>
<td>• General Elective Module 1</td>
<td>• Ship Chartering Practices</td>
</tr>
<tr>
<td>• Critical Reasoning Skills</td>
<td></td>
<td>• Ship Management</td>
</tr>
<tr>
<td>• Effective Communication</td>
<td></td>
<td>• Ship Sale &amp; Purchase</td>
</tr>
<tr>
<td>• Our Nation, Our World</td>
<td></td>
<td>• Supply Chain Management</td>
</tr>
<tr>
<td>• IDEA / General Elective Module 1</td>
<td></td>
<td>• Teamwork &amp; Communication Skills</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• General Elective Module 3</td>
</tr>
</tbody>
</table>
A Head Start
A unique feature of this programme is the double award of the Diploma in Nautical Studies (DNS) and the internationally recognised professional Class 3 CoC (Certificate of Competency) Foreign-Going qualification.

The double award provides graduates the flexibility to work in diverse maritime fields. More importantly, the professional CoC enables the graduate to sail as a certified seagoing officer on any type of ship, of any size trading worldwide. The starting salary for a junior officer will be about S$3,000 tax free.

Rewarding Future
With 95% of the world’s trade achieved through shipping, the marine industry has a constant need for manpower with each ship requiring a captain and three navigation officers. With the continued growth of the world’s fleet, the demand for qualified officers will continue to increase over the next decade. As such, job prospects for self-motivated, independent and adventurous young persons are great with a directional fast pace to becoming a ship’s captain.

Further Studies
DNS graduates can pursue relevant degree courses overseas with advanced standing. They can also pursue a Degree in Maritime Operations offered by the Maritime Institute Willem Barentsz of The Netherlands while pursuing their sea career.
## Many Career Options

<table>
<thead>
<tr>
<th>Age</th>
<th>Education</th>
<th>Sea Career Path</th>
<th>Shore Career Path</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>‘O’ Level • 12 mths at SP • 12 mths Sea Training • 12 mths at SP</td>
<td>Jr Officer on merchant ships or off-shore &amp; DP vessels ($3,000++)</td>
<td>Executive in shipping, port, pilot, surveying, off-shore services</td>
</tr>
<tr>
<td></td>
<td>Diploma in National Studies (plus International Class CoC) Sea Experience (12 mths for Class 2 CoC Oral Exam) Combined Class 1 &amp; 2 Coc Course</td>
<td></td>
<td>Further Studies</td>
</tr>
<tr>
<td>24</td>
<td>International Class CoC Sea Experience (24 mths for Class 1 CoC Oral Exam)</td>
<td>Chief Officer ($7,500++)</td>
<td>Middle management in shipping, port, pilot, surveying, off-shore services</td>
</tr>
<tr>
<td>27</td>
<td>International Class 1 CoC</td>
<td>Ship Master ($10,000++)</td>
<td></td>
</tr>
</tbody>
</table>

++ Tax free income plus paid leave

## Course Modules

### Phase 1

**Phase 1A**
- Basic Safety Training
- Elementary Ship Knowledge
- Introduction to Navigation
- Innovation, Design & Enterprise in Action
- Science 1
- Software Applications
- Communication Skills for Work

**Phase 1B**
- Mathematics 1
- Principles of Navigation
- Ship Knowledge
- Shipping Practice 1
- Watchkeeping & Instruments
- Our Nation, Our World
- Critical Reasoning Skills
- General Elective Module 1

### Phase 2

**Phase 2**
During this phase, candidates undergo shipboard training with a SCTW approved Training & Assessment Record Book and follow a distance learning programme. Candidates are required to complete a total of 12 months sea service to enrol for the Diploma in Nautical Studies Phase 3 and for the Class 3 Certificate of Competency examination.

### Phase 3

**Phase 3A**
- Advanced Fire-Fighting
- Electronic Navigation Systems
- Shipping Practice 2
- Maritime Communications
- Tanker Familiarisation
- General Elective Module 2

**Phase 3B**
- Applied Science
- Coastal Navigation
- General Ship Knowledge
- Mathematics 2
- Meteorology
- Practical Navigation
- Ship Operations
For more information regarding entry requirements, courses and careers please contact:

Singapore Maritime Academy  
Tel: (65)-6772-1316  
Fax: (65)-6772-1958  
Email: sma@sp.edu.sg  
Website: http://www.sp.edu.sg/schools/sma

Produced by  
Department of Corporate Communications  
Singapore Polytechnic  
500 Dover Road  
Singapore 139651

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