



STC-Group
Netherlands Maritime University
Master Shipping and Transport

Extensive Programme Assessment





Introduction

This is the assessment report of the master Shipping & Transport degree programme offered by the STC-Group. The assessment was conducted by an audit panel compiled by NQA commissioned by the STC-Group. The panel has been compiled in consultation with the program management and has been approved prior to the assessment process by NVAO.

In this report, Netherlands Quality Agency (NQA) gives account of its findings, considerations and conclusions. The assessment was undertaken according to the *Assessment frameworks for the higher education system* of NVAO (6 December 2010) and the *NQA Protocol 2011 for full study programme assessment*.

The site visit took place on 26 and 27 April 2012.

The audit panel consisted of:

Mr. Dr. N.P. Ventikos (chairperson, domain expert)

Mr. drs. H.W.J.J. de Bruin (domain expert)

Mr. Prof. dr. G. Allaert (domain expert)

Mr. R.R. Clark (student member)

Mrs. Merijn Snel, NQA-auditor, acted as secretary of the panel.

Mr. János Bètko, NQA-auditor, acted as an assistant secretary.

The study programme offered a critical reflection; form and content according to the requirements of the appropriate NVAO assessment framework and according to the requirements of the *NQA Protocol 2011*.

The panel studied the critical reflection and visited the study programme.

Critical reflection and all other (oral and written) information have enabled the panel to reach a deliberate judgement.

The panel declares the assessment of the study programme was carried out independently.

Utrecht, 1 June 2012

Panel chairman



Mr. Dr. N.P. Ventikos

Panel secretary



Mrs. M. Snel BHRM & BEd

Summary

Intended qualifications

The Master in Shipping and Transport is offered by the Netherlands Maritime University (NMU), part of the STC-Group. The general objective of the Master is to successfully educate people to perform at management positions in the shipping and transport industry. It educates students to be able to develop, design and / or implement processes and facilities in the field of supply chain management, maritime transport and logistics. It offers a full-time and a part-time curriculum in Rotterdam¹.

The Master offers a broad educational programme with a professional orientation. Graduates with a Master degree in shipping and transport can work in different kind of positions as a 'maritime manager'. E.g.: in managerial positions for port management organisations or shipping companies. They can also work as fleet owners, terminal managers, transport broker or shipping market analysts.

The Master has five final qualifications that represent a broad managerial profile. The intended knowledge and skills are based on analyses of the worldwide supply of education programmes and required competences for the shipping and transport industry.

Curriculum

The curriculum is designed to provide students with a thorough understanding of shipping and transport, and the necessary management skills, which are applied in the context of managerial functions in shipping and transport.

The curriculum consists of 23 courses, divided over the five modules. The workload of courses differs from 2 to 6.5 credits. The curriculum is structured in such a manner that the courses complement each other so that students are challenged to approach different maritime issues from several perspectives, roles and functions in the logistics chain. The learning outcomes in the course descriptions are derived from the profile, and reflect the managerial expertise, knowledge and skills that are necessary to perform as a manager in shipping and transport in the maritime field.

The professional practice is important for the development of the necessary management skills. The maritime issues in the curriculum are derived from different business disciplines, e.g. strategy, management and leadership, human resource management, policy and processes, finance and accounting, and reflect a broad managerial scope. The content of the courses (lessons and assignments) is constructed by (guest) lecturers and discussed with colleagues from the international professional field. Students are brought into contact with

¹ The scope of this accreditation has been on the Master Shipping and Transport in Rotterdam. It is worthwhile mentioning an identical programme is managed, controlled and executed in Gwangyang, Korea by STC-Korea, a fully STC-owned branch school.



the contemporary business practice during site visits. The full-time programme also contains an exchange programme with the STC branch in South Korea.

Students develop the necessary skills (e.g.: negotiation skills, reasoning skills and reporting skills) through the assignments and exercises that are part of every course. NMU provides students with an authentic context where they can apply various managerial skills in an integrated manner.

Within this programme research skills are an important indicator for the Master level: the research skills consist of developing a critical and analytical attitude towards problem-oriented research and solution-oriented approaches, and are directly linked to the professional and current practice.

The curriculum shows a step-by-step deepening of knowledge and applying knowledge in the assignments. For example, the first module provides a general framework and a common reference to transportation at the macro level. In the next module, the business perspective is presented in the Corporate Management cluster to provide a general understanding of general business principles such as strategy, finance, operations, and human resource management, though these are always linked to the sector of shipping and transport. Once the holistic view of shipping and transport and the business perspective has been conveyed, students focus in module three and four on the field of management of shipping and transport and port management respectively. The programme concludes with a thesis assignment in the final (fifth) module.

For the development of the aimed knowledge and skills a reflective learning cycle has been implemented: every course starts with an introduction, followed by theory lessons, then students work individually or in groups on assignments in which students apply the acquired knowledge and can show their ability to make judgements, this is evaluated and / or discussed during lessons in a formative way and assessed at the end of the course in a summative way. Afterwards students receive individual feedback on their performance.

Students represent a wide range of backgrounds and experience: they come from all over the world to participate at NMU's Master in Shipping and Transport. The variety in backgrounds is considered to be of great value for the study programme. All applicants need to be in possession of a Bachelor's degree and have at least two years of relevant professional experience in logistics. Part-time students also need to be working in the field of shipping and transport.

The study load of both the full-time and the part-time programme is 81 credits. The thesis represents a study load of 21 credits, spread over 4 to 6 months in the full-time programme and spans a period of one academic year in the part-time programme. Full-time students work approx. full-time at school, part-time students have less school days per year and therefore less contact hours. Instead, part-time students have more self-study hours to work on assignments.

NMU expects students to be self-sufficient, although giving insights into and emphasizing study management skills from the beginning of the programme. To help the study progress



NMU offers different instruments: students can make a study plan and study contract with themselves. In case study results are lacking behind for a particular reason, students are offered assistance through study guidance: a talk with the programme manager, and if necessary redirected to specialized guidance facilitated by the STC-Group.

Staff

The aim of the NMU personnel policy, which is derived from the personnel policy of the STC-Group, is to achieve the goals of the curriculum and to improve the safeguards on educational quality. Therefore, different personnel instruments are presented per different Human Resource area. The policy and instruments follow the principles of the Investors in People approach. This means that the STC-Group pursues an active personnel policy that found expression in all activities of the STC-Group and according to which staff and management act. The aim is to have a group of active, interested professionals who are happy and healthy in their work.

There are 15 lecturers who are permanent employees of the STC-Group and 16 guest lecturers. The lecturers represent a wide range of specialism: they have multidisciplinary backgrounds, which are closely related to the maritime industry. The frequent use of guest lecturers guarantees a consequent contribution of up-to-date, in-depth knowledge of the maritime industry to the programme. The NMU safeguards the educational and didactical qualifications by offering procedures and tools for the development of course materials and checking every course material (content, goals, testing). Several students' surveys (e.g. September 2011) show a high degree of satisfaction about the involvement and expertise of lecturers. Students are also satisfied with the availability of the lecturers.

Services and facilities

The NMU offers very good up-to-date facilities, such as classrooms, self study rooms, simulators, library, computer rooms and housing. Special features for the Master programme are the simulators that provide students the opportunity to act in complex situations to develop specific managerial skills.

During the curriculum there are several types of supervision that strive to make the study process more fluent and help students to overcome any obstacles they might encounter. Lecturers are the first people students talk to when they have anything to say or clarify regarding the course. Students can easily consult the management of STC-NMU or other members of the teaching staff at pre-stated times. Lecturers can also always be contacted by e-mail. Besides this practical approach, STC-NMU offers students learning forms that enable them to develop in the desired direction.

During the graduation phase there is specific supervision. For the thesis research, every student is allocated a thesis supervisor from STC-NMU, a second reader and a supervisor from the company if involved.

Lecturers and students are provided with all relevant and practical information about the programme through the STC-Group intranet. This information is continuously updated.



Quality assurance

STC-NMU has an extensive quality policy, which is based on the strategic policy of the STC-Group. The NMU safeguards the quality by the internal planning & control cycle for the course, annual internal and external ISO audits and internal quality assurance instruments, like evaluations and surveys.

NMU works with key performance indicators or 'KPI's'. Several of these KPI's are related to scores in evaluations among students and lecturers.

Evaluations among students are held at the end of each course. Students are asked about the contents of the course, the organisation, the lecturers, assessment and feasibility. Improvement plans are incorporated in the Quality Review. The annual quality reviews give an overview of all the improvements based on the evaluations.

Different stakeholders are involved in the quality assurance of the programme, both in formal and informal ways. Students, staff, alumni and the professional field are involved via various surveys and through participation in consultative bodies, such as the Academic Council, Examination Committee and Course Committee.

Assessment and learning outcomes achieved

STC-NMU provides a clear and transparent examination policy and uses different types of assessments, tests and exams. The STC-NMU uses criteria and principles for forming and executing tests and assessments adequately.

Specific assessment and testing is carried out with knowledge-focused courses. The testing of such courses is mainly in writing, like an essay or open question test. There is also a form of integrative assessment and testing. This tends to take place in projects in which material from various known and sometimes unknown sources needs to be processed into an acceptable answer to a sometimes complex and not always unambiguous demand from the field. In this case, students will be evaluated based on a report or assessment.

Students complete their studies with the writing of a thesis. Graduation is completed by means of a thesis defence. NMU has set clear criteria for the assessment of the thesis. There are always two assessors involved with the thesis-assessment. In case of doubt a third assessor will be conducted. The company supervisor has an advisory role. The assessment is made up of five parts. Students must get a 'satisfactory' for all parts.

Overall, theses reflect the achieved final qualifications and represent the aims of the Master of Shipping and Transport. When graduated, alumni work in managerial positions all over the world in the sector of shipping and transport.

The audit panel assesses the quality of the Master in Shipping and Transport of STC-NMU as **satisfactory**. The panel comes to an assessment of 'good' on standards 3, 4, 5, 6, 8, 10, 11 and 13, and to an assessment of 'satisfactory' on standards 1, 2, 7, 9, 12, 14, 15 and 16.

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1 Basic data of the study programme

Administrative data of the study programme

1. Name study programme as in CROHO	Master Shipping and Transport
2. Registration number in CROHO	70068
3. Orientation and level study programme	hbo master
4. Number of study credits	81
5. Graduation courses / 'tracks'	-
6. Variants	Full-time Part-time (since 2011)
7. Location	Rotterdam
8. Previous year of audit visit and date decision NVAO	Previous visit: 2006 Decision NVAO: 16 May 2007

Administratieve institutionale data

9. Name of institute	STC-Group
10. Status of institute	Corporate body for higher education
11. Result institute audit	-

Quantitative data regarding the study programme

1. In-, through- and out-stream data of the last six cohorts (May 2012)

Start date	Number of students (listed)	Graduation date	Number of graduates	Withdrawn	Thesis phase
March '08	18	Oct '09	15	3	-
Oct '08	8	March '10	8	-	-
March '09	29	Oct '10	23	2	4
Sept '09	9	March '11	8	-	1
March '10	19	Oct '11	12	3	4
Sept '10	24	March '12	19	-	5
March '11	11	Oct '12	-	2	9
Sept '11	17	March '13	-	-	-
Nov '11	13	March '14	-	-	-
April '12	20	Oct '13			
Total	168		85	10	23



2. Realized student-lecturer ratio

Based on a student population of 85 students on the evaluation date (April 2012) and 6.52 fte (ref. Standard 10), the lecturer-student ratio is 1:13.

3. Average number of face-to-face instruction hours² per phase of the study

The curriculum consists of two phases: college phase and thesis phase. The college phase in the full-time programme consists of one college year of 60 credits evenly spread and 4-6 months thesis phase of 21 credits. In the college year lessons, assignments and self-study is programmed. Assignments include excursions: 12 full days are scheduled for this purpose.

In the part-time programme the college phase is spread over two years.

A lecturing hour lasts 60 minutes. A lecturing hour is defined as 'a lecturer lecturing in a class setting'. In the following table the scheduled hours are defined.

Programme	Lessons	Assignments	Self Study	Thesis phase	Total
Part-time	560	632	580	588	2268 (81 EC)
Full-time	802	390	580	588	2268 (81 EC)

Average contact hours per week (college phase).

In the full-time study programme an average of 30 lecturing hours are scheduled per week: 5 days, 6 lecturing hours.

In the part-time study programme 6 contact hours are scheduled one day a week and on Fridays every other five weeks.

² The study programme uses a definition for face-to-face instruction hour of 60-minute scheduled contact time, e.g. lessons, working colleges and mentor hours.

2 Assessment

The panel describes the findings, considerations and conclusions of each standard of the NVAO assessment framework. The final judgement concerning the study programme will be presented in chapter 3.

Intended learning outcomes

Standard 1 Intended learning outcomes

The intended learning outcomes of the programme have been concretised with regard to content, level and orientation; they meet international requirements.

Findings

The general objective of the Master in Shipping and Transport is to successfully educate people to perform at management positions in the shipping and transport industry. The Master in Shipping and Transport educates students to be able to develop, design and / or implement processes and facilities in the field of supply chain management, maritime transport and logistics.

The intended knowledge and skills are described in the *Competency Profile (2012)* which is based on different analyses of the worldwide supply of education programmes and required competences for the shipping and transport industry (2006 and 2010). The intended qualifications are summarized and presented in five final qualifications (2012). These five final qualifications reflect the descriptions of the Dublin descriptors for Master level as well as the maritime context of shipping and transport (see appendix 1).

The panel recognized the aimed knowledge and skills presented in the learning outcomes per course in the curriculum. NMU linked the learning outcomes that represent a more specific presentation of the five final qualifications, to the Dublin descriptors. E.g., the outcomes of the course Port Design and Management show a link with knowledge and insight, assessment/analytical skills and communication skills; the outcomes of the course Port Design show a link with knowledge and understanding and applying knowledge.

The Master programme offers a broad educational programme. Therefore, it educates people to perform as a manager who is mainly involved in directing, coordinating and managing shipping, port and transport related activities and the relevant infrastructure. Scrutiny of documents showed that graduates work in different kind of positions as a 'maritime manager'.



E.g., they work for port management organisations or shipping companies, or work as fleet owners, terminal managers, transport broker, shipping market analysts, transport consultants and (international) logistic service providers all over the world.

The start of the study programme in 2007 was based on several market analyses, among other things. Scrutiny of documents showed that the profile (2012) was based on these market analyses and evaluated by representatives of the professional field. A comparison was made with the Master of Science in Transport and Maritime Management in Antwerp. It shows for example that ITMMA focuses on, a mid career professional seeking challenges in fundamental research and theories.

Since the start, NMU frequently uses insights of the international professional maritime field to make sure that the aims reflect the characteristics of the domain, the aimed Master level and the actual topics. Therefore, NMU uses their (guest) lecturers who have external views on current developments in the international field of maritime logistics as well as, on input from the Academic Council. In addition, in December 2011, the first Alumni survey was carried out. Questionnaires were given to graduates who had completed the programme more than one year ago: 30 of 54 alumni responded. From the 30 alumni 78 percent replied that the programme had indeed made a positive contribution to their professional development. Results also showed that graduates are employed in relevant fields of business.

Considerations and conclusion

Overall, the panel found that the contents of the intended learning outcomes are fundamentally relevant to the domain of the study programme and consistent with the Master level for applied science. In addition, the panel found the international orientation to be very good. This is partly due to the STC-Group, which is an international orientated organisation. For the Master programme this lies (also) specifically in the fact that students from all over the world participate, in this specific programme.

The panel found it clear what the programme aims at: a broad profile for 'maritime manager', someone who is able to work as a manager in different contexts of the maritime field of shipping and transport. This broad managerial profile is presented in the five final qualifications of the Master in Shipping and Transport. Although these qualifications are, according to the panel, rather abstract, the learning outcomes in the course descriptions are derived from the different aims in the profile, and reflect the managerial expertise, knowledge and skills that are necessary to perform as a manager in shipping and transport in the maritime field. The panel found that the relation between the learning outcomes and the five final qualifications can be made more transparent. The final qualifications can be linked to the learning outcomes and can be made more specific where applicable.

Based on the considerations as mentioned above the audit panel comes to the judgement **satisfactory**.

Curriculum

Standard 2 Orientation of the curriculum

The orientation of the curriculum assures the development of skills in the field of scientific research and/or the professional practice.

Findings

The Master programme of STC-NMU comprises a full-time (Rotterdam and Gwangyang, Korea³) and a part-time study programme (Rotterdam). The part-time programme in Rotterdam, which started in November 2011, is based on the same qualifications and principles as the full-time programmes.

The curriculum is designed to provide students with a thorough understanding of shipping and transport, and the necessary management skills, which are applied in the context of managerial functions in shipping and transport.

The curriculum consists of 23 courses, divided over the five modules. The duration of every course differs. The curriculum is structured in such a manner that the courses complement each other so that students are challenged to approach different maritime issues from several perspectives, roles and functions in the logistics chain (ref. Standard 3).

The professional practice is important for the development of a thorough understanding and the necessary management skills. The maritime issues in the curriculum are derived from different business disciplines, e.g. strategy, management and leadership, human resource management, policy and processes, finance and accountability, and reflect the broad managerial scope. The content of the courses (lessons and assignments) is constructed by (guest) lecturers and discussed with colleagues from the professional field, who can also be a colleague guest lecturer at NMU.

The international network of the STC-Group (and NMU) is used to developing and executing the curriculum, as well as keeping it up to date. The responsible (guest) lecturer of a course makes sure that it is kept up to date by using his⁴ own experience, expertise and network in the maritime field.

Companies involved in providing input for the curriculum, by organizing field trips, excursions, developing assignments and exercises, and delivering guest lecturers, are for example: Damen Shipyards, Samsung, Hyundai Heavy Industries, MAN (maritime engineering), Port of Rotterdam Authority, Antony Veder, Flinter and DHL Exel Supply Chain.

³ Although the assessment for accreditation only applies to the programme in Rotterdam, it is worth mentioning that the study programme in Gwangyang is structured and executed based on the same aims and principles as in Rotterdam, as well as executed by all lecturers from Rotterdam.

⁴ For readability purpose only the male references are used in this report. Reference to gender apply both to male and female.



During site visits students are brought into contact with the current business world.

The full-time programme contains an exchange programme with the STC branch in South Korea. This exchange programme comprises a full lecture programme of one month and a number of visits to shipyards, terminals and port management institution, like Hyundai Heavy Industries.

The required knowledge is presented in the courses and the assignments and is used to activate knowledge and make it applicable in a practical way in connection with other knowledge and insights (*Course Outlines 2012*). The panel found that knowledge is gained during lessons were different theoretical foundations are presented and discussed. Scrutiny of documents about the content of the curriculum and literature showed an up to date curriculum, and that general and classic approaches are used. The panel also found that the curriculum reflects a proper Master level for applied science, but that the use of the presented literature can be improved in some courses. The panel found the literature relevant for the intended Master level, but some of the student products show a kind of generic use that the panel does not always found representative for the intended level. Especially in some of the Supply Chain Management and Transport assignments and in a few theses.

Students develop the necessary skills through different kind of assignments and exercises that are part of every course. In these assignments students are challenged to apply the gained knowledge in a practical realistic context. Different types of skills are addressed, e.g.: negotiation skills, reasoning skills, presentation skills and reporting skills.

NMU uses their network, as mentioned above, and uses the simulator facilities of the STC-Group to provide students with an authentic context where they can apply various managerial skills in an integrated manner.

Students work individually or in groups when working on assignments. When working in groups, the group composition differs per course / assignment.

The panel found that the assignments reflect a realistic professional setting that is relevant for the development of managerial skills at a professional Master level. Lecturers whom the panel spoke, explained that the assignments are also developed in consultation with professionals within the maritime and logistical field.

Within this programme research skills are an important indicator for the Master level: the research skills consists of developing a critical and analytical attitude towards problem-oriented research and solution-oriented approaches, and are directly linked to the professional and current practice. The programme challenges students first to establish the managerial problem in the context of shipping and transport by collecting critical information before thinking about solutions. When students follow courses they develop research skills: the ability to recognize, evaluate and collect essential data to be applied in a relevant business context. Student products (theses) demonstrate the gained research skills. Although the programme also addresses these skills in earlier modules, the panel found them to be under developed, and that these skills can be addressed more extensively throughout the entire programme.

Considerations and conclusion

The panel found the studied content of the curriculum thorough enough to develop an understanding of shipping and transport. Course contents represent classic and general approaches, and are considered current and relevant for achieving the Master level. In addition, the panel found that the programme could improve the use of theory, research design and models. This differs per course. Although criteria set by NMU, and the insights presented by lecturers in the interview with the panel are profound, the panel found – based on studied results – that these described and mentioned criteria and insights can be used in a stricter sense in some parts of the programme.

The connection with the professional field is safeguarded through working with the international professional field when developing and executing assignments, and by using relevant complex contexts for the development of the managerial skills.

Based on the considerations as mentioned above the audit panel comes to the judgement **satisfactory**.

Standard 3 Contents of the curriculum

The contents of the curriculum enable students to achieve the intended learning outcomes.

Findings

The curriculum consists of the following five modules and 23 courses:

- Module 1: Introduction into Shipping and Transport, Supply Chain Management, Shipping and Port Economics, Applied Management Science, Maritime Policies and Governmental Politics, Shipping Trade and Transport Law.
- Module 2: Corporate Maritime Management and Strategy, Maritime Finance and Controlling Management Part 1: Human Resource Management and Development in Shipping, Cargo Operations Management.
- Module 3: Shipbroking and Chartering, The Business of Shipbuilding, Sale and Purchase, Fleet Management, Transport Security, Marine Survey and Safety Management, Maritime Finance and Controlling Management Part 2: Ship Finance, Marine Engineering.
- Module 4: Port Design and Management, Inland Waterways and Water Transport, Maritime Finance and Controlling Part 3: Port Finance, Port and Fairway Design.
- Module 5: Research Skills and Thesis.

Per course, a Course Outline is available. All Course Outlines are structured in the same way and updated annually by the responsible (guest) lecturer. In all Course Outlines the aimed learning goals are described. In a matrix these qualifications are linked directly to the Dublin descriptors and therefore to the five final qualifications as set in the profile (2012).



Per module, the courses have different duration varying from 2 to 6.5 credits. A student works at two courses at the same time in a week. One course stops earlier than another, and after a course ends, the next course of the module will start.

In one week students work two or three days full-time at one course and the other days at another course. During a school day students follow theory lessons in the morning and practical lessons (assignments) in the afternoon to apply the gained knowledge and develop skills, regarding the specific course.

The structure of the lessons (school days) provides horizontal coherence in the curriculum: within every course integration of knowledge and skills is realized, as well as a constant link between theory and current practice. The panel found that the clustering of the courses could grow to a more holistic approach. The panel understood that the management has taken this into account.

As mentioned in Standard 2, the assignments take place in the authentic or simulated practice. Furthermore, the relation with the professional field is strengthened by excursions, field trips and site visits that take place in almost every course.

The curriculum shows a vertical coherence through a step-by-step deepening of knowledge and applying knowledge in the assignments. E.g., the first module provides a general framework and a common reference to transportation at the macro level. Courses such as Supply Chain Management, Transport Law, Maritime Policies and Governmental Politics, Ocean Management typically give the student a holistic view of the shipping and transport world. In the next block, the business perspective is presented in the Corporate Management cluster to provide a general understanding of general business principles such as strategy, finance, operations, and human resource management. However, these are always linked to the sector of shipping and transport. Once the holistic view of shipping and transport and the business perspective has been conveyed, students have sufficient knowledge to focus in the field of shipping and transport and port management through different assignments, e.g. the courses Marine Engineering or Port Fairway Design. The programme concludes with a thesis assignment. Therefore, the student works individually on a project in which he tackles a realistic problem in the field of maritime transport, and the solution of which calls for integrated, professional, managerial skills on a Master level (ref. Standard 16).

The link between the final qualifications and the curriculum is shown in a matrix, but – according to the panel – can be made more transparent (ref. Standard 1). In interviews with lecturers the panel was convinced that the contents of the curriculum and the coherence is safeguarded by the lecturers: lecturers meet frequently to discuss these items in order to safeguard the consistency in the curriculum. The students whom the panel interviewed were all positive about the contents of the curriculum; its contents and orientation are the main reasons for students to choose for STC-NMU's Master programme.

Considerations and conclusion

The panel recognized the descriptions of the final qualifications and skills (the content it represents) that are translated into five major blocks and into learning goals. This is shown in the Course Guide and the Course Outlines of the curriculum. The final qualifications can be presented in a more concrete way (ref. Standard 1).

Scrutiny of documents and the held interviews by the panel convinced the panel that the contents of the curriculum clearly contribute and represent to the degree of Master in Shipping and Transport.

The courses are structured according to the same principles: the relevant learning outcomes are presented in a consistent way in every course. These learning outcomes are the starting point for lecturers to execute and develop their courses. They do so in a consistent manner, which the panel judged as good. These goals are also the starting point for students: they are satisfied about the curriculum and state that the outcomes clearly represent the content and aims of the courses.

Based on the considerations as mentioned above the audit panel comes to the judgement **good**.

Standard 4 Structure of the curriculum

The structure of the curriculum encourages study and enables students to achieve the intended learning outcomes.

Findings

The STC-Group provides an educational model that aims at educating for all professions in the shipping, port, transport and logistics chain, as well as the harbour-bound oil and chemical sector, from door to door and for all levels, and therefore must comprise different working methods applied in combination with: course materials, classrooms, practical workshops and laboratories, interactive work packages, full mission or partial mission simulators.

The execution of the Master programme by NMU is based on STC-Groups' educational model. Within this model, the NMU uses two didactical principles to enable students to develop and achieve the intended learning outcomes.

The first didactical model is the reflective learning cycle by Kolb. The reflective learning cycle has been implemented throughout the entire study programme: every course starts with an introduction, followed by theory lessons, then students work individually or in groups on assignments where they apply the acquired knowledge, this is evaluated and / or discussed during lessons in a formative way and assessed at the end of the course in a summative way. Afterwards students get feedback on their results.



The second didactical model used in the programme is the Skill Sheets, a concept developed by Van Tulder (2008) for students of management studies: it represents a set of managerial competencies. These competencies are quite similar to the intended managerial skills of the Master programme in Shipping and Transport. By using this model, there is a focus on the development of the critical and analytical attitude towards problem-oriented research and solution oriented thinking.

The Skill Sheets method is applied in several courses, but is also an ongoing principle and an anchor for students to reflect on their development during the entire programme.

Therefore, the Skill Sheets is also used in the study guidance approach (ref. Standard 12).

In addition, the STC-Group recently developed an ICT learning environment called Learning Management System. This system is still being implemented. In this system, students can find the assignments, share work online, save and submit work online. It will also provide sets of exercise questions. Students whom the panel interviewed do not work with LMS yet.

Considerations and conclusion

The used didactical principles are clearly consistent and enable students to gain the intended managerial skills. The constant link with the practical contexts, contributes to the development of the learning goals: students need to apply their knowledge, visit the working field for insights and need to gather information. The link with the professional fields occurs through different manners, e.g. assignments, site visits, field trips, simulators. The panel judged this as good and found this beneficiary for students and the development of managerial skills.

Scrutiny of documents and held interviews convinced the panel that a variety of working methods is used that are consistent with the used didactical approaches. The panel found that the used working methods enable students to gain the intended learning objectives: knowledge and managerial skills.

Based on the considerations as mentioned above the audit panel comes to the judgement **good**.

Standard 5 Incoming students

The curriculum ties in with the qualifications of the incoming students.

Findings

The applicants represent a wide range of backgrounds and experience: ex-seafarers in possession of a Bachelor degree in Maritime Operations and with working experience, and a variety in backgrounds are considered to be of great value for the study programme.

Furthermore, there is diversity in cultural backgrounds and differences: students come from all over the world to participate at NMU's Master in Shipping and Transport.



All applicants (full-time and part-time) need to be in possession of a Bachelor's degree and have at least two years of relevant professional experience in logistics. The entry requirements are specified in the *Course Guide*. In addition, fluency in English is required, according to the appropriate TOEFL level.

Part-time students also need to be working in the field of shipping and transport. The NMU's Admissions Officer manages the intake procedure. When applicants show interest in attending the programme, different kind of forms and paperwork are required (e.g. a diploma to show the students' Bachelor level), a short motivation essay needs to be submitted and an intake interview takes place at NMU with the programme manager.

NMU is strict in requiring a certain level of English, especially where students from Asia are concerned. NMU does not always find the TOEFL assessment to be a realistic indicator. Therefore, applicants also need to write the motivation essay in English and use English during the intake interview to make sure that students have the appropriate level of English. If necessary, NMU offers a crash course, but only when NMU is convinced that the proper level of English can be developed.

In addition, NMU is considering the option of starting a preparatory course, preceding the regular programme. In some cases, this is considered to be useful and – for example – can be offered to applicants who have a Bachelor degree, other than Maritime Officer.

The Admissions Officer is charged with processing information requests, like procedures regarding visa, opening a bank account and housing. The STC-Group provides students from abroad with housing (so called *STC-Loopplank*). STC-NMU signed the policy code 'Code of conduct for international students in higher education'. This policy code covers timely, reliable and accessible information about accreditation of the programme, languages requirements, admission and the language of the programme.

In the first module an introduction course is given. In this course the entire programme, expectations and working methods are presented, so students are well informed about the aims and working methods of the programme.

The Master programme has no exemption policy or shortened study routes. NMU is reconsidering the possibilities, mainly to enable cooperation at the international level.

Considerations and conclusion

Scrutiny of documents and the interviews held with lecturers and management convinced the panel that applicants absolutely need to have gained a Bachelor degree and need to have working experience. Additional admission requirements concern a good level of English. Applicants have to do a TOEFL assessment and the level of English will be checked in the motivation essay and during the intake interview. The panel found that the NMU is very keen on accomplishing the admission requirements. The panel is also positive about the attention for foreign students.



The Admissions Officer makes sure that students – in general – but mainly foreign students, are well informed about the intake procedure but also about all the administrative procedures that are applicable when coming to The Netherlands to study.

All students are well informed during the intake and by the Admissions Officer as well as in the first lessons.

Based on the considerations as mentioned above the audit panel comes to the judgement **good**.

Standard 6 Feasibility

The curriculum is feasible.

Findings

The study load of both the full-time and the part-time programme is 81 credits, these are spread evenly over the five modules: four modules of 15 credits add up to 60 credits spread over one academic year (42 weeks, full-time and part-time). The thesis represents a study load of 21 credits, spread over 4 to 6 months in the full-time programme and over one academic year in the part-time programme. Contact hours are defined and presented in chapter 1 Basic data of the study programme.

The realized study load is quite heavy, according to surveys and the alumni and students whom the panel spoke to. Full-time students work approx. full-time at school, the contact hours are scheduled in the mornings and the guided and self study hours are planned in the afternoon, for example working in group assignments.

Part-time students have less school days and therefore less contact hours. Instead, part-time students have more self study hours to work on assignments.

As described in Standard 3 the courses have different duration (2 to 6.5 EC). Students follow up to two courses per week. Because the duration differs the testing and examination of the courses are also spread over the module, and therefore the study load is spread over the curriculum.

Factors that may delay the study progress are prevented and / or tackled in several ways. Delays are prevented by offering an evenly spread study load, giving a clear introduction and information about the modules and courses, handing out instruments for self studying and presenting a clear examination policy. E.g., students can make study contracts and the examination policy shows that results will be published within four weeks.

Delays are tackled by students themselves and by lecturers. Study results are administered in Magister: a digital system for registration of individual study results. NMU monitors the individual study progress of students in Magister and interferes when necessary by offering appropriate student coaching.

The STC-Group also offers specialized kind of guidance, for example in case of psychosocial issues. This is provided by the Department of Educational and Quality Affairs that also offers guidance for foreign students (ref. Standard 5).

Every course is evaluated by students. Survey results might show factors that delay the study progress and thus improvements that can be made.

Students with disabilities can follow the study programme just like other students. If necessary, the STC-Group can offer facilities for students who are dyslectic. Furthermore, the entire building is accessible for disabled people.

Considerations and conclusion

NMU expects students to be self-sufficient. In the first module students get acquainted with the aims and principles of the study programme. To help the study progress NMU offers different instruments: students can make a study plan and study contract with themselves, and use the Skill Sheets to do so. The panel found this appropriate for a Master programme. In case study results are disappointing, students are offered assistance through study guidance: a talk with the programme manager, and if necessary redirected tot specialized guidance, e.g. psychological help facilitated by the STC-Group. Lecturers and the programme manager monitor the individual study results in Magister. Students receive an overview of their study results twice a year.

Based on the scrutiny of documents and the interviews held with lecturers and students the panel is convinced that the curriculum is feasible due to its structure and the manner in which students are approached. The panel found this to be good. Furthermore, the programme management and lecturers monitor the study progress and interfere when applicable.

Based on the considerations as mentioned above the audit panel comes to the judgement **good**.

Standard 7 Duration

The programme meets statutory requirements regarding the scope and duration of the curriculum.

Findings

The curriculum is described in the Course Guide and in the Course Outlines. These documents show that the Master's study programme exists of 81 European credits.

Consideration and conclusion

With 81 credits, the study programme meets the requirement of a minimum of 60 credits.

Based on this finding the audit panel comes to the judgement **satisfactory**.





Staff

Standard 8 Staff policy

The programme has an effective staff policy in place.

Findings

The STC-Group describes an active personnel policy in which employers take a central position (*Personnel policy 2011-2015, STC-Group*). This policy concerns STC-NMU as well and is directly derived from the organization's strategy (*ETA-2015: Next Port of Call*). The aim of the policy is to achieve the goals of the curriculum and to improve the safeguards on educational quality. Therefore different personnel instruments are presented per different Human Resource area, of which some are described as focus points for the next few years:

- recruitment and selection;
- competencies, performance & appraisal and remuneration;
- professionalization and leadership;
- career development;
- knowledge sharing & cooperation.

The STC-Group describes that it offers an active personnel policy, which means that staff are the professionals who take a central place in the policy and are, in the first place, responsible for their own career development and opportunities. Per different focus point the policy presents a platform for personnel to do so, e.g. regarding professionalization and development and career opportunities.

The presented policy and instruments follow the principles of the Investors in People approach. The STC-Group is an Investor in People certified organisation. This means that the STC-Group pursues an active personnel policy that found expression in all activities of the STC-Group and according to which staff and management act. The STC-Group also continually invests in consolidation and growth. The aim is to have a group of active, interested professionals who are happy and healthy in their work. Preconditions for this attitude are an awareness of one's own possibilities and talents and responsibility for one's own career, within the boundaries and conditions set by the STC-Group. The panel recognized this principle in the personnel policy as well as a concrete plan, do, check, act-cycle per HR area: the policy shows concrete verifiable objectives for each year. Based on the strategic evaluation cycle, the manner in which set goals are met is checked and – if necessary – improvements are executed.

Working conditions are evaluated among personnel. The average score for satisfaction is 7.4 on a scale of 10. The results of the survey show that very positive scores are achieved for working conditions, physical working environment, content of the work and relations with colleagues.



Improvement measures tend to involve performance and appraisal interviews, staffing and distribution of the workload. Within NMU communication is rather informal, due to the fact that NMU is a rather small organisation in which people easily contact each other.

Therefore, the STC-NMU draws up its own personnel plan in which the needed manpower for executing the curriculum is calculated and administered. In order to have competent personnel that contributes to the course and organisation goals, various personnel instruments are deployed with the above-mentioned focus points.

Considerations and conclusion

The STC-Group has a personnel policy that clearly describes the ambitions for the next four years and how the STC-Group will realize an active personnel policy. NMU follows this policy. The policy describes the consequences per different HR area and – very concrete – the results within these areas. The panel recognized the plan, do, check, act-cycle and concludes that the STC-Group realizes an adequate and active personnel policy. Lecturers whom the panel interviewed convinced the panel also about the opportunities and responsibilities staff has and clarified how NMU safeguards the quality and quantity of staff by using different instruments and direct communication and tuning with the staff.

Based on the considerations as mentioned above the audit panel comes to the judgement **good**.

Standard 9 Quality of staff

The staff is qualified for the realisation of the curriculum in terms of content, educational expertise and organisation.

Findings

The personnel have to contribute optimally to the strategic and educational goals of the STC-Group (*Personnel Planning 2011-2012 STC-NMU*). CVs of the 31 involved (guest) lecturers show the programme has at its disposal lecturers who possess knowledge and experience based on professional practice and who can draw on relevant cases from their work/ experience. The frequent use of guest lecturers (16 of 31), who all work in the relevant field, guarantees a consequent contribution of up-to-date, in-depth knowledge of the maritime industry to the programme.

Contents of the curriculum are leading for the selection and appointment of staff. When appointed, (guest) lecturers are selected based on their current relevant work experience in the relevant field. The (guest) lecturers have multidisciplinary backgrounds, which are closely related to the maritime industry, as demonstrated in their CVs. The team of (guest) lecturers represents a wide range of specialism. Every lecturer is responsible for modules that tie in best with their specialty and work experience.

From the 31 (guest) lecturers 35 percent have a Bachelor's degree and an average of 35 years of work experience in a specific field of expertise. Of the involved staff 58 percent has a Master degree as well as relevant work experience and 13 percent has a PhD. The specialized field experience is considered very important for the execution of the programme. Finding staff with both a university degree and practical experience is very rare, that explains the Bachelor-Master-PhD ratio. Furthermore, the panel remarks that the average age of the lectures is relative high and does reflect the business field, something the STC-Group aims for in the personnel policy.

The lecturers employed by the STC-Group need to possess certain didactical skills, in accordance with the competency profile of the STC-Group. Lecturers need to be able to develop teaching material. Based on scrutiny of CVs the panel found that the guest lectures with a great amount of work experience do not always possess educational or didactical qualifications or experience. Some do indeed have a certificate or have working experience in other study programmes or institution. The NMU safeguards the educational and didactical qualifications by offering procedures and tools for the development of course materials and checking every course material (content, goals, testing).

Students survey (September 2011) shows high satisfaction about the involvement and expertise of lecturers. Students whom the panel spoke with were also satisfied.

Considerations and conclusion

Based on the scrutiny of CVs of the (guest) lecturers the panel found that the entire relevant scope of the international working field is represented: the lectures possess a wide range of actual specific field knowledge, working experience and (international) professional networks. The permanent employed lecturers possess didactical qualifications, which are guaranteed by the use of strict procedures.

The panel found the amount of PhD rather small, also for a professional Master, and that when the Master states to have the ambition to grow to a top-professional Master, it must attract more scientific-academic lecturers. According to the panel it could double the ratio. The panel considered this a point of attention. The panel recognized that the field experience is of great value for the execution of this programme and the ability to reach the aimed qualifications. Nevertheless, it recommends NMU to invest in getting a few more PhD's, mainly to provide more research knowledge (for applied science). From the interview with the management, the panel understood that there is a vacancy for these coordinator and that NMU searches specifically for someone who is a PhD or is willing to become one.

Based on the considerations as mentioned above the audit panel comes to the judgement **satisfactory**.



Standard 10 Size of staff

The size of the staff is sufficient for the realisation of the curriculum.

Findings

STC-NMU has budgeted for the college year 2011-2012 6.52 fte for educational tasks (*Personnel Planning 2011-2012 STC-NMU*). Of this number, 4.58 fte is for lecturers, 0.88 for thesis coaching, 0.10 for professional improvement and 0.96 for the coordination of the education. The hours for lecturers include the time needed to develop teaching materials. The students whom the panel interviewed describe the lecturers as both accessible and helpful. Based on the current amount of 85 students, there is a lecturer student-ratio of 1:13. In the amount of fte, the deployment of guest lecturers is incorporated. Of the 31 lecturers that are working at STC-NMU, 15 are permanent employees of the STC-Group and 16 are guest lecturers. The STC-Group aims at internalising knowledge and having a larger part of the course executed by its own lecturers.

STC-NMU has a large network in the working field, as well as within the STC-Group. It has enough knowledge and experience. Therefore, in case of absence of a lecturer STC-NMU can easily deploy extra or substitute lecturers.

Within the Management Quality System of the STC-group, the norm for absence due to sickness is 4 percent. The absence at NMU lies round 0 percent. In case a lecturer should be unavailable, the secretary informs the students and, if possible, sets them to work on their own.

Considerations and conclusion

The panel is positive about the size of the staff that is available to STC-NMU. The lecturer student-ratio is good and students are satisfied with the availability of the lecturers. According to the panel, the size of the staff is more than adequate to realize the desired quality of the education. Due to its network, STC-NMU can easily replace lecturers in the case of absence, for example due to sickness. With the aim set by the STC-Group to internalise more knowledge, this will be even more easily in future. The centralized staff of the STC-Group offers a solid support for the teaching.

Based on the considerations as mentioned above the audit panel comes to the judgement **good**.

Services and facilities

Standard 11 Services and facilities

The accommodation and the facilities (infrastructure) are sufficient for the realisation of the curriculum.

Findings

The Master programme is offered at the main building of the STC-Group in the newly developed *Lloydkwartier* in Rotterdam. In this building, the professional education of the STC-Group is concentrated: e.g. the Bachelor programmes Maritime Officer and Shipbuilding. The facilities are shared and are available for the STC-NMU. With the assessment of the Bachelor programme Maritime Officer in 2010 the facilities were judged as Excellent. This was mainly based on the use of the impressive simulator park.

For the execution of the Master programme, different facilities are used. Most intensive: classrooms, amphitheatres and project areas.

There are 17 classrooms designated for Higher Education, where theory is taught. The classrooms are suitable for groups of up to 36 students and equipped with modern facilities (SMART-board, beamer, audio). There are separate computer rooms where students from STC-NMU can work on their assignments. Lecturers have their own workstation.

There are two amphitheatres available for groups of up to 60 persons and there are several project areas in the building, where small groups of students can work on their assignments. These areas have the necessary facilities, such as beamers and flipcharts.

Specific facilities concern the STC-Groups simulators and labs and the student accommodation *STC-Loopplank*. The STC-Group has the most extensive simulator park in the world at its disposal. It consists of different types of simulators that can be used, among other things, for training in various procedures, whereby the consequences of choices become immediately clear. Simulators increase the quality and effectiveness of the education through the direct application of theory. An example is the Transport Chain Simulator® whereby the logistics process from production facility to client is simulated. In this way STC-NMU students can gain experience in leading teams in crisis situations which call for quick decisions.

The STC-Group also has a fleet of different types of ship that are used for practical assignments and to study sailing characteristics and construction. The Master students have an excursion on one of these ships: a trip into the port of Rotterdam.

The student accommodation STC-Loopplank provides housing and assistance for various participants from the STC-Group (ref. Standard 5).



The STC-Group provides different ICT facilities: the entire building is equipped with wireless Internet. Furthermore, STC-NMU works with:

- Magister, to administer the individual results of students;
- Content Management System: a digital library in which lecturers stall their course content to share with colleagues;
- Learning Management System (LMS): this is the learning environment of the STC-Group that is also accessible form outside the STC-Group. It provides digital teaching resources, e.g. study guides, timetables, instructions and assignments.

There is a (media) library and there are repro facilities, which are all accessible to students and lecturers form the STC-NMU. At STC-Group the library can be approached via the internal website <http://bibliotheek.stc-r.nl/>. Students can perform simple or advanced searches for publications or objects in the collection, in the language of choice if so desired. There is also a direct connection with the library of TU Delft. Students can order books from the library of TU Delft which will be delivered the day after the books have been purchased.

The panel visited several facilities and is impressed by the appearance and quality of the facilities.

All students of the STC's educational programmes (NMU, Bachelor, vocational) use the facilities. Student experiences are evaluated through surveys. If necessary changes are made, e.g. new soft ware is implemented. Student's survey show positive feedback regarding the facilities. Their satisfaction is also mentioned in the interview with the panel.

Considerations and conclusion

The STC-NMU offeres very good up to date facilities, such as classrooms, self study rooms, simulators, library, computer rooms and housing. The NMU houses on one floor in the building, that is were the main facilities for the Master programme are concentrated and were lessons and self study take place. Special features for the Master programme are the simulators that provide students to act in complex situations to develop different kind of managerial skills. For example: how to act in case of an emergency. This can hardly be practiced in a real life case. The panel found these facilities very good for the execution of the Master programme, just like the housing facility STC-Loopplank for foreign students and all the other – less specific – facilities throughout the building, like sport facilities, the student restaurant and working spaces.

Based on the considerations as mentioned above the audit panel comes to the judgement **good**.

Standard 12 Tutoring

Tutoring and student information provision bolster students' progress and tie in with the needs of students.

Findings

STC-NMU strives to provide study supervision that makes the study process more fluent and helps the student to overcome any obstacles he or she might encounter.

The study supervision is based on the Skill Sheets method. At the beginning of the programme, this method is explained to students and helps them to be self-sufficient with their learning process: they get a clear idea of their learning needs, and enter the programme with a learning contract with themselves.

During the curriculum, there are several types of supervision. The lecturers are the first people students talk to when they have anything to say or clarify regarding the course. In addition, the STC-NMU has an open door policy. This means that students can easily consult the management of STC-NMU or other members of the teaching staff at pre-stated times. Lecturers can also always be contacted by e-mail.

Besides this practical approach, the STC-NMU offers students learning forms that enable them to develop in the desired direction. On top of that, students get an overview of their results twice a year, and lecturers monitor the study progress of students. If applicable, specific counselling of the STC-Group is available.

Halfway the programme there is consultation with student representatives and issues relating to the study progress and / or workload are addressed and dealt with.

During the graduation phase there is specific supervision. The programme considers it important that there is a good link between the student, the supervising lecturer and the graduation coordinator. For the thesis research, every student is allocated a graduation supervisor from the college (NMU) and a supervisor from the company involved. During this period, progress meetings about the final assignment are held between the company, the student and the NMU. The panel found that communication mainly takes place through e-mail and Skype. The persons involved also attend the students' thesis defence.

Lecturers and students are provided with all relevant and practical information about the programme through the STC-Group intranet. This information is continuously updated. Every course is presented in a Course Outline. All Course Outlines are structured in the same way, and every lesson starts with an explanation about the course: content, goals, testing.



In accordance with the *Examination Regulation (OER)*, the provision of information on test results and credit overviews is organised as follows:

- lecturers submit test results to the administration within no more than 14 working days;
- every examiner determines the marks within 28 days. Extension of the period is only possible with prior consent from the examination committee;
- student administration enters the results in the Magister system;
- the student's progress is registered via Magister;
- after being entered, the results are published immediately on the notice board and are available for perusal.

Alumni whom the panel spoke with, were positive about their contacts with their supervisor.

Considerations and conclusion

Based on the interviews held with students, alumni and lecturers, the panel found that tutoring and information provisions are satisfactory and appropriate for the executing of the Master programme. The interviews clarified tutoring and student supervision, what was a bit unclear in the different documents, like the Critical Self Evaluation report. Interviews and surveys made clear that students are satisfied with the tutoring and information provision, and the supervision they get during the graduation project. Students also know whom to contact if information is unclear.

Based on the considerations as mentioned above the audit panel comes to the judgement **satisfactory**.



Quality assurance

Standard 13 Evaluation of results

The programme is evaluated on a regular basis, partly on the basis of assessable targets.

Findings

STC-NMU has an extensive quality policy, which is based on the strategic policy of the STC-Group. The policy is laid out in the document *Kwaliteitsbeleid Hoger Onderwijs (2011)*. The NMU safeguards the quality by the internal planning & control cycle for the course, annual internal and external ISO audits and internal quality assurance instruments, like evaluations and surveys. The programme has the ISO9001:2008 certificate. Scrutiny of documents showed that the NMU has detailed procedures laid out for various matters related to the programme. E.g. procedures for the application and registration of students, testing en examinations and for the development of tests and exams. Another important document is the annual *Quality Review*, which is a management document in which the entire programme is evaluated.

It contains among others things an analysis of the intake, the output, a benchmark with similar programmes and a meta evaluation of student and lecturer surveys. The quality assurance of the NMU is supported by the BOK-department.

The NMU works with key performance indicators or 'KPI's'. Several of these KPI's are related to scores in evaluations among students and lecturers. For example, a KPI concerning the curriculum is 'evaluation of lecturers', for which the target is 'positive score on lecturer's qualifications'. Another example is the KPI 'evaluation of course contents', which has as target 'positive score on coverage, depth of course and market conformity up to present needs'. In annual quality reviews, the performance on these evaluations are given and compared to the previous year (ref. Standard 8 for performance evaluations among the staff).

In the NMU quality policy is laid out which evaluation instruments are used. Evaluations among students are held at the end of each course. Students are asked about the contents of the course, the organisation, the lecturers, assessment and feasibility. As mentioned in Standard 8, there are evaluations among the lecturers about the working conditions, but there are also lecturer evaluations at the end of each course. Further, minutes of the lecturer meetings the panel has studied showed that the programme is evaluated there as well.

The working field is connected to the programme in many different ways (ref. Standard 2). Formal input from the professional practice on the study programme is given in the Academic Council. The panel noticed, from the minutes of the Academic Council, that in these meetings, the matter of discussion is more organisational on marketing, intake and the need for a part-time programme, then on the contents of the curriculum.



The interview with representatives of the Academic Council made clear that current topics of interest are the connection with the professional field and the coherence of the programme.

In December 2011 the NMU held a large survey among alumni dealing with the content of the curriculum, as well as on career development and the applicability of knowledge and skills learned at NMU.

Considerations and conclusion

The NMU has a detailed quality policy. The ISO 9001 certification guarantees that the quality policy and all procedures are written down and known by the staff. The panel is impressed with the number of detailed procedures for aspects concerning the running of an educational programme. With the use of Key Performance Indicators, NMU uses verifiable targets, connected to the various evaluations and surveys that are used. The surveys the panel has seen have sufficient depth and are relevant for the group that is questioned. The *Quality Review* shows that the course management analyses the survey results.

Based on the considerations as mentioned above the audit panel comes to the judgement **good**.

Standard 14 Improvement measures

The outcomes of these evaluations constitute the basis for demonstrable measures for improvement that contribute to the realisation of the targets.

Findings

In the NMU quality policy, improvement plans are incorporated in the *Quality Review* (ref. Standard 13). The annual quality reviews give an overview of all the improvements suggested by students, based on the students' evaluations. These suggestions are detailed and are often course specific. For each suggestion, NMU describes in this document how they responded too it. For example, in the *quality review 2010* it says that students found the course on Applied Management Science 'highly theoretical'. In response the NMU decided to add case studies to the course, to bring more practice in the mathematical subject. In the same quality review, it is mentioned that students consider the course Shipping and Port Economics to have too much focus on the shipping part and not enough on the port part. In response NMU shortened the part of the course on generic economic theories and spend an extra day on port economics. Another example concerns the testing policy discussed by NMU in the lecturers' council. One of the conclusions was that more attention must be paid that the procedures are followed up correctly, for example, the completion of evaluation forms with comments by the lecturer on the work submitted or a presentation by the student.



It is difficult for the panel to check improvement measures based on the former accreditation report of 2007. The report has an overall positive tone, and does not give concrete points of improvement. Nevertheless, the panel observed that in the past years the NMU made numerous improvements, based on the evaluations mentioned in Standard 13.

The panel also found other examples of how evaluations contributed to demonstrable improvement measures, besides the ones given above, that are related to courses and based on student surveys. An example is the introduction of the part-time programme. This was a request from the working field, among others voiced in the Academic Council. From the interviews the panel held during the site visit, it became clear that the number of credits per course is evaluated annually, based on the surveys among lecturers and students.

Considerations and conclusion

In the Quality Reviews, concrete improvement plans and actions are laid out. The panel can trace quality improvement measures, related to surveys and other quality assurance instruments, like the Academic Council. The panel was not able to trace improvements directly to the last accreditation. This is due to the fact that the 2007 report is not very concrete about possible improvement measures and recommendations. This is not something that can be held against NMU, in the opinion of the panel. With concrete examples of improvement measures that are taken, NMU showed it has an adequate improvement policy.

Based on the considerations as mentioned above the audit panel comes to the judgement **satisfactory**.

Standard 15 Involvement in quality assurance

Programme committees, examining boards, staff, students, alumni and the relevant professional field of the programme are actively involved in the programme's internal quality assurance.

Findings

As has been referred to in Standard 13 and 14, the different stakeholders are actively involved in the programme's internal quality assurance.

The most important way in which the programme involves students is through the course evaluations, but students also fill in surveys after the intake and after the thesis. In the interviews that are conducted by the panel, students mentioned there are class committees in which course related subjects are discussed. Several documents mention the Course Committee, a committee in which both students and lecturers are represented, to discuss the content of the curriculum.



From the interviews, the panel learned that though there are meetings with the goal to discuss the programme, it is not a formal body as such. The panel did not come across any minutes.

Lecturers are also involved in the internal quality assurance by surveys. Besides that, they are represented in the different committees, like the examination and the curriculum committee. In the interview with the panel, lecturers told that a large part of their involvement in the quality assurance of the programme and their input on the contents goes through informal channels, because it is a small programme, everybody is in the same building and everybody knows each other.

The Examination Committee is made up out of lecturers. The tasks of the committee are conform the Dutch Higher Education and Research Act (WHW). The panel studied several minutes of the committee and found a detailed overview of its work, including different input from students. The chair of the committee checks all the exams of NMU on whether they are in line with the study objectives. Lecturers confirm in the interview with the panel that they have to revise the exam when it does not suffice. At the moment, the Examination Committee is not involved in the quality of the theses. The programme director chairs the committee. In the interview, NMU showed they are aware of the objections against such a structure (for example mentioned by the *HBO-raad*, the Dutch Association of Universities of Applied Science, in their paper '*Handreiking Examencommissies*'), but due to the small size of the educational programme the management finds it to be the best solution.

Representatives of the professional field are formally involved through the Academic Council, next to that, there are a lot of informal contacts, for example through the (guest) lecturers who are working in the professional field. Alumni are involved through the network of the STC-Group and a LinkedIn-group, though the last one is not very active. STC-NMU could repeat their alumni survey (ref. Standard 13) annually.

Considerations and conclusion

Different stakeholders are involved in the internal quality assurance of the programme, both in formal and informal ways. The latter four being easy because of the size of the programme and the fact that everything takes place in the same building. This informal involvement is satisfactory for both students and lecturers, which the panel found positive.

Students, staff, alumni and the professional field are also formally involved in quality management via various surveys and through participation in consultative bodies, such as the Academic Council, Examination Committee and Course Committee. The latter does not seem to have the formal function yet that NMU envisions it to have in several policy documents. Nevertheless, the panel found that students and lecturers are adequately involved in the internal quality assurance. The involvement of alumni could be improved, something NMU is working on. The professional field is involved through the Academic Council, among other ways.

The panel is positive about the detailed reports of the Examination Committee. The panel thinks it is a point of attention to get the committee more involved in assuring the quality of the theses, since that is an exam as well. As for the management being part of the Examination Committee, which is according to the panel a risk, but it is positive that NMU is aware of the drawbacks of this structure.

Based on the considerations as mentioned above the audit panel comes to the judgement **satisfactory**.



Assessment and learning outcomes achieved

Standard 16 Assessment and learning outcomes achieved

The programme has an adequate assessment system in place and demonstrates that the intended learning outcomes are achieved.

Findings

Assessment system

STC-NMU wants to check adequately that the students have achieved the learning goals as set in the curriculum. STC-NMU does so by different types of assessments, tests and exams. Within the assessment system, STC-NMU finds that the types of tests should be well matched to the education and that the testing process must be transparent and controllable: the types of test differ, depending on the nature of the modules; and sub-areas of the acquired knowledge, insights and skills are also tested separately.

Based on the tests on sub-areas, an interim evaluation is made as to whether or not the student can reach the final qualifications. Subsequently, at the end of the study, a final thesis is used to evaluate if the student meets the intended final qualifications through a set of requirements.

The STC-NMU has included testing, examination and the registration of marks in its quality system (ISO procedures). An examination policy was conducted at the beginning of 2012, because the ISO did not supplement a policy regarding testing and examination.

The main starting points for this examination policy are:

- in terms of content, tests are in line with the professional field in which the students work;
- all tests combined are a guarantee of the Master's level;
- tests are in line with the level that can be expected of a student in the academic year in question;
- testing (in its totality) is never only about the ability to reproduce knowledge and views, but also about the skills needed when applying it, and with an eye for professional attitude and social skills;
- types of tests are in line with the intended aims of the programme. Everything that is tested leads to the achievement of the final qualifications;
- types of tests are in line with the methods used in the educational programme;
- tests are connected to education and serve a clear function in this (guiding, stimulating);
- testing is as transparent as possible; students are aware of the type of test and assessment criteria used.



The *Examination Policy (February 2012)* serves as an umbrella for a number of ISO procedures relating to testing and examination. The following procedures are described:

1. Development of tests and exams (*PRO22*): this procedure describes the design, construction, selection and approval of tests and assessments.
2. Registration of grades and certification (*PRO23*): this procedure describes the registration of the grades and certificates attained by the NMU student.
3. Testing and examination (*PRO26*): The organisation of testing and examination, so that this process is conducted according to the rules.

By following these procedures, every test and examination is structured according to the same principles. Scrutiny of documents by the panel showed that tests are compiled consistently. Lecturers whom the panel spoke, told the panel that the development of tests and assessments is very transparent: everyone can see which steps have to be followed to develop tests, take tests, administer tests and which criteria apply.

Testing

The Examination Policy is geared towards summative tests (*Examination Policy, February 2012*). Formative tests are used in connection with the methods chosen by the lecturer in question. Every summative test is included in the Course Outline and carried out in accordance with the Examination Policy. Study of the Course Outlines shows that for each course a description of the test method, subject and criteria is given.

Types of test differ, depending on the nature of the courses. Specific assessment and testing is carried out with knowledge-focused courses. The testing of such courses is mainly in writing, e.g. an essay or open question test. There is also a form of integrative assessment and testing. This tends to take place in projects in which material from various known and sometimes unknown sources needs to be processed into an acceptable answer to a sometimes complex and not always unambiguous demand from the field. In this case, students will be evaluated based on a report or assessment. Sometimes, an assessment or evaluation takes place based on observed behaviour: students are asked to perform 'on stage', which can either mean a presentation, a speech, a defence session, a court session, as sales presentation. During these sessions the lecturer makes observations on the students' professional behaviour. Examples are: a moot course as part of the course Shipping, Trade and Transportation Law, or an Electoral Speech as part of the course Maritime Policies and Governmental Politics. As the course progresses, there is assessment and cumulative testing at increasingly high levels, whereby prior acquired knowledge and skills are taken into account, either explicitly or implicitly. This is the case, for example, with the graduation study, when a test is carried out to see if the student satisfies all final qualifications. After the tests have been administered, meetings are organised during which students receive feedback on the results and gain insight into the mistakes they made, thereby optimizing the learning effect.

Through several safeguards measurements the quality of the testing and is assured:

- the testing policy forms an integral part of the Education and Examination Regulations of STC-NMU (*Education and Examination Guidelines, NMU Master in Shipping and Transport*);



- the execution of the examination policy rests with the management;
- a graduation committee, with members of the exam committee, passes judgement on doubtful cases;
- the exam committee passes judgement in the case of disputes and makes the ultimate decision on awarding the diploma;
- by including the form and content of the testing in the Course Outline, the student knows in advance what will be tested and how.

For the module tests, the quality is safeguarded in the following ways:

- the course holder is responsible for good testing and consults with colleagues in this connection;
- the result of the thesis defence is only definitive if all participants in the thesis defence, that is the student, supervisor and fellow-assessor, have signed the evaluation form.

Students survey showed that students feel that it is made clear in advance on what they will be assessed and the testing ties in well with the education given. However, students did express a desire for more assignments as tests, rather than written exams. Therefore, NMU discussed the testing policy and the underlying procedures in the lecturers' council. One of the conclusions was that more attention must be paid to the fact that the procedures are gone through correctly, for example, the completion of evaluation forms with comments by the lecturer on the work submitted or a presentation by the student. The exam committee also needs to pay more attention to this point (*Quality Review, September 2011*). NMU also feels that, in the field of testing, continued attention has to be paid to the procedures and the safeguarding of quality. Therefore, a second reader will be appointed with every test, so that the quality of the testing is made inter subjective and is safeguarded even better. A test committee will be formalised per the new college year (2012) and will come under the responsibility of the exam committee. The test committee will be in charge of screening the tests.

Realisation of the intended learning outcomes

Students conclude their study with a graduation project: the thesis. A thesis project can take two directions:

1. a descriptive study that focuses on the conceptualization of (new) theories;
2. a normative study that focuses on the collection of empirical data in order to check a proposed solution.

The final assignment is, if possible, carried out at a maritime company or organisation, whereby the problem should be formulated in such a way that it – depending on the subject – invites one to make a diagnosis and suggest directions to pursue. The student is supervised by a Thesis Supervisor who is appointed to the student based on the subject of the project and the expertise of the supervisor.

There is also a reader attached to the students' project, someone who has affinity with the subject.



The Thesis Guidelines (*STC-Group Thesis Guidelines Master of Shipping and Transport*) describe the criteria applicable to the graduation project and the relevant assessment criteria. NMU states that particular attention is paid to the quality of the study (possession and application of knowledge), the reasoning (forming an opinion) and the reporting skills (communication). On distance, the graduate coordinator supervises the methodological quality of the thesis.

Graduation is completed by means of a thesis defence, when the students have to present and defend their findings. The assessment is made up of five parts. Students must get a 'satisfactory' for all parts. The final mark is a weighted average of the following sub-marks: content of the thesis (50 percent), structure of the thesis (15 percent), quality of the recommendations (10 percent), learning process (10 percent) and the working procedure (15 percent). With the defence all qualifications are being tested: possessing knowledge, applying knowledge, forming an opinion and reasoning, and particularly communicating convincingly. The assessment is made by the supervising lecturer and a second lecturer, who acted as reader during the assignment. If the supervisor from the company was closely involved with the project, the supervisor can also take a seat in the Thesis Defence Committee. The company supervisor has an advisory role. STC-NMU has ultimate responsibility for the assessment, making the judgement. The thesis assessment forms do not always reflect the set criteria what – in some cases – made it unclear how the final judgement was formed.

The panel studied 16 theses of the full-time variant and none of the part-time study programme, since this programme started in November 2011 and has no graduates yet. Overall, the panel recognizes the final qualifications of the programme in the theses. The theses reflect aims of the Master in Shipping and Transport. Subjects are up to date, reflect the contexts and, in general, reflect a professional Master level. In some cases the use of models can be done in a more scientifically correct way. This is a point of attention. The panel found that also for a Master in Applied Science, presented models and methods need to be used in a correct way, according to the set criteria.

There is one thesis the panel found unsatisfactory regarding the Master level, although the content represented shipping and transport, the elaboration was clearly too concise.

The survey among alumni (2011) showed a mainly positive image: students perform better in their working environment after graduating, and the acquired knowledge is found to be very useful in the working positions, which are mainly managerial positions – all over the world – in the field of maritime logistics and maritime (transport) companies.

A study into the experience of the employers of these alumni has been launched, but is not yet available (*Quality Review, September 2011*).

Considerations and conclusion

STC-NMU provides a clear and transparent examination policy. The panel found the criteria and principles for forming and executing tests and assessments adequate. The panel also found, that a certain quality is guaranteed when following the set procedures and criteria. This is especially important when working with an amount of guest lecturers, NMU has set clear criteria for the assessment of the thesis. There are always two assessors involved with the thesis-assessment. In this way the inter subjectivity is increased and thereby the reliability of the assessment. In case of doubt a third assessor will be conducted. However, scrutiny of documents (thesis assessment forms) shows different results on how to use these criteria. This makes the forming of the judgement less transparent in some cases. The panel found that NMU need be stricter in working according to their own criteria, in order to guard uniformity.

Overall, the panel found that the theses reflect the achieved final qualifications, and that the theses represent the aims of the Master of Shipping and Transport. Furthermore, all alumni work in managerial positions all over the world in the sector of shipping and transport after graduation.

Based on the considerations as mentioned above the audit panel comes to the judgement **satisfactory**.





3 Final judgement of the study programme

Assessments of the standards

The audit panel comes to the following judgements with regard to the standards:

Standard	Assessment full-time	Assessment part-time
<i>1 Intended learning outcomes</i>	Satisfactory	Satisfactory
<i>2 Orientation of the curriculum</i>	Satisfactory	Satisfactory
<i>3 Contents of the curriculum</i>	Good	Good
<i>4 Structure of the curriculum</i>	Good	Good
<i>5 Incoming students</i>	Good	Good
<i>6 Feasibility</i>	Good	Good
<i>7 Duration</i>	Satisfactory	Satisfactory
<i>8 Staff policy</i>	Good	Good
<i>9 Quality of staff</i>	Satisfactory	Satisfactory
<i>10 Size of staff</i>	Good	Good
<i>11 Services and facilities</i>	Good	Good
<i>12 Tutoring</i>	Satisfactory	Satisfactory
<i>13 Evaluation of results</i>	Good	Good
<i>14 Improvement measures</i>	Satisfactory	Satisfactory
<i>15 Involvement in quality assurance</i>	Satisfactory	Satisfactory
<i>16 Assessment and learning outcomes achieved</i>	Satisfactory	Satisfactory

Considerations and conclusion

The panel comes to an assessment of 'good' on standards 3, 4, 5, 6, 8, 10, 11 and 13, and to an assessment of 'satisfactory' on standards 1, 2, 7, 9, 12, 14, 15 and 16. The STC-NMU has shown that it offers an educational programme of adequate quality that matches with an overall score of satisfactory.

The programme fulfils the conditions set by the NVAO to be assessed with an overall score of 'satisfactory'.

The audit panel assesses the quality of the Master in Shipping and Transport of STC-NMU as **satisfactory**.



4 Recommendations

Standard 1 Intended learning outcomes

The five final qualifications can be made more concrete as a reflection of the described learning outcomes.

Standard 2 Orientation of the curriculum

Regarding the use of literature (different sources). The panel recommends the NMU to make sure that lecturers are stricter on their own criteria that the panel found relevant.

The panel found that ability for research skills can be more addressed throughout the entire programme. Therefore, the panel recommends the development of an educational research line as part of the structure of the curriculum in order to obtain a more concrete and transparent development of the aimed research skills. In addition, STC-NMU could cooperate with other Universities.

Standard 9 Quality of staff

The panel recommends NMU to attract more PhD.

Standard 13 Evaluation of results

The panel encourages the NMU to proceed with the planned alumni survey.

Standard 15 Involvement in quality assurance

The panel recommends the Examination Committee to get involved in the quality of theses e.g. by taking samples and review the general quality.

Although the NMU is aware of the fact that the programme manager participates in the Examination Board, the panel recommends NMU to reconsider the manager's participation in the Examination Board. The panel is aware that NMU is not a funded institution, but that does not rule out the (implicit) influence of participation of management in this board.

Standard 16 Assessment and learning outcomes achieved

Regarding the development of research skills, the panel found that students need to learn to use methods in a uniform way (ref. Standard 2). The panel found that the criteria, set by the NMU, need to be applied stricter.



5 Annexes



Annex 1: Final qualifications of the study programme

NMU has set aims and objectives in *Profiles of Competencies (2012)*. NMU has derived five general final qualifications from the descriptions of aims in the profile:

1. the graduate achieves a deepening of knowledge and insight in the maritime cluster;
2. the graduate is able to apply knowledge and insights by performing a problem analysis, setting a diagnose, and solve (managerial) problems;
3. the graduate is able to form judgments and, when doing so, takes different perspectives into account, such as social, (business)economic, ethical and technical perspectives
4. the graduate has managerial and communication skills, and is able to convey analysis, diagnose and solution to stakeholders in her/his environment;
5. the graduate has a critical attitude towards her/his personal development and has an intrinsic drive for improving her/his own personal effectiveness in her/his role as a (team)manager.



Annex 2: Survey study programme

Module 1	Module 2	Module 3	Module 4	Module 5
Shipping and Transport Introduction	Corporate Maritime Management and Strategy	Shipbroking and Chartering	Port Design and Management	Research Methodology
Supply Chain Management	Maritime Finance and Controlling Management - part I Basics in Finance	The Business of Shipbuilding Sale and Purchase	Inland Waterways and Water Transport	Thesis Assignment
Applied Management Science	Human Resources Management in Shipping	Fleet Management	Maritime Finance and Controlling Management - part III Port Finance	
Shipping and Port Economics	Human Resources Development in Shipping	Transport Security		
Ocean Management and Marine Policies	Cargo Operations Management	Marine Survey and Safety Management		
Maritime Policies and Governmental Policies		Maritime Finance and Controlling Management A - part II Shipping Finance		
Shipping, Trade and Transportation Law		Specialisation 1: Marine Engineering	Specialisation 2: Port and Fairway Design	
Shipping and Transport Industry	Corporate Management	Shipping Management	Port and Waterways Management	Thesis Project
Management Skills & Competency Development				



Annex 3: Expertise members audit panel and secretary

Mr Dr. N.P. Ventikos, chairperson

Mr Ventikos has primarily been asked due to his professional area of expertise in the domain of shipping & maritime transport. He has international knowledge of higher education and educational processes based on his work experience at the National Technical University of Athens, Greece as assistant professor. Main activities and responsibilities are academic (teaching, theses, administrative), research (ABS, DNV Gift, Lloyds Trust of Education – Center of Excellence, SuperGreen) as well as expertise: Marine Safety, Oil Marine Pollution, Marine Pollution, Risk Engineering, Accident Analysis, Human Factor, Salvage Engineering, Maritime Security, Integrated Transport Safety, Data Mining, Statistical Modeling, Port Operations. He has been individually briefed on the audit visit process, accreditation in higher education and NQA's working method.

Education

1995 – 2002 PhD (from the National Technical University of Athens)
1987 – 1994 Diploma in Naval Architecture and Marine Engineering from the National Technical University of Athens

Work Experience:

2010 – present Assistant Professor at the National Technical University of Athens
2004 – 2010 Lecturer at the National Technical University of Athens
2004 Senior Research Engineer at the National Technical University of Athens
2004 Temp. Lecturer at the National Technical University of Athens
2003 – 2004 Senior Research Engineer at the National Technical University of Athens
2003 Temp. Lecturer at the National Technical University of Athens
2002 Post Doctoral Research Fellow
2000 – 2001 Regular partner at the Hellenic Naval Industry journal (ELNAVI)
2000 External partner for HELMEPA
1996 – 2002 Senior Marine Inspector
1995 – 2002 Research Engineer at the National Technical University of Athens

Publications (last 2 years):

- Kontovas C.A., Psaraftis H.N., Ventikos N.P. (2010), 'An Empirical Analysis of IOPCF Oil Spill Cost Data', Marine Pollution Bulletin, vol. 60, pp. 1455-1466.
- Ventikos N.P., Lyridis D.V., Lykos G.V., Logothetis T. (2010), 'Identifying and Assessing non-Technical Skills on Greek Maritime Officers: The Story under the Spotlight', Proceedings of the International Conference on Human Performance at Sea (HPAS 2010), Glasgow, UK, pp. 234-243.
- Gkonis K.G., Psaraftis H.N., Ventikos N.P. (2010), 'Modeling Security Aspects of Merchant Shipping: A Piracy Setting', Proceedings of the Annual Conference of the International Association of Maritime Economists (IAME 2010), Lisbon, Portugal, CD-ROM.
- Luzis, K., Koimtzoglou A., Ventikos N.P. (2010), 'Ship Wreckage in Greece: A Fairytale or a Nightmare to be?', Proceedings of 19th for Risk Analysis (SRA) Europe Conference, London, UK, CD-ROM.
- Chatzinikolaou S.D., Ventikos N.P., Psaraftis H.N., Lyridis D.V. (2010), 'Multi-Criteria Location Analysis for Port Infrastructure: Application for the New Commercial Port of Kos', Proceedings of the 5th Greek Conference on the Management and Improvement of Coastal Zones, Athens, Greece, CD-ROM.



- Oikonomou K., Ventikos N.P. (2010), 'Study of F/X Accidents in the Global Fleet: Analysis, Results and Elements of Risk', Proceedings of the Annual Conference of Maritime Technology (Βίβλος Ναυτικής Τεχνολογίας), Piraeus, Greece, pp. 151-161.
- Ventikos N.P., Louzis K., Koimtzoglou A. (2010), 'Shipwrecks vs. Environment in Greek Waters: Core Red or Fuzzy Alarm?', Proceedings of the 2010 Annual SRA Meeting: Risk Analysis in Action, Salt Lake City, Utah, CD-ROM.

Mr drs. H.W.J.J. de Bruijn

Mr De Bruijn has primarily been asked due to his professional area of expertise in the domain of Shipping & Transport. Since 2004 he is director Corporate Strategy at the Port Authority Rotterdam (*Havenbedrijf Rotterdam*), this includes the strategy of *Havenbedrijf Rotterdam* and the strategy for the Rotterdam Port and Industrial Complex. He is strategic advisor to the President Director of the Port of Rotterdam. Moreover, Mr De Bruijn has educational experience as extraordinary lecturer 'Ideal Port' at *Hogeschool Rotterdam*. This Research Group develops (generates), promotes, integrates, disseminates and applies knowledge of port (companies) and industry. The Research Group is a collaboration of *Hogeschool Rotterdam* and *Havenbedrijf Rotterdam*. For this audit Mr De Bruijn received our manual for panel members and he has been individually briefed on the audit visit process, accreditation in higher education and NQA's working method.

Education:

2008 – 2009 European Leadership and Science Module – Comenius
 1980 – present Various training (content and management)
 1972 – 1980 Katholieke Universiteit Nijmegen – Planologie / Teacher Geography
 1966 – 1972 Titus Brandsma Lyceum Oss - HBS A

Work Experience:

2004 – present Havenbedrijf Rotterdam N.V. - Director Corporate Strategy
 2007 – present Hogeschool Rotterdam - Extraordinary Lecturer 'Ideal Port' (part-time 1 day a week)
 2000 – 2003 Gemeentelijk Havenbedrijf Rotterdam – Head of Portinnovation
 1993 – 2000 Gemeentelijk Havenbedrijf Rotterdam – Manager Port & Surroundings: member managementteam Portinnovation
 1990 – 1992 Gemeentelijk Havenbedrijf Rotterdam – Head Environment and Safety: member managementteam Portinnovation
 1987 – 1990 Senior Projectmanager Planning Havenbedrijf
 1980 – 1987 Municipal Department of Urban Development Rotterdam
 1984 – 1987 Manager Agency South
 1980 – 1984 General planning researcher
 1978 – 1980 Province Noord Brabant, Provincial Planning Office, Department Rural Area
 General planning researcher

On behalf of *Havenbedrijf Rotterdam* member of various boards:

Strategennetwerk Nederland

Adviescommissie Randstad 2040

KMR (Kennisinstructuur Mainport Rotterdam)

EIC (Educatief Informatie Centrum) Landtong Rozenburg

EDBR

Port Research Center (in cooperation with TU-Delft)

SmartPort (in cooperation with EUR)

Board of Directors IACP International Association Cities & Ports

Mr Prof. dr. G Allaert

Professor Allaert is primarily deployed due to his expertise of the domain of Shipping and Transport, Spatial Planning and Regional Development. Mr. Allaert is the head of the Research Centre for Mobility and Spatial Planning and the chair of the Institute of sustainable mobility, both situated at the Faculty of Engineering, Ghent University. He is since 1990 full-time professor and senior professor in spatial economy and spatial planning. He teaches in spatial economy (urban and regional), urban and regional management, port economy and port planning, regional planning including planning theory at the Ghent University, but also at the interuniversity level (with the Catholic University of Leuven and the University of Antwerp). As senior fellow of the Johns Hopkins University (Baltimore, USA), he has stayed there for research in metropolitan planning and research at this university. His research focuses on several spatial topics (ports, port-cities, city-regions, spatial networks, spatial logistics, regions) at diverse spatial levels (local, regional, European). He is lead partner and partner of several European projects (EC-projects) and has been promoter of federal projects (Belgium), regional projects (Flanders). He reviews for international scientific bodies and organisations: Ph. D.-review, peer review of articles in A1-journals, review of research projects and new and review of existing educational programs (NVAO - Nederlands-Vlaamse Accreditatie Organisatie). He is member of the Regional Science Association and has been asked on several international congresses as (opening)-speaker. He is also member of the board of editors of RIUS (Research in Urbanism Series, technical University Delft). More than 300 scientific publications over his whole career is the output of the full-time academic career. Under his promoter ship 6 researchers obtained a PhD and 4 doctoral dissertations are in progress. Mr. Allaert has knowledge of the accreditation system based on previous audit visits, has wide (international) knowledge of (higher) education and educational processes based on his qualifications and work experience.

Education:

1978 – 1979	PhD. in Urban Development, Physical Planning and Development, Ghent University
1972 – 1973	Aggregate Higher Education, Ghent University
1971 – 1972	M.D. in Urban Development, Physical Planning and Development, Ghent University
1970 – 1971	M.D. in Applied Sciences, Department of Geography, Ghent University

Work experience

1996 - present	Senior Professor Spatial planning and regional development, Ghent University
1990 -1996	Professor Spatial planning and regional development, Ghent University
1970 -1990	Full-time scientific researcher, Ghent University

Mr R.R. Clark

Mr Clark is deployed as student member. He successfully completed the dual bachelor study program Business Logistics (*Logistiek en Technische Vervoerskunde*) at *Hogeschool van Amsterdam* where he was a member of the Education Committee / LOGOS editor / member and secretary of Domain Board Technology. After completing a pre-master Business Administration (Transport & Supply Chain Management) at *Vrije Universiteit van Amsterdam* he follows the Master of Business Administration (Strategy & Organisation) at *Vrije Universiteit van Amsterdam*. Mr Clark represents the students' view on teaching methods, facilities and quality of field work. He has been given additional individual briefing about audit visit procedures and NQA's working method.

Education:

2010 – 2011	Vrije Universiteit van Amsterdam – master of Business Administration (Strategy & Organisation)
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- 2009 – 2010 Vrije Universiteit van Amsterdam – pre-master: Business Administration (Transport & Supply Chain Management)
- 2006 – 2010 Hogeschool van Amsterdam – Business Logistics
- 2008 – 2009 Fontys Hogeschool Eindhoven – Academic orientation minor
- 2003 – 2006 ROC van Amsterdam – ICT manager (level 4)

Work experience:

- 2010 – present Heineken N.V. – ICT-project for KA-pillar
- 2009 – 2010 Heineken Brouwerijen Amsterdam – sales operator
- 2008 De Kraamvogel – planning employee
- 2007 – 2008 Students Mentor Programme – mentor students
- 2006 – 2007 Xsaga-Merx (Interpolis) – logistic planner and plotter

Various:

- 2010 Hogeschool van Amsterdam / Vrije Universiteit: research on changes occurring within integrated logistic concepts (specifically ICT)
- 2009 Heineken Brouwerijen Amsterdam: research into customer complaints of HBA, a registration tool measuring and evaluating customer complaints
- 2005 Pharmeon BV & Dentline BV – designing and maintaining websites
- 2004 Academisch Medisch Centrum – work place manager

Mrs M. Snel

Since 2005 she gained experience as NQA auditor with the assessments of existing and new study programmes in various sections of higher education in The Netherlands.

She was employed as junior staff advisor with a large care institution for the mentally disabled where she managed the personnel affairs of approximately 200 members of staff. She is a trained NQA auditor for Higher Education in collaboration with Lloyd's Register. Since 2008, she is also assessor for Investors in People.

Education:

- 2010 (hbo) Bachelor of Education: Training and Human Development, *Hogeschool van Arnhem en Nijmegen*
- 2004 (hbo) Bachelor Human Resource Management, *Saxion Hogeschool Enschede*

Work experience:

- 2010 – present Senior NQA auditor and consultant, Netherlands Quality Agency
- 2008 – present Certified assessor Investors in People, Netherlands Quality Agency
- 2005 – 2009 NQA auditor, Netherlands Quality Agency
- 2004 – 2005 Junior staff advisor, *de Twentse zorgcentra*

Course:

- December 2010 Training Expert Investors in People, liP International (Apeldoorn, The Netherlands)
- November 2010 Training *Secretaris NVAO*, Dutch Flemish Accreditation Organisation (The Hague, The Netherlands)
- November 2008 Training Assessor Investors in People, liP UK (Kortrijk, Belgium)
- March 2004 Training *Auditor Hoger Onderwijs*, NQA in association with Lloyd's Register



Mr drs. J.G. Betkó

Mr Betkó has been asked to serve as NQA auditor. In his function as executive member of the Dutch National Union of Students (LSVb), he gained experience with different aspects of higher education, like budgeting, accreditation, student participation and excellence. In this capacity, he participated in the realization of the new accreditation system. As member of the evaluation committee 'Study Choice consultation – what is effective?', he was twice involved with the allocation of OCW subsidies to institutes of higher education and universities seeking to experiment with study choice interviews. Mr Betkó is familiar with NQA's method of working and was certified by the NVAO to act as secretary to the accreditation panels.

Education

1999 - 2007 History study, Radboud University

Work experience

2009-present Netherlands Quality Agency: auditor

2008 - 2009 Member evaluation committee 'Study Choice Consultation – what works?' (part I & II, under supervision of SURF)

2007 - 2009 Dutch National Union of Students (LSVb): executive member

Annex 4: Program for the site visit

Thursday 26 April

Time	Program subject	Participants
8.45 – 9.00	Welcome	Panel and course management: Mr R.J.M. Kooren (MBA) - Member of the Board of STC-Group; Mr M. Jansen (MSc) – Head of Department STC-NMU
9.00 – 14.30	Preparation and desk research: Course material Student material Selected theses Consulting Hour and guided tour (30 minutes). Lunch at 12.30.	Panel
14.30 – 15.15	Content I: Graduation	Lecturers and thesis supervisors from the four selected theses: Mr C.A. Hulst (MSc) – Cargo Operations Management Mr M. Jansen (MSc) – Supply Chain Management Mr W. de Leeuw (MSc) – Transportation Law Mr T.H. Strauss (MSc) – Ship Broking and Chartering, Corporate Maritime Strategies Mr A. Uytendaal (B Eng) – Ship building, sale and purchase, Fleet Management
15.30 – 16.15	Content II: Graduation phase	Graduation students and alumni of the four selected theses (by phone and Skype): Mrs Manoela Isidro Mr Kostas Ladis Mr Ziyad Al-Harbi
16.15 – 17.30	Panel meeting	panel

Friday 27 April

Time	Program subject	Participants
8.30 – 9.45	Panel meeting: Document study	Panel
9.45 – 10.45	Students	Mr Felipe Fagani Barros – Full-time programme Mr Xuan Tinh Nguyen – Full-time programme Mr Widodo – Full-time programme Mr Seong Keun Yoo – Full-time programme Mr Hanno van Dijk – Part-time programme Mr Eric Bueving – Part-time programme
11.00 – 12.00	Lecturers	Mr W. de Leeuw (MSc) – Transportation Law Mr A. Hoorn (B Eng) – Shipping and Engineering Management Mr D.J. Schutte (MSc) – Shipping and Port Economics Mr L.L.M.A. Cuyvers (PhD) – Ocean Management and Marine Policies
12.00 – 13.00	Lunch	Panel
13.00 – 13.45	Course management	Mr R.J.M. Kooren (MBA) - Member of the Board of STC-Group; Mr M. Jansen (MSc) – Head of Department STC-NMU
14.00 – 14.45	Part: assurance	Mrs A.E.W.G. Rost-Ernst (MA) – Examination Committee Mr H.A. van Klink (Ph.D) – Academic Counsel / Course Committee Mr W. de Leeuw (MSc) – Appeal Committee Mr M. Jansen (MSc) – Head of Department STC-NMU
15.00 – 15.30	External Parties Involved	<i>Jong Havenvereniging Rotterdam</i> Mr Gerrit Peekstok - Chairman Mr Rogier Jansen - Member
15.30 – 17.00	Panel meeting	Panel
17.00 – 17.30	Second interview with course management including closing	Mr R.J.M. Kooren (MBA) - Member of the Board of STC-Group; Mr M. Jansen (MSc) – Head of Department STC-NMU

Annex 5: Documents examined

Attachments Critical Reflection

Organisation chart STC-Group and STC-NMU
Curriculum Master Shipping and Transport
ISO 9001:2008 certificate
Competency profiles
Quality Review, Alumni Survey December 2011
Quality Review, September 2011
Course Guide Master in Shipping and Transport
Overview of lecturers and curricula vitae
Personnel policy STC-Group 2011-2015
ETA-2015: Next Port of Call
Personnel planning STC-NMU 2011-2012
Examination Policy
Final Course Modules and Competences
Facilities
Quality Policy Higher Education
Overview Quality Instruments
Student Counseling Policy
Thesis Project Overview
Thesis Guide Lines
Didactical Concept
Education and Examination Regulations
Course Outline and Study Guide
Competency matrix 2012

Documents available for inspection

Binder 1

ISO9001-2008 Certificate
Renewal audit report 2010 / Periodical Audit report 19-20 January 2012
ISO-9001 Quality procedures
Quality Review reports 2009 – 2011
Annual report Examination Committee 2011 / Meeting minutes Examination Committee
Meeting Minutes Academic Board 2009-2010-2011
Evaluation report Project Part-time implementation
Visiedocument STC-Group – ontwikkeling tot maritime, transport en logistiek kenniscentrum 2010

Binder 2

'De Nederlandse Maritieme Cluster – Monitor 2010', Webers, H., Pernot, E., Van Donink, S., Peeters, C.
'Logistieke arbeidsmarkt, úw uitdaging', NEA, Zoetermeer, januari 2012
'Naar een vitalere supply chain door krachtige innovatie', Eindrapportage Commissie Van Laarhoven, februari 2006
Personeelsplan 2010-2015, STC-Group, maart 2010
Notitie taakbeleid STC-Group
Curricula Vitae – NMU (gast-)docenten



Binder 3

Self reflection document Accreditation Master Shipping and Transport - 14/02/2007 (Toets nieuwe opleiding)

Thesis guidelines v6.0 / class 11.03

Guidelines for Thesis project report and use of bibliographic descriptions v2.0

Thesis Guidelines for lecturers

Fact sheets - Field trip

Alumni questionnaire – November 2011

Literature Master Shipping and Transport

Binder 4 - 6 Assignments + Exams of the following courses:

Supply Chain Management

Politics and transport policies

Transportation Law

Human Resource Management

Port Design and Management



Annex 6: Summary theses

Below an overview of the graduates of the Master of Shipping and Transport over the last two years. The bold marked theses have been examined by the panel. The panel has spoken with some of the graduates and (external) supervisors of the graduation projects. According to NVAO's rules only student numbers are included.

Thesis projects Master Shipping and Transport

Class	Key word	Student Nr. (Country)	Grade	Short description thesis
09.03	short sea shipping	1980071002 (Korea)	9	<i>The current situation and promotional strategy of coastal container transshipment in Korea; for reduction of carbon emissions from cargo transport</i>
09.03	maritime operations, seafarer retention	1980111301 (Korea)	8	<i>Response to shortage of seafarers: introducing system dynamics modelling into shipping industry focusing on retaining merchant marine officers</i>
09.03	Ship finance	1981030804 (Korea)	7	<i>A study on development of Korean ship finance system with Korea shipbuilding industry</i>
09.03	freight management	1977040601 (Korea)	6	<i>Empirical study on designing renewed container ocean freight assessment tool, focusing on Korean cargo owner</i>
09.03	free trade zone, port hinterland	1982073105 (Korea)	8	<i>A study on the selection of added value commodities in Gwangyang port 's hinterland</i>
09.03	shipbreaking, ship recycling	1978070601 (India)	8	<i>Methods to enhance the safe and green ship recycling capacity in India</i>
09.03	transport infrastructure	1980022401 (Zimbabwe)	8	<i>Connecting to compete; analyzing the capability of Zimbabwe's infrastructure to support global logistics performance</i>
09.03	Public private partnerships, port governance	1968061401 (Kenya)	8	<i>Public private partnership: assessing PPP strategy in Kenya as panacea for port operational efficiency</i>
09.03	transport infrastructure, corridors	1969011901 (Kenya)	8	<i>The Role of Multi Modal Transportation Corridors in Achieving Supply Chain Efficiency; an Analysis of East Africa's Northern Corridor</i>
09.03	trade facilitation, transport corridors	1982082503 (Ghana)	8	<i>Trade facilitation in sea ports, a thorough survey of the Ghana Gateway project</i>
09.03	port development	1963013002 (Bangladesh)	7	<i>Build a deep sea port in Bangladesh: Potentialities in national and regional aspect</i>
09.03	ferry transport	1974081901 (China)	7	<i>An examination of the cross-strait passenger shipping business in Port of Xiame</i>
09.03	port congestion, public private partnerships	1967010201 (Tanzania)	6	<i>Analysis of port congestion and assessing whether privatization is the right approach to enhance port efficiency</i>
09.03	container management	1978080303 (Cambodia)	6	<i>Productivity and Performance Analysis In Container Terminal of Phnom Penh Autonomous Port (PPAP)</i>



Class	Key word	Student Nr. (Country)	Grade	Short description thesis
09.03	container management	1979102602 (Cambodia)	7	<i>Enhancing Container Terminal Productivity: An Analysis of Sihanoukville Autonomous Port</i>
09.03	container management	1980060303 (Cambodia)	6	<i>Container handling efficiency in Sihanoukville Autonomous Port (PAS)</i>
09.03	transport infrastructure	1965082901 (Ethiopia)	8	<i>identification of Challenges and Obstacles on the Development of Safer & Efficient Trucking Transport in Ethio-Djibouti Corridor</i>
09.03	dredging, port construction	1976070301 (Honduras)	8	<i>Impact of the Panama Canal's Expansion On Latin port American Container Ports, a scenario approach to determine possible dredging projects</i>
09.03	railway construction, port hinterland	1973080501 (Korea)	6	<i>A study on the distribution of railroad for the revitalization of Gwangyang container port</i>
09.03	leisure boating, port tourism	1972020301 (Korea)	6	<i>A Study on Strategies to Develop Conditions for successfully fostering a marine leisure boat industry in JEONNAM Province</i>
09.03	port governance	1973112501 (Korea)	6	<i>Activating of Gwangyang Port through establishment of Gwangyang Yeosu Port Authority</i>
09.03	transport corridors	1978042501 (Ghana)	6	<i>The future of transit trade through Ghana; an analysis of the Tema and Takoradi transport corridors.</i>
09.09	supply chain management, ship maintenance	1969052401 (Nethe)	7	<i>Optimal Supply Chain For Efficient Fleet Utilization At Smit International NV</i>
09.09	port marketing	1986111805 (Oman)	8	<i>Investigating the current marketing activities of Omani seaports and recommendations for improvement of the marketing activities of the seaports</i>
09.09	fleet management, ship chartering	1986082705 (Netherlands)	7	<i>Ship Management and Port Agencies: Efficiency Improvement in Port Operations</i>
09.09	tanker terminal operations	1986052007 (Malaysia)	8	<i>Tanker-Terminal Safety Ship-to-Shore Interface Management</i>
09.09	maritime education (Nigeria) and training, LNG shipping	1982021905	7	<i>Seafarers Competency and the Development of LNG Shipping Capacity in Nigeria</i>
09.09	pilotage, port services (Indonesia)	1968060601	7	<i>Improving of Pilotage Services Performance at Port of Tanjung Priok</i>
09.09	fleet management, ship chartering	1986012807 (Netherlands)	7	<i>FLINTER'S UTILIZATION OF FLEET IN TODAY'S MARKET ENVIRONMENT; Comparison of Two Fleets in the Transatlantic Trade</i>
09.09	Seafarer retention, maritime labour	1985021602 (Oman)	8	<i>THE BEST RETENTION PLAN FOR OMANI SEAFARERS</i>
10.03	Port finance, development	1975011501 (Korea)	7	<i>PPP-model financial feasibility analysis for port Gwangyang container port phase 3-2</i>
10.03	port policy	1971082302 (Korea)	7	<i>Rethinking of port policy in Korea; A study focused on strategies of Gwangyang Port relating to the implementation of the new port policy</i>

Class	Key word	Student Nr. (Country)	Grade	Short description thesis
10.03	freight rates, shipbroking, fleet management	1984020502 (Brazil)	8	<i>The impact of valermaxes on freight rates development for the dry bulk market</i>
10.03	maritime education	1981120603 (China)	8	<i>SWOT analysis on seafarer education in Nantong Shipping College during crisis crunch</i>
10.03	port development	1962021101 (South Africa)	7	<i>Study of Port of Richards Bay Cargo Volume Throughput Performance: Can Performance be enhanced?</i>
10.03	supply chain management, commodity trading	1974032902 (Ghana)	7	<i>Assessing the impact of private participation of the internal marketing of cocoa purchases in the cocoa supply chain in Ghana</i>
10.03	Port finance, port development	1968112302 (South Africa)	7	<i>Financing port infrastructure – A case study on port of Durban</i>
09.03	port strategy	1982080107 (China)	7	<i>The Development of Transshipment Services in Xiamen Port</i>
10.03	ship management, maritime labour	1983092403 (Malaysia)	6	<i>Implementation Issues & Impacts of Maritime Labour Convention on Shipowner Business</i>
10.09	Port strategy, port development	81041801 (Indonesia)	Pass	<i>Port of Belawan case; analysing and defining its best feasible development strategy</i>
10.09	wind energy, port design	80010604 (South-Africa)	Pass	<i>A study focused on three South-African ports: East London, Port Elizabeth and Ngqura</i>
10.09	Ship Finance, Basel III Konstantinos	87042305 (Greece)	Pass	<i>The impact of Basel III and how ship owners and banks can adapt under the new circumstances</i>
10.09	port business strategy	70092201 (Indonesia)	Pass	<i>recommendations in improving the performance of Banten Port facilities and other resources, to compete in line with Law no. 17/2008</i>
10.09	port strategy, port development	Indonesia 72012601	Pass	<i>to determine how far the optimization has been carried out, when the capacity of port at its upper boundaries, how is the Pontianak Port expansion in future</i>
10.09	human resource development, port management	77051901 (Indonesia)	Pass	<i>Problem and Solution(s) from a Human Resources Management Perspective</i>
10.09	procurement management, ship management	88032103 (Oman)	Pass	<i>A strategic approach towards procurement management in the shipping industry: Case study at Oman Shipping Company</i>
10.09	performance appraisal, seafarers	87020306 (Oman)	Pass	<i>Developing performance appraisal system for Oman shipping company seafarers</i>
10.09	marketing, dry docking	86050504 (Oman)	Pass	<i>Assess the current Marketing Strategy of Oman Drydock Company</i>
10.09	operational process management, terminal management	86091504 (Oman)	Pass	<i>An evaluation research focus on 'Optimization of the Bulk Operational Process Management at Vale Oman-Port of Sohar'</i>

Class	Key word	Student Nr. (Country)	Grade	Short description thesis
10.09	port governance, port finance	78060501 (Spain)	Pass	<i>the proposal of an alternative governance model for the Spanish port authorities</i>
10.03	cost benefit analysis, ferry services	82050301 (Korea)	Pass	<i>A cost-benefit analysis to determine when on under which connecting operations could start</i>
10.09	performance management, transport corridor	83012004 (Mozambique)	Pass	<i>An evaluative research focused on producing solutions for inefficiencies and bottlenecks associated with the Nacala Development Corridor</i>
10.09	shipping policy	63011702 (Suriname)	Pass	<i>An Investigation of aspects Suriname has to take into account for lasting development of the shipping sector</i>
10.09	shipbuilding, market analysis	84070404 (China)	Pass	<i>An Analysis on Current Situation, Competitiveness And Development Strategy of China's Shipbuilding Industry</i>
10.09	container management, container pooling	71122401 (Ethiopia)	Pass	<i>Assessment of the level of customer satisfaction on the existing container service</i>
10.09	corporate strategies, shipbroking	84100301 (Mexico)	Pass	<i>An analysis of Tramontana, a new shipbroking company in Spain</i>
10.09	ship and port finance, shipbroking	73112302 (Benin)	Pass	<i>Factors influencing the cost-effectiveness of tramp shipping agency services for chartered vessels calling multiple ports under joint-venture coordination</i>
10.09	human resource management, crewing, manning	77101501 (Indonesia)	Pass	<i>A Comparative Study With Filipino Officers Under Analytical Hierarchy Process (AHP) Approach</i>
10.03	sustainable development, port competition	1975011502 (China)	Pass	<i>The analysis and proposals for sustainable development in Caofeidian port</i>
10.09	change Management, port management	81112002 (Indonesia)	Pass	<i>The Readiness of Indonesia Port Corporation II in Implementation of the Port Reform Act Evolving into a Port Operator</i>
10.03	terminal operations, terminal management	1982052301 (Korea)	Pass	<i>Attractiveness of Gwangyang container terminals from perspective of Global Terminal Operators</i>
10.03	Assess the feasibility develop a multimodal river	1975091501 (Colombia)	Pass	<i>determining the feasibility of the port on the Magdalena River</i>

Annex 7: Declaration of Comprehensiveness and Accuracy

Netherlands Quality Agency



Bladzijde 3

Verklaring van volledigheid en correctheid van de informatie

Betreffende de visitatie van de opleiding:

Master Shipping and Transport

Instelling: STC-Group

Visitatie data: 26 en 27 april 2012

Ondertekende:

R.J.H. Koozen

vertegenwoordigend het management van de genoemde opleiding.

In de functie van:

Lid College van Bestuur

verklaart hierbij dat alle informatie ten behoeve van de visitatie van de genoemde opleiding in volledigheid en correctheid ter beschikking wordt gesteld, waaronder informatie over alternatieve afstudeeroutes die momenteel en/of gedurende de afgelopen 6 jaar (hebben) bestaan, zodat het visitatiepanel tot een op juiste feiten gebaseerde oordeelsvorming kan komen.

Handtekening:

Datum: 13-4-2012

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