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Antwerp Maritime Academy

## History

- 1800 A maritime academy is established under French rule (until 1814)
- 1834 Founding of the Antwerp Maritime Academy under Belgian rule
- 1932 New Academy building is inaugurated



The Academy's typical interbellum building is listed and the facade of original design remains unchanged.

Inside the building many alterations have been carried out.

For example: the former seamanship workshop has been transformed into a modern auditorium.



**1953**



**2004**

- 1961 The training vessel *Mercator* is taken out of service – since then navy ships and commercial vessels are used for the onboard training of students.



- 1985 Training in Nautical Sciences is upgraded to academic level (licentiate degree)
- 1990 The Flemish Community replaces the federal Transport Ministry as the competent authority.

- 2002 The IMO international rules and quality standards (STCW '78, as amended) are implemented
- 2003 Antwerp Maritime Academy is one of the first colleges to be awarded the ISO 9001:2000 quality certificate ... 2018: ISO 9001:2015



- 2004 Introduction of the Bachelor-Master structure

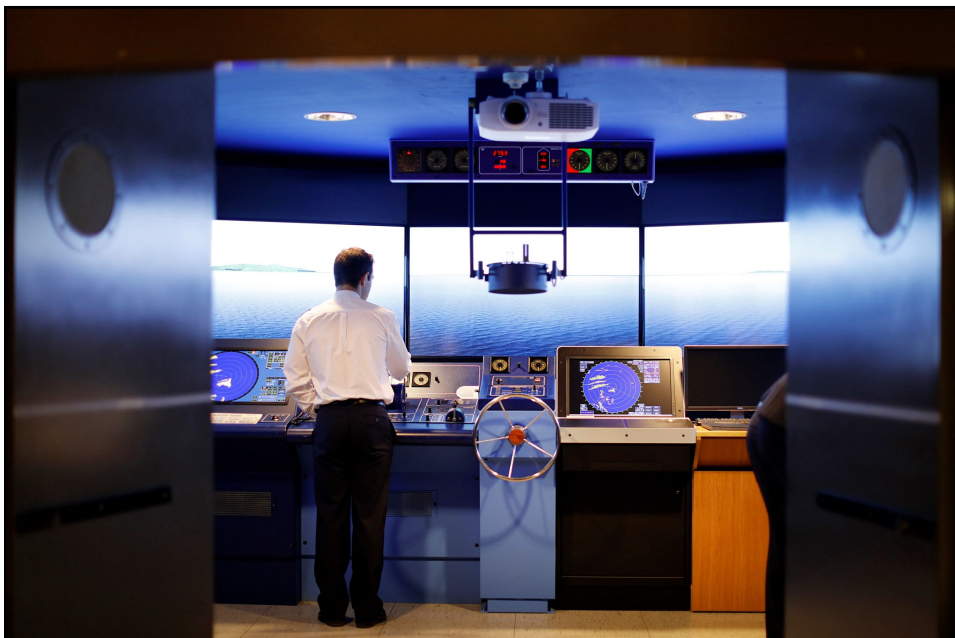
- 2008 The tradition of organising on board training on tall sailing ships is reinstated.  
First year students embark a 3-mast Polish sailing ship for a one month training session.



**Dar Młodzieży**

## State-of-the-art training equipment

The Antwerp Maritime Academy has well-equipped laboratories and workshops as well as modern simulators for ship navigation (including radar), cargo handling, propulsion and telecommunications.



Full Mission Bridge Simulator for the training of radar and navigation techniques



Training focuses on safety and the ability to act independently in the event of, for example, fire fighting, rescue operations, medical emergencies, etc.

## Core education

Antwerp Maritime Academy is the only academy in Belgium providing education in Nautical Sciences and Marine Engineering. Courses are taught both in Dutch and French.

### **Nautical Sciences** (*Training Deck*)

→ after 3 years students obtain an ***academic Bachelor's*** degree

→ after 1 extra year students obtain a ***Master's*** degree

### **Marine Engineering** (*Training Engine Room*)

→ after 3 years student obtain a ***professional Bachelor's*** degree



- ➔ 55% Dutch speaking, 45% French speaking students
- ➔ 10% female students
- ➔ 35% foreign students, 20 nationalities
- ➔ increasing number of modular students (+ 700 STCW certificates/academic year)



## Vocational Training – Training Modules

- Equipment and know how available for third parties
  - ➔ maritime companies (for example: dredging companies)
  - ➔ authorities (for example: pilot services)
  - ➔ individual students
- Tailor-made training or specific training sessions  
(more than 40 training modules available)
- STCW Refresher Courses
- STCW Management Level

## Research @ HZS

- HZS conducts socially-relevant scientific research and disseminates results through publications (academic, journal, online), during study days, in academic programmes and through education in Nautical Sciences and Marine Engineering.
- Research projects (various funding)
  - BOF (Special Research Fund)
  - Antwerp University Association (AUHA)
  - TETRA
  - Hercules
  - FWO
  - ...
- Best practices (AMACORT, SeaTALK, solar boat,...)

## Internationalisation @ HZS

Antwerp Maritime Academy participates in Erasmus + (staff and student mobility between partner institutions).

Antwerp Maritime Academy also participates in international (research) projects, sharing knowledge and facilitating technical expertise (for example: Cambodia, Congo)<sup>SEP</sup>

## Ice in Antwerp?

Yes: in 1590



## Ice in Antwerp?

Yes: in 1947





## Ice in Antwerp?

Last time: 1954



## Competences

Can students learn everything on board?

➡ Of course, but ...

No time on board to teach them!

➡ Theoretical courses AND  
practical courses (incl. simulation)

## On board training

Important for calculation of 'sailing time'

How to define 'sailing time':

- time at (open) sea
- time at anchor
- time alongside
- time in drydock
- operations moored vessel for longer period

## On board training

Shiphandling is a matter of experience ...  
almost an acquired art, using forces under  
control to manage forces not under control!

Training AND hands-on experience.

Takes TIME and PATIENCE and every ship is  
different.

## Simulation time

Approved by EMSA, CESMA and Belgian Maritime Authorities

NOT only focus on emergency training, but also on basics (known competences) to reduce errors

+ NEW competences

## Simulation time

Interaction between the student – the ship – instructor

Reconstruction/discussion/repetition of accidents and manoeuvres

RErun exercises!

## Competences

IMO Model course:

- understand icebreaker convoy terminology, and communications, and take icebreaker direction and move in convoy
- understand methods to avoid besetment and to free beset vessel, and consequences of besetment
- understand towing and rescue in ice, including risks associated with operation
- handling ship in various ice concentration and coverage, including risks associated with navigation in ice, e.g. avoid turning and backing

## Competences

Model course:

- anchoring in ice, including the dangers to anchoring system – ice accretion to hawse pipe and ground tackle
- handling ship in various ice concentration and coverage, including risks associated with navigation in ice, e.g. avoid turning and backing simultaneously
- use of different type of propulsion and rudder systems, including limitations to avoid damage when operating in ice

## Competences

Making (virtual) damage on a simulator costs NOTHING, the experience gained is INVALUABLE.

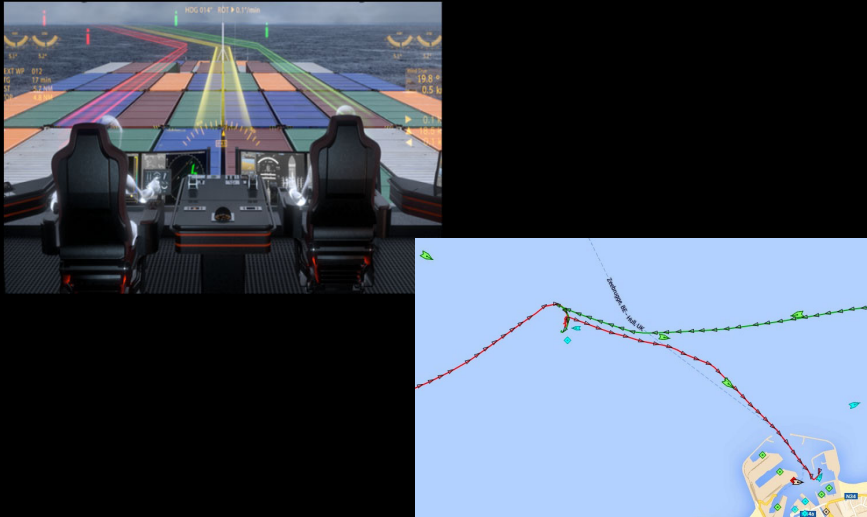
## Added value

**Students:** knowledge before going on board

**Shipowners:** well trained crew, less time needed to familiarize, less accidents (\$\$\$)

**Academic staff:** exchange of experience, interaction with trainees

## Next level learning/simulation



## Next level learning/simulation

E-learning ...

What about virtual reality?

Familiarization with the ship BEFORE  
boarding + ship specific on board.



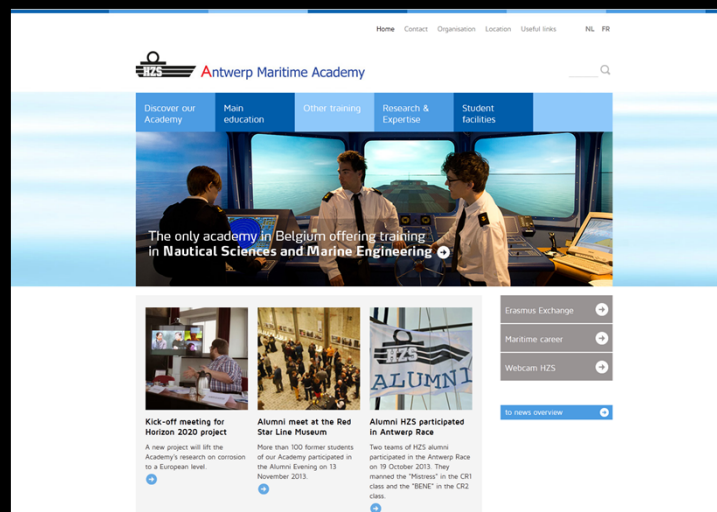
## Development project

New premises incorporating the original building following renovation



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