

Economics and Business

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This report was finalized on 4 March 2016

Report on the academic degree programmes of Economics and Business of University of Amsterdam

This report takes the NVAO's Assessment Framework for Limited Programme Assessments as a starting point (19 December 2014).

Administrative data regarding the programmes – bachelor's programmes

(1) Bachelor's programme Actuariële Wetenschappen

Name of the programme:	Actuariële Wetenschappen
CROHO number:	56411
Level of the programme:	bachelor's
Orientation of the programme:	academic
Number of credits:	180 EC
Specializations or tracks:	
Location(s):	Amsterdam
Mode(s) of study:	full time
Language of instruction:	Dutch
Expiration of accreditation:	11/04/2017

(2) Bachelor's programme Econometrie en Operationele Research

Name of the programme:	Econometrie en Operationele Research
CROHO number:	56833
Level of the programme:	bachelor's
Orientation of the programme:	academic
Number of credits:	180 EC
Specializations or tracks:	- Econometrie - Operationele Research & Management
Location(s):	Amsterdam
Mode(s) of study:	full time
Language of instruction:	Dutch
Expiration of accreditation:	11/04/2017

(3) Bachelor's programme Fiscale Economie

Name of the programme:	Fiscale Economie
CROHO number:	56402
Level of the programme:	bachelor's
Orientation of the programme:	academic
Number of credits:	180 EC
Specializations or tracks:	
Location(s):	Amsterdam
Mode(s) of study:	full time
Language of instruction:	Dutch
Expiration of accreditation:	11/04/2017

Administrative data regarding the programmes – master’s programmes

(4) Master’s programme Accountancy and Control

Name of the programme:	Accountancy and Control
CROHO number:	60900
Level of the programme:	master's
Orientation of the programme:	academic
Number of credits:	60 EC
Specializations or tracks:	- Accountancy - Control
Location(s):	Amsterdam
Mode(s) of study:	full time, part time
Language of instruction:	English
Expiration of accreditation:	31/12/2019

(5) Master’s programme Actuarial Science and Mathematical Finance

Name of the programme:	Actuarial Science and Mathematical Finance
CROHO number:	66411
Level of the programme:	master's
Orientation of the programme:	academic
Number of credits:	60 EC
Specializations or tracks:	
Location(s):	Amsterdam
Mode(s) of study:	full time
Language of instruction:	English
Expiration of accreditation:	11/04/2017

(6) Master’s programme Business Administration

Name of the programme:	Business Administration
CROHO number:	60644
Level of the programme:	master's
Orientation of the programme:	academic
Number of credits:	60 EC
Specializations or tracks:	- Strategy - Marketing - Leadership and Management - International Management - Entrepreneurship and Management in the Creative Industries - Entrepreneurship and Innovation
Location(s):	Amsterdam
Mode(s) of study:	full time
Language of instruction:	English
Expiration of accreditation:	11/04/2017

(7) Master's programme Econometrics

Name of the programme:	Econometrics
CROHO number:	60177
Level of the programme:	master's
Orientation of the programme:	academic
Number of credits:	60 EC
Specializations or tracks:	- Econometrics - Financial Econometrics - Mathematical Economics - Big Data Business Analytics - Free Track
Location(s):	Amsterdam
Mode(s) of study:	full time
Language of instruction:	English
Expiration of accreditation:	11/04/2017

(8) Master's programme Economics

Name of the programme:	Economics
CROHO number:	66401
Level of the programme:	master's
Orientation of the programme:	academic
Number of credits:	60 EC
Specializations or tracks:	- Industrial Organisation, Regulation & Competition Policy - Development Economics - Public Economic Policy - Monetary Policy, Banking & Regulation
Location(s):	Amsterdam
Mode(s) of study:	full time
Language of instruction:	English
Expiration of accreditation:	11/04/2017

(9) Master's programme Fiscale Economie

Name of the programme:	Fiscale Economie
CROHO number:	66402
Level of the programme:	master's
Orientation of the programme:	academic
Number of credits:	60 EC
Specializations or tracks:	
Location(s):	Amsterdam
Mode(s) of study:	full time, part time
Language of instruction:	Dutch
Expiration of accreditation:	11/04/2017

(10) Master's programme Business Administration – Executive master

Name of the programme:	Business Administration
CROHO number:	75017
Level of the programme:	master's

Orientation of the programme: academic
Number of credits: 90 EC
Specializations or tracks: - MBA
- MBA Health Care Management
- MBA Big Data
Location(s): Amsterdam
Mode(s) of study: full time, part time
Language of instruction: English
Expiration of accreditation: 12/03/2018

(11) Master's programme International Finance – Executive master

Name of the programme: International Finance
CROHO number: 75016
Level of the programme: master's
Orientation of the programme: academic
Number of credits: 65 EC
Specializations or tracks:
Location(s): Amsterdam
Mode(s) of study: full time, part time
Language of instruction: English
Expiration of accreditation: 13/03/2017

(12) Master's programme Management Studies – Executive master

Name of the programme: Management Studies
CROHO number: 75094
Level of the programme: master's
Orientation of the programme: academic
Number of credits: 60 EC
Specializations or tracks: - Strategy
- Strategic Marketing Management
- Leadership and Management
Location(s): Amsterdam
Mode(s) of study: part time
Language of instruction: English
Expiration of accreditation: 28/02/2018

(13) Master's programme Insurance Studies – Executive master

Name of the programme: Insurance Studies
CROHO number: 75000
Level of the programme: master's
Orientation of the programme: academic
Number of credits: 60 EC
Specializations or tracks: - Verzekeringskunde
- Enterprise Risk Management
Location(s): Amsterdam
Mode(s) of study: part time
Language of instruction: Dutch
Expiration of accreditation: 30/06/2016

(14) Master's programme Actuarial Science and Mathematical Finance – Executive master

Name of the programme:	Actuarial Science and Mathematical Finance
CROHO number:	75117
Level of the programme:	master's
Orientation of the programme:	academic
Number of credits:	60 EC
Specializations or tracks:	
Location(s):	Amsterdam
Mode(s) of study:	part time
Language of instruction:	English
Expiration of accreditation:	31/12/2015

The visit of the assessment panel Economics and Business to the Faculty of Economics and Business of University of Amsterdam took place on 16-18 November 2015.

Administrative data regarding the institution

Name of the institution:	University of Amsterdam
Status of the institution:	publicly funded institution
Result institutional quality assurance assessment:	positive

Composition of the assessment panel

The NVAO has approved the composition of the panel on 2 November 2015. The panel that assessed the programmes Economics and Business consisted of:

- Prof. dr. Nicolas Mottis (chair), Professor of Management Control at ESSEC Business School in Cergy (France);
- Prof. dr. Dag Morten Dalen, Professor of Economics, Provost and Senior Vice President of BI Norwegian Business School, Oslo (Norway);
- Prof. dr. Robert T. Schumicrast, Dean en Richard E. Sorensens Chair, Pamplin College of Business, Virginia Polytechnic Institute and State University, Blacksburg (US);
- Lawrence Bolte BSc. (student member), master student Supply Chain Management, Tilburg University;

It was assisted in its tasks by a thesis panel, that provided an advisory report based on the quality of the theses it assessed. The thesis panel consisted of:

- Prof. dr. Wolter Hassink, Professor of Applied Econometrics at Utrecht University and Director of the Tjalling C. Koopmans Research Institute, at Utrecht University School of Economics;
- Prof. dr. Lucas Meijs, Endowed Professor of Strategic Philanthropy and Department Chair of Business-Society Management at the Rotterdam School of Management, Erasmus University;
- Prof. dr. Ed Vosselman, Professor of Accounting at Radboud University, Professor of Management Control in the Public Sector at Vrije Universiteit Amsterdam.

The panel was supported by Mark Delmartino MA, who acted as secretary.

Appendix 1 contains the curricula vitae of the panel members.

Working method of the assessment panel

This report focuses on the assessment of fourteen academic degree programmes according to the NVAO framework for limited programme assessments. This assessment took place as part of a broader exercise. It combined an initial AACSB accreditation of the Faculty of Economics and Business (FEB) of the University of Amsterdam (UvA) with the initial assessment of four new bachelor's and master's programmes and the programme assessment of 14 NVAO-accredited programmes at the FEB. This so-called 'combined AACSB/NVAO accreditation' was organised following the AACSB-NVAO Agreement of cooperation, 8 April 2015. The description of the working method reflects the approach to the entire - combined - accreditation exercise.

The combined AACSB-NVAO assessment at the University of Amsterdam is the first of four site visits in which Dutch Business Schools and their programmes are assessed in accordance with both AACSB and NVAO quality standards. On behalf of QANU, this project is coordinated by dr. Kees-Jan van Klaveren, employee of QANU. In accordance with the AACSB-NVAO Agreement and in close deliberation with NVAO, the panel's secretary and the universities involved, he has worked out the details of the panel's working method and safeguards the consistency of approach during the project as a whole.

Preparation

In preparation of the combined assessment, the FEB produced a Self-Evaluation Report which was organised according to the 15 AACSB standards. Moreover, it drafted brief management summaries based on the four NVAO standards for each of the existing programmes. The FEB also provided mid-term review reports indicating what changes had been made to the programmes since the previous accreditation round.

Prior to the site visit, the secretary met the chair of the panel to discuss the requirements of AACSB and NVAO with regard to the combined accreditation exercise. Also, concrete working arrangements were made to ensure that the site visit in general and the different sessions in particular would be used most effectively from both AACSB and NVAO perspective.

The NVAO standard on achieved learning outcomes requires panels to examine a sample of theses. For each programme the project coordinator selected five theses among those approved in the academic years 2012-2013 and 2013-2014. The selection was based on variation in grades, specialisations and examiners involved. The theses reviewed are listed in Appendix 6. Such thesis review is not part of the AACSB accreditation exercise. This task was therefore outsourced to a thesis panel of three academic experts. The theses were allocated per programme and according to the expertise of the individual expert. The experts reviewed and reported on the quality of the theses prior to the site visit. On the basis of their feedback, the secretary drafted a note on the findings and considerations of the thesis panel in general and for each programme individually. The panel verified these considerations on site and issued its own judgement on the basis of the findings of the thesis panel and the discussions during the site visit.

Site visit

The programme of the site visit was established between the FEB and AACSB. The duration of several sessions was extended to ensure time for discussion on specific NVAO-related issues. The panel visited the FEB from Monday 16 until Wednesday 18 November 2015. On the morning of the first day, the panel had an internal discussion. At this meeting, panel members discussed their initial findings on the programmes, as well as the key issues they

wanted to raise with the different stakeholders during the site visit. The programme featured an open office hour; nobody made use of this opportunity. The panel prepared its assessment of the fourteen programmes during two internal sessions on Tuesday evening and Wednesday afternoon. At the end of the site visit, the chair briefly presented the main findings of the panel to the management. A detailed overview of the programme is provided in Appendix 5.

Report

After the site visit, the secretary wrote a draft version of this report and circulated it to the panel for review and feedback. The comments of the panel members were incorporated in a pre-final version, which was validated by the chair. This final draft was sent to the institution for a check on factual errors. The feedback from the institution was discussed in the panel who modified the text where it thought this was appropriate. The chair then established the final version of this report.

Decision rules

In establishing the quality of the programmes the panel has followed the assessment framework for limited programme assessments of higher education programmes in the Netherlands, as described in the NVAO publication of 19 December 2014. This framework is used for institutions such as the University of Amsterdam (UvA) which successfully completed the institutional quality assurance assessment. The limited programme assessment is based on a discussion with peers regarding the content and quality of the programme. It focuses on four questions: (i) What is the programme aiming for? (ii) How does the programme intend to achieve its objectives? (iii) How does the programme intend to assess its performance? (iv) Are the objectives achieved? These four questions have been translated into four standards.

In accordance with the NVAO's Assessment framework for limited programme assessments, the panel used the following definitions for the assessment of both the standards and the programme as a whole.

Generic quality

The quality that can reasonably be expected in an international perspective from a higher education bachelor's or master's programme.

Unsatisfactory

The programme does not meet the current generic quality standards and shows serious shortcomings in several areas.

Satisfactory

The programme meets the current generic quality standards and shows an acceptable level across its entire spectrum.

Good

The programme systematically surpasses the current generic quality standard.

Excellent

The programme systematically well surpasses the current generic quality standard and is regarded as an international example.

Summary judgement regarding the academic degree programmes of Economics and Business of the University of Amsterdam

Based on the information provided and the discussions during the visit, the panel considers that overall, all fourteen programmes are of an acceptable level, demonstrating the quality that can reasonably be expected of higher education bachelor's or master's programmes in an international perspective.

The panel considers that for each programme, the intended learning outcomes are sufficiently concrete with regard to content, level and orientation. They address all competencies and fit the subject-specific reference framework for the business and economics disciplines. The panel has noticed that following the previous accreditation visit, all programmes have engaged in reviewing and adjusting the intended learning outcomes. An important tool – and trigger – for this review process has been the Assessment of Learning. The panel appreciates the efforts undertaken in the various programmes to implement AoL noticing that, by doing so, the quality of the learning outcomes has improved.

The panel considers that the teaching and learning environment for the fourteen programmes is adequate. Whilst the appreciation of the panel with regard to the curriculum varies somewhat per programme – as is reflected in the individual programme-specific sections of this report - the overall impression is that the contents and structure of the programmes and their tracks enable students to reach the intended learning outcomes. The number and quality of professors and lecturers ensure that the courses are delivered according to plan and in full respect of pedagogical and academic principles.

The panel considers that the assessment system currently in place at FEB is of good quality. The panel is positive about the efforts undertaken at central university level and about the way this central assessment policy has been translated into guidelines at FEB. In the discussions with students, lecturers, staff and programme directors, the panel has noticed that this is not only a policy that looks good on paper, but that its provisions are effectively implemented in the day-to-day reality of the programmes. Staff is trained and supported to design proper assessments; information on exams is made available in time; staff provide relevant feedback on assignments; students appreciate the thesis supervision; staff underpin their evaluation and grade of the thesis. The panel also noticed that AoL is being used to enhance the quality of assessments and encourages programmes to continue their efforts in this area. Given the positive elements mentioned above, the panel is not surprised that the thesis panel in most cases shared the scores and appreciations of the thesis supervisors. Following a very fruitful discussion with the vice-chair of the Examinations Board, the panel is confident that this body is competently handling its tasks as independent watchdog.

The panel follows the considerations of the thesis panel that each thesis fulfilled at least the minimum criteria one would expect of a thesis of academic orientation at bachelor or master level. Given that theses indicate to what extent students have achieved the intended learning outcomes, it is fair to conclude that the intended learning outcomes of the respective programmes are eventually achieved at the end of the curriculum.

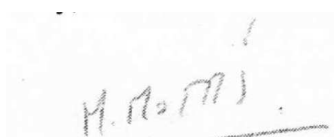
In sum, the panel issues a positive advice to NVAO on the quality of the fourteen programmes submitted for programme accreditation.

The panel assesses the standards from the *Assessment framework for limited programme assessments* in the following way:

	Assessment on NVAO standard 1: Intended Learning Outcomes	Assessment on NVAO standard 2: Teaching-learning environment	Assessment on NVAO standard 3: Assessment	Assessment on NVAO standard 4: Achieved learning outcomes	General conclusion
1. BSc Actuariële Wetenschappen	satisfactory	satisfactory	good	satisfactory	satisfactory
2. BSc Econometrie en Operationele Research	satisfactory	satisfactory	good	satisfactory	satisfactory
3. BSc Fiscale Economie	satisfactory	satisfactory	good	satisfactory	satisfactory
4. MSc Accountancy and Control	satisfactory	satisfactory	good	satisfactory	satisfactory
5. MSc Actuarial Science and Mathematical Finance	satisfactory	satisfactory	good	satisfactory	satisfactory
6. MSc Business Administration	satisfactory	satisfactory	good	satisfactory	satisfactory
7. MSc Econometrics	satisfactory	satisfactory	good	satisfactory	satisfactory
8. MSc Economics	satisfactory	satisfactory	good	satisfactory	satisfactory
9. MSc Fiscale Economie	satisfactory	satisfactory	good	satisfactory	satisfactory
10. MSc Business Administration – Executive master	satisfactory	satisfactory	good	satisfactory	satisfactory
11. MSc International Finance – Executive master	satisfactory	satisfactory	good	satisfactory	satisfactory
12. MSc Management Studies – Executive master	satisfactory	satisfactory	good	satisfactory	satisfactory
13. MSc Insurance Studies – Executive master	satisfactory	satisfactory	satisfactory	satisfactory	satisfactory
14. MSc Actuarial Science and Mathematical Finance – Executive master	satisfactory	satisfactory	good	satisfactory	satisfactory

The chair and the secretary of the panel hereby declare that all panel members have studied this report and that they agree with the judgements laid down in the report. They confirm that the assessment has been conducted in accordance with the demands relating to independence.

Date: 4 March 2016



Prof. dr. Nicolas Mottis



Mark Delmartino MA

Description of the standards from the Assessment framework for limited programme assessments

Introduction

This report covers the assessment of fourteen programmes, undertaken in the framework of a broader accreditation visit. Some issues are addressed in a very similar way in each of the programmes. Moreover, the AACSB accreditation looks into the performance of the entire FEB. This NVAO report takes on board some findings and considerations which the panel issued for the purpose of the AACSB report, but are also relevant for the NVAO standards. This report is organised as follows: general findings that apply across all programmes are presented per standard in a first section of this chapter; the second section contains the programme specific findings, as well as the considerations and conclusions of the panel for each individual programme.

The University of Amsterdam was founded in 1632. It is a comprehensive university with more than 30000 students and 5000 staff. Teaching and research are organised in seven faculties. The Faculty of Economics and Business (FEB) is among the bigger faculties with 320 staff and 5800 students. It consists of two departments (economics and business studies) which are each subdivided in six academic sections. The undergraduate College of Economics and Business, the Amsterdam Business School (ABS) and the Amsterdam School of Economics (ASE) have academic responsibility for all degree programmes. Two research institutes (economics and business) manage the research and PhD programmes. The Institute of Executive Education is responsible for open enrolment and in-company executive programmes.

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.

Explanation:

As for level and orientation (bachelor's or master's; professional or academic), the intended learning outcomes fit into the Dutch qualifications framework. In addition, they tie in with the international perspective of the requirements currently set by the professional field and the discipline with regard to the contents of the programme. Insofar as is applicable, the intended learning outcomes are in accordance with relevant legislation and regulations.

General findings

Aim

The degree programmes under review are all of academic orientation and can be divided in three clusters. Three three-year Bachelor of Science programmes prepare students for either a position on the labour market or a further study at master level. The language of instruction is Dutch. Six one-year Master of Science programmes target bachelor graduates from both the Netherlands and abroad. Admission is subject to entry qualifications and selection. Five programmes are taught in English. Five so-called post-experience Master of Science programmes are open to students with a relevant background and some professional experience. All programmes are taught in English and are (also) offered in a part-time variant. FEB mainly targets professionals at junior or mid-management level. Senior level professionals can enrol at the Institute for Executive Education, whose non-degree programmes are not the object of this NVAO accreditation report.

Intended learning outcomes

The aims of each programme are translated in intended learning outcomes, which are listed in the Teaching and Examination Regulations (TER). In determining the respective learning outcomes, the programmes ensure the outcomes are based on and comply with the Dublin Descriptors. The panel has looked into the exit qualifications and compared these to the provisions of the subject-specific reference framework for economics and business. This framework, which the panel studied as part of the AACSB Self-Evaluation Report, is drawn up by representatives of all economics and business faculties in the Netherlands and sets the standard for curriculum content and design in business and economics disciplines. According to the panel, the intended learning outcomes of the respective programmes under accreditation are in line with the subject specific reference framework.

The intended learning outcomes are listed in Appendix 3 to this report. The panel noticed that the exit qualifications of the bachelor's programmes are formulated in terms of knowledge and skills, whilst the competencies to be obtained in master's programmes also feature attitudinal outcomes. According to the panel, for each programme the learning objectives are a good mixture of what students should know and how they should apply this knowledge.

Assessment of Learning

The AACSB standard 'Assessment of Learning' (AoL) refers to processes demonstrating that students achieve the learning expectations for the programmes in which they participate. In view of AACSB accreditation, the FEB started to develop AoL as a system for monitoring and evaluating programme-level learning goals and objectives in June 2013. All degree programmes have started reviewing (some of) their learning outcomes using the five Dublin Descriptors as a common basis for organising the review process.

During the discussions on site, programme directors indicated that AoL has been used to test and implement the changes in the design and the learning objectives of individual programmes decided upon after the mid-term review process. Due to the AoL process, the FEB has become conscious about the importance of having adequately formulated learning outcomes. The programme directors are keen on establishing measurable learning outcomes and on developing learning lines and learning goals at course level. The panel noticed that AoL has been used to a larger extent by those programme directors who needed to make considerable adjustments to the set-up of their programmes following the previous accreditation round. The panel is satisfied that the adoption of the AoL philosophy has accelerated the modification of some programme objectives and that those involved have performed this review adequately.

The FEB, moreover, is integrating the AoL in its quality assurance procedures as of September 2015. The AoL results will become an integral part of the midterm review of programmes between two accreditations. According to the panel, this is a positive development and an important asset for FEB's continuous programme improvement.

Internationalisation

One of the key features of the FEB strategy plan 2015-2020 is internationalisation. The panel fully subscribes to FEB's concept of comprehensive internationalisation and acknowledges that most programmes have a distinctly international flavour. However, the panel notices that these ambitions are not yet reflected in the respective programme learning outcomes. In order

for FEB to better achieve its internationalisation objectives, the panel suggests faculty and programme management to include internationalisation as an explicit part of the intended learning outcomes in each programme.

Standard 2: Teaching-learning environment

The curriculum, staff and programme-specific services and facilities enable the incoming students to achieve the intended learning outcomes.

Explanation:

The contents and structure of the curriculum enable the students admitted to achieve the intended learning outcomes. The quality of the staff and of the programme-specific services and facilities is essential to that end. Curriculum, staff, services and facilities constitute a coherent teaching-learning environment for the students.

General findings

Programme

Each programme is led by a programme director who is responsible for the coordination, development, delivery and evaluation of the programme. The panel gathers from the materials reviewed and the discussions on site that the key programme aims are included in the respective curricula. All programmes put emphasis on research-based education, nurturing independent research skills and the development of a strong academic orientation on the part of students. Throughout the programmes, students follow both substantive and methodological courses. All programmes culminate in a thesis and students prepare for the thesis through specific methodology courses (bachelor's programmes) or a dedicated research seminar (master's programmes).

The panel notices that internationalisation features in most programmes. Some bachelor's programmes explicitly foresee the opportunity for students to study abroad. Until now, there have been more inbound exchange students than FEB students going abroad. The English language programmes attract a considerable number of foreign students. In its strategy, FEB states the ambition to increase the percentage of bachelor degrees earned by students with study abroad experience from approximately 10% to more than 30% in 2020. The panel supports the management in this ambition, but agrees with several interlocutors that the opportunities for a study period abroad should be communicated better - and more convincingly - to second year bachelor students.

In order to ensure that the individual courses align with the overall programme, school directors, section heads, programme directors and track coordinators work together in establishing and monitoring the consistency between learning outcomes (at programme level) and learning goals (at course level). Since 2013, this exercise is becoming an integral part of the AoL process. The panel has noticed that efforts have been undertaken across FEB to align the learning goals of individual courses with the programme learning outcomes using the AoL approach. In addition to its recommendation on the intended learning outcomes, the panel suggests programmes to include internationalisation in the learning goals of individual courses.

Teaching philosophy

The FEB academic degree programmes aim to stimulate active learning and meaningful interaction between students and faculty. Courses are often a combination of lectures, tutorials, guest lectures, simulation games, case discussions, practical group and individual assignments, textbook reading and academic paper review. This requires that students

participate actively in class and prepare before and between classes. Students familiarise themselves with the ideas and concepts in plenary lectures and apply this knowledge to complex problems and cases in small tutorial groups. Academic and communication skills are assessed through assignments set, delivered and evaluated in these tutorial groups. The panel has learned from discussions with both staff and students that active learning and meaningful interaction not only function as philosophical concepts on paper, but are also brought into practice.

According to the Self-Evaluation Report, teaching staff is increasing the use of Information Technology instruments in courses with larger number of students. Following the FEB strategy, a wider range of blended learning approaches will be introduced soon whereby online learning tools will be used to support face-to-face learning. The panel noticed in its discussions that students and staff are positive about this development and that the expectations are particularly high following the recent appointment by FEB of a policy advisor on blended learning who will coordinate the initiatives and support faculty members.

Feasibility

The panel gathers from the discussions with both staff and students that the workload is spread evenly over the academic year. After each course, students are asked to indicate in the course evaluation whether the workload is feasible and different from other courses. During the discussions both bachelor and master students indicated that the workload is feasible. The study load of individual courses is rather similar with no particular course representing an obvious obstacle for smooth study progress.

Notwithstanding the fact that the study load is feasible, many students do not finish their degree in time. Over the past years, several measures have been taken both at central and faculty level to enhance student progression while maintaining high academic standards. At central university level it was decided to divide the academic year in two semesters of 20 weeks, with each semester consisting of two eight-week periods and one four-week period. Moreover, all courses in the bachelor's programmes were to have an equal study load of six credits. In 2011, FEB produced a plan of approach to improve study success. Through a set of 29 measures FEB is aiming to increase success rates.

The panel thinks highly of the study progression measures taken and supports the ambitious plans of the FEB with regard to study success in future. The panel noticed during the visit that the measures are effective: students mentioned that the structure and requirements of the programmes are such that they are encouraged to dedicate sufficient time to their studies, which in turn helps to meet deadlines and avoid study delay. All courses expect active student involvement before, during and after class and certain courses require mandatory attendance. Since courses are taught in relatively short blocks of either eight or four weeks, students are constantly busy producing assignments and preparing for intermediate and final assessments.

The panel has learned that there are procedures in place to assess and recognise the credits obtained outside FEB, for instance during a study period abroad. In this case, students submit their plans for validation to the Examinations Board, which verifies upon return of the student that the work accepted from other institutions is comparable to the requirements at home. According to the panel, this procedure is adequate and feasible in view of the expected increase of FEB students going abroad or spending a study period at a different faculty, university or a company in the near future.

Admission

The topic of student admission has been discussed at several occasions during the visit. In line with national law, Dutch students with a pre-university secondary education degree ('vwo-diploma') including the subjects of mathematics and English are accepted directly into the bachelor's programmes. The panel was interested to learn about the additional non-binding UvA-matching procedure. Since two years all Dutch universities can introduce some kind of soft selection process. At UvA all students enrolling for a bachelor's programme are requested to attend mock lectures in their chosen programme, study and deliver an exam on which they are then graded and receive feedback. The combination of lectures, exam and feedback allow potential students to determine whether the programme is in line with their expectations and abilities (in terms of content and academic work level) before ultimately enrolling for the programme.

Students applying for a master's programme are required to have relevant competencies at bachelor level. The FEB bachelor's programmes give access to one or more master's programmes depending on the track or specialisation followed and the prerequisites for the master's programme. Applicants from abroad or from another Dutch university are assessed on an individual basis by the admissions committee.

According to several interlocutors, the admission requirements are observed strictly. The panel has noticed that the specific enrolment requirements for all bachelor's and master's programme are clear and mentioned in the Teaching and Examination Regulations (TER). They are, moreover, publicly available on the faculty website and in programme brochures for prospective students.

Both faculty and programme management have indicated that it is an explicit priority of FEB to become increasingly selective in student admission within the boundaries of the law. This is first and foremost the case for students applying for a pre-experience master's programme. According to the interlocutors, the level of selectivity strongly contributes to study success and is also a good indicator of the quality of applicants. However, high selectivity can only be achieved if the strongest candidates apply, which in turn requires FEB to clearly position its programmes and promote their added value over those offered by fellow faculties/competitors in the Netherlands and abroad. According to the programme management, a better profiling of master's programmes impact positively on the number of applicants and thus on the quality of the students that are eventually admitted.

The panel has established that the admission policy is clear and in line with the FEB strategy objective that quality precedes quantity: FEB degree programmes should not attract more students, but better quality students. The requirements for admission to the respective programmes is clear. Overall, there are many applicants. While the FEB has a limited ability for selection amongst domestic students for its bachelor's programmes, it has discretion in selecting students for English language undergraduate programmes and for graduate programmes.

Staff

The panel has studied the information on staff in the Self-Evaluation Report and on the dedicated UvA Blackboard section. The overall positive impression gathered from these materials was confirmed during several discussions with staff. According to the panel, FEB is attracting staff from all over the world, which results in a group of strong faculty supporting both the research and pedagogical objectives of the FEB and its degree programmes.

According to FEB, it is difficult to provide an exact staff-student ratio. Since staff members are active in several programmes, it is not possible to quantify the teaching input for one programme in terms of FTE's nor to calculate the staff-student ratio. The panel has inquired in several sessions about the quantity of teaching staff available. Both students and staff indicate that the current staff is sufficient but not abundant. Programme directors have indicated that in case programmes would attract more students than currently envisaged, additional teaching staff is needed and will be recruited. AACSB accreditation sets out precise quantitative ratios on faculty staffing. According to the panel, FEB definitely meets the AACSB standard in this regard and therefore considers that the current number of staff is adequate in view of the size of the respective programmes.

The panel acknowledges the efforts of both UvA and FEB to invest in and monitor staff development. About 80% of the teaching faculty holds a basic teaching qualification (BKO). All FEB teaching staff with a permanent contract (tenure) are expected to meet the national BKO requirements: they either have to complete the university lecturer training programme provided by UvA or need to demonstrate competences acquired elsewhere. Junior lecturers are mentored by senior peers and must complete the BKO as soon as possible. One of the BKO requirements is that staff members should be able to teach in English.

According to the previous accreditation committee, the proportion of staff members without PhD was too high. According to the programme materials, this has improved considerably with 81% of ABS and 90% of ASE faculty holding a PhD.

Facilities and services

The FEB is housed in two buildings within walking distance of each other: the Amsterdam Business School (ABS) and the Amsterdam School of Economics (ASE). During a visit of the premises, the panel noticed that the buildings have been renovated and that facilities such as library, work space, canteen, meeting place and classrooms have become state of the art. Students and staff are relieved that the renovations are almost over and satisfied with the result. Students indicated that since the renovations, they are spending more time on campus, which increases both study effectiveness and social cohesion.

Information on courses, study materials and results is mostly disseminated to students via Blackboard, the electronic learning environment. The panel has gathered from the Self-Evaluation Report and the discussions that student counsellors play an important role in supporting FEB students from both the Netherlands and abroad. Information sessions are organised on topics such as internships, study periods abroad and programme track specialisations. International students in particular are informed on the expectations with regard to classroom interaction and active learning. Moreover, study counsellors are available to support students needing extra coaching and advice because of their specific situation. Programme teaching staff provide course-specific guidance, in particular in the framework of small-scale tutorials and seminars.

The panel noticed that student associations at FEB are prominently present on campus. In addition to organising leisure activities, they facilitate placement opportunities within and beyond the curriculum. Moreover, they play an important role in organising career support for master students by organising job fairs and company visits.

According to the Dutch National Student Survey (NSE) which is quoted in the Self-Evaluation Report, the level of satisfaction with support services and facilities among FEB

students has increased, but is still below national average. In its strategy plan, the FEB aims to increase the satisfaction to a level that is at least comparable to the national average. In this respect, the panel suggests the FEB to conduct a survey to determine if current services and facilities meet the expectations and needs of students. This survey could also be used to solicit suggestions for specific improvements.

Standard 3: Assessment

The programme has an adequate assessment system in place.

Explanation:

The tests and assessments are valid, reliable and transparent to the students. The programme's examining board safeguards the quality of the interim and final tests administered.

General findings

Assessment system

Following changes in the law on the role and tasks of Examinations Boards in 2010, UvA has introduced a university-wide assessment policy. Having reviewed the central assessment policy framework, the panel is positive about the efforts undertaken by UvA and about the way this central policy has been concretised into the FEB's Guide for safeguarding the quality of testing and assessment.

According to this policy, the exams set by all courses must be submitted to the Examinations Board for inspection. This ensures that the exam quality is also assessed by those not directly involved in the design or delivery of courses. Moreover, the quality of assessment is regularly evaluated by an assessment expert and via course evaluations. It is also a matter of continuous discussion between programme directors, track coordinators and teaching staff who design and deliver courses.

The panel learned that because of the AoL requirements, it has become a priority for faculty and programme management to review the learning outcomes. This review will be part of a bigger endeavour, updating the assessment policy. When reviewing learning outcomes, it will be possible to improve / update them and connect these with the learning goals for courses and the assessment modes. Using AoL will facilitate the standardisation of assessment, the development of more and more meaningful grading templates, a better link between learning goals and exams, and a more accurate description of learning goals in the course descriptions. The panel acknowledges the intentions of the programmes and supports the increased attention to and use of AoL. In this respect, the panel suggests the programmes to apply AoL also to the thesis trajectory and improve/update the learning goals of the thesis.

The assessment policy and procedures are applicable to all degree programmes. The panel has gathered from the Self-Evaluation Report and the discussions with programme directors, lecturers and students that assessment is not merely a bureaucratic endeavour, but that its provisions are effectively implemented in the day-to-day reality of the programmes.

Bachelor students are usually assessed twice in every course and have an opportunity to re-sit an exam within the same academic year. For courses focusing on knowledge acquisition, assessment often takes the form of a mid-term exam and an end-term exam. More advanced specialisation courses have a group assignment instead of a mid-term exam. Project courses feature mid-term group assignments and are completed by an individual assignment. The assessment of individual master courses is based on a mix of assignments, presentations,

participation and written examination. In case of assignments, students receive feedback on their (group) work and presentation to help improve their understanding and performance. Students have indicated during the discussion that they indeed receive relevant feedback in tutorials.

For each bachelor and master course the assessment modes and grading procedures are described in the course manual, including the relative weighting of course components. These weighting schemes are set before and students are notified in advance. The manual for each course contains a description of its content and objectives and the prerequisites, as well as an overview of the various activities scheduled for the course, the forms of assessment and their relative weighting, the course literature, the recommended time investment for each activity and a list of the lecturers and their contact details. Students mentioned that information on courses and their assessment modes are clear and available well in advance of the exam.

Although assessment often includes a group work element, the final grade is always based on at least 60% individual performance. Each programme strives for a balanced mixture of assessments choosing the most appropriate mode for each course in line with the specific learning goals of the relevant programme component. Students agree to being graded in part on group work and consider that the grading is correct and transparent. The assessments are valid and reliable, although a few students were wondering whether a multiple-choice exam in the final bachelor year was really the best possible option.

Theses

The thesis is the culmination of the bachelor's / master's programme. It is considered a course and as such has a scheduled exam date and retake possibility. The thesis process has been redesigned to include joint starting points and deadlines to enable a more structured approach to supervision and evaluation. Both students and staff applauded this initiative as it keeps students focused on the thesis and reduces delays. Each thesis is supervised and graded by the supervisor and a second reader.

Thesis assessors report on their appreciation of the thesis through an evaluation form. The panel members reviewing the theses were satisfied that such evaluation form was available for all theses. They noticed, however, that the same evaluation form is adopted for both bachelor and master theses and that assessors did not systematically use the opportunity offered in the evaluation form to underpin their appreciation of individual criteria and/or their overall mark. During the visit programme directors indicated that there is widespread agreement to use an (almost) identical template and assured the panel that the conditions for meeting the individual criteria are stricter in master theses. Assessors, moreover, provide students with much more individualised feedback on the thesis than the information presented on the evaluation form. Students from their side confirmed that the evaluation form and its criteria are transparent and indicated they were satisfied with the amount of feedback provided informally by their supervisors on the thesis and on the motivation for the final grade.

Overall, the panel is positive about the organisation of the thesis evaluation: it welcomes the existence and systematic use of an evaluation form, which in most cases contains sufficient information to underpin the assessment and the grade. During the visit, programme directors and thesis supervisors acknowledged the suggestion of the panel to ensure that all evaluation forms, as official transcript of the thesis assessment process, are completed more extensively, containing for instance feedback with key arguments underpinning their overall score.

Examinations Board

All FEB degree programmes are covered by one independent Examinations Board. This ensures equal treatment across all programmes but also requires the Examinations Board to stick very closely to the rules. Programme directors set the TER for their bachelor's and master's programmes, which are then reviewed every year by the relevant Board of Studies; the Examinations Board monitors the adherence of each programme to its TER.

The Examinations Board consists of six members and fulfils all tasks according to Dutch law. Apart from checking randomly the quality of exams, the Examinations Board awards degrees to students after having verified that students have attained all learning outcomes and fulfilled all requirements laid down in the TER. In case papers and theses are earmarked by the plagiarism software Ephorus, the Examinations Board is contacted. Similarly all other cases of (alleged) fraud are presented to and dealt with by the Examinations Board. Following the discussion on site, the panel is confident that the Examination Board is handling its tasks competently.

Standard 4: Achieved learning outcomes

The programme demonstrates that the intended learning outcomes are achieved.

Explanation:

The level achieved is demonstrated by interim and final tests, final projects and the performance of graduates in actual practice or in post-graduate programmes.

General findings

In order to gain insight in the achieved learning outcomes of students, the thesis panel has studied a total of 68 theses across all programmes applying for re-accreditation. The list of theses reviewed is presented in Appendix 6 to this report. In their feedback, thesis panel members indicated that the quality of the theses differed depending on the level and experience of the student, as could be expected: in general bachelor theses were well structured and demonstrated that students have learned how to produce a thesis of academic orientation; the theses leading to pre-experience master's degrees were the strongest in terms of academic methodology, including literature review; the theses in post-experience master's programmes tended to have a more practical approach addressing practical problems and using different yet fitting research methodologies.

At the level of the individual theses, the panel members indicated that each thesis fulfilled at least the minimum criteria one would expect of a thesis of academic orientation at bachelor or master level. Studying several theses which had obtained a low grade, the panel reported in all cases that such theses were of sufficient quality to pass. Moreover, the panel members also agreed to the individual grades given by assessors to the vast majority of theses. Comparing the individual quality of theses per programme, the panel agreed in almost all cases that theses with a higher or lower score, were indeed of higher or lower quality.

Theses indicate to what extent students have achieved the intended learning outcomes. Having established that all theses studied by the thesis panel – including those with relatively low grades - were of acceptable quality, it is fair to conclude that the intended learning outcomes of the respective programmes are eventually achieved at the end of the curriculum.

The panel read in the Self-Evaluation Report that the employment perspectives of FEB graduates are rather good. Unemployment is negligible. Compared to fellow students from other faculties, more FEB graduates find a permanent job, find it more quickly and earn slightly more.

Programme specific findings – Bachelor’s programmes

1. Bachelor’s programme Actuariële Wetenschappen

The bachelor’s programme Actuarial Sciences is a three-year full-time programme taught entirely in Dutch (for reasons of clarity, the report will use the English name of Dutch taught programmes throughout the text and only refer to the Dutch name in the titles and the assessment overview). It is the only bachelor’s programme in the Netherlands dedicated entirely to actuarial science. According to the Self-Evaluation report, about 30 students were enrolled in the programme in January 2015 while 13 students had started the programme in September 2014.

Standard 1: Intended learning outcomes

The intended learning outcomes of the bachelor’s programme are listed in Appendix 3. The panel learned that the programme has much in common with the bachelor’s programme Econometrics and Operational Research, sharing the basic knowledge and skills as regards economics, mathematics, statistics, econometrics and operational research. According to the programme’s internal Mid-Term Review of 2014, action has been undertaken to making the learning outcomes more concrete, as suggested in the previous accreditation report.

Upon graduation most students move on to the corresponding master’s programme. However, the bachelor’s programme also takes into account that on graduation, students enter the labour market for a career as an actuary or a quantitative risk manager. The panel noticed that the programme reflects both perspectives: in addition to providing an academic and scientific basis, the programme also offers students a view on the actuarial profession. This is both a positive and an obvious approach, according to the panel, as the employment perspectives of graduates in actuarial sciences are reportedly very good.

Standard 2: Teaching-learning environment

Following the measures taken at both central and faculty level to increase study success, the curriculum has been restructured in 2011. Moreover, the panel read in the Mid-Term Review of 2014 that the curriculum has been adjusted to comply with the suggestions of the previous accreditation panel: a new course on mathematical and empirical finance, more attention to micro-economics and macro-economics, and more project work in the second year to prepare students for the bachelor thesis.

The current curriculum of the bachelor’s programme Actuarial Sciences is described in Appendix 4. According to the panel, the curriculum is coherent. It offers no specialisation tracks and most courses are compulsory for all students. The elective courses (24 EC) are grouped in semester five in order for students to follow a minor or a study period abroad. Students acquire and practice research skills in the first two years through project work before they produce a bachelor thesis of 12 EC.

Standard 3: Assessment

The panel’s general findings on the assessment system, the thesis and the Examinations Board are valid also for this bachelor’s programme Actuarial Sciences. In so far as individual assessments are concerned, the thesis panel has looked at five theses and their evaluation. It noticed that the assessment was done properly and that the respective scores were adequate. However, the thesis panel also indicated that not all evaluation forms had been completed comprehensively. The panel therefore suggests to monitor that the official transcripts of the thesis evaluation contain sufficient feedback on the grade.

Standard 4: Achieved learning outcomes

The thesis panel reviewed five theses of the bachelor's programme Actuarial Sciences. All theses are of fine quality, including the one with the lowest grade which is still sufficiently strong for a product demonstrating academic competencies at bachelor level. The choice of topics fits the domain of actuarial science and the statistical methodology applied is adequate. The thesis panel reported that not all theses contain an empirical application. Given the strong empirical orientation of actuarial sciences, the panel suggests to consider including an empirical application of the statistical method as a separate section in each thesis. By doing so, students will better understand the methods used.

Considerations

The bachelor's programme Actuarial Sciences has been modified to some extent since the previous accreditation visit. The panel acknowledges these modifications and considers that they have enhanced the relevance of the programme.

According to the panel, the *intended learning outcomes* are sufficiently concrete with regard to content (actuarial sciences), level (bachelor) and orientation (academic). They address relevant competencies in the domain of actuarial sciences and fit the subject-specific reference framework for the business and economics disciplines. The panel considers that the programme's aims are adequately reflected in its learning outcomes: students get first and foremost a proper disciplinary and academic training, whilst the learning outcomes also refer to the application, reach and limitations of actuarial methods in practical situations.

The panel is satisfied that the adoption of the AoL philosophy is facilitating the update of the learning goals and considers that those involved are performing this exercise adequately. The panel has noticed that internationalisation is addressed in a comprehensive way throughout the FEB, but that this important strategic objective is not yet reflected in the programme aims. It invites programme management to consider including internationalisation in the intended learning outcomes of the BSc Actuarial Sciences.

The panel assesses Standard 1 as 'satisfactory'.

The panel considers that the *curriculum* of the bachelor's programme Actuarial Sciences is coherent. Stated programme objectives and approaches such as research-based education, academic skills, professional orientation, active learning and meaningful interaction are all reflected in the (delivery of the) curriculum, which has been adjusted in various ways over the past few years. The panel is satisfied that the current curriculum enables students to study abroad by earmarking the fifth semester for a minor programme. The panel encourages management, staff and services to communicate the opportunities for a study period abroad to second-year students.

The panel appreciates the efforts of management and staff to align the learning goals of individual courses with the programme learning outcomes using the AoL approach. In this respect, the panel suggests that internationalisation is included more explicitly in the learning goals of individual courses.

In terms of feasibility, the panel considers that the study load of the programme is spread evenly within and across the individual semesters. Moreover, the panel thinks highly of the way FEB has been and will be addressing study progress. The structure and requirements of courses encourage students to dedicate sufficient time to their studies. The adjustments to the

thesis trajectory allow for a more structured approach to supervision and evaluation. The panel joins staff and students in applauding this initiative as it keeps students focused on the thesis and reduces study delays.

The panel considers that the FEB is attracting *staff* from all over the world, which results in a group of strong faculty supporting both the research and pedagogical objectives of the FEB and its degree programmes. The panel has received detailed information on the staff and considers that sufficient and appropriate faculty have been assigned to the bachelor's programme Actuarial Sciences.

According to the panel, *facilities* at FEB are adequate. The panel has visited the recently renovated FEB buildings and understands that students and staff now like to spend a considerable part of their time on campus. The FEB puts several counsellors at disposition of its students offering a wide range of social, personal and curriculum-related services such as advice on specialisation courses. Moreover, the panel noticed that student associations are prominently present on campus. In addition to leisure activities, they facilitate among others placement opportunities within and beyond the curriculum. The panel supports the FEB's intention to further increase the level of satisfaction with support services and facilities and suggests surveying if services and facilities meet specific student expectations and needs.

The panel assesses Standard 2 as 'satisfactory'.

In terms of *assessment*, the panel is positive about the efforts undertaken at central university level and about the way this central policy has been translated into guidelines for assessment at FEB. In the discussions with students, lecturers, staff and programme directors, the panel has noticed that this is not only a policy that looks good on paper, but that its provisions are effectively implemented in the day-to-day reality of the programmes: staff is trained and supported to design state-of-the-art assessments; information on exams is made available in time; lecturers provide relevant feedback on assignments; students appreciate the thesis supervision and the transparency of the thesis evaluation process. The panel also noticed that AoL is used to enhance the quality of assessments and encourages the programme to continue its efforts in this area.

The panel considers that the thesis evaluation is organised adequately. It welcomes the joint assessment by the supervisor and an assessor, and appreciates the existence and systematic use of a standardised evaluation form. Moreover, assessors provide proper feedback to the students on the quality of the thesis and on the motivation of the final grade. As this feedback is often communicated informally to students, the panel suggests that all evaluation forms, as official transcripts of the thesis assessment process, contain proper feedback with key arguments underpinning the assessors' overall score. Finally, the sample of theses reviewed indicates that the assessment is done meticulously: for each individual thesis, the panel agrees to the score given.

All FEB degree programmes, including the bachelor's programme Actuarial Sciences, are covered by one independent Examinations Board, which fulfils all the requirements set by Dutch law. Further to the discussion during the visit, the panel is confident that the Examinations Board is handling its tasks competently.

The panel assesses Standard 3 as 'good'.

Regarding the *achieved learning outcomes* of the bachelor's programme Actuarial Sciences, the thesis panel indicated that all theses are of fine quality. The choice of topics fits the domain of

actuarial science and the statistical methodology applied is adequate. The thesis panel reported that not all theses contain an empirical application. Given the strong empirical orientation of actuarial sciences, the panel suggests the programme management to consider including an empirical application of the statistical method as a separate section in each thesis. By doing so, students will better understand the methods used. Having established that all theses studied were at least of acceptable quality, the panel considers that the intended learning outcomes of the bachelor's programme are eventually achieved at the end of the curriculum.

The panel assesses Standard 4 as 'satisfactory'.

Conclusion

In accordance with NVAO decision rules, the panel assesses the *bachelor's programme Actuariële Wetenschappen* as 'satisfactory'.

2. Bachelor's programme Econometrie en Operationele Research

The bachelor's programme Econometrics and Operational Research is a three-year full-time programme taught entirely in Dutch. According to the Self-Evaluation report, about 320 students were enrolled in the programme in January 2015 while 79 students had started the programme in September 2014. Asked about unique selling points, the programme mentions its academic orientation and focus on research and writing skills. Moreover it refers to the quantitative economics curriculum offering a high level of statistics and mathematics whilst paying also attention to economics courses. The programme offers two tracks: econometrics and operational research & operations management.

Standard 1: Intended learning outcomes

The panel noticed that the programme's key features are reflected in the intended learning outcomes, which are listed in Appendix 3. Moreover, the programme has much in common with the bachelor's programme Actuarial Sciences. After completing their second year, students can still opt for a specialisation in actuarial sciences. The programme director indicated during the visit that the quality of the learning outcomes has improved since the previous accreditation visit. Before, the learning outcomes were formulated much more implicitly, not very precise nor testable. At the mid-term review in 2014 and as part of the AoL exercise, the learning outcomes have become more explicit and measurable. The review also led to a better alignment between the learning goals of individual courses and the overall programme objectives. In the future, such reviews will be held more regularly.

Standard 2: Teaching-learning environment

Following the measures taken at both central and faculty level to increase study success, the curriculum has been restructured in 2011. The current curriculum of the bachelor's programme Econometrics and Operational Research is described in Appendix 4. According to the panel, the curriculum is coherent. The courses in the first two years are common to all students; the third year consists of electives (30 EC), as well as courses and a thesis (12 EC) in the chosen specialisation. Several courses contain a practical component in which students apply individually or in group what they have learned. In this respect, the panel learned during the visit that the second-year course 'empirical project' was added to give more weight to practical skills training in an otherwise very theoretical programme. According to the TER, the standard order of third-year courses can be shifted in case students want to study abroad or follow a minor. According to the programme director, the curriculum has an international flavour. Nevertheless, he agrees with the panel that internationalisation could be included more explicitly in the curriculum and the learning goals.

Standard 3: Assessment

The panel's general findings on the assessment system, the thesis and the Examinations Board are valid also for the bachelor's programme Econometrics and Operational Research. In so far as individual assessments are concerned, the thesis panel has looked at five theses and their evaluation. It noticed that the assessment was done properly and that the respective scores were adequate. However, the thesis panel also indicated that not all evaluation forms had been completed comprehensively. The panel therefore suggests to monitor that the official transcripts of the thesis evaluation contain sufficient feedback on the grade.

Standard 4: Achieved learning outcomes

The thesis panel reviewed five theses of the bachelor's programme Econometrics and Operational Research. All theses are of fine quality, including the one with the lowest grade which is still sufficiently strong for a product demonstrating academic competencies at

bachelor level. Based on the sample of theses reviewed, the thesis panel noticed that theses of the specialisation operational research use real world data, while the econometrics theses were theoretically oriented. The programme director emphasised during the visit that all theses are very technical and address economic problems. Most theses, moreover, do include real world data. Given the programme's claim that it also pays attention to economics, the panel asked whether this economics dimension should not be reflected in the thesis. The programme director assured the panel that all students have a good understanding of micro economics and finance when they graduate, although these domains are not necessarily addressed in the thesis.

Considerations

The bachelor's programme Econometrics and Operational Research has been modified to some extent since the previous accreditation visit. The panel acknowledges these modifications and considers that they have enhanced the relevance of the programme.

According to the panel, the *intended learning outcomes* are sufficiently concrete with regard to content (econometrics, operational research), level (bachelor) and orientation (academic). They address relevant competencies in the domain of econometrics and fit the subject-specific reference framework for the business and economics disciplines. The panel considers that the programme's aims are adequately reflected in its learning outcomes: it is first and foremost a very theoretical and academic programme that also takes into account practical applications of theory.

The panel is satisfied that the adoption of the AoL philosophy is facilitating the update of the learning goals and considers that those involved are performing this exercise adequately. The panel has noticed that internationalisation is addressed in a comprehensive way throughout the FEB, but that this important strategic objective is not yet reflected in the programme aims. It invites programme management to consider including internationalisation in the intended learning outcomes of the BSc Econometrics and Operational Research.

The panel assesses Standard 1 as 'satisfactory'.

The panel considers that the *curriculum* of the bachelor's programme Econometrics and Operational Research is coherent. Stated programme objectives and approaches such as research-based education, academic orientation, research and writing skills, active learning and meaningful interaction are all reflected in the (delivery of the) curriculum, which has been adjusted in various ways over the past few years. The panel is satisfied that the current curriculum is sufficiently flexible to enable students to go abroad or follow a minor programme. The panel encourages management, staff and services to communicate the opportunities for a study period abroad to second-year students.

The panel appreciates the efforts of management and staff to align the learning goals of individual courses with the programme learning outcomes using the AoL approach. In this respect, the panel suggests that internationalisation is included more explicitly in the learning goals of individual courses.

In terms of feasibility, the panel considers that the study load of the programme is spread evenly within and across the individual semesters. Moreover, the panel thinks highly of the way FEB has been and will be addressing study progress. The structure and requirements of courses encourage students to dedicate sufficient time to their studies. The adjustments to the thesis trajectory allow for a more structured approach to supervision and evaluation. The

panel joins staff and students in applauding this initiative as it keeps students focused on the thesis and reduces study delays.

The panel considers that the FEB is attracting *staff* from all over the world, which results in a group of strong faculty supporting both the research and pedagogical objectives of the FEB and its degree programmes. The panel has received detailed information on the staff and considers that sufficient and appropriate faculty have been assigned to the bachelor's programme Econometrics and Operational Research.

According to the panel, *facilities* at FEB are adequate. The panel has visited the recently renovated FEB buildings and understands that students and staff now like to spend a considerable part of their time on campus. The FEB puts several counsellors at disposition of its students offering a wide range of social, personal and curriculum-related services such as advice on specialisation courses. Moreover, the panel noticed that student associations are prominently present on campus. In addition to leisure activities, they facilitate among others placement opportunities within and beyond the curriculum. The panel supports the FEB's intention to further increase the level of satisfaction with support services and facilities and suggests surveying if services and facilities meet specific student expectations and needs.

The panel assesses Standard 2 as 'satisfactory'.

In terms of *assessment*, the panel is positive about the efforts undertaken at central university level and about the way this central policy has been translated into guidelines for assessment at FEB. In the discussions with students, lecturers, staff and programme directors, the panel has noticed that this is not only a policy that looks good on paper, but that its provisions are effectively implemented in the day-to-day reality of the programmes: staff is trained and supported to design state-of-the-art assessments; information on exams is made available in time; lecturers provide relevant feedback on assignments; students appreciate the thesis supervision and the transparency of the thesis evaluation process. The panel also noticed that AoL is used to enhance the quality of assessments and encourages the programme to continue its efforts in this area.

The panel considers that the thesis evaluation is organised adequately. It welcomes the joint assessment by the supervisor and an assessor, and appreciates the existence and systematic use of a standardised evaluation form. Moreover, assessors provide proper feedback to the students on the quality of the thesis and on the motivation of the final grade. As this feedback is often communicated informally to students, the panel suggests that all evaluation forms, as official transcripts of the thesis assessment process, contain proper feedback with key arguments underpinning the assessors' overall score. Finally, the sample of theses reviewed indicates that the assessment is done meticulously: for each individual thesis, the panel agrees to the score given.

All FEB degree programmes, including the bachelor's programme Econometrics and Operational Research, are covered by one independent Examinations Board, which fulfils all the requirements set by Dutch law. Further to the discussion during the visit, the panel is confident that the Examinations Board is handling its tasks competently.

The panel assesses Standard 3 as 'good'.

Regarding the *achieved learning outcomes* of the bachelor's programme Econometrics and Operational Research, the thesis panel indicated that all theses are of fine quality. Having established that all theses studied were at least of acceptable quality, the panel considers that

the intended learning outcomes of the bachelor's programme are eventually achieved at the end of the curriculum.

The panel assesses Standard 4 as 'satisfactory'.

Conclusion

In accordance with NVAO decision rules, the panel assesses the *bachelor's programme Econometrie en Operationele Research* as 'satisfactory'.

3. Bachelor's programme Fiscale Economie

The bachelor's programme Fiscal Economics is a three-year full-time programme taught entirely in Dutch. According to the Self-Evaluation report, 155 students were enrolled in the programme in January 2015 while 79 students had started the programme in September 2014. Asked about unique selling points, the programme mentions its focus on accounting and its orientation on the professional practice. Moreover, the panel learned that the programme has a considerable legal component as it studies tax law from an economical perspective.

Standard 1: Intended learning outcomes

The panel read in the TER that the programme aims to offer knowledge and insight into both the national and international economic situation. The graduate should be able to analyse the economic situation based on theoretical concepts and have a critical mind-set towards solutions offered by others or developed in person. The panel noticed that the programme's key features are reflected in the intended learning outcomes, which are listed in Appendix 3. The programme director indicated during the visit that some effort had been undertaken over the past few years to make the learning outcomes more concrete, as suggested in the previous accreditation report. Moreover, he ensured the panel that notwithstanding the professional orientation of the domain fiscal economics, academic education has absolute priority in the bachelor's programme. Finally, the panel learned during the visit that the programme has a very strong focus on the situation and the system of taxation in the Netherlands. In fact, the programme is not so much about economics but rather about taxation: the learning outcomes mention graduates should have a basic knowledge of economics and law, but extensive know-how on fiscal matters and income tax.

Standard 2: Teaching-learning environment

Following the measures taken at both central and faculty level to increase study success, the curriculum has been restructured in 2011. The current curriculum of the bachelor's programme Fiscal Economics is described in Appendix 4. According to the panel, the curriculum is coherent but prescriptive. It offers no specialisation tracks and almost all courses are compulsory for all students. The panel learned that there is no room in the curriculum for a study period abroad or a minor, but that all students learn about European and Internal taxation law in the third year. The academic and research skills needed for the bachelor thesis of 12 EC are taught and practiced through project work before.

Standard 3: Assessment

The panel's general findings on the assessment system, the thesis and the Examinations Board are valid also for the bachelor's programme Fiscal Economics. In so far as individual assessments are concerned, the thesis panel has looked at five theses and their evaluation. It noticed that the assessment was done properly and that the respective scores were adequate. However, the thesis panel also indicated that not all evaluation forms had been completed comprehensively. The panel therefore suggests to monitor that the official transcripts of the thesis evaluation contain sufficient feedback on the grade.

Standard 4: Achieved learning outcomes

The thesis panel reviewed five theses of the bachelor's programme Fiscal Economics. All theses are of fine quality, including the one with the lowest grade which is still sufficiently strong for a product demonstrating academic competencies at bachelor level. Based on the sample of theses reviewed, the panel noticed that the chosen topics fit the domain of fiscal policy. In terms of methodology, the theses consisted to a large extent of literature reviews and argued expressions of personal opinion. Whilst the panel acknowledges that this is

customary in fiscal (and legal) studies and considers it adequate that these are positioned within the broader culture of the discipline, it would expect students to also adopt different methodologies, such as interviews and quantitative analysis.

Considerations

The bachelor's programme Fiscal Economics has been modified to some extent since the previous accreditation visit. According to the panel, the *intended learning outcomes* are sufficiently concrete with regard to content (taxation), level (bachelor) and orientation (academic). They address relevant competencies in the domain of fiscal economics and fit the subject-specific reference framework for the business and economics disciplines. The panel considers that the programme's aims are adequately reflected in its learning outcomes: students get first and foremost a proper disciplinary and academic training, whilst the learning outcomes also refer to skills and attitudes that are useful in a discipline-specific professional environment.

The panel is satisfied that the adoption of the AoL philosophy is facilitating the update of the learning goals and invites those involved to continue performing this exercise in future. The panel has noticed that internationalisation is addressed in a comprehensive way throughout the FEB, but that this important strategic objective is not yet reflected in the programme aims. Notwithstanding the programme's focus on the Dutch taxation situation, the panel invites the programme to consider including internationalisation in the intended learning outcomes of the BSc Fiscal Economics.

The panel assesses Standard 1 as 'satisfactory'.

The panel considers that the *curriculum* of the bachelor's programme Fiscal Economics is coherent. Stated programme objectives and approaches such as research-based education, academic skills, professional orientation, active learning and meaningful interaction are all reflected in the (delivery of the) curriculum. The panel acknowledges that the current curriculum is very prescriptive and does not enable students to study abroad or follow a minor programme.

The panel appreciates the efforts of management and staff to align the learning goals of individual courses with the programme learning outcomes using the AoL approach. In this respect, the panel suggests that internationalisation is included more explicitly in the learning goals of individual courses.

In terms of feasibility, the panel considers that the study load of the programme is spread evenly within and across the individual semesters. Moreover, the panel thinks highly of the way FEB has been and will be addressing study progress. The structure and requirements of courses encourage students to dedicate sufficient time to their studies. The adjustments to the thesis trajectory allow for a more structured approach to supervision and evaluation. The panel joins staff and students in applauding this initiative as it keeps students focused on the thesis and reduces study delays.

The panel considers that the FEB is attracting *staff* from all over the world, which results in a group of strong faculty supporting both the research and pedagogical objectives of the FEB and its degree programmes. The panel has received detailed information on the staff and considers that sufficient and appropriate faculty have been assigned to the bachelor's programme Fiscal Economics.

According to the panel, *facilities* at FEB are adequate. The panel has visited the recently renovated FEB buildings and understands that students and staff now like to spend a

considerable part of their time on campus. The FEB puts several counsellors at disposition of its students offering a wide range of social, personal and curriculum-related services such as advice on specialisation courses. Moreover, the panel noticed that student associations are prominently present on campus. In addition to leisure activities, they facilitate among others placement opportunities within and beyond the curriculum. The panel supports the FEB's intention to further increase the level of satisfaction with support services and facilities and suggests surveying if services and facilities meet specific student expectations and needs.

The panel assesses Standard 2 as 'satisfactory'.

In terms of *assessment*, the panel is positive about the efforts undertaken at central university level and about the way this central policy has been translated into guidelines for assessment at FEB. In the discussions with students, lecturers, staff and programme directors, the panel has noticed that this is not only a policy that looks good on paper, but that its provisions are effectively implemented in the day-to-day reality of the programmes: staff is trained and supported to design state-of-the-art assessments; information on exams is made available in time; lecturers provide relevant feedback on assignments; students appreciate the thesis supervision and the transparency of the thesis evaluation process. The panel also noticed that AoL is used to enhance the quality of assessments and encourages the programme to continue its efforts in this area.

The panel considers that the thesis evaluation is organised adequately. It welcomes the joint assessment by the supervisor and an assessor, and appreciates the existence and systematic use of a standardised evaluation form. Moreover, assessors provide proper feedback to the students on the quality of the thesis and on the motivation of the final grade. As this feedback is often communicated informally to students, the panel suggests that all evaluation forms, as official transcripts of the thesis assessment process, contain proper feedback with key arguments underpinning the assessors' overall score. Finally, the sample of theses reviewed indicates that the assessment is done meticulously: for each individual thesis, the panel agrees to the score given.

All FEB degree programmes, including the bachelor's programme Fiscal Economics, are covered by one independent Examinations Board, which fulfils all the requirements set by Dutch law. Further to the discussion during the visit, the panel is confident that the Examinations Board is handling its tasks competently.

The panel assesses Standard 3 as 'good'.

Regarding the *achieved learning outcomes* of the bachelor's programme Fiscal Economics, the thesis panel indicated that all theses are of fine quality and that the chosen topics fit the domain of fiscal policy. In terms of methodology, the theses consisted to a large extent of literature reviews and argued expressions of personal opinion. Whilst the panel acknowledges that this is customary in fiscal (and legal) studies, it suggests that students adopt also different methodologies, such as interviews and quantitative analysis. Having established that all theses studied were at least of acceptable quality, the panel considers that the intended learning outcomes of the bachelor's programme are eventually achieved at the end of the curriculum.

The panel assesses Standard 4 as 'satisfactory'.

Conclusion

In accordance with NVAO decision rules, the panel assesses the *bachelor's programme Fiscale Economie* as 'satisfactory'.

Programme specific findings – Master’s programmes

4. Master’s programme Accountancy and Control

The master’s programme Accountancy and Control is a one-year programme taught in English and offered in both full-time and part-time variants. According to the Self-Evaluation report, 345 students were enrolled in the programme in January 2015 while 170 students had started the programme in September 2014. Asked about unique selling points, the programme mentions the combination of practice and research, the attention to International Financial Reporting Standards, and a fitting curriculum structure for both variants. The programme offers two tracks - accountancy and control – and is international in terms of contents, students and staff.

Standard 1: Intended learning outcomes

The panel read in the TER that this master’s programme provides knowledge and insight into both national and international accountancy and control issues. It enables students to analyse such issues using theoretical concepts, to take a critical position with regard to the solutions in practice, and to independently design alternative solutions which have a sound basis. During the visit the panel learned that by aligning research and teaching, the programme develops an academic approach to thinking and working in the field of accounting. About half the graduates follow a post-experience master’s programme, leading to entry as certified accountant. Other students take up positions in the banking and commercial world as analysts, controllers or consultants. The panel noticed that the programme reflects both perspectives: in addition to providing disciplinary knowledge at a high academic level, the programme also features practical components. Several components are practice-students also learn about practical examples and applications.

The intended learning outcomes of this master’s programme are listed in Appendix 3. The envisaged competencies include common and track-specific knowledge. The panel read in the Mid-Term Review that following the adjustment of all FEB curricula in 2011, the programme’s intended learning outcomes have been reformulated to become more concrete, as suggested by the previous accreditation panel.

Standard 2: Teaching-learning environment

Following the measures taken at both central and faculty level to increase study success, the curriculum has been restructured in 2011. Moreover, the panel read in the Mid-Term Review that the thesis process has been changed substantially. During the research seminar in the first semester students prepare a thesis proposal, which they then develop throughout the second semester. Strict deadlines are observed and supervision is available only until the deadline. This approach proves to be very effective in getting students to finish in time.

The current curriculum of the master’s programme Accountancy and Control is described in Appendix 4. It consists of common courses (30 EC), track-specific courses (15 EC) and a master thesis (15 EC) in the area of specialisation. According to the panel, the curriculum is coherent and fit for purpose. During the visit, the programme director indicated that it is difficult to include sufficient disciplinary contents and relevant professional skills into a 60 EC curriculum. The programme clearly focuses on content, but the professional field would like graduates in accountancy and control enter the labour market with additional competences such as negotiation skills.

The panel read in the TER that applicants for this master's programme should demonstrate knowledge and skills (at the level of an academic bachelor degree) in financial accounting, management accounting, finance, corporate law, and quantitative, qualitative and mathematical research methods. Moreover, knowledge of internal control systems and auditing would be highly beneficial.

Standard 3: Assessment

The panel's general findings on the assessment system, the thesis and the Examinations Board are valid also for this master's programme Accountancy and Control. In so far as individual assessments are concerned, the thesis panel has looked at five theses and their evaluation. It noticed that the assessment was done properly and that the respective scores were adequate. However, the thesis panel also indicated that not all evaluation forms had been completed comprehensively. The panel therefore suggests programme management to monitor that the official transcripts of the thesis evaluation contain sufficient feedback on the grade.

Standard 4: Achieved learning outcomes

The thesis panel reviewed five theses of the master's programme Accountancy and Control. All theses are of fine quality, including the one with the lowest grade which is still sufficiently strong for a product demonstrating academic competencies at master level. According to the thesis panel, they constitute good examples of what belongs to the field of accountancy and control giving evidence of 'state of the art'-knowledge. The thesis panel noticed that the theses reviewed had very comparable structures and research approaches. The panel suggests considering a broader view on epistemology and methodology in the theses, such as experiments and interpretative and performative cases that might make the exercise more practically relevant.

Considerations

The master's programme Accountancy and Control has been modified to some extent since the previous accreditation visit. The panel acknowledges these modifications and considers that they have enhanced the relevance of the programme.

According to the panel, the *intended learning outcomes* are sufficiently concrete with regard to content (accountancy and control), level (master) and orientation (academic). They address relevant competencies in the domain of accountancy and control and fit the subject-specific reference framework for the business and economics disciplines. The panel considers that the programme's aims are adequately reflected in its learning outcomes, focusing on both disciplinary knowledge at an advanced level and on skills that are relevant in the specific professional context of accountancy and control.

The panel is satisfied that the adoption of the AoL philosophy is facilitating the update of the learning goals and considers that those involved are performing this exercise adequately. The panel has noticed that internationalisation is addressed in a comprehensive way throughout the FEB and that this master's programme itself has a distinctly international flavour, but that this important strategic objective is not yet reflected explicitly in the programme aims. It invites programme management to consider including internationalisation in the intended learning outcomes of the master's programme Accountancy and Control.

The panel assesses Standard 1 as 'satisfactory'.

The panel considers that the *curriculum* of the master's programme Accountancy and Control is coherent. Stated programme objectives and approaches such as research-based education, academic skills, professional orientation, active learning and meaningful interaction are all reflected in the (delivery of the) curriculum. The panel appreciates the efforts of management and staff to align the learning goals of individual courses with the programme learning outcomes using the AoL approach.

The programme has set clear admission requirements. In terms of feasibility, the panel considers that the study load of the programme is spread evenly. The structure and requirements of courses encourage students to dedicate sufficient time to their studies. Moreover, stricter supervision arrangements and delivery deadlines have been introduced in the thesis process. The panel joins staff and students in applauding this initiative as it keeps students focused on the thesis and reduces study delays.

The panel considers that the FEB is attracting *staff* from all over the world, which results in a group of strong faculty supporting both the research and pedagogical objectives of the FEB and its degree programmes. The panel has received detailed information on the staff and considers that sufficient and appropriate faculty have been assigned to the master's programme Accountancy and Control.

According to the panel, *facilities* at FEB are adequate. The panel has visited the recently renovated FEB buildings and understands that students and staff now like to spend a considerable part of their time on campus. The FEB puts several counsellors at disposition of its students offering a wide range of social, personal and curriculum-related services. Moreover, the panel noticed that student associations are prominently present on campus. In addition to leisure activities, they facilitate among others placement opportunities within and beyond the curriculum. The panel supports the FEB's intention to further increase the level of satisfaction with support services and facilities and suggests surveying if services and facilities meet specific student expectations and needs.

The panel assesses Standard 2 as 'satisfactory'.

In terms of *assessment*, the panel is positive about the efforts undertaken at central university level and about the way this central policy has been translated into guidelines for assessment at FEB. In the discussions with students, lecturers, staff and programme directors, the panel has noticed that this is not only a policy that looks good on paper, but that its provisions are effectively implemented in the day-to-day reality of the programmes: staff is trained and supported to design state-of-the-art assessments; information on exams is made available in time; lecturers provide relevant feedback on assignments; students appreciate the thesis supervision and the transparency of the thesis evaluation process. The panel also noticed that AoL is used to enhance the quality of assessments and encourages the programme to continue its efforts in this area.

The panel considers that the thesis evaluation is organised adequately. It welcomes the joint assessment by the supervisor and an assessor, and appreciates the existence and systematic use of a standardised evaluation form. Moreover, assessors provide proper feedback to the students on the quality of the thesis and on the motivation of the final grade. As this feedback is often communicated informally to students, the panel suggests that all evaluation forms, as official transcripts of the thesis assessment process, contain proper feedback with key arguments underpinning the assessors' overall score. Finally, the sample of theses reviewed indicates that the assessment is done meticulously: for each individual thesis, the panel agrees to the score given.

All FEB degree programmes, including the master's programme *Accountancy and Control*, are covered by one independent Examinations Board, which fulfils all the requirements set by Dutch law. Further to the discussion during the visit, the panel is confident that the Examinations Board is handling its tasks competently.

The panel assesses Standard 3 as 'good'.

Regarding the *achieved learning outcomes* of the master's programme *Accountancy and Control*, the thesis panel indicated that the theses are of fine quality giving evidence of 'state-of-the-art' knowledge in the field of accountancy and control. As the review sample featured theses with comparable structures and approaches, the panel suggests the programme to consider more variation in terms of research methodology. Having established that all theses studied were at least of acceptable quality, the panel considers that the intended learning outcomes of the master's programme are eventually achieved at the end of the curriculum.

The panel assesses Standard 4 as 'satisfactory'.

Conclusion

In accordance with NVAO decision rules, the panel assesses the *master's programme Accountancy and Control* as 'satisfactory'.

5. Master's programme Actuarial Science and Mathematical Finance

The master's programme Actuarial Science and Mathematical Finance is a one-year full-time programme taught entirely in English. Across the Netherlands there are only two programmes at master's level dedicated to this subject, of which this programme is the biggest. According to the Self-Evaluation report, about 55 students were enrolled in the programme in January 2015 while 21 students had started the programme in September 2014.

Standard 1: Intended learning outcomes

The intended learning outcomes of this master's programme are listed in Appendix 3. The panel learned during the visit that some learning outcomes have been reformulated to become more concrete. The adjustment took place in the framework of the 2014 Mid-Term Review and following the suggestion of the previous accreditation panel.

The panel read in the TER that students develop a thorough knowledge and understanding of academic literature in the actuarial field and are trained in the methods and skills to apply this knowledge. The programme provides the academic foundation for an analysis of the financial translation, redistribution and settlement of risk and savings processes in the financial system of a society. Students are prepared for a career as an actuary or a quantitative risk manager, although suitable candidates can also enter a PhD programme. The panel noticed that the programme reflects both perspectives: in addition to providing an academic and scientific basis, the programme also offers students a view on the actuarial profession. This is both a positive and an obvious approach, according to the panel, as the employment perspectives of graduates in actuarial sciences are reportedly very good.

Standard 2: Teaching-learning environment

The curriculum of the master's programme Actuarial Science and Mathematical Finance is described in Appendix 4. It offers no specialisation tracks but consists of four compulsory courses (24 EC), electives (21 EC) and a master's thesis (15 EC). The key courses cover financial mathematics for insurance, non-life insurance statistical techniques, risk management for insurers and pensions, and asset liability management cases. According to the panel, the curriculum is coherent. The mixture of research work, compulsory courses and electives provides an adequate academic and disciplinary basis to enter the labour market as actuary at master's level.

The panel read in the TER that applicants for this master's programme should have some background in econometrics, actuarial science and finance. Moreover they should demonstrate knowledge and skills (at the level of an academic bachelor degree in mathematics) in probability and mathematical statistics, as well as in linear algebra and calculus or analysis.

Standard 3: Assessment

The panel's general findings on the assessment system, the thesis and the Examinations Board are valid also for this master's programme Actuarial Science and Mathematical Finance. In so far as individual assessments are concerned, the thesis panel has looked at five theses and their evaluation. It noticed that the assessment was done properly, that the respective scores were adequate and that the evaluation forms had been completed comprehensively.

Standard 4: Achieved learning outcomes

The thesis panel reviewed five theses of the master's programme Actuarial Science and Mathematical Finance. All theses are of fine quality, including the one with the lowest grade

which is still sufficiently strong for a product demonstrating academic competencies at master level. Based on the sample of theses reviewed, the panel noticed that the academic level of the theses is not as high as in other master's programmes. The theses demonstrate a thorough knowledge of actuarial sciences, but pay less attention to developing the research question. Only the best quality thesis of the sample was a proper research paper with a clear and narrow aim of research.

The panel learned during the visit that the employment perspectives are good: on average Actuarial Science and Mathematical Finance alumni find a job within six months. In their first positions, often as actuarial specialist, risk manager, consulting actuary or insurance risk officer, they earn about 15% more than their fellow university alumni.

Considerations

According to the panel, the *intended learning outcomes* are sufficiently concrete with regard to content (actuarial science), level (master) and orientation (academic). They address relevant competencies in the domain of actuarial sciences and fit the subject-specific reference framework for the business and economics disciplines. The panel considers that the programme's aims are adequately reflected in its learning outcomes: students get first and foremost a proper disciplinary and academic training, whilst the learning outcomes also refer to the application, reach and limitations of actuarial methods in practical situations.

The panel is satisfied that the adoption of the AoL philosophy is facilitating the update of the learning goals and considers that those involved are performing this exercise adequately. The panel has noticed that internationalisation is addressed in a comprehensive way throughout the FEB, but that this important strategic objective is not yet reflected in the programme aims. It invites programme management to consider including internationalisation in the intended learning outcomes of the BSc Actuarial Sciences.

The panel assesses Standard 1 as 'satisfactory'.

The panel considers that the *curriculum* of the master's programme Actuarial Science and Mathematical Finances is coherent. The mixture of research work, compulsory courses and electives provides an adequate academic and disciplinary basis to enter the labour market as actuary at master's level. Stated programme objectives and approaches such as research-based education, academic skills, professional orientation, active learning and meaningful interaction are all reflected in the (delivery of the) curriculum. The panel appreciates the efforts of management and staff to align the learning goals of individual courses with the programme learning outcomes using the AoL approach.

The programme has set clear admission requirements. In terms of feasibility, the panel considers that the study load of the programme is spread evenly. The structure and requirements of courses encourage students to dedicate sufficient time to their studies. Moreover, stricter supervision arrangements and delivery deadlines have been introduced in the thesis process. The panel joins staff and students in applauding this initiative as it keeps students focused on the thesis and reduces study delays.

The panel considers that the FEB is attracting *staff* from all over the world, which results in a group of strong faculty supporting both the research and pedagogical objectives of the FEB and its degree programmes. The panel has received detailed information on the staff and considers that sufficient and appropriate faculty have been assigned to the master's programme Actuarial Science and Mathematical Finance.

According to the panel, *facilities* at FEB are adequate. The panel has visited the recently renovated FEB buildings and understands that students and staff now like to spend a considerable part of their time on campus. The FEB puts several counsellors at disposition of its students offering a wide range of social, personal and curriculum-related services. Moreover, the panel noticed that student associations are prominently present on campus. In addition to leisure activities, they facilitate among others placement opportunities within and beyond the curriculum. The panel supports the FEB's intention to further increase the level of satisfaction with support services and facilities and suggests surveying if services and facilities meet specific student expectations and needs.

The panel assesses Standard 2 as 'satisfactory'.

In terms of *assessment*, the panel is positive about the efforts undertaken at central university level and about the way this central policy has been translated into guidelines for assessment at FEB. In the discussions with students, lecturers, staff and programme directors, the panel has noticed that this is not only a policy that looks good on paper, but that its provisions are effectively implemented in the day-to-day reality of the programmes: staff is trained and supported to design state-of-the-art assessments; information on exams is made available in time; lecturers provide relevant feedback on assignments; students appreciate the thesis supervision and the transparency of the thesis evaluation process. The panel also noticed that AoL is used to enhance the quality of assessments and encourages the programme to continue its efforts in this area.

The panel considers that the thesis evaluation is organised adequately. It welcomes the joint assessment by the supervisor and an assessor, and appreciates the existence and systematic use of a standardised evaluation form. Moreover, assessors provide proper feedback to the students on the quality of the thesis and on the motivation of the final grade. The sample of theses reviewed indicates that feedback and motivation are not only communicated informally to students but also appear on the evaluation form. Finally, the assessment itself is done meticulously: for each individual thesis, the panel agrees to the score given.

All FEB degree programmes, including the master's programme Actuarial Science and Mathematical Finance, are covered by one independent Examinations Board, which fulfils all the requirements set by Dutch law. Further to the discussion during the visit, the panel is confident that the Examinations Board is handling its tasks competently.

The panel assesses Standard 3 as 'good'.

Regarding the *achieved learning outcomes* of the master's programme Actuarial Science and Mathematical Finance, the thesis panel indicated that all theses are of fine quality and demonstrate a thorough knowledge of actuarial science. The panel suggests thesis supervisors to monitor that students pay sufficient attention to formulating a clear and precise research question. Having established that all theses studied were at least of acceptable quality, the panel considers that the intended learning outcomes of the master's programme are eventually achieved at the end of the curriculum.

According to the panel, this master's programme offers competencies that are needed on the labour market: on average Actuarial Science and Mathematical Finance alumni find a first job within six months earning more than their fellow university alumni.

The panel assesses Standard 4 as 'satisfactory'.

Conclusion

In accordance with NVAO decision rules, the panel assesses the *master's programme Actuarial Science and Mathematical Finance* as 'satisfactory'.

6. Master's programme Business Administration

The master's programme Business Administration is a one-year full-time programme taught entirely in English. According to the Self-Evaluation report, 672 students were enrolled in the programme in January 2015 while 321 students had started the programme in September 2014. The programme has much in common with the post-experience master's programme Management Studies. Asked about unique selling points, the programme mentions its selective admission process, a broad choice of specialisation tracks, a focus on the professional field, a multidisciplinary approach and its international dimension.

Standard 1: Intended learning outcomes

The panel read in the TER that the programme is directed at developing an academic level of thinking and working in business administration. The acquired business knowledge is relevant for both practical (advice, policy formulation) and scientific purposes (academic research). The intended learning outcomes are listed in Appendix 3. The exit qualifications are partially differentiated according to the six specialisation tracks: strategy; international management; marketing; leadership and management; entrepreneurship and innovation; entrepreneurship and management in the creative industries.

The panel learned during the visit that this big programme has changed considerably since the previous accreditation visit. New tracks were added, the intended learning outcomes adjusted and the internal consistency strengthened. Track coordinators and programme director are meeting regularly to tune the different specialisations towards one set of learning outcomes. The programme director, moreover, announced during the visit that a new track on business analytics will be launched in September 2016: it is an area that generates big interest from studies and companies. FEB is addressing the topic already in other degree programmes, including the MBA.

Standard 2: Teaching-learning environment

The curriculum of the master's programme Business Administration is described in Appendix 4. It consists of track-related courses (18 EC), electives (18 EC), workshops (4 EC), and a thesis trajectory (5 EC) leading to the master thesis (15 EC) in the chosen specialisation. According to the panel, the curriculum is coherent and offers indeed plenty of opportunities for students to compile their own curriculum in various specialist fields. Moreover, the panel notices that the thesis process is well structured.

Such variety in courses make it difficult to ensure alignment between learning goals and programme outcomes. During the visit, however, the programme director assured the panel that adequate processes involving management, track and course coordinators are in place to monitor the coherence of the programme. Moreover, the work undertaken through the AoL process demonstrates that the exit qualifications are achieved in the assessed courses.

The panel learned during the visit that interaction with the business practice plays an important role in the curriculum. Students participate in courses in which business practices offer real-life business cases. Moreover, every year the programme kicks off with a series of guest speakers from leading companies, bringing additional publicity to the programme, to FEB and to the university. Finally, the panel noticed that the programme also has a distinctly international dimension in terms of contents, students, staff and exposure to the professional field.

During the visit the panel learned that in view of the varied specialisation tracks the admission criteria are rather broad. The selection process, however, is highly selective. The programme

director indicated that every year there are many applications and that some tracks have reached their limits in terms of students to be accommodated.

Standard 3: Assessment

The panel's general findings on the assessment system, the thesis and the Examinations Board are valid also for this master's programme Business Administration. In so far as individual assessments are concerned, the thesis panel has looked at five theses and their evaluation. It noticed that the assessment was done properly and that the respective scores were adequate. The criteria on the thesis evaluation form, however, seemed less adequate for assessing a master thesis. According to the programme director, all thesis supervisors are aware of the evaluation criteria for a master thesis: the rubrics are similar to the evaluation form in the bachelor's thesis but the expectations towards master students are much higher and therefore the assessment of their thesis is more severe.

Standard 4: Achieved learning outcomes

The thesis panel reviewed five theses of the master's programme Business Administration. All theses are of fine quality, including the one with the lowest grade which is still sufficiently strong for a product demonstrating academic competencies at master level. According to the panel, all theses cover interesting, practical issues that are relevant for the object of study and the field of business administration. Moreover, the theses cover an interesting diversity of topics, research questions and use all kinds of methodological approaches showing that the school is capable of helping students in the broader field of business administration. The thesis panel noticed that students have a clear understanding of what is needed to do research, draft a thesis and contribute to the scientific domain.

The panel learned during the visit that the employment perspectives are good: on average Business Administration alumni find a job within six months. In their first positions, often as financial consultant, business analyst, entrepreneur or marketing & business development manager, they earn about 10% more than their fellow university alumni.

Considerations

The master's programme Business Administration is a big programme that has changed considerably since the previous accreditation visit. The panel considers that the current programme relies on a strong structure and features an attractive profile.

According to the panel, the *intended learning outcomes* are sufficiently concrete with regard to content (business administration), level (master) and orientation (academic). They address relevant competencies in both general and specialist areas of business administration. The programme outcomes are also in line with the subject-specific reference framework for the business and economics disciplines. The panel considers that the programme's aims are adequately reflected in its learning outcomes and thinks highly of the internal monitoring process involving programme staff, coordinators and management.

The panel is satisfied that the adoption of the AoL philosophy is facilitating the update of the learning goals and considers that those involved are performing this exercise adequately. The panel has noticed that internationalisation is addressed in a comprehensive way throughout the FEB and that this master's programme itself has a distinctly international flavour. However, this important strategic objective is not yet reflected explicitly in the programme aims, hence the suggestion to consider including internationalisation in the intended learning outcomes of the MSc Business Administration.

The panel assesses Standard 1 as ‘satisfactory’.

The panel considers that the *curriculum* of the master’s programme Business Administration is coherent and offers plenty of opportunities for students to compile their own curriculum in various specialist fields. The panel appreciates the efforts of management and staff to align the learning goals of individual courses with the programme learning outcomes using the AoL approach. Across all tracks, students get proper training and supervision to prepare a thesis at master level. Moreover, the panel welcomes the interaction with the business practice in several parts of the curriculum.

According to the panel, the programme features a clear but highly selective admission procedure which contributes to the programme’s stated objective of offering a challenging curriculum for high quality students. In terms of feasibility, the panel considers that the study load of the programme is spread evenly. The structure and requirements of courses encourage students to dedicate sufficient time to their studies. Moreover, stricter supervision arrangements and delivery deadlines have been introduced in the thesis process. The panel joins staff and students in applauding this initiative as it keeps students focused on the thesis and reduces study delays.

The panel considers that the FEB is attracting *staff* from all over the world, which results in a group of strong faculty supporting both the research and pedagogical objectives of the FEB and its degree programmes. The panel has received detailed information on the staff and considers that sufficient and appropriate faculty have been assigned to the master’s programme Business Administration.

According to the panel, *facilities* at FEB are adequate. The panel has visited the recently renovated FEB buildings and understands that students and staff now like to spend a considerable part of their time on campus. The FEB puts several counsellors at disposition of its students offering a wide range of social, personal and curriculum-related services. Moreover, the panel noticed that student associations are prominently present on campus. In addition to leisure activities, they facilitate among others placement opportunities within and beyond the curriculum. The panel supports the FEB’s intention to further increase the level of satisfaction with support services and facilities and suggests surveying if services and facilities meet specific student expectations and needs.

The panel assesses Standard 2 as ‘satisfactory’.

In terms of *assessment*, the panel is positive about the efforts undertaken at central university level and about the way this central policy has been translated into guidelines for assessment at FEB. In the discussions with students, lecturers, staff and programme directors, the panel has noticed that this is not only a policy that looks good on paper, but that its provisions are effectively implemented in the day-to-day reality of the programmes: staff is trained and supported to design state-of-the-art assessments; information on exams is made available in time; lecturers provide relevant feedback on assignments; students appreciate the thesis supervision and the transparency of the thesis evaluation process. The panel also noticed that AoL is used to enhance the quality of assessments and encourages the programme to continue its efforts in this area.

The panel considers that the thesis evaluation is organised adequately. It welcomes the joint assessment by the supervisor and an assessor, and appreciates the existence and systematic use of a standardised evaluation form. Moreover, assessors provide proper feedback to the students on the quality of the thesis and on the motivation of the final grade. As this feedback

is often communicated informally to students, the panel suggests that all evaluation forms, as official transcripts of the thesis assessment process, contain proper feedback with key arguments underpinning the assessors' overall score. Finally, the sample of theses reviewed indicates that the assessment is done meticulously: for each individual thesis, the panel agrees to the score given.

All FEB degree programmes, including the master's programme Business Administration, are covered by one independent Examinations Board, which fulfils all the requirements set by Dutch law. Further to the discussion during the visit, the panel is confident that the Examinations Board is handling its tasks competently.

The panel assesses Standard 3 as 'good'.

Regarding the *achieved learning outcomes* of the master's programme Business Administration, the thesis panel indicated that all theses are of fine quality and cover an interesting diversity of topics, research questions and methodological approaches. Students have a clear understanding of what is needed to do research, draft a thesis and contribute to the scientific domain. Having established that all theses studied were at least of acceptable quality, the panel considers that the intended learning outcomes of the master's programme are eventually achieved at the end of the curriculum.

According to the panel, this master's programme offers competencies that are needed on the labour market: on average Business Administration alumni find a first job within six months earning more than their fellow university alumni.

The panel assesses Standard 4 as 'satisfactory'.

Conclusion

In accordance with NVAO decision rules, the panel assesses the *master's programme Business Administration* as 'satisfactory'.

7. Master's programme Econometrics

The master's programme Econometrics is a one-year full-time programme taught in English. According to the Self-Evaluation report, 112 students were enrolled in the programme in January 2015 while 63 students had started the programme in September 2014. Asked about unique selling points, the programme director indicates the curriculum is quite challenging with a focus on econometrics and mathematical economics. Moreover, it offers five specialisation tracks: econometrics, financial econometrics, mathematical economics, big data business analytics and a free track.

Standard 1: Intended learning outcomes

The panel read in the TER that this master's programme builds further on the broad knowledge of econometrics and mathematical economics acquired in the bachelor's programme. The specialisation relates to general econometrics, financial econometrics or mathematical economics. Students are prepared for a career in economic modelling, empirical economic research or data analysis, although suitable candidates can also enter a PhD programme. The panel noticed that the programme's key features are reflected in the intended learning outcomes, which are listed in Appendix 3. The programme director indicated during the visit that the quality of the learning outcomes has improved since the previous accreditation visit. Before, the learning outcomes were formulated much more implicitly, not very precise nor testable. At the mid-term review in 2014 and as part of the AoL exercise, the learning outcomes have become more explicit and measurable. The review also led to a better alignment between the learning goals of individual courses and the overall programme objectives. In future such review will be held more regularly.

Standard 2: Teaching-learning environment

Following the measures taken at both central and faculty level to increase study success, the curriculum has been adjusted. Moreover, the panel learned that by the Mid-Term review in 2014, several course contents had been revised in order to avoid overlap and include more exposure to the professional field, as suggested by the previous accreditation panel. Moreover, the master thesis trajectory has been spread over a longer period with clear deadlines for preparation and finalisation.

The current curriculum of the master's programme Econometrics is described in Appendix 4. According to the panel, the curriculum is coherent and consists of compulsory econometrics courses (20 EC), compulsory specialisation courses (15 EC), electives related to the specialisation track (at least 10 EC) and a master thesis in accordance with the chosen track. In the free track, students can add any combination of courses from the other tracks.

The panel read in the TER that applicants for this master's programme should demonstrate knowledge and skills (at the level of an academic bachelor degree) in several economics and mathematics related areas. During the visit, the programme director indicated that the admission criteria are tough. Moreover, criteria are applied strictly in order to attract good quality students.

Standard 3: Assessment

The panel's general findings on the assessment system, the thesis and the Examinations Board are valid also for this master's programme Econometrics. In so far as individual assessments are concerned, the thesis panel has looked at five theses and their evaluation. It noticed that the assessment was done properly and that the respective scores were adequate.

Standard 4: Achieved learning outcomes

The thesis panel reviewed five theses of the master's programme Econometrics. All theses are of fine quality, including the one with the lowest grade which is still sufficiently strong for a product demonstrating academic competencies at master level. According to the panel, the theses are very technical and well executed.

In line with the findings on the bachelor theses in econometrics, the thesis panel noticed that there is hardly any connection in the theses to either economic theories or economic phenomena, and that the conclusions lack a contribution to economic knowledge. The programme director assured the panel that all master students have a good understanding of economics when they graduate and are able to communicate the relevance of their research work to a third party such as employers. However, these areas are not necessarily addressed in the thesis.

Unlike theses in other master's programmes, the thesis panel noticed a supervisor effect in the choice of topics with a tendency to overspecialisation in several theses. The programme director indicated during the visit that the master's programme offers highly specialised tracks featuring highly specialised staff/thesis supervisors. He agreed that there is a risk for overspecialisation in the theses, but assured the panel that students are free to choose research topics, including thesis topics that are not linked to the actual research interests of the supervisor.

The panel learned during the visit that the employment perspectives are very good: on average Econometrics alumni find a job within four months. In their first positions, often as consultant, financial adviser, business analyst or financial trainee, they earn about 20% more than their fellow university alumni.

Considerations

The master's programme Econometrics has been modified to some extent since the previous accreditation visit. The panel acknowledges these modifications and considers that they have enhanced the relevance and the profile of the programme.

According to the panel, the *intended learning outcomes* are sufficiently concrete with regard to content (econometrics), level (master) and orientation (academic). They address relevant competencies in the domain of econometrics and fit the subject-specific reference framework for the business and economics disciplines. The panel considers that the programme's aims are adequately reflected in its learning outcomes.

The panel is satisfied that the adoption of the AoL philosophy is facilitating the update of the learning goals and considers that those involved are performing this exercise adequately. The panel has noticed that internationalisation is addressed in a comprehensive way throughout the FEB, but that this important strategic objective is not yet reflected in the programme aims. It invites programme management to consider including internationalisation in the intended learning outcomes of the MSc Econometrics.

The panel assesses Standard 1 as 'satisfactory'.

The panel considers that the *curriculum* of the master's programme Econometrics is coherent. Stated programme objectives and approaches such as research-based education, academic orientation, focus on mathematical economics and econometrics, active learning and meaningful interaction are all reflected in the (delivery of the) curriculum, which has been

adjusted over the past few years. The panel considers that the current curriculum provides a good mixture of advanced econometrics courses and specialisation tracks. Students have ample choice to tailor a coherent curriculum in line with their own interests. The panel appreciates the efforts of management and staff to align the learning goals of individual courses with the programme learning outcomes using the AoL approach. In this respect, the panel suggests that internationalisation is included more explicitly in the learning goals of individual courses.

According to the panel the admission requirements for the master's programme Econometrics are clear and contribute to the objective of implementing a challenging programme for high quality students. In terms of feasibility, the panel considers that the study load of the programme is spread evenly. The structure and requirements of courses encourage students to dedicate sufficient time to their studies and focus on the timely delivery of their thesis.

The panel considers that the FEB is attracting *staff* from all over the world, which results in a group of strong faculty supporting both the research and pedagogical objectives of the FEB and its degree programmes. The panel has received detailed information on the staff and considers that sufficient and appropriate faculty have been assigned to the master's programme Econometrics.

According to the panel, *facilities* at FEB are adequate. The panel has visited the recently renovated FEB buildings and understands that students and staff now like to spend a considerable part of their time on campus. The FEB puts several counsellors at disposition of its students offering a wide range of social, personal and curriculum-related services. Moreover, the panel noticed that student associations are prominently present on campus. In addition to leisure activities, they facilitate among others placement opportunities within and beyond the curriculum. The panel supports the FEB's intention to further increase the level of satisfaction with support services and facilities and suggests surveying if services and facilities meet specific student expectations and needs.

The panel assesses Standard 2 as 'satisfactory'.

In terms of *assessment*, the panel is positive about the efforts undertaken at central university level and about the way this central policy has been translated into guidelines for assessment at FEB. In the discussions with students, lecturers, staff and programme directors, the panel has noticed that this is not only a policy that looks good on paper, but that its provisions are effectively implemented in the day-to-day reality of the programmes: staff is trained and supported to design state-of-the-art assessments; information on exams is made available in time; lecturers provide relevant feedback on assignments; students appreciate the thesis supervision and the transparency of the thesis evaluation process. The panel also noticed that AoL is used to enhance the quality of assessments and encourages the programme to continue its efforts in this area.

The panel considers that the thesis evaluation is organised adequately. It welcomes the joint assessment by the supervisor and an assessor, and appreciates the existence and systematic use of a standardised evaluation form. Moreover, assessors provide proper feedback to the students on the quality of the thesis and on the motivation of the final grade. As this feedback is often communicated informally to students, the panel suggests that all evaluation forms, as official transcripts of the thesis assessment process, contain proper feedback with key arguments underpinning the assessors' overall score. Finally, the sample of theses reviewed

indicates that the assessment is done meticulously: for each individual thesis, the panel agrees to the score given.

All FEB degree programmes, including the master's programme Econometrics, are covered by one independent Examinations Board, which fulfils all the requirements set by Dutch law. Further to the discussion during the visit, the panel is confident that the Examinations Board is handling its tasks competently.

The panel assesses Standard 3 as 'good'.

Regarding the *achieved learning outcomes* of the master's programme Econometrics, the thesis panel indicated that all theses are of fine quality, highly technical and well executed. They are conceived as research papers, which the panel considers an appropriate format for a master's thesis. The specialist nature of the curriculum tracks is reflected often in the thesis topics. According to the panel the risk of a supervisor effect and of overspecialisation in the theses is present but not acute, given the reassurance by the programme director that all students are free to choose a thesis topic of their liking. Having established that all theses studied were at least of acceptable quality, the panel considers that the intended learning outcomes of the master's programme are eventually achieved at the end of the curriculum.

According to the panel, this master's programme offers competencies that are much in demand on the labour market: on average Econometrics alumni find a first job within four months earning considerably more than their fellow university alumni.

The panel assesses Standard 4 as 'satisfactory'.

Conclusion

In accordance with NVAO decision rules, the panel assesses the *master's programme Econometrics* as 'satisfactory'.

8. Master's programme Economics

The master's programme Economics is a one-year full-time programme taught in English. According to the Self-Evaluation report, 206 students were enrolled in the programme in January 2015 while 102 students had started the programme in September 2014. Asked about unique selling points, the programme mentions the research-based specialisation tracks, courses and staff. Moreover, graduates reportedly do well on the labour market.

Standard 1: Intended learning outcomes

The panel read in the TER that the programme aims to develop an advanced academic level of professional and intellectual ability teaching graduates about the most recent scientific literature in the field of economics and training them to apply the acquired competencies in their chosen field of specialisation. The intended learning outcomes are listed in Appendix 3. The knowledge related exit qualifications are partially differentiated according to the six tracks: behavioural economics and game theory; industrial organisation, regulation and competition policy; development economics; international economics and globalisation; monetary policy, banking & regulation; public economic policy. The panel noticed moreover that the skills-related exit qualifications are very detailed regarding the scientific research ability of potential graduates.

During the visit the panel learned that this master's programme has been completely restructured since the previous accreditation visit. In addition to a general programme overhaul in view of increased study success, the intended learning outcomes have been revised and are now more concrete. The track structure, moreover, has been harmonised and made internally consistent. According to the programme director, each track reflects more or less a research group within the sections micro-economics and macro-economics.

Standard 2: Teaching-learning environment

The curriculum of the master's programme Economics is described in Appendix 4. It consists of compulsory courses (15 EC), track-specific courses (30 EC) and a thesis (15 EC) in the chosen specialisation. According to the panel, the curriculum is coherent. The number of tracks makes it difficult to ensure alignment between learning goals and programme outcomes. During the visit, however, the programme director assured the panel that adequate processes involving management, track and course coordinators are in place to monitor the programme coherence. Track coordinators, moreover, watch over the internal coherence of the specialisation tracks and meet regularly with the programme director to assure overall consistency.

During the visit the panel learned that in view of the specialisation tracks the admission criteria are rather broad. Anyone with an appropriate background can apply. Students holding certain Dutch or international bachelor degrees have direct access. Other applications are assessed individually. The interest in the programme is reportedly high: from about 40 per year at the time of the previous accreditation visit to well over 100 students nowadays.

Standard 3: Assessment

The panel's general findings on the assessment system, the thesis and the Examinations Board are valid also for this master's programme Economics. In so far as individual assessments are concerned, the thesis panel has looked at five theses and their evaluation. It noticed that the assessment was done properly and that the respective scores were adequate. The criteria on the thesis evaluation form, however, seemed less adequate for assessing a master thesis. According to the programme director, all thesis supervisors are aware of the evaluation criteria for a master thesis: the rubrics are similar to the evaluation form in the

bachelor's thesis but the expectations towards master students are much higher and therefore the assessment of their thesis is more severe.

Standard 4: Achieved learning outcomes

The thesis panel reviewed five theses of the master's programme Economics. All theses are of fine quality, including the one with the lowest grade which is still sufficiently strong for a product demonstrating academic competencies at master level. According to the panel, the theses show a wide variety of economic research questions which are well embedded in the academic literature. All theses focus strongly on the application of research methods, which are applied competently. This demonstrates, according to the panel, that students have acquired adequate analytical skills using and developing quantitative economic methods.

The panel learned during the visit that the employment perspectives are good: on average Economics alumni find a job within six months. In their first positions, often as consultant, financial trainee, organisation adviser or policy adviser, they earn about 15% more than their fellow university alumni.

Considerations

The master's programme Economics has changed considerably since the previous accreditation visit. The panel considers that the current programme features a strong structure and an attractive profile.

According to the panel, the *intended learning outcomes* are sufficiently concrete with regard to content (economics), level (master) and orientation (academic). They address relevant competencies in both general and specialist areas of economics. The programme outcomes are also in line with the subject-specific reference framework for the business and economics disciplines. The panel considers that the programme's aims are adequately reflected in its learning outcomes and thinks highly of the internal monitoring process involving programme staff, coordinators and management.

The panel is satisfied that the adoption of the AoL philosophy is facilitating the update of the learning goals and considers that those involved are performing this exercise adequately. The panel has noticed that internationalisation is addressed in a comprehensive way throughout the FEB and that this master's programme itself has an international flavour. However, this important strategic objective is not yet reflected explicitly in the programme aims, hence the suggestion to consider including internationalisation in the intended learning outcomes of the MSc Economics.

The panel assesses Standard 1 as 'satisfactory'.

The panel considers that the *curriculum* of the master's programme Economics is coherent and offers a wide range of specialisation opportunities for students. Each track, moreover, is rooted in the research work of the economics sections and of the staff teaching the respective courses. The panel appreciates the efforts of management and staff to align the learning goals of individual courses with the programme learning outcomes using the AoL approach. Across all tracks, students get proper training and supervision to prepare a thesis at master level.

According to the panel, the programme features a broad admission procedure that is nevertheless sufficiently flexible to select high quality students with relevant bachelor degrees from UvA, other Dutch universities and abroad. In terms of feasibility, the panel considers

that the study load of the programme is spread evenly. The structure and requirements of courses and thesis encourage students to dedicate sufficient time to their studies and finish their thesis in time.

The panel considers that the FEB is attracting *staff* from all over the world, which results in a group of strong faculty supporting both the research and pedagogical objectives of the FEB and its degree programmes. The panel has received detailed information on the staff and considers that sufficient and appropriate faculty have been assigned to the master's programme Economics.

According to the panel, *facilities* at FEB are adequate. The panel has visited the recently renovated FEB buildings and understands that students and staff now like to spend a considerable part of their time on campus. The FEB puts several counsellors at disposition of its students offering a wide range of social, personal and curriculum-related services. Moreover, the panel noticed that student associations are prominently present on campus. In addition to leisure activities, they facilitate among others placement opportunities within and beyond the curriculum. The panel supports the FEB's intention to further increase the level of satisfaction with support services and facilities and suggests surveying if services and facilities meet specific student expectations and needs.

The panel assesses Standard 2 as 'satisfactory'.

In terms of *assessment*, the panel is positive about the efforts undertaken at central university level and about the way this central policy has been translated into guidelines for assessment at FEB. In the discussions with students, lecturers, staff and programme directors, the panel has noticed that this is not only a policy that looks good on paper, but that its provisions are effectively implemented in the day-to-day reality of the programmes: staff is trained and supported to design state-of-the-art assessments; information on exams is made available in time; lecturers provide relevant feedback on assignments; students appreciate the thesis supervision and the transparency of the thesis evaluation process. The panel also noticed that AoL is used to enhance the quality of assessments and encourages the programme to continue its efforts in this area.

The panel considers that the thesis evaluation is organised adequately. It welcomes the joint assessment by the supervisor and an assessor, and appreciates the existence and systematic use of a standardised evaluation form. Moreover, assessors provide proper feedback to the students on the quality of the thesis and on the motivation of the final grade. As this feedback is often communicated informally to students, the panel suggests that all evaluation forms, as official transcripts of the thesis assessment process, contain proper feedback with key arguments underpinning the assessors' overall score. Finally, the sample of theses reviewed indicates that the assessment is done meticulously: for each individual thesis, the panel agrees to the score given.

All FEB degree programmes, including the master's programme Economics, are covered by one independent Examinations Board, which fulfils all the requirements set by Dutch law. Further to the discussion during the visit, the panel is confident that the Examinations Board is handling its tasks competently.

The panel assesses Standard 3 as 'good'.

Regarding the *achieved learning outcomes* of the master's programme Economics, the thesis panel indicated that all theses are of fine quality. They are conceived as research papers, which the

panel considers an appropriate format for a master's thesis. The theses show a wide variety of economic research questions which are well embedded in the academic literature. In the theses reviewed, students demonstrate according to the panel that they have acquired adequate analytical skills using and developing quantitative economic methods. Having established that all theses studied were at least of acceptable quality, the panel considers that the intended learning outcomes of the master's programme are eventually achieved at the end of the curriculum.

According to the panel, this master's programme offers competencies that are needed on the labour market: on average Economics alumni find a first job within six months earning more than their fellow university alumni.

The panel assesses Standard 4 as 'satisfactory'.

Conclusion

In accordance with NVAO decision rules, the panel assesses the *master's programme Economics* as 'satisfactory'.

9. Master's programme Fiscale Economie

The master's programme Fiscal Economics is a one-year programme taught in Dutch and offered in both full-time and part-time variants. According to the Self-Evaluation report, 139 students were enrolled in the programme in January 2015 while 45 students had started the programme in September 2014. Asked about unique selling points, the programme mentions its focus on accounting and its orientation on the professional practice. Moreover, the panel learned that the programme has a considerable legal component with several courses being offered by the Law Faculty.

Standard 1: Intended learning outcomes

The panel read in the TER that the programme aims to offer knowledge and insight into both the national and international economic situation. The graduate should be able to analyse the economic situation based on theoretical concepts and have a critical mind-set towards solutions offered by others or developed in person. The panel noticed that the programme's key features are reflected in the intended learning outcomes, which are listed in Appendix 3. The programme director indicated during the visit that some effort had been undertaken over the past few years to make the learning outcomes more concrete, as suggested in the previous accreditation report. Moreover, he ensured the panel that notwithstanding the professional orientation of the domain fiscal economics, academic education has absolute priority in the bachelor's programme. Finally, the panel learned during the visit that the programme has a very strong focus on the situation and the system of taxation in the Netherlands.

Standard 2: Teaching-learning environment

Following the measures taken at both central and faculty level to increase study success, the curriculum has been adjusted in 2011. The current curriculum of the master's programme Fiscal Economics is described in Appendix 4. According to the panel, the curriculum is coherent but prescriptive: it offers no specialisation tracks and no electives; all courses are mandatory. Two courses for a total of 12 EC are organised by the Law Faculty and the master thesis (15 EC) can be written at the Law Faculty too.

The panel read in the TER that applicants for this master's programme should demonstrate knowledge and skills (at the level of an academic bachelor degree) in financial accounting, management accounting, finance, corporate law, and quantitative, qualitative and mathematical research methods.

Standard 3: Assessment

The panel's general findings on the assessment system, the thesis and the Examinations Board are valid also for this master's programme Fiscal Economics. In so far as individual assessments are concerned, the thesis panel has looked at five theses and their evaluation. It noticed that the assessment was done properly and that the respective scores were adequate. The criteria on the thesis evaluation form, however, seemed less adequate for assessing a master thesis. According to the programme director, all thesis supervisors are aware of the evaluation criteria for a master thesis: the rubrics are similar to the evaluation form in the bachelor's thesis but the expectations towards master students are much higher and therefore the assessment of their thesis is more severe.

Standard 4: Achieved learning outcomes

The thesis panel reviewed five theses of the master's programme Fiscal Economics. All theses are of fine quality, including the one with the lowest grade which is still sufficiently strong for a product demonstrating academic competencies at master level. Based on the sample of

theses reviewed, the panel noticed that the methodological underpinning is rather thin. Only in a few cases the theses contained (some) empirical research.

The panel learned during the visit that the employment perspectives are good: on average Fiscal Economics alumni find a job within six months. In their first positions, often as tax adviser, research analyst, business analyst or tax officer, they earn about 15% more than their fellow university alumni.

Considerations

The master's programme Fiscal Economics has been modified to some extent since the previous accreditation visit. According to the panel, the *intended learning outcomes* are sufficiently concrete with regard to content (taxation), level (master) and orientation (academic). They address relevant competencies in the domain of fiscal economics and fit the subject-specific reference framework for the business and economics disciplines. The panel considers that the programme's aims are adequately reflected in its learning outcomes: students get first and foremost a proper disciplinary and academic training, whilst the learning outcomes also refer to skills and attitudes that are useful in a discipline-specific professional environment.

The panel is satisfied that the adoption of the AoL philosophy is facilitating the update of the learning goals and invites those involved to continue performing this exercise in future. The panel has noticed that internationalisation is addressed in a comprehensive way throughout the FEB, but that this important strategic objective is not yet reflected in the programme aims. Notwithstanding the programme's focus on the Dutch taxation situation, the panel invites the programme to consider including internationalisation in the intended learning outcomes of the MSc Fiscal Economics.

The panel assesses Standard 1 as 'satisfactory'.

The panel considers that the *curriculum* of the master's programme Fiscal Economics is coherent but restrictive: there are no tracks, no electives and no opportunities for a practical placement. However, the stated programme objectives and approaches such as research-based education, academic skills, professional orientation, active learning and meaningful interaction are all reflected in the (delivery of the) curriculum.

The panel appreciates the efforts of management and staff to align the learning goals of individual courses with the programme learning outcomes using the AoL approach. In this respect, the panel suggests that internationalisation is included more explicitly in the learning goals of individual courses.

According to the panel the admission requirements for the master's programme Fiscal Economics are clear. In terms of feasibility, the panel considers that the study load of the programme is spread evenly. The structure and requirements of courses encourage students to dedicate sufficient time to their studies and to focus on a timely delivery of the thesis.

The panel considers that the FEB is attracting *staff* from all over the world, which results in a group of strong faculty supporting both the research and pedagogical objectives of the FEB and its degree programmes. The panel has received detailed information on the staff and considers that sufficient and appropriate faculty have been assigned to the master's programme Fiscal Economics.

According to the panel, *facilities* at FEB are adequate. The panel has visited the recently renovated FEB buildings and understands that students and staff now like to spend a

considerable part of their time on campus. The FEB puts several counsellors at disposition of its students offering a wide range of social, personal and curriculum-related services. Moreover, the panel noticed that student associations are prominently present on campus. In addition to leisure activities, they facilitate among others placement opportunities within and beyond the curriculum. The panel supports the FEB's intention to further increase the level of satisfaction with support services and facilities and suggests surveying if services and facilities meet specific student expectations and needs.

The panel assesses Standard 2 as 'satisfactory'.

In terms of *assessment*, the panel is positive about the efforts undertaken at central university level and about the way this central policy has been translated into guidelines for assessment at FEB. In the discussions with students, lecturers, staff and programme directors, the panel has noticed that this is not only a policy that looks good on paper, but that its provisions are effectively implemented in the day-to-day reality of the programmes: staff is trained and supported to design state-of-the-art assessments; information on exams is made available in time; lecturers provide relevant feedback on assignments; students appreciate the thesis supervision and the transparency of the thesis evaluation process. The panel also noticed that AoL is used to enhance the quality of assessments and encourages the programme to continue its efforts in this area.

The panel considers that the thesis evaluation is organised adequately. It welcomes the joint assessment by the supervisor and an assessor, and appreciates the existence and systematic use of a standardised evaluation form. Moreover, assessors provide proper feedback to the students on the quality of the thesis and on the motivation of the final grade. As this feedback is often communicated informally to students, the panel suggests that all evaluation forms, as official transcripts of the thesis assessment process, contain proper feedback with key arguments underpinning the assessors' overall score. Finally, the sample of theses reviewed indicates that the assessment is done meticulously: for each individual thesis, the panel agrees to the score given.

All FEB degree programmes, including the master's programme Fiscal Economics, are covered by one independent Examinations Board, which fulfils all the requirements set by Dutch law. Further to the discussion during the visit, the panel is confident that the Examinations Board is handling its tasks competently.

The panel assesses Standard 3 as 'good'.

Regarding the *achieved learning outcomes* of the master's programme Fiscal Economics, the thesis panel indicated that all theses are of fine quality and that the chosen topics fit the domain of fiscal policy. Based on the sample of theses reviewed, the panel suggests the programme to monitor the methodological underpinning of the theses and to ensure that all theses contain (some) empirical research. Having established that all theses studied were at least of acceptable quality, the panel considers that the intended learning outcomes of the master's programme are eventually achieved at the end of the curriculum.

According to the panel, this master's programme offers competencies that are needed on the labour market: on average Fiscal Economics alumni find a first job within six months earning more than their fellow university alumni.

The panel assesses Standard 4 as 'satisfactory'.

Conclusion

In accordance with NVAO decision rules, the panel assesses the *master's programme Fiscale Economie* as 'satisfactory'.

10. Master's programme Business Administration – Executive master

The post-experience master's programme Business Administration (MBA) is taught in English and offered both in a full-time and a part-time variant. Asked about unique selling points, the programme mentions the location (Amsterdam), the multidisciplinary character, the customised programme and the small-scale education. The panel learned that in addition to the 'regular' MBA, FEB also offers two variants, also referred to as 'special tracks': the MBA Big Data & Business Analytics and the MBA in Healthcare Management. According to the Self-Evaluation report, 77 students were enrolled in January 2015 while 52 students had started the programme in February (32, 'regular' programme) or September 2014 (20, Healthcare Management-track).

Standard 1: Intended learning outcomes

The panel read in the TER that the MBA aims to provide students with a bachelor's degree and three years of work experience an education in business up to advanced master level. Students acquire scientific knowledge of modern business literature and the skills to apply this knowledge. The programme is internationally and quantitatively oriented and emphasises integration of diverse skills rather than specialist knowledge.

The intended learning outcomes are listed in Appendix 3. The panel read in the Mid-Term Review that these outcomes have been considerably changed since the previous accreditation visit to become less academic/research oriented and more relevant for practice. The exit qualifications are broadly formulated, in line with the generalist understanding of an MBA. They target not only application but also interdisciplinary, holistic and critical thinking. In addition to functional knowledge, the learning outcomes also emphasise soft skills such as leadership and teamwork. The panel noticed that the learning outcomes are almost identical for the three MBA variants.

Standard 2: Teaching-learning environment

The MBA curriculum is described in Appendix 4. The panel learned that, in order to be compliant with the requirements of AMBA accreditation, the size of the MBA expanded from 70 EC to 90 EC in September 2013. The curriculum consists of core courses (48 EC), electives (16 EC), master thesis (15 EC), a capstone strategy course (4 EC), an integrity workshop (1 EC), an international study trip (2.5 EC), and the Amsterdam Leadership Programme (2.5 EC). The curricula of the special tracks are comparable in set-up.

During the visit the panel inquired about the feasibility of the programme in view the expanded size. In the part-time variant all three tracks are spread over two years, whereas the 'regular' MBA also has a full-time variant in one year. The programme management indicated that the full-time MBA is spread over 52 weeks at an average study load of 48 hours per week. Courses are taught and assessed during six blocks, whereas workshops, capstone and thesis are scheduled outside. Potential students are informed about the intensive workload and students are asked regularly about the feasibility. According to a recent programme evaluation, the feasibility was rated as acceptable. During the visit executive programme students did not raise workload as a particular challenge.

According to the programme director, the MBA curriculum covers the full range of key subjects in business and addresses the skills and attitude related exit qualifications either in specific courses or across the entire curriculum. According to the Mid-Term Review the curriculum has been adjusted in line with the recommendations of the previous accreditation panel and the modifications of the learning outcomes. Moreover, the programme is using

AoL to look at the role of individual courses in contributing to the overall programme objectives.

The panel learned that support structures such as an MBA office and a Careers Office are in place for MBA students. The programme also evaluates its own performance through student evaluations, faculty meetings and regular encounters with student representatives.

The panel read in the TER that students with a relevant bachelor's degree, at least three years of relevant work experience, a high GMAT score and an adequate level of English can be admitted to the programme. The special track in healthcare management sets slightly different entry requirements, including a master's degree and understanding of the Dutch language, because they target health professionals in need of a management degree.

Standard 3: Assessment

The panel's general findings on the assessment system, the thesis and the Examinations Board are valid also for the MBA programme. In so far as individual assessments are concerned, the thesis panel has looked at five theses and their evaluation. It noticed that the assessment was done properly and that the respective scores were adequate. Compared to other programmes, the MBA programme is adopting a different and according to the panel more informative evaluation form with clear indications of weighting between the criteria.

Standard 4: Achieved learning outcomes

The thesis panel reviewed five MBA theses. All theses are of fine quality, including the one with the lowest grade which is still sufficiently strong for a product demonstrating academic competencies at master level. According to the panel, the theses cover an interesting diversity of topics, research questions and methodological approaches. Most of the research seems to be done on the student's workplace. The structure of the thesis differs according to the issue at hand while the methodologies adopted fit the research question. The thesis panel noticed, however, that several theses had no limitation section in which students demonstrate that they master the contents and methodology of the research topic.

The panel learned during the visit that the employment perspectives of MBA graduates are good. Throughout the programme, MBA students are supported by dedicated career and alumni services to consider their professional future and investigate employment opportunities during networking events. According to an internal survey, almost all graduates receive an employment offer within three months. In these positions, they earn on average 20% more than before. While there are no data yet on the employment of special track graduates, the panel noticed that both programmes are addressing these professional perspectives in the intended learning outcomes and the curriculum.

Considerations

The FEB offers three types of MBA programmes which have several elements in common, yet differ in terms of key object of study and target group. The 'regular' MBA programme has changed considerably following the previous accreditation visit. The more recently developed 'special tracks' reflect these innovations.

According to the panel, the *intended learning outcomes* are sufficiently concrete with regard to content (business administration), level (master) and orientation (academic). In line with the international definition of an MBA programme, the learning outcomes are rather broad. The panel considers that the programme aims (in general and of the three tracks in particular) are

reflected in the learning outcomes, which in turn align with the subject-specific reference framework for the business and economics disciplines.

The panel assesses Standard 1 as ‘satisfactory’.

The panel considers that the *curriculum* of the MBA programmes is coherent. The individual courses, the special tracks and the overall programme are evaluated regularly. Moreover, the programme is evaluating its performance and structure regularly. The panel appreciates the efforts of management and staff to align the learning goals of individual courses with the programme learning outcomes using the AoL approach. Moreover, the panel considers that the MBA delivers on its unique selling points: international, multidisciplinary, small-scale, and customised.

According to the panel, the admission criteria are clear. In terms of feasibility, the panel considers that the study load of the programme is heavy, particularly in the full-time variant. However, the programme management demonstrated during the visit that it is aware of this issue and monitoring the study load regularly.

The panel considers that the FEB is attracting *staff* from all over the world, which results in a group of strong faculty supporting both the research and pedagogical objectives of the FEB and its degree programmes. The panel has received detailed information on the staff and considers that sufficient and appropriate faculty have been assigned to the MBA programme.

According to the panel, *facilities* at FEB are adequate. The panel has visited the recently renovated FEB buildings and understands that students and staff now like to spend a considerable part of their time on campus. Moreover, the panel thinks that the MBA programme disposes of adequate support structures for its students.

The panel assesses Standard 2 as ‘satisfactory’.

In terms of *assessment*, the panel is positive about the efforts undertaken at central university level and about the way this central policy has been translated into guidelines for assessment at FEB. In the discussions with students, lecturers, staff and programme directors, the panel has noticed that this is not only a policy that looks good on paper, but that its provisions are effectively implemented in the day-to-day reality of the programmes: staff is trained and supported to design state-of-the-art assessments; information on exams is made available in time; lecturers provide relevant feedback on assignments; students appreciate the thesis supervision and the transparency of the thesis evaluation process.

The panel considers that the thesis evaluation is organised adequately. It welcomes the joint assessment by the supervisor and an assessor, and appreciates the existence and systematic use of a programme-specific and informative evaluation form. Moreover, assessors provide proper feedback to the students on the quality of the thesis and on the motivation of the final grade. Finally, the sample of theses reviewed indicates that the assessment is done meticulously: for each individual thesis, the panel agrees to the score given.

All FEB degree programmes, including the MBA programme, are covered by one independent Examinations Board, which fulfils all the requirements set by Dutch law. Further to the discussion during the visit, the panel is confident that the Examinations Board is handling its tasks competently.

The panel assesses Standard 3 as ‘good’.

Regarding the *achieved learning outcomes* of the MBA programme, the thesis panel indicated that all theses are of fine quality and cover an interesting diversity of topics, research questions and methodological approaches. Having established that all theses studied were at least of acceptable quality, the panel considers that the intended learning outcomes of the MBA programme are eventually achieved at the end of the curriculum.

According to the panel, the MBA programme is very much geared towards professional career advancement. Dedicated career and alumni services are in place and complement the good quality MBA programme that offers competencies that are in demand on the labour market.

The panel assesses Standard 4 as ‘satisfactory’.

Conclusion

In accordance with NVAO decision rules, the panel assesses the *master’s programme Business Administration – Executive master* as ‘satisfactory’.

11. Master's programme International Finance – Executive master

The master's programme International Finance (MIF) is a one-year programme taught in English and offered both in a full-time and a part-time variant. According to the Self-Evaluation report, 53 students were enrolled in January 2015 while 33 students had started the programme in September 2014. Asked about unique selling points, the programme mentions its international character, a curriculum geared towards careers in finance, and its personal approach.

Standard 1: Intended learning outcomes

The programme aims to provide students on the one hand with advanced scientific knowledge on modern finance theory, and on the other hand with skills and tools to apply this knowledge in their professional career. The panel learned that the programme is research oriented and prepares students first and foremost for a professional career in the field of finance, rather than a scientific or academic career. Moreover, the panel noticed that the programme has a clear international profile with more than half of the students coming from abroad.

The intended learning outcomes are listed in Appendix 3. The exit qualifications are linked to the Dublin Descriptors and formulated in concrete terms. The panel learned that the learning outcomes are reviewed each year and adapted where needed. Moreover, the curriculum has been revisited to match learning goals to programme outcomes.

Standard 2: Teaching-learning environment

The MIF curriculum is described in Appendix 4. It consists of core courses (32 EC), electives (12 EC), a master thesis (15 EC), workshops (4 EC) and an international study trip (2 EC). According to the panel the curriculum is coherent and reflects the double objective (scientific theory and practical skills) of the programme. Further to the suggestion of the previous accreditation panel, the programme revised the thesis process and spread the trajectory over a longer period of time: research workshop, thesis proposal, thesis writing, and thesis workshops.

Exposure to the professional world is happening in courses and workshops. Moreover, the programme director indicated that the study trip to an emerging market (South Africa) is very revealing and impactful for students, and also brings good publicity for the programme.

The study load of MIF amounted to 70 EC but has been reduced to 65 EC. The FEB has asked the panel to review the reduction of the study credits by 5 EC, which used to be allocated to a pre-course training. The panel understands that this training is not an integral compulsory part of the curriculum and should therefore not be credited. The panel noticed, however, that other course components are compulsory but have not been credited. This is the case for instance of the MIF Leadership Programme and the Personal Development Portfolio. These components, however, are also an important feature of MIF's personal approach: students get personalised attention in small classes, hands-on workshops and mentor programmes. Moreover, the panel learned that the programme has developed and is expanding its alumni network.

The panel read in the TER that students with a relevant bachelor's degree and some relevant work experience can be admitted to the programme. The programme also offers a pre-course training for students without relevant degree.

Standard 3: Assessment

The panel's general findings on the assessment system, the thesis and the Examinations Board are valid also for this executive master's programme Management Studies. In so far as individual assessments are concerned, the thesis panel has looked at five theses and their evaluation. It noticed that the assessment was done properly and that the respective scores were adequate. However, the thesis panel also indicated that not all evaluation forms had been completed comprehensively. The panel therefore suggests programme management to monitor that the official transcripts of the thesis evaluation contain sufficient feedback on the grade.

Standard 4: Achieved learning outcomes

The thesis panel reviewed five MIF theses. All theses are of fine quality, including the one with the lowest grade which is still sufficiently strong for a product demonstrating academic competencies at master level. According to the panel, the theses constitute good examples of what belongs to the field of international finance and relate empirics to theory adequately. Moreover, methods are well justified and applied. The theses are embedded in academic literature and address, as can be expected of a post-experience programme, practical and societal issues in a scientifically acceptable way.

The panel learned during the visit that the employment perspectives of MIF graduates are good. Throughout the programme, students are supported by dedicated career and alumni services to consider their professional future and investigate employment opportunities during networking events. According to the MIF programme leaflet, 90% of students are hired by top 100 firms before graduation for positions such as financial consultant, business analyst, senior manager or marketing & business manager.

Considerations

According to the panel, the *intended learning outcomes* are sufficiently concrete with regard to content (international finance), level (master) and orientation (academic). The learning outcomes are elaborate and concretely formulated. The panel considers that the programme aims are reflected in the learning outcomes, which in turn align with the subject-specific reference framework for the business and economics disciplines.

The panel assesses Standard 1 as 'satisfactory'.

The panel considers that the *curriculum* of the MIF is coherent and reflects the programme's aim to juggle business relevance with academic excellence. The learning goals at course level have been revisited to match programme outcomes. Moreover, the panel considers that the MIF delivers on its unique selling points: it is a very international programme in terms of contents, staff and students, it offers a useful orientation and good employment perspectives in international finance, and the personal approach is present in the entire programme. The panel considers that the reduction of credits is justified. Moreover, the admission criteria are clear. In terms of feasibility, the panel considers that the study load of the programme is spread evenly. The thesis trajectory allows students to dedicate sufficient time to the research work and finish the programme in time.

The panel considers that the FEB is attracting *staff* from all over the world, which results in a group of strong faculty supporting both the research and pedagogical objectives of the FEB and its degree programmes. The panel has received detailed information on the staff and considers that sufficient and appropriate faculty have been assigned to the MIF.

According to the panel, *facilities* at FEB are adequate. The panel has visited the recently renovated FEB buildings and understands that students and staff now like to spend a considerable part of their time on campus. The FEB puts several counsellors at disposition of its students offering a wide range of social and personal services. In addition to the overall facilities, the panel considers that MIF is providing students with useful programme-specific services.

The panel assesses Standard 2 as ‘satisfactory’.

In terms of *assessment*, the panel is positive about the efforts undertaken at central university level and about the way this central policy has been translated into guidelines for assessment at FEB. In the discussions with students, lecturers, staff and programme directors, the panel has noticed that this is not only a policy that looks good on paper, but that its provisions are effectively implemented in the day-to-day reality of the programmes: staff is trained and supported to design state-of-the-art assessments; information on exams is made available in time; lecturers provide relevant feedback on assignments; students appreciate the thesis supervision and the transparency of the thesis evaluation process.

The panel considers that the thesis evaluation is organised adequately. It welcomes the joint assessment by the supervisor and an assessor, and appreciates the existence and systematic use of a standardised evaluation form. Moreover, assessors provide proper feedback to the students on the quality of the thesis and on the motivation of the final grade. As this feedback is often communicated informally to students, the panel suggests that all evaluation forms, as official transcripts of the thesis assessment process, contain proper feedback with key arguments underpinning the assessors’ overall score. Finally, the sample of theses reviewed indicates that the assessment is done meticulously: for each individual thesis, the panel agrees to the score given.

All FEB degree programmes, including MIF, are covered by one independent Examinations Board, which fulfils all the requirements set by Dutch law. Further to the discussion during the visit, the panel is confident that the Examinations Board is handling its tasks competently.

The panel assesses Standard 3 as ‘good’.

Regarding the *achieved learning outcomes* of the MIF, the thesis panel indicated that all theses are of fine quality and relate empirics to theory adequately. Moreover, methods are well justified and applied. The theses are embedded in academic literature and address practical and societal issues in a scientifically acceptable way. Having established that all theses studied were at least of acceptable quality, the panel considers that the intended learning outcomes of the MIF are eventually achieved at the end of the curriculum.

According to the panel, the programme is very much geared towards professional career advancement. Dedicated career and alumni services are in place and complement the good quality MIF programme that offers competencies that are in demand on the labour market.

The panel assesses Standard 4 as ‘satisfactory’.

Conclusion

In accordance with NVAO decision rules, the panel assesses the *master’s programme International Finance – Executive master* as ‘satisfactory’.

12. Master's programme Management Studies – Executive master

The executive master's programme Management Studies is a part-time programme taught entirely in English. The study load of 60 EC is spread over 18 months. According to the Self-Evaluation report, 299 students were enrolled in January 2015 while 113 students had started the programme in September 2014. Asked about unique selling points, the programme mentions its specialisation tracks, the elective courses, and the lectures' schedule. This executive programme targets professionals with a relevant bachelor's degree who combine study and work.

Standard 1: Intended learning outcomes

The programme has much in common with the pre-experience master's programme Business Administration. Both programmes are presented as two variants of a master's programme in Business Studies. The panel read in the TER that the programme objectives are identical, but noticed that the intended learning outcomes for this executive master's programme, which are listed in Appendix 3, are different. The exit qualifications are formulated in good detail and are partially differentiated according to the three specialisation tracks: strategy; strategic marketing management; leadership and management.

Standard 2: Teaching-learning environment

The curriculum of the executive master's programme Management Studies is described in Appendix 4. It consists of track-related courses (18 EC), electives (12 EC), workshops (6 EC), and a thesis trajectory (9 EC) leading to the master thesis (15 EC) in the chosen specialisation. According to the panel, the curriculum is coherent within each track and across the entire programme. Moreover, the panel notices that a considerable part of the credits are dedicated to the thesis (preparation).

The panel read in the TER that students with a bachelor's degree in Business Studies from UvA are admitted to the programme automatically. Applicants with a different first degree are assessed by the programme director. A pre-master programme of 42 EC is available for students with a professional bachelor degree.

Standard 3: Assessment

The panel's general findings on the assessment system, the thesis and the Examinations Board are valid also for this executive master's programme Management Studies. In so far as individual assessments are concerned, the thesis panel has looked at five theses and their evaluation. It noticed that the assessment was done properly and that the respective scores were adequate.

Standard 4: Achieved learning outcomes

The thesis panel reviewed five theses of the executive master's programme Management Studies. All theses are of fine quality, including the one with the lowest grade which is still sufficiently strong for a product demonstrating academic competencies at master level. According to the panel, all theses cover practical issues that are relevant for the object of study and the field of business studies. Moreover, the theses cover an interesting diversity of topics, research questions and methodological approaches. The thesis panel noticed, however, that several theses had no limitation section in which students demonstrate that they master the contents and methodology of the research topic.

Considerations

The executive master's programme Management Studies is a part-time programme in business studies for professionals with a relevant bachelor's degree. It has the same objectives as the initial master's programme Business Administration.

According to the panel, the *intended learning outcomes* are sufficiently concrete with regard to content (management studies), level (master) and orientation (academic). The learning outcomes are elaborate, concretely formulated and differentiated partly per specialisation. The panel considers that the programme aims are reflected in the learning outcomes, which in turn align with the subject-specific reference framework for the business and economics disciplines.

The panel assesses Standard 1 as 'satisfactory'.

The panel considers that the *curriculum* of the executive master's programme Management Studies is coherent both within and across the specialisation tracks. Across all tracks, students get proper training and supervision to prepare a thesis at master level.

According to the panel, the admission criteria are clear. In terms of feasibility, the panel considers that the study load of the programme is spread evenly over 18 months taking into account the professional situation of the students.

The panel considers that the FEB is attracting *staff* from all over the world, which results in a group of strong faculty supporting both the research and pedagogical objectives of the FEB and its degree programmes. The panel has received detailed information on the staff and considers that sufficient and appropriate faculty have been assigned to the executive master's programme Management Studies.

According to the panel, *facilities* at FEB are adequate. The panel has visited the recently renovated FEB buildings and understands that students and staff now like to spend a considerable part of their time on campus. The FEB puts several counsellors at disposition of its students offering a wide range of social and personal services. Executive master students can approach the programme's staff for individual curriculum-related advice.

The panel assesses Standard 2 as 'satisfactory'.

In terms of *assessment*, the panel is positive about the efforts undertaken at central university level and about the way this central policy has been translated into guidelines for assessment at FEB. In the discussions with students, lecturers, staff and programme directors, the panel has noticed that this is not only a policy that looks good on paper, but that its provisions are effectively implemented in the day-to-day reality of the programmes: staff is trained and supported to design state-of-the-art assessments; information on exams is made available in time; lecturers provide relevant feedback on assignments; students appreciate the thesis supervision and the transparency of the thesis evaluation process.

The panel considers that the thesis evaluation is organised adequately. It welcomes the joint assessment by the supervisor and an assessor, and appreciates the existence and systematic use of a standardised evaluation form. Moreover, assessors provide proper feedback to the students on the quality of the thesis and on the motivation of the final grade. As this feedback is often communicated informally to students, the panel suggests that all evaluation forms, as official transcripts of the thesis assessment process, contain proper feedback with key

arguments underpinning the assessors' overall score. Finally, the sample of theses reviewed indicates that the assessment is done meticulously: for each individual thesis, the panel agrees to the score given.

All FEB degree programmes, including the executive master's programme Management Studies, are covered by one independent Examinations Board, which fulfils all the requirements set by Dutch law. Further to the discussion during the visit, the panel is confident that the Examinations Board is handling its tasks competently.

The panel assesses Standard 3 as 'good'.

Regarding the *achieved learning outcomes* of the executive master's programme Management Studies, the thesis panel indicated that all theses are of fine quality and cover an interesting diversity of topics, research questions and methodological approaches. Having established that all theses studied were at least of acceptable quality, the panel considers that the intended learning outcomes of this executive master's programme are eventually achieved at the end of the curriculum.

The panel assesses Standard 4 as 'satisfactory'.

Conclusion

In accordance with NVAO decision rules, the panel assesses the *master's programme Management Studies – Executive master* as 'satisfactory'.

13. Master's programme Insurance Studies – Executive master

The master's programme Insurance Studies is a part-time programme taught in Dutch. The study load of 60 EC is spread over two years. According to the Self-Evaluation report, 67 students were enrolled in January 2015 while 11 students had started the programme in September 2014. It is the only MSc programme in the field of insurance in the Netherlands and offers two specialisation tracks: Insurance Studies and Enterprise Risk Management. It was developed in close cooperation with the "Verbond van Verzekeraars" and targets professionals in the insurance field.

Standard 1: Intended learning outcomes

The panel read in the TER that the programme is built on four pillars: financial economics, actuarial science, law and business. The programme aims to provide students with specialist knowledge at advanced master's level, as well as insight in how to apply this knowledge in practice situations. The panel learned that since the previous accreditation visit, the programme has been adapted. It now has a better balance between the professional and the academic component. An important development in this respect has been the growth of the Amsterdam Centre for Insurance Studies, which provides most of the staff for the programme. The intended learning outcomes, listed in Appendix 3, are formulated in good detail.

Standard 2: Teaching-learning environment

The curriculum of the executive master's programme Management Studies is described in Appendix 4. It consists of fundamental (14 EC), advanced (16 EC) and specialist courses (15 EC) and a master thesis (15 EC). Following the suggestion of the previous accreditation visit, the programme was altered to include more academic skills training. Students start the master thesis after preparing a case study and attending the research workshop. According to the panel, the curriculum is coherent within each track and across the entire programme.

The panel read in the TER that students with a relevant academic bachelor's degree and at least one year experience in the insurance field can be admitted to the programme. Students with a relevant professional bachelor's degree need to follow a pre-master programme covering academic skills, quantitative methods and an introduction into economics.

Standard 3: Assessment

The panel's general findings on the assessment system, the thesis and the Examinations Board are valid also for this master's programme Insurance Studies. In so far as individual assessments are concerned, the thesis panel has looked at five theses and their evaluation. It noticed that in all cases, the scores given were too high compared to the quality of the respective theses.

The programme director acknowledged the findings of the thesis panel and agreed that the scores given were not in line with the reported shortcomings. According to the panel the programme should set strict and common evaluation criteria for the supervisors and assessors when evaluating the academic skills component.

Standard 4: Achieved learning outcomes

The thesis panel reviewed five theses of the master's programme Insurance Studies. While all theses fulfil the minimum criteria to pass, the thesis panel noticed that the academic research quality was limited. According to the panel, students did not demonstrate in their thesis that they have adequate analytical skills. When reviewing the theses, the panel reported that the methodological set-up was poor, that the analysis was descriptive, that there were no applications of statistical tests and that analysis results were not related to academic theories.

During the visit, the programme director acknowledged the findings of the thesis panel and put these in context. Students enter this programme with very diverse educational backgrounds and sometimes after a very long period away from academia. The thesis review has shown that these students do not bring their academic and research skills sufficiently quickly to the required level. According to the panel, the programme should pay more attention in the course of the programme to bringing all students up to speed with academic skills and monitor that these skills are also acquired.

The panel learned during the visit that this post-experience master's programme constitutes a stepping stone for career advancement in the insurance sector. Both learning outcomes and programme aim at providing professionals with relevant competencies at master level. The FEB ensures the academic quality of the programme, while the association of insurance professionals watches over the professional orientation.

Considerations

The MSc Insurance Studies is unique in the Netherlands and targets insurance professionals with a relevant bachelor's degree. The programme aims to balance academic knowledge with professional practice in insurance and enterprise risk management.

According to the panel, the *intended learning outcomes* are sufficiently concrete with regard to content (insurance, enterprise risk management), level (master) and orientation (academic). The learning outcomes are elaborate and concrete. The panel considers that the programme aims are reflected in the learning outcomes, which in turn align with the subject-specific reference framework for the business and economics disciplines.

The panel assesses Standard 1 as 'satisfactory'.

The panel considers that the *curriculum* of the master's programme Insurance Studies is coherent both within and across the specialisation tracks. In terms of feasibility, the panel considers that the study load of the programme is spread evenly over 24 months taking into account the professional situation of the students.

The programme targets professionals with different educational backgrounds, many of whom have a professional ('hbo') degree and/or obtained their degree a long time ago. According to the panel, the admission criteria are clear and the pre-master programme contains relevant components to repair deficiencies before starting the MSc programme.

The panel considers that the FEB is attracting *staff* from all over the world, which results in a group of strong faculty supporting both the research and pedagogical objectives of the FEB and its degree programmes. The panel has received detailed information on the staff and considers that sufficient and appropriate faculty have been assigned to the master's programme Insurance Studies.

According to the panel, *facilities* at FEB are adequate. The panel has visited the recently renovated FEB buildings and understands that students and staff now like to spend a considerable part of their time on campus. The FEB puts several counsellors at disposition of its students offering a wide range of social and personal services. Executive master students can approach the programme's staff for individual curriculum-related advice.

The panel assesses Standard 2 as 'satisfactory'.

In terms of *assessment*, the panel is positive about the efforts undertaken at central university level and about the way this central policy has been translated into guidelines for assessment at FEB. In the discussions with students, lecturers, staff and programme directors, the panel has noticed that this is not only a policy that looks good on paper, but that its provisions are effectively implemented in the day-to-day reality of the programmes.

The panel considers that the system of thesis evaluation is organised adequately. It welcomes the joint assessment by the supervisor and an assessor, and appreciates the existence and systematic use of a standardised evaluation form. Moreover, assessors provide proper feedback to the students on the quality of the thesis and on the motivation of the final grade.

However, the thesis panel has looked at five theses and their evaluation and noticed that the assessment itself has not been done meticulously: in fact, the panel reported that in all cases, the scores given were too high compared to the quality of the respective theses. According to the panel the programme should set strict and common evaluation criteria for the supervisors and assessors when evaluating the academic skills component.

All FEB degree programmes, including the master's programme Insurance Studies, are covered by one independent Examinations Board, which fulfils all the requirements set by Dutch law. Further to the discussion during the visit, the panel is confident that the Examinations Board is handling its tasks competently.

The panel assesses Standard 3 as 'satisfactory'.

Regarding the *achieved learning outcomes* of the master's programme Insurance Studies, the thesis panel indicated that all theses fulfil the minimum criteria but showed limited academic research quality for final projects at master's level. Students did not demonstrate in their thesis that they have adequate analytical skills. The panel considers that, given the inflow of students with diverse educational backgrounds, the programme should pay more attention throughout the curriculum to bringing all students up to speed with academic skills and to monitor that these skills are applied up to master level in the thesis. Given that the disciplinary knowledge of the students is sufficiently demonstrated in the theses and in view of the commitment of the programme director to strengthen and monitor the academic research quality of the theses, the panel considers that the learning outcomes of the master's programme Insurance Studies are eventually achieved.

According to the panel, the programme is very much geared towards professional career advancement in the insurance sector. The competencies offered by the master's programme Insurance Studies are monitored by the Dutch professional association ensuring that students receive not only a proper academic education at master level but are also taught a programme that is relevant for their development as insurance professionals.

The panel assesses Standard 4 as 'satisfactory'.

Conclusion

In accordance with NVAO decision rules, the panel assesses the *master's programme Insurance Studies – Executive master* as 'satisfactory'.

14. Master's programme Actuarial Science and Mathematical Finance – Executive master

The executive master's programme Actuarial Science and Mathematical Finance is a part-time programme taught almost exclusively in English. The study load amounts to 60 EC spread over two years. According to the Self-Evaluation report, 113 students were enrolled in January 2015 while 81 students had started the programme in September 2014. The programme is an essential requirement to join the "Koninklijk Actuariel Genootschap", the Dutch body of actuary professionals.

Standard 1: Intended learning outcomes

The intended learning outcomes of this executive programme are listed in Appendix 3. They are identical to these of the pre-experience master's programme. The panel understands that this executive programme targets students with a bachelor degree who combine the study with a professional position in the insurance industry.

Standard 2: Teaching-learning environment

The curriculum of the executive programme is described in Appendix 4. It offers no specialisation tracks and consists of compulsory courses (45 EC) and a master's thesis (15 EC). Only two courses (12 EC) are part of the pre-experience master programme. In case students have followed these courses before, they should take electives.

The panel read in the TER that applicants should have a quantitative academic background at bachelor level, such as physics, mathematics or econometrics. Students can be admitted to a pre-master programme of 42 EC. In that case, the programme director decides which courses should be successfully completed before the student can enrol in the executive master programme.

Standard 3: Assessment

The panel's general findings on the assessment system, the thesis and the Examinations Board are valid also for this executive master's programme Actuarial Science and Mathematical Finance. In so far as individual assessments are concerned, the thesis panel has looked at three theses and their evaluation. It noticed that the assessment was done properly, that the respective scores were adequate and that the evaluation forms had been completed comprehensively.

Standard 4: Achieved learning outcomes

This programme only started in 2013 and not many students had graduated by the time of the accreditation visit. The thesis panel therefore reviewed three theses. All theses are of fine quality, including the one with the lowest grade which is still sufficiently strong for a product demonstrating academic competencies at master level. The thesis panel noticed that the application of actuarial methods is adequate; however, it did not observe any reference to mathematical finance. Furthermore, the panel did not establish a difference between the theses submitted for the pre-experience and the post-experience master's programmes. The programme director indicated during the visit that the requirements for both pre- and post-experience master's theses are identical and that among the theses submitted so far, none focused on mathematical finance.

The panel learned during the visit that this post-experience master's programme was introduced to comply with the needs of the professional sector. Successful completion of the programme is an essential requirement to join the Dutch body of actuary professionals.

Given the recent launch of this programme, there are no data yet on career advancement of graduates.

Considerations

The executive master's programme Actuarial Science and Mathematical Finance is relatively new. According to the panel, its *intended learning outcomes* are sufficiently concrete with regard to content (actuarial science), level (master) and orientation (academic). They address relevant competencies in the domain of actuarial sciences and fit the subject-specific reference framework for the business and economics disciplines. The panel considers that the programme's aims are adequately reflected in its learning outcomes: students get first and foremost a proper disciplinary and academic training, whilst the learning outcomes also refer to the application, reach and limitations of actuarial methods in practical situations.

The panel assesses Standard 1 as 'satisfactory'.

The panel considers that the *curriculum* of the executive master's programme Actuarial Science and Mathematical Finance is coherent. The admission requirements and enrolment process are described in detail in the TER. In terms of feasibility, the panel considers that the study load of the programme is spread evenly across the two years.

The panel considers that the FEB is attracting *staff* from all over the world, which results in a group of strong faculty supporting both the research and pedagogical objectives of the FEB and its degree programmes. The panel has received detailed information on the staff and considers that sufficient and appropriate faculty have been assigned to the executive master's programme Actuarial Science and Mathematical Finance.

According to the panel, *facilities* at FEB are adequate. The panel has visited the recently renovated FEB buildings and understands that students and staff now like to spend a considerable part of their time on campus. The FEB puts several counsellors at disposition of its students offering a wide range of social and personal services. Executive master students can approach the programme's staff for individual curriculum-related advice.

The panel assesses Standard 2 as 'satisfactory'.

In terms of *assessment*, the panel is positive about the efforts undertaken at central university level and about the way this central policy has been translated into guidelines for assessment at FEB. In the discussions with students, lecturers, staff and programme directors, the panel has noticed that this is not only a policy that looks good on paper, but that its provisions are effectively implemented in the day-to-day reality of the programmes: staff is trained and supported to design state-of-the-art assessments; information on exams is made available in time; lecturers provide relevant feedback on assignments; students appreciate the thesis supervision and the transparency of the thesis evaluation process.

The panel considers that the thesis evaluation is organised adequately. It welcomes the joint assessment by the supervisor and an assessor, and appreciates the existence and systematic use of a standardised evaluation form. Moreover, assessors provide proper feedback to the students on the quality of the thesis and on the motivation of the final grade. The sample of theses reviewed indicates that feedback and motivation are not only communicated informally to students but also appear on the evaluation form. Finally, the assessment itself is done meticulously: for each individual thesis, the panel agrees to the score given.

All FEB degree programmes, including the executive master's programme Actuarial Science and Mathematical Finance, are covered by one independent Examinations Board, which fulfils all the requirements set by Dutch law. Further to the discussion during the visit, the panel is confident that the Examinations Board is handling its tasks competently.

The panel assesses Standard 3 as 'good'.

Regarding the *achieved learning outcomes* of the executive master's programme Actuarial Science and Mathematical Finance, the thesis panel indicated that all theses are of fine quality. Students demonstrated a thorough knowledge of actuarial science. Having established that all theses studied were at least of acceptable quality, the panel considers that the intended learning outcomes of this executive master's programme are eventually achieved at the end of the curriculum.

The panel assesses Standard 4 as 'satisfactory'.

Conclusion

In accordance with NVAO decision rules, the panel assesses the *master's programme Actuarial Science and Mathematical Finance – Executive master* as 'satisfactory'.

Appendices

Appendix 1: Curricula Vitae of the members of the assessment panel

AACSB-NVAO panel:

Prof. Nicolas Mottis (chair) is Professor of Management Control at ESSEC Business School in Cergy (France). After his master's degree in Applied Mathematics (1990), he obtained his PhD at the Ecole Polytechnique, with a dissertation on 'Coordination, Incentives and Organizational Models: The Management of Information Systems in Banking' (1993). After holding a number of positions in companies (Renault, BNP, Bertelsmann), Mottis continued his academic career at ESSEC, where he was promoted to Full Professor in 2000. In 2002, he obtained his Habilitation à Diriger des Recherches from the University of Paris Dauphine. Mottis has held numerous (education) management positions, and was Director of ESSEC from 2002-2005. Mottis' current research areas are strategic control, project management in high tech industries and management education (evolution of business schools, university reforms in Europe, accreditation). He regularly acts as consultant for French and international companies. Since 2003, Mottis has been member and chair of numerous AACSB Peer Review Teams and accreditation committees.

Prof. Dag Morten Dalen is the Provost and Senior Vice President of BI Norwegian Business School, with the overall responsibility for the quality of degree programmes at bachelor, master, phd and executive level. Dalen holds a Professor position in economics, and has published widely in the area of industrial organization and industry regulation. In his more recent research Dalen has been studying competition, prescription choices and regulation in pharmaceutical markets Dalen has extensive consulting experience from projects with ministries, regulatory authorities and private companies, covering topics related to competition policy, regulation of network industries, health economics and quality assurance of larger public investment projects. In 1997-1998 Dalen worked full-time for the Parliamentary Commission for the investigation of the Norwegian Banking Crisis, and in 2004-2005 he was a member of the Norwegian Ministry of Administration and Labour Expert Commission on Competition between Public and Private Enterprises.

Prof. Robert T. Sumichrast is Dean of the University of Georgia's Terry College of Business. He holds the Simon S. Selig, Jr. Chair for Economic Growth. In the period 2003-2007, he was Dean of the E. J. Ourso College of Business at Louisiana State University and Ourso Distinguished Professor of Business. Sumichrast has served on editorial boards and as a reviewer for more than 15 journals and industry publishers, including *Decision Sciences*, *Journal of Management Information Systems*, and the *European Journal of Operations Research*. He authored *Operations Management and Decision Support Tools*, an educational package composed of a textbook and computer programs, in addition to many refereed articles published in journals such as *Decision Sciences*, *Journal of Management Information Systems*, and *Journal of Operations Management*. As a consultant, Sumichrast provided guidance to Ingersoll-Rand and Rusco in improving their respective information systems. Additionally, he designed scheduling, inventory control, and decision support systems for Burlington Industries, Owens-Corning Fiberglas, and Federal Mogul.

Lawrence Bolte BSc

Lawrence Bolte is a master student in Supply Chain Management at Tilburg University. In 2015, he obtained his bachelor's degree in International Business Administration at the same university. As bachelor student he participated in several extra extracurricular activities with a focus on education and university policies. Among others, Bolte was a student member of the student council of Tilburg (2012-2013) and later the independent chairman of this council

(2013-2014). Since 2014, he is advisory member of the Management Team of the Tilburg School of Economics and Management. Bolte participated in an exchange program with Monash University in Melbourne in 2011, and has completed a summer school program on Leadership and Knowledge Management at ISCTE Business School (Instituto Universitário) in Lisbon in 2015.

Thesis panel:

Prof. Ed Vosselman is Professor of Accounting at Radboud University and as of September 2011 he is also Professor of Management Control in the Public Sector at VU University Amsterdam. His research interests are in the field of control in intra- and interfirm relationships, as well as in performance management in both the private and the public sector. Before his current position at Radboud University, Vosselman was Professor of Accounting at Erasmus University (1997-October 2005). In the period 1999-2000 he was chair of the post-initial Executive Master in Finance and Control (EMFC) at Erasmus University. In the period 2001-2004 he acted as Dean of its Faculty of Economics. At Radboud University, Vosselman is currently chair of the Programme Committee Economics. He was a member of Fortis' audit committee (Fortis Insurance) from 2002 until 2006. As of 2008, Vosselman acts as chairman of the 'Quality Assurance Committee' of the Association of Chartered Controllers in the Netherlands.

Prof. Lucas Meijs is Endowed Professor of Strategic Philanthropy and Department Chair of Business-Society Management at the Rotterdam School of Management, Erasmus University. After completing his dissertation on the management of volunteer organisations at Erasmus University Rotterdam in 1997, he continued his academic career there as assistant professor in Nonprofit Management. Among others, he was Endowed Professor of Volunteering, Civil Society and Business. In 2003 Meijs was a visiting researcher at Queensland University of Technology in Brisbane, Australia. He was appointed member of the Dutch Council on Societal Development, the official advisory council for the Dutch government on social policy development (2007-2014).

Prof. Wolter Hassink is Professor of Applied Econometrics at Utrecht University and Director of the Tjalling C. Koopmans Research Institute, at Utrecht University School of Economics. After his master's degree in Econometrics at the University of Groningen in 1991, he completed his PhD in Economics at VU University Amsterdam in 1996. He has completed several educational trainings, including a training in 'Academic Leadership for Hoogleraren' (2013) and a training to receive the Senior Qualification Education (SKO, 2007). Since 1993, he taught numerous courses at VU University Amsterdam, the Netherlands Network of Economics (NAKE) and at Utrecht University. Also, he held several management positions in education; he has been board member of Graduate School of Economics (2007, 2008), Coordinator of the Research Master (2008 - 2013) at Utrecht School of Economics, Coordinator of the Honours Programme at Utrecht School of Economics (2006 - 2011). Besides these activities, Hassink also was Academic Partner at CPB Netherlands, Bureau of Economic Policy Analysis (2015), and Policy Advisor at the Ministry of Social Affairs and Employment in the Hague (1996 – 1998). Since 2004, he is Research Fellow of the Institute for the Study of Labor (IZA, Bonn).

Appendix 2: Domain-specific framework of reference

Subject-specific reference framework

The subject-specific reference framework provides the framework within which programmes are assessed. This can be very important for smaller or niche programmes which compare themselves against a very limited number of other programmes. In this respect, the more focused the programme, the more important the benchmarks that are chosen, because comparing with a programme with a different focus will then show substantial omissions in the programme. However, in the broad fields of business and economics, it is well understood that a university will discuss a number of fields in-depth, and others only marginally. The reference frameworks reflect this.

The Business discipline

Business programmes focus on the interdisciplinary study of organizations with respect to their internal processes as well as their interaction with their environment. Due to its broad nature, a precise definition of Business as an academic discipline is difficult to give. Academic Business programmes emphasize research, analysis and reflection and do not offer specialized professional training.

Business students study the complex and dynamic functioning of organizations in its broadest sense. The aim is to understand how the various activities within an organization contribute to achieving the organization's goals, and how these activities may be managed to increase this contribution. The Business discipline does not differentiate between for-profit and not-for-profit organizations, as commercial, governmental, voluntary and international organizations are all object of study.

Students will encounter sub-disciplines such as Marketing, Strategy, Human Resource Management, Organizational Behaviour, Business Ethics, Information Management, Accounting, Finance, Economics, International Management, Logistics, Business Law and Entrepreneurship. The common theme underlying all these sub-disciplines is a link with organizational activities and change. Business students distinguish themselves through their ability to integrate two or more disciplines, to tackle organizational problems and to understand and participate in organizational change processes.

Due to the broad nature of this multidisciplinary field, Business programmes will differ in the emphasis on each of the disciplines, since they cannot all be covered to the same extent. For example, programmes may profile and position themselves as an economics programme, a social sciences programme, or a technical programme. Also, programmes may focus more on understanding organizational processes or on designing interventions to improve these processes.

The relevance of the programmes follows from a reference frame consisting of the business and management practice, programmes offered by schools and universities which are internationally recognized as being of high quality, and academic research communities. There are a number of international accreditation bodies that focus on the business field (e.g., EQUIS, AACSB) whose activities help in identifying good programmes. However, these bodies typically refrain from meeting discipline-specific learning outcomes as part of their accreditation, which is a reflection of the broad nature of the field. As such, individual programmes will emphasize different aspects within the general reference frame.

The broad nature of business and management professions implies that many students soon find themselves working in jobs that make demands on know-how beyond their specialization. In this respect, it is imperative that BSc degree programmes provide their graduates with acquired academic, research and communicative skills to a basic standard. In addition, the learning outcomes need to be related to the admission requirements of at least one MSc degree programme and, where applicable, the professional sphere. Additionally, the MSc degree programmes provide graduates with academic, research and communicative skills to an advanced level, and graduates are able to link these learning outcomes to the professional sphere.

The Economics discipline

Economics is the social science that analyses the production and distribution of scarce resources. Many economists study the factors which drive agents to act in markets and within organizations. Such analyses focus on the important role played by the allocation of scarce production factors and the impact this has on the prosperity of society as a whole. General economics takes a primarily social perspective, whereas business economics goes deeper into the various business processes. Another key focus area is the study of business process management. Methodology is another important aspect of this domain: this is where subjects such as decision-making, econometrics and mathematics come into play.

The skills acquired by students on an Economics degree programme depend on the subfield and specialization of the programme in question. A degree programme referred to as 'Economics' must give students a coherent understanding of economic concepts that goes further than an 'Introduction to...' course. These concepts encompass general economics (for example macroeconomics, microeconomics, public sector economics and international economics), business economics (for example reporting, finance, marketing, organization, information science and strategy) and the methodological subjects (mainly statistics and mathematics). Methodological courses are by definition core parts of the Econometrics and Decision-making field. A BSc degree programme provides students with the basic tools needed to study one or more disciplines in depth.

Aims, level and orientation of the degree programmes

The degree programmes aim to train students both in the chosen discipline (i.e. in relation to the field of practice) and academically. This means that students should gain knowledge and understanding of the field and acquire both relevant subject-related and general academic skills. Hence the programmes emphasize the characteristics and value of academic research, the importance of knowledge and understanding of theory and methodology, and the relative nature of interpretations; they also offer a framework within which students can learn to apply that knowledge and understanding appropriately.

A BSc degree programme offers a broad, general education to an elementary academic standard. Students who have completed a BSc degree meet the criteria for entry to an MSc degree programme. An MSc programme offers the opportunity to go deeper into a particular field, subfield or combination of subfields than is possible in a BSc programme. The various degree programmes also prepare students for careers in society at large, where the knowledge and skills gained during their studies may be put to use. Generally speaking, this is not so much a case of preparation for specific career paths; rather, it is about acquiring an academic attitude and a box of academic tools.

Subject-specific skills

The skills acquired by students on a degree programme depend on the subfield and specialization of the programme in question. Thus, the content-related exit qualifications depend on the specific choices made by the student. However, in general, students on a BSc degree programme learn how to use their knowledge when confronted with a relatively straightforward problem in the realm of business or public policy. They must also be able to put what they've learned into perspective. For instance, this can be achieved by comparing one theory with another, or by confronting disciplinary concepts (e.g. from psychology) with approaches from other disciplines (e.g. from economics).

The subject-specific skills of students on MSc degree programmes build on the skills they acquired in the BSc degree programme. In the spirit of the Treaty of Bologna, and given the increasing international character of degree programmes, quality standards must be as 'international' as possible.

Students with a BSc degree in Business and/or Economics will have acquired the following skills:

- Reproduction and interpretation – graduates can reproduce conceptual and methodological principles of business, and can discuss them with colleagues.
- Analysis and explanation – graduates can analyse and explain phenomena and problems in various sub-disciplines of business using the conceptual and methodological principles of the disciplines.

Graduates of an MSc degree programme in Business and/or Economics meet the following profile:

- Graduates are able to work independently, and can formulate relevant research questions themselves and draft a plan of action in justification. This includes sourcing and using relevant subject-specific literature, and plugging any gaps there may be in the knowledge required to answer the research question.
- Graduates are able to read and understand recent articles from journals and relevant sections of renowned academic publications and put their own research question in the context of existing literature.
- Graduates should also be able to analyse variations on existing models to some extent.

General skills

General academic skills

- Graduates of BSc degree programmes have the skills needed to devise and sustain arguments and to solve problems within the field of study. Graduates of MSc degree programmes are able to apply the same skills to new or unfamiliar circumstances within a wider, or multidisciplinary, context within the field of study.
- Graduates of BSc degree programmes have a general understanding of the nature and function of academic research. Graduates of MSc degree programmes have an in-depth knowledge of their subject.
- Graduates of BSc degree programmes are able to collect and interpret relevant information from a range of sources and subfields. Graduates of MSc degree programmes are able to assimilate knowledge and deal with complex subject matter.
- Graduates of BSc degree programmes are able to form an opinion that is at least partly based on a comparative assessment of relevant social, scientific or ethical aspects. Graduates

of MSc degree programmes are able to form an opinion based on incomplete or limited information, taking into account the aforementioned aspects when applying their own knowledge and judgement.

- Graduates of BSc degree programmes are able to work independently under supervision and as part of a team. Graduates of MSc degree programmes are able to work both independently and as part of a multidisciplinary team.

Research skills

- Graduates of BSc degree programmes are, under supervision, able to set up and carry out a modest literature search or other research on a limited scale that has a reasonable and realistic programme. Graduates of MSc degree programmes are able independently to set up and carry out an academic research project that meets the requirements of the field of study.
- Graduates of MSc degree programmes have a thorough understanding of the relevant research methods and techniques in the field of study. Graduates of BSc degree programmes have a passive understanding of all these methods, and an active understanding of some of them.

Communication skills

- Graduates of BSc degree programmes are able to communicate information, ideas and solutions to both specialist and non-specialist audiences. Graduates of MSc degree programmes are able to draw conclusions and use their knowledge, understanding, motivation and considered reasoning to substantiate these conclusions and convey them to similar audiences.
- Graduates of BSc degree programmes are able to summarize the results of research on a limited scale orally or in writing, in a way that is clear and precise. Graduates of MSc degree programmes are able to do the same for research where the scope and complexity matches the level of the degree programme.

Relationship with the professional sphere

The learning outcomes are tailored to the expectations of future employers, regardless of diversity or otherwise.

- Graduates have the necessary skills to perform work in which an academic education to BSc level or MSc level is required or preferred.
- Graduates of BSc degree programmes are aware of the possible relevance and use of academic insights in their field of study in relation to social issues and needs. Graduates of MSc degree programmes are able to make a considered judgement on the possible relevance or use of academic insights within their field of study in relation to social issues and needs.
- Graduates will have been able to consider the options for possible future work at the appropriate level.

Learning environment

A salient feature of academic degree programmes is that they encourage students to do things that enrich their academic experience. Stimulating independence and allowing students to work in teams without undue external influence are important in this regard.

Appendix 3: Intended learning outcomes

1. Bachelor's programme Actuariële Wetenschappen

Eindtermen qua kennis

Qua inhoudelijke kennis wordt onderscheid gemaakt in drie niveaus:

- niveau A: inleidende kennis - Dit betreft kennis van de basisbegrippen, standaard theorieën en algemene inzichten van het vakgebied. Tevens inzicht in de relevantie van het vak voor de opleiding Actuarieel Wetenschappen;
- niveau B: basiskennis - Hierbij gaat het om een gedegen kennis van de belangrijkste methoden en technieken van het vakgebied. Veelal zal dit gepaard gaan met een nadere bestudering van praktijkvoorbeelden;
- niveau C: uitgebreide kennis - Op dit niveau wordt de basiskennis uitgebreid met kennis van alternatieve methoden en technieken binnen het vakgebied. Ook wordt de student geleerd deze kennis op wetenschappelijk niveau toe te passen.

1. Studenten hebben na het voltooien van de opleiding de volgende kennis:

- K1. kennis op niveau B van wiskundige en statistische methoden, voor zover deze gebruikt worden in het actuarieel wetenschappen: kansrekening, mathematische statistiek, lineaire algebra, calculus, optimalisatie, differentiaal- en differentievergelijkingen en beschrijvende statistiek;
- K2. kennis op niveau A van micro- en macro-economie;
- K3. kennis op niveau B van de kwantitatieve financiering;
- K4. kennis op niveau B van de technieken van de mathematische beslisgeving;
- K5. kennis op niveau B van de econometrie;
- K6. kennis op niveau C van de inhoud, toepasbaarheid, reikwijdte en beperkingen van actuarieel wetenschappen methoden in praktijksituaties. De actuarieel wetenschappen methoden omvatten: stochastische en deterministische financiële wiskunde, sterftmodellen en demografie, stochastische kasstroommodellen voor elementaire en meervoudige levensverzekeringen, financieringsvormen voor levensverzekeringen, spaar- en risicoprocessen, opbouw van financiering van pensioenen, solidariteit en risicodeling, risicetheorie, het verwachte nutsmodel, het collectieve en het individuele risicomodel, het klassieke ruïnemodel, premieprincipes en risicomaten, bonus-malus systemen en ordening van risico's.

2. Studenten hebben na het voltooien van de opleiding de volgende vaardigheden (*Skills*):

- S1. in staat zijn een praktijkprobleem te vertalen naar een probleemstelling die met actuarieel wetenschappen methoden kan worden geanalyseerd, en de resultaten van dergelijke analyses terug te vertalen naar de praktijksituatie;
- S2. zich toegang kunnen verschaffen tot relevante literatuurbronnen;
- S3. het gebruik kunnen maken van moderne informatietechnologie; dit houdt in het gebruik van standaard softwarepakketten en van een programmeertaal, en het gebruik van het internet als informatiebron;
- S4. in staat zijn om op zorgvuldige en heldere wijze schriftelijk en mondeling te rapporteren, zowel aan vakgenoten als aan niet-vakgenoten;
- S5. in staat zijn actuarieel wetenschappen resultaten te interpreteren en te evalueren.

3. Studenten hebben na het voltooien van de opleiding de volgende attitude:

- A1. een primair kwantitatieve en analytische benadering van probleemstellingen uit de financiële of verzekeringspraktijk;

- A2. een besef van de maatschappelijke context waarbinnen het vak wordt beoefend; dit houdt onder meer in de maatschappelijke rol van op actuariële analyses gebaseerde beleidsaanbevelingen (zowel bij de overheid als in het bedrijfsleven);
- A3. het vermogen om zowel zelfstandig te functioneren, als in teamverband constructief samen te werken;
- A4. een multidisciplinaire instelling; de actuaris heeft in zijn beroepsuitoefening rechtstreeks te maken met onder meer econometristen, statistici, accountants, economen, fiscalisten, juristen, demografen, medici, technici en risicomangers.

2. Bachelor's programme Econometrie en Operationele Research

Eindtermen qua kennis

Qua inhoudelijke kennis wordt onderscheid gemaakt in drie niveaus:

- niveau A: inleidende kennis
Dit betreft kennis van de basisbegrippen, standaardtheorieën en algemene inzichten van een vakgebied. Tevens behelst dit inzicht in de relevantie van een vakgebied voor de opleiding in zijn geheel;
- niveau B: basiskennis
Hierbij gaat het om een gedegen kennis van de belangrijkste stromingen van een vakgebied. Veelal zal dit gepaard gaan met een nadere bestudering van praktijkvoorbeelden;
- niveau C: uitgebreide kennis
Op dit niveau wordt de basiskennis uitgebreid met kennis van alternatieve stromingen binnen het vakgebied. Ook wordt de student geleerd deze kennis op academisch niveau toe te passen.

1. Studenten hebben na het voltooien van de opleiding de volgende kennis:

- K1. kennis op niveau A van micro-economie, macro-economie en financiering;
- K2. kennis op niveau B van wiskundige en statistische methoden, voor zover deze gebruikt worden in de Econometrie en Operationele Research: lineaire algebra, calculus, optimalisatie, differentiaal- en differentievergelijkingen, kansrekening, beschrijvende statistiek en mathematische statistiek;
- K3. kennis op niveau B van de Econometrie en Operationele Research;
- K4. kennis op niveau B van de kwantitatieve financiering;

Verder, afhankelijk van de gekozen studierichting:

bij Econometrie:

- K5. kennis op niveau C van de econometrie en wiskundige economie. Wat betreft econometrie omvat dit het lineaire regressiemodel en de gewone kleinste-kwadraten techniek, alsmede de meest gangbare uitbreidingen daarvan (gegeneraliseerde kleinste-kwadraten, niet-lineaire regressiemodellen, *maximum likelihood*, instrumentele variabelen). Wat betreft de wiskundige economie omvat dit de theorie van consumenten- en producentengedrag, markt vormen en speltheorie.

bij Operationele Research en Management:

- K6. kennis op niveau C van operationele research. Dit betreft lineaire, geheeltallige en niet-lineaire programmering, dynamische programmering, netwerktheorie, simulatie, wachttijdtheorie en combinatorische optimalisering;
- K7. kennis op niveau C van operationeel management. Dit betreft enerzijds technieken als project management, lijn balanceren, MRP, als in breder verband de velerlei vraagstellingen en technieken op het gebied van geaggregeerde planning en voorraadbeheer;
- K8. voor zowel operationele research als operationeel management kennis van de diverse toepassingsgebieden en de daarbij behorende probleemstellingen.

2. *Studenten hebben na het voltooien van de opleiding de volgende vaardigheden (Skills):*

- S1. in staat zijn een praktijkprobleem te vertalen naar een probleemstelling welke met methoden uit de Econometrie en Operationele Research kan worden geanalyseerd, en de resultaten van dergelijke analyses terug te vertalen naar de praktijksituatie;
- S2. zich toegang kunnen verschaffen tot relevante literatuurbronnen;
- S3. het gebruik kunnen maken van moderne informatietechnologie; dit houdt in het gebruik van standaard softwarepakketten en van een programmeertaal, en het gebruik van het internet als informatiebron;
- S4. in staat zijn om op zorgvuldige en heldere wijze schriftelijk en mondeling te rapporteren, zowel aan vakgenoten als aan niet-vakgenoten;
- S5. in staat zijn resultaten van econometrische en/of operationele research en management analyses te interpreteren, de rol daarin van aannames te onderkennen, en waar mogelijk dergelijke aannames empirisch te verifiëren.

3. *Studenten hebben na het voltooien van de opleiding de volgende attitude:*

- A1. een primair kwantitatieve en analytische benadering van praktische maatschappelijke dan wel bedrijfsmatige probleemstellingen;
- A2. een besef van de maatschappelijke context waarbinnen het vak wordt beoefend; dit houdt onder meer in de maatschappelijke rol van op econometrische en/of operationele research en management analyses gebaseerde beleidsaanbevelingen (zowel bij de overheid als in het bedrijfsleven);
- A3. het vermogen om zowel zelfstandig te functioneren, als in teamverband constructief samen te werken;
- A4. een multidisciplinaire instelling.

3. Bachelor's programme Fiscale Economie

Eindtermen qua kennis

Qua inhoudelijke kennis wordt onderscheid gemaakt in drie niveaus:

- niveau A: inleidende kennis
Dit betreft kennis van de basisbegrippen, standaardtheorieën en algemene inzichten van een vakgebied. Tevens behelst dit inzicht in de relevantie van een vakgebied voor de opleiding in zijn geheel;
- niveau B: basiskennis
Hierbij gaat het om een gedegen kennis van de belangrijkste stromingen van een vakgebied. Veelal zal dit gepaard gaan met een nadere bestudering van praktijkvoorbeelden;
- niveau C: uitgebreide kennis
Op dit niveau wordt de basiskennis uitgebreid met kennis van alternatieve stromingen binnen het vakgebied. Ook wordt de student geleerd deze kennis op academisch niveau toe te passen.

1. Studenten hebben na het voltooien van de opleiding de volgende kennis:

- K1. kennis op niveau A van consumenten en producenten theorie, de werking van markten, macro-economische processen en verbanden, economie van de publieke sector, financial accounting, management accounting & control, organisatie theorie, interne organisatie, marketing, informatie management en financiering, vermogens- en ondernemingsrecht;
- K2. kennis op niveau A van de benodigde beginselen van wiskunde en statistiek met betrekking tot elk onderscheiden economisch vakgebied;
- K3. kennis op niveau A van algemeen filosofische en theoretische principes en theorieën over het beoefenen van de economische wetenschap;
- K4. kennis op niveau B van de verhouding tussen economie en recht in zijn algemeenheid, van boekhouden, van financiering en financial accounting en van omzetbelasting;
- K5. kennis op niveau C van de relatie tussen overheid en fiscaliteit, van comptabele externe verslaggeving, en van inkomstenbelasting.

2. Studenten hebben na het voltooien van de opleiding de volgende vaardigheden (skills)

- S1. het kritisch kunnen beoordelen en analyseren van fiscaal-economische vraagstukken;
- S2. het helder en bondig zowel mondeling als schriftelijk kunnen rapporteren;
- S3. op adequate wijze kunnen communiceren met personen die in organisaties in andere disciplines werkzaam zijn;
- S4. het zowel kunnen communiceren met juristen als met economen vanuit het inzicht de samenhang tussen beide disciplines naar voren te brengen;
- S5. het vermogen om zelfstandig te kunnen werken.

3. Studenten hebben na het voltooien van de opleiding de volgende attitude:

- A1. een multidisciplinaire instelling;
- A2. het vermogen om zowel zelfstandig te functioneren als in teamverband constructief samen te werken;
- A3. een besef van de maatschappelijke context waarbinnen de Fiscale economie wordt beoefend.

4. Master's programme Accountancy and Control

1. Knowledge-related exit qualifications

The programme provides knowledge and insight into both national and international Accountancy and Control issues. The focus is on generating and evaluating (financial) information, using this information in managing and controlling an organisation, and ensuring the quality of this information. Knowledge and insight into issues means that the graduate is able to analyse the issues based on theoretical concepts, to critically evaluate any solutions proposed for addressing problems in theory and practice, and to develop alternative solutions grounded in theory. As regards substantive knowledge, a level is required which makes the student a specialist in the field. Detailed knowledge at a high academic level is combined with practical examples and applications. Thus, students learn both *how* to generate information (e.g., calculating earnings numbers following under different accounting standards), and *why* organisations choose a specific way of generating this information.

After successfully completing the programme, students have the following knowledge (depending on their chosen specialisation):

Common part:

- K1. knowledge of management control: using financial and non-financial information for decision making and control;
- K2. knowledge of financial reporting: the use of financial information in reporting on organisational performance, and the role accounting standards play in this process;
- K3. knowledge of accountability and corporate governance processes: the impact of social and political processes on organisations' accounting choices, as well as the role of ethics, professionalism, and codes of conduct;
- K4. knowledge of accounting information systems and internal control processes: ensuring the quality of internal information and the role of information technology in this process, as well as the use of internal information in risk management;

Specialisation Accountancy:

- K5. knowledge of various financial reporting standards;
- K6. knowledge of the way in which external auditors can verify the reliability of financial- and non-financial reporting ;
- K7. knowledge of empirical research in financial accounting, and the ability to critically evaluate and discuss this research.

Specialisation Control:

- K8. knowledge of the goals, uses and techniques of quantitative decision making in organisations;
- K9. knowledge of corporate financial management decisions;
- K10. knowledge of empirical research in management accounting, and the ability to critically evaluate and discuss this research.

2. Skills-related exit qualifications:

- S1. the ability to conduct research with an abstract, academic character, including the formulation of a hypothesis and the seeking out of the necessary sources;
- S2. the ability to report clearly and concisely, both orally and in writing, about research at an academic level;
- S3. the ability to analyse issues from the field within the chosen specialisation and to creatively solve associated problems.

3. Attitude-related exit qualifications:

- A1. a multidisciplinary attitude;
- A2. the ability both to function independently and to cooperate constructively within a team;
- A3. an understanding of the social context within which accounting is practised.

5. Master's programme Actuarial Science and Mathematical Finance

1. Knowledge-related exit qualifications

The course offers knowledge and insight into both the national and international situation and opinions. Insight into issues means that the graduate is able to analyse these based on theoretical concepts, and is also able to be critical with respect to solutions chosen for problems in theory and practice and to develop by himself alternative solutions for which a sound basis exists. As regards substantive knowledge, a level is required which makes the student a specialist in the field, or part of it. Detailed knowledge at a high academic level is combined with practical examples and applications.

After successfully completing the course, students will have acquired the following knowledge:

- K1. extensive knowledge of a number of the following fields of application in actuarial science: the actuarial theory of life insurance, the actuarial theory of non-life insurance, and the actuarial theory of pension funds, and also in the field of Risk Management: asset-liability management and risk management of shares, derivatives and bond portfolios;
- K2. specialised knowledge of at least one of the fields listed under K1.
- K3. an understanding of the applicability, scope and limits of actuarial methods in practical settings.

2. Skills-related exit qualifications:

- S1. the ability to conduct independent research, which includes being able to formulate a hypothesis and a plan outlining the approach to and the execution of the research;
- S2. the ability to translate a problem from practice into a problem definition that can be analysed using methods from the field of actuarial sciences and mathematical finance and to translate the results of these analyses back to the practical setting;
- S3. the ability to quickly familiarise oneself with a field outside the chosen specialisation;
- S4. the ability to keep abreast of new developments in their field.

3. Attitude-related exit qualifications:

- A1. a research-oriented attitude;
- A2. a quantitative and analytical approach to problems in financial or insurance practice;
- A3. a multidisciplinary attitude; actuaries deal directly with experts from different fields in the course of their work, including econometrists, statisticians, auditors, economists, tax specialists, jurists, demographers, medical staff, technicians and risk managers;
- A4. the ability both to function independently and to cooperate constructively within a team;
- A5. understanding of the social context in which the profession of actuary is performed and the social role of policy recommendations based on actuarial analyses (both in government and in business).

6. Master's programme Business Administration

The exit qualifications are partially differentiated according to the following tracks:

1. Strategy: main strategic issues that firms face in relation to how they interact with their competitive and institutional environment and how they are organized internally.
2. International Management: ways in which organizations engage in international business and how countries differ systematically in terms of resource endowments, market opportunities, culture and regulatory frameworks.
3. Marketing: contemporary models for strategic marketing and the implications of consumer behaviour for marketing decisions
4. Leadership and Management: the challenges organisations are facing in terms of managing individuals, teams and organisations and the balance between organizational and employee interests.
5. Entrepreneurship and Innovation: the process of new social or commercial venture creation, corporate entrepreneurship and innovation management.
6. Entrepreneurship and Management in the Creative Industries: the specific characteristics of core business concepts and theories in the context of the creative industries

1. Knowledge-related exit qualifications

- K1. knowledge and understanding of leading theories, models and debates in Business Administration.
- K2. knowledge of current research in one of the specialist fields of Business Administration
- K3. knowledge of business issues and challenges in an international and societal context
- K4. knowledge of different approaches and solutions to business issues
- K5. knowledge of different research methods and their applicability
- K6. in-depth knowledge of one specific quantitative or qualitative research method

2. Skills-related exit qualifications

- S1. the ability to apply theories and frameworks to practical cases and managerial problems
- S2. the ability to apply academic research methods to analyze business and management issues
- S3. the ability to critically reflect on current business research
- S4. the ability to articulate a well-balanced judgment or solution in reference to current business or managerial cases, supported by appropriate theories and arguments
- S5. the ability to independently develop and conduct academic research in one of the specialist fields of Business Administration
- S6. the ability to report clearly and concisely, both orally and in writing

3. Attitude-related exit qualification

- A1. Sensitivity to deal with ethical dilemmas, social responsibility and sustainability as relevant business issues
- A2. the ability to cooperate and communicate constructively in multidisciplinary and international teams.

7. Master's programme Econometrics

1. Knowledge-related exit qualifications

The course provides knowledge of and insight into both national and international economic and management developments and opinions. Insight into issues means that the graduate is able to analyse these based on theoretical concepts, and is also able to be critical with respect to solutions chosen for problems in theory and practice and to develop by himself alternative solutions for which a sound basis exists. As regards substantive knowledge, a level is required for each course which makes the student a specialist in the field, or part of it. Detailed knowledge at a high academic level is combined with practical examples and applications.

After successfully completing the course, students will have acquired the following knowledge:

- K1. extensive knowledge of one of the following fields of application within econometrics or mathematical economics: micro-econometrics, financial econometrics, market imbalances and non-linear dynamics, game theory applications;
- K2. an understanding of the applicability, scope and limits of econometric methods in practical situations.

2. Skills-related exit qualifications:

- S1. the ability to conduct independent research, which includes being able to formulate a hypothesis and a plan outlining the approach to and the execution of the research
- S2. the ability to translate a problem from practice into a problem definition that can be analysed using methods from the field of econometric and mathematical economic methods and to translate the results of these analyses back to the practical setting;
- S3. the ability to quickly familiarise oneself with a field outside the chosen specialisation;
- S4. the ability to keep abreast of new developments in their field.

3. Attitude-related exit qualifications:

- A1. a research-oriented attitude;
- A2. a primarily quantitative and analytical approach to practical social and business problems;
- A3. an understanding of the social context in which the profession is performed; this includes an understanding of the social role of policy recommendations based on econometric analyses (both in government and business);
- A4. the ability both to function independently and to cooperate constructively within a team;
- A5. a multidisciplinary attitude.

8. Master's programme Economics

1. Knowledge-related exit qualifications

The student learns about the theories and analytical framework of modern economics and how to apply these to practical issues. The graduate is mindful of the limitations of these theories and this analytical framework, as well as their applications in practice. As regards substantive knowledge, a level is required which makes the student a specialist in the field, or part of it. Graduates will have such knowledge of one of the following subject areas:

- K1. Behavioural Economics and Game Theory
- K2. Industrial Organisation, Regulation and Competition Policy
- K3. Development Economics
- K4. International Economics and Globalisation
- K5. Monetary Policy, Banking & Regulation
- K6. Public Economic Policy.

2. Skills-related exit qualifications:

- S1. the ability to evaluate scientific research in the area of study;
- S2. the ability to conduct scientific research at a scientific level. This means that the graduate will be able: (i) to formulate a substantiated, researchable problem statement, (ii) to find the sources needed to do the research, (iii) to make a substantiated choice from the methods available to analyse the problem, as well as the ability to apply these methods;
- S3. the ability to report clearly and concisely both orally and in writing about research at an academic level.

3. Attitude-related exit qualifications:

- A1. an interdisciplinary and/or multidisciplinary attitude;
- A2. the ability both to function independently and to cooperate constructively within a team;
- A3. an understanding of the social context within which economics is practised.

9. Master's programme Fiscale Economie

1. Knowledge-related exit qualifications

The course offers knowledge and insight into both the national and international economic situation and opinions. Insight into issues means that the graduate is able to analyse these based on theoretical concepts, and is also able to be critical with respect to solutions chosen for problems in theory and practice and to develop by himself alternative solutions for which a sound basis exists. As regards substantive knowledge, a level is required which makes the student a specialist in the field, or part of it. Detailed knowledge at a high academic level is combined with practical examples and applications.

After successfully completing the course, students have the following knowledge:

- K1. knowledge of tax accounting;
- K2. knowledge of corporation tax;
- K3. knowledge of financial reporting;
- K4. knowledge of responsible processing of tax in declarations;
- K5. knowledge of taxation of multinational companies
- K6. knowledge of transfer pricing and international tax law.

2. Skills-related exit qualifications:

- S1. the ability to conduct research with an abstract, academic character, including the formulation of a hypothesis and the seeking out of the necessary sources;
- S2. the ability to report clearly and concisely, both orally and in writing, about research at an academic level.

3. Attitude-related exit qualifications:

- A1. a multidisciplinary attitude;
- A2. the ability both to function independently and to cooperate constructively within a team;
- A3. an understanding of the social context within which Fiscal Economics is practised.

10. Master's programme Business Administration – Executive master

Final levels in terms of skills

Graduates of the programme should:

1. Possess the understanding and skills required to analyse business matters;
2. Be able to use modern information technology, including standard software and the internet;
3. Be able to apply academically derived tools, frameworks and concepts to practical business problems;
4. Be able to communicate ably with colleagues from other disciplines;
5. Be able to report the results of business-related research clearly and precisely, both verbally and in writing.

Final levels in terms of attitude

Graduates of the programme should have:

1. A multidisciplinary way of thinking;
2. The ability to work independently and in teams;
3. A keen understanding of the social and international environment in which business takes place.

Final levels in terms of knowledge

The programme offers knowledge and understanding of issues concerning domestic and international business. A graduate should be capable of analysing business problems using academically derived tools, frameworks and concepts, show a critical attitude when considering theoretical and practical solutions to academic problems, and be able to suggest alternative solutions based on sound business analysis.

We normally distinguish between three different levels:

1. fundamental knowledge;
2. intermediate knowledge;
3. extended knowledge.

Upon completion of the programme, all graduates should have intermediate knowledge or better in all areas of study. Fundamental knowledge entails a clear grasp of theories and tools important in the field. Intermediate knowledge involves not only fundamental knowledge, but also awareness of the limitations of that knowledge and the ability to apply knowledge to practical problems. Extended knowledge involves the ability to apply intermediate knowledge to new situations in an integrative fashion.

MBA – Big Data and Business Analytics

Final levels in terms of skills

Graduates of the programme should be able:

1. To understand academic frameworks and concepts on Business and Big Data & Business Analytics and apply them to practical business problems;
2. To show the skill and behaviour required to deal with real-life business issues;
3. To use modern information technology, including dedicated software for business analytics;
4. To work and communicate with colleagues from different fields;

5. To report the results of business-related research clearly and precisely, both verbally and in writing.

Final levels in terms of attitude

Graduates of the programme should be able:

1. To show multidisciplinary thinking;
2. To work independently and in teams;
3. To understand the social and international environment in which business takes place.

Final levels in terms of knowledge

The programme offers knowledge and understanding mainly of issues concerning domestic and international business. A graduate should be capable of analysing business problems using academically derived tools, frameworks and concepts, show a critical attitude when considering theoretical and practical solutions to academic problems, and be able to suggest alternative solutions based on sound business analysis.

We normally distinguish between three different levels:

1. fundamental knowledge;
2. intermediate knowledge;
3. extended knowledge.

Upon completion of the programme, all graduates should have intermediate knowledge or better in all areas of study. Intermediate knowledge implies a sound grasp of the important theories in the field, awareness of the limitations of that knowledge and the ability to apply the knowledge to practical problems.

MBA – Healthcare Management

The overall aim of the programme is to provide students holding a Master's degree and five years of relevant healthcare experience with a two-year, part-time curriculum in the field of Business Administration applicable to healthcare organisations up to the level of an advanced Master's degree. Students will be educated such that they acquire a high level of scientific knowledge of the modern business literature and the skills to apply this knowledge adequately in a healthcare environment. The programme will be quantitatively orientated and will emphasise integration of diverse skills rather than specialist knowledge. Upon successful completion of the programme, students shall be able to analyse and solve problems in the field of Business Administration in a healthcare environment. The programme is intended to provide preparation for a middle- or senior-management role in the field of healthcare and management.

Final levels in terms of skills - Graduates of the programme should:

1. Possess the understanding and skills required to analyse healthcare business matters;
2. Be able to use modern information technology, including standard software and the internet;
3. Be able to apply academically derived tools, frameworks and concepts to practical business problems as encountered in healthcare organisations;
4. Be able to communicate ably with colleagues and employees from other disciplines in a healthcare environment;
5. Be able to report the results of business-related research clearly and precisely, both verbally and in writing.

Final levels in terms of attitude - Graduates of the programme should have:

1. A multidisciplinary way of thinking;
2. The ability to work independently and in teams;
3. A keen understanding of the social and international environment in which healthcare delivery takes place.

Final levels in terms of knowledge - The programme offers knowledge and understanding mainly of issues concerning domestic and partly international healthcare business. A graduate should be capable of analysing healthcare business problems using academically derived tools, frameworks and concepts, show a critical attitude when considering theoretical and practical solutions to problems, and be able to suggest alternative solutions based on a sound business analysis.

Upon completion of the programme, all graduates should have intermediate knowledge or better in all areas of study. Fundamental knowledge entails a clear grasp of theories and tools important in the field. Intermediate knowledge involves not only fundamental knowledge, but also awareness of the limitations of that knowledge and the ability to apply knowledge to practical problems. The MBA is a multidisciplinary programme, meaning it is not intended to acquire extended knowledge of a specific management discipline or functional area. The demanding aspects of the programme are the breadth of knowledge required and the ability to integrate across multiple disciplines. The student must demonstrate in the Healthcare Thesis Project the ability to apply learned knowledge across multiple areas of management in an integrative fashion in real, practical healthcare management situations. Requiring the student to apply intermediate knowledge to new situations in an integrative fashion can be regarded as extended knowledge.

Graduates of the programme should:

1. Possess a sound understanding of the accepted management scholarship and principles in each discipline;
2. Be aware of the areas of controversy in management scholarship related to each discipline;
3. Understand the practical implications of accepted scholarship and principles, and divergence between theory and practice;
4. Understand the interrelationship between various business disciplines in a healthcare environment.

11. Master's programme International Finance – Executive master

In all events, a graduate of the degree programme will possess the following:

In terms of knowledge and understanding:

1. A thorough understanding of the accepted theoretical foundations and conceptual underpinnings of finance or financial economics,
2. A sound understanding of the evidence supporting the theoretical framework in financial economics,
3. An awareness of areas of controversy in finance,
4. An understanding of the practical implications of accepted theory and of areas of divergence between theory and practice in financial economics,
5. A sound knowledge and understanding of the institutional, accounting, and legal framework of international financial markets, and of the instruments and best practice methods used on international financial markets and their limitations,

In terms of applying knowledge and understanding:

6. The ability to analyse complex multidisciplinary issues and problems in the area of finance,
7. The ability to apply concepts and ideas in practical business situations appropriately, including assessing and managing risks, analysing and interpreting financial statements, applying valuation methodologies, and using and pricing financial instruments,
8. The ability to apply quantitative techniques and to use modern information technology and analytical software packages,

In terms of making judgements and communication:

9. The ability to integrate knowledge across the various disciplines of finance, handle complexity, and formulate judgements with limited information,
10. The ability to communicate results, conclusions, and insights, and the knowledge and rationale underpinning these, to specialist as well as non-specialist audiences,

In terms of learning skills, interpersonal skills, and attitudes:

11. An awareness and appreciation of international and intercultural diversity,
12. The ability to work independently as well as in teams,
13. The ability for life-long inquiry and critical interest in issues and developments in finance,
14. An awareness of the social environment and the impact of finance on society,
15. An awareness of ethical dilemmas and problems in finance and business at large.

12. Master's programme Management Studies – Executive master

In this degree programme, students can compile their own curriculum in various specialist fields, known as accents. The exit qualifications are therefore partially differentiated according to specialisation. These specialist fields are:

- A. Strategy
- B. Strategic Marketing Management
- C. Leadership and Management.

Upon completion of the program students have

1. a systematic understanding of relevant knowledge about organisations, their external (and international) environment and how they are managed; a critical awareness of current international issues in business and management which is informed by leading edge research and practice in the field;
2. an understanding of academic research methods to analyse business and management issues;
3. insight and basic knowledge of the theories and approaches in different specialisations of business studies;
4. the ability to deal creatively and systematically with management issues in the professional practice; ability to work at the clarification or solution of a problem applying relevant theoretical and methodological choices;
5. the ability to tackle new, unknown and atypical problems and ones in which diverse aspects of business are concerned; on the basis of doing this, to be able to bring nuances to the existing business knowledge;
6. the ability to develop and conduct research of an academic nature independently, including formulating a hypothesis, finding and processing relevant literature, systematically collecting, interpreting and analysing empirical data, drawing conclusions and to apply these conclusion to complex business situations and in this way generate new insights;
7. the ability to understand the complexity of management problems under conditions of uncertainty and to formulate a well-balanced judgment;
8. understanding of the competitive, international, social, cultural and ethical environment in which managers are operating and with this insight, the ability to evaluate the viability of a business;
9. the ability to cope with ethical dilemmas, to be sensitive to the interests and perspectives of relevant stakeholders and to acknowledge corporate social responsibility and sustainability as important aspects in decision-making;
10. the ability to report clearly and concisely, both orally and in writing, using appropriate media, to academic and professional audiences and to advise organisations on the basis of research;
11. the ability to cooperate and communicate constructively in multidisciplinary and international teams;
12. the ability to independently follow new developments in business based on scientific research;
13. the ability to find relevant scientific, professional literature, study this critically and determine its value; to determine the applicability of these developments in a specific context;
14. the ability to acquire new scientific knowledge of and insights into disciplines related to Business Studies, and to use these insights to resolve business issues.
15. a level of knowledge which makes him or her a specialist in one of the following specialisations of business studies:

A. Strategy:

- I. Understanding of the main strategic issues that firms face in relation to how they interact with their competitive and institutional environments and how they are organised internally.
- II. Knowledge of the main theories in the field of strategy.
- III. Ability to critically reflect on the main theories in the field of strategy, based on an understanding of their relative strengths and limitations.
- IV. Ability to apply the main theories of strategy in analyses of strategic issues faced by firms in practice.

B. Leadership and Management:

- I. Knowledge of the theories of leadership and human resource management and ability to use this knowledge to analyse problems and challenges organisations face in terms of managing individuals, teams and organisations.
- II. Ability to critically reflect on the main theories in the fields of leadership and human resource management and know their limitations as well as their potential to guide leadership and management practice.
- III. Ability to diagnose leadership and human resource management problems, dilemmas and interventions from an ethical perspective and in terms of the balance between organisational and employee interests.

C. Strategic Marketing Management:

- I. Understand how marketing knowledge, models and instrument use have evolved over time and are context-specific.
- II. Have knowledge of the key and contemporary models by which marketers can analyse and answer strategic marketing problems.
- III. Learn the key models to understand consumer behaviour and the implications of that knowledge for marketing decisions.
- IV. Be able to apply theoretically-derived analytical tools and frameworks to real-world strategic and tactical marketing problems.
- V. Understand the breadth and depth of available marketing tactics to execute marketing strategies in the most effective way.

13. Master's programme Insurance Studies – Executive master

De afgestudeerde van de opleiding heeft in ieder geval de volgende kennis:

1. Uitgebreide kennis van elk van de deelgebieden Financiële Economie, Actuarieel, Recht en Bedrijfskunde, gericht op de verzekeringsbedrijfstak (VZK) respectievelijk de financiële dienstverlening en instellingen (ERM);
2. Specialistische kennis op ten minste één van de bovengenoemde gebieden of een multidisciplinair gebied;
3. Een gedegen inzicht in de samenhang tussen de verschillende deelgebieden en de verzekeringspraktijk respectievelijk het risk management.

De volgende vaardigheden:

1. Het kritisch kunnen beoordelen en analyseren van vraagstukken op het gebied van de verzekeringskunde respectievelijk risk management en financiële planning; afgestudeerden zijn in staat de belangrijkste in de praktijk levende vraagstukken te analyseren en voor daarmee samenhangende problemen creatieve oplossingsrichtingen aan te dragen;
2. Het kritisch kunnen beoordelen en analyseren van concrete vraagstukken van individuele verzekerings- en andere financiële instellingen; afgestudeerden zijn in staat deze specifieke rol en plaats van de instelling te 'lezen' en te interpreteren, en voor praktische vraagstukken passende oplossingsrichtingen aan te dragen;
3. Het zelfstandig kunnen ontwerpen en uitvoeren van onderzoek met een wetenschappelijk karakter, inclusief het formuleren van een probleemstelling, het vinden en verwerken van de benodigde onderzoeksbronnen, en het systematisch verzamelen, interpreteren en analyseren van relevante praktijkinformatie; dit onderzoek kan zowel een theorievormend of -toetsend karakter hebben, als een toegepast karakter;
4. Het helder en bondig kunnen rapporteren, zowel schriftelijk als mondeling, over onderzoek van wetenschappelijk niveau, en op basis van dit onderzoek organisaties te adviseren;
5. Op adequate wijze kunnen communiceren met personen die binnen verzekerings- en andere financiële instellingen in andere disciplines werkzaam zijn.

De volgende attitude:

1. Een houding waarmee constructief in (multidisciplinair) teamverband kan worden samengewerkt;
2. Een actieve leer- en onderzoekshouding, die voortkomt uit een besef dat men nooit is 'uitgeleerd', ook niet wanneer het gaat om bedrijfskundige vraagstukken;
3. Een besef dat de werkelijkheid van het functioneren van verzekerings- en andere financiële instellingen niet enkelvoudig is, omdat afhankelijk van de invalshoek die wordt gekozen, het begrip van problemen en oorzaken kan verschuiven; dit vereist een open houding naar verschillende (disciplinaire) visies;
4. Een besef van de internationale, maatschappelijke, culturele en ethische context waarbinnen de verzekeringskunde respectievelijk het risk management worden beoefend.

14. Master's programme Actuarial Science and Mathematical Finance – Executive master

The programme offers knowledge and insight into both the national and international situation and opinions. Insight into issues means that the graduate is able to analyse these based on theoretical concepts, and is also able to be critical with respect to solutions chosen for problems in theory and practice and to develop by himself alternative solutions for which a sound basis exists. As regards substantive knowledge, a level is required which makes the student a specialist in the field, or part of it. Detailed knowledge at a high academic level is combined with practical examples and applications.

1. Knowledge-related exit qualifications

- K1. extensive knowledge of a number of the following fields of application in actuarial science: the actuarial theory of life insurance, the actuarial theory of non-life insurance, and the actuarial theory of pension funds, and also in the field of Risk Management: asset-liability management and risk management of shares, derivatives and bond portfolios;
- K2. specialised knowledge of at least one of the fields listed under K1.
- K3. an understanding of the applicability, scope and limits of actuarial methods in practical settings.

2. Skills-related exit qualifications:

- S1. the ability to conduct independent research, which includes being able to formulate a hypothesis and a plan outlining the approach to and the execution of the research;
- S2. the ability to translate a problem from practice into a problem definition that can be analysed using methods from the field of actuarial sciences and mathematical finance and to translate the results of these analyses back to the practical setting;
- S3. the ability to quickly familiarise oneself with a field outside the chosen specialisation;
- S4. the ability to keep abreast of new developments in their field.

3. Attitude-related exit qualifications:

- A1. a research-oriented attitude;
- A2. a quantitative and analytical approach to problems in financial or insurance practice;
- A3. a multidisciplinary attitude; actuaries deal directly with experts from different fields in the course of their work, including econometrists, statisticians, auditors, economists, tax specialists, jurists, demographers, medical staff, technicians and risk managers;
- A4. the ability both to function independently and to cooperate constructively within a team;
- A5. understanding of the social context in which the profession of actuary is performed and the social role of policy recommendations based on actuarial analyses (both in government and in business).

Appendix 4: Overview of the curriculum

1. Bachelor's programme Actuariële Wetenschappen

Year 1:

<i>Eerste semester</i>			<i>Tweede semester</i>		
Periode 1	Periode 2	Periode 3	Periode 4	Periode 5	Periode 6
Wiskunde 1	Kansrekening en Statistiek 1	Oriëntatie AEO 1	Wiskunde 2	Kansrekening en Statistiek 2	Oriëntatie AEO 2
Macro-economie voor AEO	Micro-economie voor AEO		Financiering voor AEO	Programmeren en Numerieke Wiskunde	

Year 2:

<i>Eerste semester</i>			<i>Tweede semester</i>		
Periode 1	Periode 2	Periode 3	Periode 4	Periode 5	Periode 6
Wiskunde 3	Kansrekening en Statistiek 3	Wiskunde 4	Econometrie 1	Schade Actuarial	Empirisch Project
Inleiding Leven-actuarial	Operationele Research 1		Operationele Research 2	Wiskundige Economie 1	

Year 3:

<i>Eerste semester</i>			<i>Tweede semester</i>		
Periode 1	Periode 2	Periode 3	Periode 4	Periode 5	Periode 6
Mathematical and Empirical Finance	Keuzevak	Keuzevak	Verslaglegging Leven-actuarial	Stochastische Modellen Leven-actuarial	Afstudeer-seminar en Bachelor-scriptie Actuariële Wetenschappen
Keuzevak	Keuzevak		Seminar Actuarial	Afstudeer-seminar en Bachelor-scriptie Actuariële Wetenschappen	

2. Bachelor's programme Econometrie en Operationele Research

Year 1:

<i>Eerste semester</i>			<i>Tweede semester</i>		
Periode 1	Periode 2	Periode 3	Periode 4	Periode 5	Periode 6
Wiskunde 1	Kansrekening en Statistiek 1	Oriëntatie AEO 1	Wiskunde 2	Kansrekening en Statistiek 2	Oriëntatie AEO 2
Macro-economie voor AEO	Micro-economie voor AEO		Financiering voor AEO	Programmeren en Numerieke Wiskunde	

Year 2:

<i>Eerste semester</i>			<i>Tweede semester</i>		
Periode 1	Periode 2	Periode 3	Periode 4	Periode 5	Periode 6
Wiskunde 3	Kansrekening en Statistiek 3	Wiskunde 4	Econometrie 1	Schade Actuarial	Empirisch Project
Inleiding Leven-actuarial	Operationele Research 1		Operationele Research 2	Wiskundige Economie 1	

Year 3, specialisation Econometrics:

<i>Eerste semester</i>			<i>Tweede semester</i>		
<i>Periode 1</i>	<i>Periode 2</i>	<i>Periode 3</i>	<i>Periode 4</i>	<i>Periode 5</i>	<i>Periode 6</i>
Econometrie 2	Tijdreeks-analyse	Wiskundige Economie 2	Keuzevak	Keuzevak	Bachelor-scriptie en Afstudeer-seminar Econometrie
Keuzevak	Keuzevak		Keuzevak	Bachelor-scriptie en Afstudeer-seminar Econometrie	

Year 3, specialisation Operational Research:

<i>Eerste semester</i>			<i>Tweede semester</i>		
Periode 1	Periode 2	Periode 3	Periode 4	Periode 5	Periode 6
Operationele Research – Deterministische Methoden	Operationele Research - Stochastische Methoden	Gerestrictieerd keuzevak	Keuzevak	Operations and Process Management	Bachelor-scriptie en Afstudeer-seminar Operationele Research
Keuzevak	Keuzevak		Keuzevak	Bachelorscriptie en Afstudeer-seminar Operationele Research	

3. Bachelor's programme Fiscale Economie

Year 1:

<i>Eerste semester</i>			<i>Tweede semester</i>		
Periode 1	Periode 2	Periode 3	Periode 4	Periode 5	Periode 6
Wiskunde	Accounting	Fiscale Economie en Vaardigheden	Statistiek	Financiering	Onderzoeksproject
Marketing en Strategie	Micro-economie		Organisatie en Management	Macro-economie	

Year 2:

<i>Eerste semester</i>			<i>Tweede semester</i>		
Periode 1	Periode 2	Periode 3	Periode 4	Periode 5	Periode 6
Oriëntatie Economie en Recht	Intermediate Financial Accounting 1	Ondernemingsrecht	Rechtseconomie	Inleiding Belastingheffing Ondernemingen	Wetenschapsleer Fiscale Economie
Inleiding Belastingheffing Algemeen	Keuzevak		Vermogensrecht	Intermediate Financial Accounting 2	

Year 3:

<i>Eerste semester</i>			<i>Tweede semester</i>		
Periode 1	Periode 2	Periode 3	Periode 4	Periode 5	Periode 6
Keuzevak	Financiering	Inleiding Europees Belastingrecht (3 EC)	Fiscale Winstberekening	Belastingheffing MKB	Bachelorscriptie en Afstudeerseminar Fiscale Economie
Belasting Toegevoegde Waarde BTW	Fiscaliteit en Overheid	Grondslagen Internationaal Belastingrecht (3 EC)	Management Accounting Intermediate	Bachelorscriptie en Afstudeerseminar Fiscale Economie	

4. Master's programme *Accountancy and Control*

Specialisation Accountancy:

<i>First semester</i>			<i>Second semester</i>		
Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
IFRS 1	Financial Accounting Research	Accounting Information Systems	Internal Control & Risk Management	IFRS 2	Master's Thesis Accountancy
Management Control	Sustainability, Accountability and Ethics		Assurance	Master's Thesis Accountancy & Control	
Research Seminar Accountancy & Control			Master's Thesis Accountancy & Control		

Specialisation Control:

<i>First semester</i>			<i>Second semester</i>		
Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
IFRS 1	Management Control Research	Accounting Information Systems	Internal Control & Risk Management	Management Accounting	Master's Thesis Control
Management Control	Sustainability, Accountability and Ethics		Corporate Financial Management	Master's Thesis Accountancy & Control	
Research Seminar Accountancy & Control			Master's Thesis Accountancy & Control		

5. Master's programme Actuarial Science and Mathematical Finance

<i>First semester</i>			<i>Second semester</i>		
Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Financial Mathematics for Insurance	Risk Management for Insurers and Pensions	Elective	Elective	Asset Liability Management – Cases	Elective
Non-Life Insurance: Statistical Techniques	Elective			Elective	
			Master's Thesis Actuarial Science and Mathematical Finance		

<i>Electives</i>		
6414M0216	Actuarial Science of Pensions (6 EC)	2
6314M0108	Derivatives (5 EC)	2
6314M0057	Fixed Income Risk Management (5 EC)	4
6414M0206	Caput Actuarial Science (3 EC)	6
6414M0217	Caput Financing of Pensions (6 EC)	4
6414M0219	Machine Learning for Econometrics (5 EC)	2
6414M0220	Quantitative Marketing (5 EC)	4+5
6414M0218	Caput Insurance (6 EC)	3
6414M0013	Stochastic Calculus (5 EC)	4+5
6414M0215	Verzekerings- en Pensioenrecht (6 EC, taught in Dutch)	4

6. Master's programme Business Administration

<i>First semester</i>			<i>Second semester</i>		
Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Theories course in the chosen specialisation (6 EC)	Core course in the chosen specialisation (6 EC)	Introduction to the Thesis (1 EC)	Elective Master's course (6 EC)	Elective Master's course (6 EC)	Master's Thesis Business Administration (15 EC)
Theories course in a different specialisation (6 EC)			Research Methods Workshop (2 EC)	Analysis Workshop (1 EC)	
Business Seminar (1 EC)		Thesis Proposal of the chosen specialisation (4 EC)	Master's Thesis Business Administration		

7. Master's programme *Econometrics*

<i>First semester</i>			<i>Second semester</i>		
Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
General Equilibrium Theory	Game Theory	Advanced Econometrics 2	Elective	Master's Thesis Econometrics	
Elective	Elective		Elective		
Advanced Econometrics 1			Elective		

Specialisation Econometrics

1. the course Financial Econometrics (6414M0007, 5 EC)
2. the course Micro-econometrics (6414M0010, 5 EC)
3. elective from the list of Master's courses in Econometrics (5 EC)
4. electives (10 EC)

Specialisation Financial Econometrics

- the course Financial Econometrics (6414M0007, EC)
1. the course Stochastic Calculus (6414M0013, 5 EC)
 2. elective from the list of Master's courses in Econometrics (5 EC)
 3. the course Derivatives (6314M0108, 5 EC)
 4. elective (5 EC)

Specialisation Mathematical Economics:

1. the course Non-linear Economic Dynamics (6414M0012, 5 EC)
2. the course Bounded Rationality (6414M0004, 5 EC)
3. elective from the list of Master's courses in Econometrics (5 EC)
4. electives (10 EC)

Specialisation Big Data Business Analytics

1. the course Machine Learning for Econometrics (6414M0219, 5 EC)
2. the course Quantitative Marketing (6414M0220, 5 EC)
3. elective from the list of Master's courses in Econometrics (5 EC)
4. electives (10 EC)

Free track

1. compulsory Master's courses (20 EC) from the list of Master's courses in Econometrics
2. Master's courses (15 EC) from the list of Master's courses in Econometrics
3. electives (10 EC)
4. Master's Thesis Free Track (6414M0225, 15 EC)

8. Master's programme Economics

Within the Master's programme in Economics there are seven specialisations:

1. Behavioural Economics and Game Theory
2. Industrial Organisation, Regulation and Competition Policy
3. Development Economics
4. International Economics and Globalisation
5. Monetary Policy, Banking & Regulation
6. Public Economic Policy

Structure of the Master's programme in Economics

<i>First semester</i>			<i>Second semester</i>		
Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Microeconomics and Game Theory	Compulsory Master's course in the chosen specialisation	Compulsory Master's course in the chosen specialisation	Compulsory Master's course in the chosen specialisation	Master's Thesis Economics on the chosen specialisation	Master's Thesis Economics on the chosen specialisation
Macroeconomics	Compulsory Master's course in the chosen specialisation		Compulsory Master's course in the chosen specialisation		
Applied Econometrics			Research Seminar for the specific specialisation		

9. Master's programme *Fiscale Economie*

Curriculum

<i>First semester</i>			<i>Second semester</i>		
<i>Period 1</i>	<i>Period 2</i>	<i>Period 3</i>	<i>Period 4</i>	<i>Period 5</i>	<i>Period 6</i>
Financiële Verslaggeving (Financial Accounting) (6 EC)	Transfer Pricing (6 EC)		Belastingheffing van Concerns (Taxation of Multinational Companies) (6 EC)	Corporate Tax Compliance (3 EC)	Master's Thesis Fiscale Economie (12 EC)
Vennootschapsbelasting (Corporate Income Tax) (6 EC)	Tax Compliance Formeel (Tax Compliance Formal Procedures) (3 EC)		Internationaal Belastingrecht (International Taxation) (9 EC)		
	Tax Accounting (9 EC)		Master's Thesis Fiscale Economie (12 EC)		

Electives

<i>Course Code</i>	<i>Course Name</i>	<i>Period</i>
6414M0232	Master's Thesis Fiscal Economics (12 EC)	4+5+6
3364CON3V	Belastingheffing van Concerns (6 EC)	4
6414M0186	Financiële Verslaggeving (6 EC)	1
6414M0208	Tax Accounting (9 EC)	2+3
6414M0210	Tax Compliance Formeel (3 EC)	2
3364DIV3V	Internationaal belastingrecht (9 EC)	4+5
6414M0207	Vennootschapsbelasting (6 EC)	1
6414M0185	Transfer Pricing (6 EC)	2
6414M0209	Corporate Tax Compliance (3 EC)	5

10. Master's programme Business Administration – Executive master

Core courses

Course Code	Course Name	Period	EC
6614ZM001Y	Valuation	1	4
6614ZM003Y	Quantitative Methods	1	4
6614ZM002Y	Competitive Strategy	1	4
6614ZM004Y	Financial Accounting	1	4
6614ZM013Y	Amsterdam Leadership Programme (ALP)	1, 2, 4, 5	3,5
6614ZM015Y	Integrity Workshop	1	1
6614ZM007Y	International Business	2	4
6614ZM006Y	Corporate Strategy	2	4
6614ZM005Y	Corporate Finance	2	4
6614ZM014Y	International Study Trip	3	2,5
6614ZM008Y	Operations & Supply Chain Management	4	4
6614ZM009Y	Marketing Strategy	4	4
6614ZM010Y	Information Systems	5	4
6614ZM012Y	The Executive Process	5	4
6614ZM011Y	HRM	5	4
6614ZM016Y	Capstone Simulation	6	4
6614ZM017Y	MBA Thesis Project	4, 5, 6	15

Electives

Course Code	Course Name	Period	EC
6614ZM019Y	Strategic Performance Management	2	4
6614ZM022Y	Consumer Behaviour	2	4
6614ZM025Y	Strategy Execution	4	4
6614ZM021Y	Entrepreneurship	4	4
6614ZM028Y	Innovation Management	5	4
6614ZM027Y	Strategy Negotiation	4	4
6614ZM029Y	Branding	5	4
6614ZM030Y	Real Estate Finance at George Washington University (USA)	5	4

MBA – Big Data and Business Analytics

<i>Course Code</i>	<i>Course Name</i>	<i>Period</i>	<i>EC</i>
6614ZM004Y	Financial Accounting	1	4
6614ZD003Y	Statistics for Big Data	1	4
	Amsterdam Leadership Programme (ALP)	1-6	3
6614ZM001Y	Valuation	1	4
6614ZM002Y	Competitive Strategy	1	4
6614ZM022Y	Consumer Behaviour	2	4
6614ZD004Y	Econometrics	2	4
6614ZD010Y	Machine Learning	2	4
6614ZM005Y	Corporate Finance	2	4
6614ZD005Y	Law & Ethics for Big Data	3	2
6614ZD006Y	Big Data Strategy & Implementation	3	2
6614ZD001Y	International Study Trip	3	2
6614ZM009Y	Marketing Strategy	4	4
6614ZF012Y	Financial Modelling	4	4
6614ZM008Y	Operations & Supply Chain Management	4	4
6614ZF011Y	Risk Management & Financial Institutions	4	4
6614ZM021Y	Entrepreneurship	4	4
6614ZD007Y	System Optimisation	5	4
6614ZD008Y	Data Visualisation	5	2
6614ZD009Y	Information Systems for Big Data	5	3
6614ZD011Y	Quantitative Marketing	5	4
6614ZM011Y	HRM	5	4
6614ZD002Y	Big Data Thesis Project	4, 5, 6	15

MBA – Healthcare Management

<i>Course Code</i>	<i>Course Name</i>	<i>Period</i>	<i>EC</i>
6614ZM013Y	Amsterdam Leadership Programme (ALP)	1-6	3,5
6614ZM009Y	Marketing Strategy	1	4
6614ZM011Y	HRM	1	4
6614ZM010Y	Information Systems	1	4
6614ZH019Y	Quality and Safety Management	1	4
6614ZM003Y	Quantitative Methods	2	4
6614ZM012Y	The Executive Process	2	4
6614ZH016Y	Finance of Healthcare	2	4
6614ZH018Y	Organisation Design & Governance	2	4
6614ZH022Y	Workshop Leadership according Covey	3	1
6614ZH023Y	Workshop Healthcare Law	3	1
6614ZH015Y	External Environment of Healthcare Organisations	5	4
6614ZH014Y	Change Management	4	4

6614ZH017Y	Process Improvement in Healthcare	4	4
6614ZM006Y	Corporate Strategy	4	4
6614ZM004Y	Financial Accounting	4	4
6614ZM002Y	Competitive Strategy	5	4
6614ZM001Y	Valuation	5	4
6614ZM008Y	Operations & Supply Chain Management	5	4
6614ZH021Y	Workshop Policy and Academic Writing	6	2
6614ZH020Y	Workshop Crisis Management	6	1
6614ZM014Y	International Study Trip	6	2,5
6614ZH009Y	Healthcare Thesis Project	1-6	15

11. Master's programme International Finance – Executive master

Courses

Course Code	Course Name	Period	EC
	Pre Course Training	1	5
6614ZF001	Advanced Corporate Finance & Valuation	1	4
6614ZF002	Financial Econometrics	1	4
6614ZF003	Investments	1	4
6614ZF004	M&A and Restructuring	2	4
6614ZF005	International Financial Management	2	4
6614ZF006	Financial Derivatives	2	4
6614ZF008	International Study Trip: Cape Town	3	2
6614ZF011	Risk Management & Financial Institutions	4	4
6614ZF012	Financial Modeling	4	4
6614ZF010	Finance Research Workshop	4	1
6614ZF010	Ethics in Finance Workshop	4	1
	MIF Leadership Program	5	0
6614ZF017	Master Thesis		15

Electives

Course Code	Course Name	Period	EC
6614ZF007	Financial Analysis and Valuation	2	4
6614ZF013	Advanced Financial Econometrics	4	4
6614ZF014	Real Estate Finance	4	4
6614ZF013	Advanced Asset Management	5	4
6614ZF016	Computational Finance in MATLAB	5	4
	Behavioural Finance	5	4

12. Master's programme Management Studies – Executive master

Course Code	Course Name	Period
<i>Compulsory courses for all specialisations:</i>		
6614ZB022	Master's Thesis Management Studies (15 EC)	1+2+3 or 4+5+6
6614ZB003	Business Ethics (3 EC)	2
6614ZB033	Business Seminar (3 EC)	1
6614ZB004	Thesis Proposal (5 EC)	3 or 6
6614ZB001	Thesis Research Methods (4 EC)	1+2 or 4+5
<i>Compulsory courses for the specialisation Strategy:</i>		
6614ZB005	Theories of Strategy	1 or 4
6614ZB0027	Strategy and Organisation Design	2 or 5
6614ZB0028	The Adaptive Organisation	
<i>Compulsory courses for the specialisation Strategic Marketing Management:</i>		
6614ZB016	Theories of Marketing	1 or 4
6614ZB017	Consumer Behaviour	2
6614ZB018	Marketing Strategy	5
<i>Compulsory courses for the specialisation Leadership and Management:</i>		
6614ZB024	Theories of Leadership and Management	1 or 3
6614ZB021	Managing People Strategically	2
6614ZB013	Leadership	5
<i>Electives:</i>		
6614ZB011	Business and Sustainability	4
6614ZB031	Business to Business Marketing and Innovation	1
6614ZB026	Change Management	1 or 4
6614ZB030	Corporate Financial Management	1 or 4
6614ZB010	Entrepreneurship	4+5
6614ZB029	Management Consulting	4+5
6614ZB008	New Business Models	4+5
6614ZB009	Corporate Branding	4+5

13. Master's programme Insurance Studies – Executive master

Master Verzekeringskunde afstudeervariant Verzekeringskunde Algemeen

Vak Code	Vak Naam	Periode	EC
6614ZV001Y	Verzekerings -en Privaatrecht	1	3
6614ZV002Y	Bedrijfskunde Basisvak	1	3
6614ZV003Y	Actuariaat: kwantificeren van risico's	2	3
6614ZV004Y	Financiële Economie Basisvak	2	3
6614ZV005Y	Verzekeringseconomie	4	4
6614ZV006Y	Financiële Economie Verdieping	4	4
6614ZV007Y	Enterprise Risk Management	5	4
6614ZV008Y	Bedrijfskunde en Risico	5	4
6614ZV009Y	Case Study	6	2
6614ZV010Y	Regulering en Toezicht	1	5
6614ZV011Y	Balans-en Risicomanagement	1	5
6614ZV012Y	Research Atelier	2	3
6614ZV014Y	Specialisatievak Verzekeringsrecht	4	5
6614ZV016Y	Scriptie	4 t/m 6	12

Master Verzekeringskunde afstudeervariant Enterprise Risk Management

Vak Code	Vak Naam	Periode	EC
6614ZV001Y	Verzekerings -en Privaatrecht	1	3
6614ZV002Y	Bedrijfskunde Basisvak	1	3
6614ZV003Y	Actuariaat: kwantificeren van risico's	2	3
6614ZV004Y	Financiële Economie Basisvak	2	3
6614ZV005Y	Verzekeringseconomie	4	4
6614ZV006Y	Financiële Economie Verdieping	4	4
6614ZV007Y	Enterprise Risk Management	5	4
6614ZV008Y	Bedrijfskunde en Risico	5	4
6614ZV009Y	Case Study	6	2
6614ZV011Y	Balans-en Risicomanagement	1	5
6614ZV012Y	Research Atelier	2	3
6614ZV013Y	Operational Risk Management	2	5
6614ZV015Y	Risk Management Strategie	4	5
6614ZV016Y	Scriptie	4 t/m 6	12

14. Master's programme Actuarial Science and Mathematical Finance – Executive master

Schematic overview

First semester			Second semester		
Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
Financial Mathematics for Insurance	Risk Management for Insurers and Pensions	Elective	Elective	Asset Liability Management – Cases	Elective
Non-Life Insurance: Statistical Techniques	Elective			Elective	
			Master's Thesis Actuarial Science and Mathematical Finance		

Electives

Electives		
6414M0216	Actuarial Science of Pensions (6 EC)	2
6314M0108	Derivatives (5 EC)	2
6314M0057	Fixed Income Risk Management (5 EC)	4
6414M0206	Caput Actuarial Science (3 EC)	6
6414M0217	Caput Financing of Pensions (6 EC)	4
6414M0219	Machine Learning for Econometrics (5 EC)	2
6414M0220	Quantitative Marketing (5 EC)	4+5
6414M0218	Caput Insurance (6 EC)	3
6414M0013	Stochastic Calculus (5 EC)	4+5
6414M0215	Verzekerings- en Pensioenrecht (6 EC, taught in Dutch)	4

Appendix 5: Programme of the site visit

Monday 16 November 2015		
8:45	Welcome by the Dean: Professor Han van Dissel	
9:00-11:15	AACSB Peer Review Team Meeting	<ul style="list-style-type: none"> - Chair: Prof. dr. Nicolas Mottis - Prof. dr. Dag Morten Dalen - Prof. dr. Robert T. Sumichrast - Student member: Lawrence Bolte, BSc - Secretary: Mark Delmartino, MA - Marine Condette (AACSB)
11:15-11:45	Campus Tour	<ul style="list-style-type: none"> - Maurice Oudejans, MSc (Project Manager Accreditations)
12:00-14:00	Lunch AACSB Peer Review team / Executive Board FEB / two Heads of Section	<ul style="list-style-type: none"> - Dean: Prof. dr. Han van Dissel - Deputy Dean ABS: Prof. dr. Marc Salomon - Deputy Dean ASE: Prof. dr. Roel Beetsma - Director Operations: Jan Dijk, MSc - Head Section Accounting: Prof. dr. Victor Maas - Head Section Actuarial Science: Prof. dr. Michel Vellekoop
14:00-15:00	Meeting with Executive Board FEB and two Heads of Section to discuss Strategic Planning and Financial Strategies (to include a 10 minute presentation from the Dean) Standards: 1 & 3	<ul style="list-style-type: none"> - Dean: Prof. dr. Han van Dissel - Deputy Dean ABS: Prof. dr. Marc Salomon - Deputy Dean ASE: Prof. dr. Roel Beetsma - Director Operations: Jan Dijk, MSc - Head Section Accounting: Prof. dr. Victor Maas - Head Section Actuarial Science: Prof. dr. Michel Vellekoop
15:00-15:15	Break	
15:15-17:15	Undergraduate Programme Directors Standards: 8, 9, 10, 11 & 12 -TNO BSc Business Administration (NVAO accreditation new programme) -TNO BSc Economics & Business Economics (NVAO accreditation new programme)	<ul style="list-style-type: none"> - Director College of Economics and Business and Programme Director BSc Economics and Business: Prof. dr. Peter van Baalen - Track Coordinator Business Administration: Dr. Frank Belschak - Track Coordinator Economics: Dr. Florian Wagener - Programme Director BSc Econometrics & OR: Dr. Hans van Ophem - Programme Director BSc Fiscal Economics: Prof. dr. mr. Gérard Kampschöer - Programme Director BSc Actuarial Science: Prof. dr. Roger Laeven - Chair of the Board of Studies and lecturer: Roger Pruppers, MSc - Director MSc Insurance Studies: Rob Wagenvoord, MSc
17.15-18:00	Meeting on Resources and Administration Standards: 1,3,6 & 7	<ul style="list-style-type: none"> - Director Operations: Jan Dijk, MSc - Controller FEB: André Oosten, MSc, RA - Controller Institute of Executive Programmes: Olav Berendes, MSc - Head HRM: Henk van den Bergh, MA

		<ul style="list-style-type: none"> - Secretary ABS: Bas Bouten, MA - Secretary ASE: Wilma de Kruijf, MSc
18:30-21.30	Cocktail hour and dinner (Boat Tour) with FEB faculty, students, alumni, members of the FEB Advisory Board and Industry Partners.	<ul style="list-style-type: none"> - Dean: Prof. dr. Han van Dissel - Deputy Dean: Prof. dr. Marc Salomon - Deputy Dean: Prof. dr. Roel Beetsma - Director Operations: Jan Dijk, MSc - Director College of Economics and Business: Prof. dr. Peter van Baalen - Director Graduate School of Economics: Prof. dr. Massimo Giuliadori - Director Research Institute ASE: Prof. dr. Peter Boswijk - Director Institute of Executive Programmes: Prof. dr. Ronald Does - Director Corporate Connections: Prof. dr. Willemijn van Dolen - Assistant Professor: Dr. Stefan Mol - Chair Faculty Student Council: Samantha van Hoek - Chair Student Association Amsterdam (SEFA): Youri Min - PhD Student: Monica Kackovic, MSc - Former Chairman SER and ING Board; currently university professor, member of the FEB Advisory Board and Senator: Prof. dr. Alexander Rinnooy Kan -Senior Manager Enterprise Business Services at Avanade: Pieter Wickel, MSc, MBA, LL.M -Former Chair Board of Governors CEO Unilever and member of the FEB Advisory Board: Prof. drs. Floris Maljers - General Director TOPS Business Services ABN AMRO and member of the FEB Advisory Board : Gert Jan Meppelink, L.L.M. -Partner at KPMG and member of the FEB Advisory Board: Dr. Edo Roos Lindgreen -Management Trainee at Liberty Global: Oana Diana Oprea, MSc -Senior Economist Dutch Central Bank UvA: dr. Tijmen Daniels -Consultant at Egon Zehnder and member of the FEB Advisory Board: Sikko Onnes, MSc -Co Founder Oxyme and Managing Director: Bob Rietveld, MSc -Senior Marketing Analytics Consultant ORTEC: Maarten Soomer, MSc -Senior Recruiter Atlassian: Geto Getov, MSc

Tuesday 17 November 2015			
9:00-11:00	Graduate Programme Directors Standards: 8, 9, 10, 11 & 12	-TNO MSc Finance (NVAO accreditation new programme) -TNO MSc Managerial Economics & Strategy (NVAO accreditation new programme) -New tracks of MBA: <ul style="list-style-type: none"> • Health Care Management • Big Data -# credits MBA/MIF	- Director Graduate School of Business: Dr. Anne Keegan - Director Graduate School of Economics: Prof. dr. Massimo Giuliadori - Programme Director MSc Business Economics (Finance): Dr. Jeroen Ligterink - Programme Director MSc Accountancy and Control: Dr. Sander van Triest - Programme Director MSc International Finance: Dr. Jens Martin - Programme Director MBA: Dr. Sebastian Kortmann - Vice-Chairman Examination Committee and Programme Director MSc Business Economics: Prof. dr. Randolph Sloof
11:00-11:15	Break		
11:15-12:00	Session with students Standards: 5, 10, 11,12 & 13	<u>Undergraduate Students</u> - Bram Timmers (BSc Economics and Business) - Lotte Jellema (BSc Econometrics) - Artur Rymer (BSc Economics and Business) - Sven van Dam (BSc Econometrics) -- Joël Bohnen (BSc Economics and Business) - Teo Todercan (BSc Economics and Business) - Mourad Farhad (BSc Economics and Business) - Samuel Ileoma (BSc Economics and Business) - Samantha van de Hoek (BSc Fiscal Economics)	
12:00-12:45	Session with students Standards: 5, 10, 11,12 & 13	<u>Postgraduate Students</u> - Michalli Harmsen, BSc (MSc Economics) - Magdalena Rola-Janicka, BSc (Research Master Economics, TI) - Yu Li, BSc (MBA student) - Irene Doelman, BSc (MSc Actuarial Science) - Olga Kowalska, BSc (MSc Business Administration) - Oleksandra Isachenko, BSc (MSc Business Economics) - Adam Olejniczak, BSc (MSc Business Economics/MSc Finance) - Jori van Schijndel (Amsterdam IT Auditing Programme) - Martijn van Herpen, MSc (Executive Master in Internal Auditing) -Tjerk van Dijk (MSc Insurance Studies) -Thomas Ordelmans, MSc Accountancy and Control	
12:45-13:45	Lunch PRT only		

13:45-14:30	Meeting faculty 1: Assistant professors and Lecturers Standards 5, 6 & 15	<ul style="list-style-type: none"> - Dr. Joris Ebbers (assistant professor lecturer entrepreneurship) - Dr. ir. Bianca Groen (assistant professor accounting) - Dr. Claudia Buengeler (assistant professor hrm) - Dr. Torsten Jochem (assistant professor finance) - Dr. Joris Marée (lecturer statistics and mathematics) - Dr. Tim Boonen (assistant professor actuarial science) - Dr. Joël van der Weele (assistant professor microeconomics) - Dr. Ward Romp (assistant professor economics) - Dr. Silvia Dominquez Martinez (assistant professor organizational economics) - Dr. Niccolò Pisani (assistant professor international strategy and marketing)
14:30-15:30	Meeting faculty 2: Associate Professors and Professorial Staff Standards 5, 6 & 15	<ul style="list-style-type: none"> - Prof. dr. Brendan O'Dwyer (full professor accounting) - Dr. Wendelien van Eerde (associate professor hrm) - Dr. Erasmo Giambona (associate professor finance) - Prof. dr. Willemijn van Dolen (full professor marketing) - Prof. dr. Maarten Pieter Schinkel (full professor industrial organisation) - Prof. dr. Franc Klaassen (full professor international economics) - Prof. dr. Frank Kleibergen (full professor econometrics) - Dr. Sander Onderstal (associate professor microeconomics) - Dr. Jeroen van de Ven (associate professor microeconomics)
15:30-15:45	Break	
15:45-16:30	Meeting with Directors Research Institute Standard 2	<ul style="list-style-type: none"> - Director Research Institute ASE: Prof. dr. Peter Boswijk - Director Research Institute ABS: Prof. dr. Brendan O'Dwyer - Coordinator Research Priority ASE: Prof. dr. Theo Offerman - Coordinator Research Priority Macro-Finance: Prof. dr. Roger Laeven - Policy Advisor Research: José Kiss, MA
16:30-17:15	Meeting with PhD students Standard 2, 4, 8, 9, 10, 11, 12 and 13	<ul style="list-style-type: none"> - Joep Lustenhouwer (ASE) - Andrei Lalu (ASE) - Sabina Albrecht (ASE) - Renske van Geffen (ABS) - Ieva Sakalauskaite (ABS) - Robin Dottling (ABS) - Jort ten Berg (ABS) - Katinka Quintelier (ABS)
19:00-23:30	AACSB PRT Dinner / meeting: alone at the UvA Academic Club	

Wednesday 18 November 2015				
9:00-10:00	Parallel Session Student Admissions and Support/ Career Advisors/ Student Associations on Student Enrichment Opportunities Activities/ Alumni (2 sessions)		<p>1. Student Admissions and Support</p> <ul style="list-style-type: none"> - Director College of Economics and Business: Prof. dr. Peter van Baalen - Programme manager MBA: Saskya de Brieder, MA - Head Student Information and Administration: Bob Bom, MSc - Head Study Advice: Ellen de Jong, MSc - Head Monitoring and Innovation: Marieke van Kempen, MSc 	<p>2. Career Advisors / Internships / Alumni</p> <ul style="list-style-type: none"> - Director Marketing and Communication: Marja van der Meer, MSc - Career officer: Kristina Rasikh-Stipovic - Alumni officer: Suzan van der Bruggen, MA - Deputy Dean (ABS): Prof. dr. Marc Salomon - Director Graduate School ASE: Prof. dr. Massimo Giuliodori - Career Advisor UvA: Marie-Elise van den Hoek Ostende, MSc - Chairman SEFA: Youri Min
	1) Student Admissions and Support Staff.	2) Career Advisors/ Internships/ Alumni Standards 4 & 13		
10:00-10:15	Break			
10:15-11:15	Meeting with key staff on internationalisation Standards 1 & 4	<ul style="list-style-type: none"> - Director Graduate School ABS: Dr. Anne Keegan - Programme Director MSc Business Administration and MSc Management Studies: Dr. Mark van der Veen - Director Marketing and Communication: Marja van der Meer, MSc - Assistant professor: Dr. Arno Kourula - Track Coordinator Business Administration: Dr. Frank Belschak 		
11:15-11:30	Break			
11:30-12:15	Executive Education Standard 14	<ul style="list-style-type: none"> - Director Executive Education: Prof. dr. Ronald Does - Director Corporate Relations: Prof. dr. Willemijn van Dolen - Manager Corporate Contacts: Susan Nuijten - Sales and Recruitment Manager: Marjolein 't Jong, MSc - Cluster Manager Contract Education: Irina Hofstee, MSc - Senior consultant: Inez Swetsloot, MSc 		
12:15-12:30	Break			
12:30-14:00	Lunch with the Rector UvA	Rector UvA	-Rector UvA: Prof. dr. Dymph van der Boom	
14:00-15:45	Time for AACSB PRT to finalize the report			
15:45-16:30	Debrief with Executive Board FEB	Executive Board	<ul style="list-style-type: none"> - Dean: Prof. dr. Han van Dissel - Deputy Dean ABS: Prof. dr. Marc Salomon - Deputy Dean ASE: Prof. dr. Roel Beetsma - Project Manager Accreditations: Maurice Oudejans, MSc 	
16:30	End of the visit			

Appendix 6: Theses and documents studied by the panel

Prior to the site visit, the thesis panel studied the theses of the students with the following student numbers:

Bachelor's programmes

1. Bachelor's programme *Actuariële Wetenschappen*

6015778	6055001	5833361
10121234	10185615	

2. Bachelor's programme *Econometrie en Operationele Research*

6137636	5941393	10174605
10010556	10114068	

3. Bachelor's programme *Fiscale Economie*

10034358	10084002	5970652
10208755	10006753	

Master's programmes

4. Master's programme *Accountancy and Control*

10395555 (fulltime)	10428402 (fulltime)	5928257 (fulltime)
10297669 (parttime)	10281568 (parttime)	

5. Master's programme *Actuarial Science and Mathematical Finance*

10389776	5606373	6048692
5613884	10273077	

6. Master's programme *Business Administration*

10668527	10379193	10394516
10276033	10674829	

7. Master's programme *Econometrics*

5737427	5645301	5742595
5890853	6018351	

8. Master's programme *Economics*

10435336	10122818	10230726
6082882	10038450	

9. Master's programme *Fiscale Economie*

10149090 (fulltime)	5969913 (fulltime)	10262881 (parttime)
10441727 (parttime)	10263187 (parttime)	

10. Master's programme *Business Administration – Executive master*

6386679	10671498	9880410
6377696	371939	

11. Master's programme *International Finance – Executive master*

10644458	6258271	6237657
10415211	10644466	

<i>12. Master's programme Management Studies – Executive master</i>		
10317309	10317252	10475575
5845289	10476032	
<i>13. Master's programme Insurance Studies – Executive master</i>		
4020152	5200350	5201608
5202345	5202655	
<i>14. Master's programme Actuarial Science and Mathematical Finance – Executive master</i>		
10156992	10681434	10164693

Prior to the site visit, the panel received following documents produced by the Faculty of Economics and Business of the University of Amsterdam:

- AACSB Self-Evaluation Report, June 2015.
- AACSB Assurance of Learning, September 2015.
- Strategic Plan FEB 2015-2020.

During the site visit, the panel studied, among other things, the following documents (partly as hard copies, partly via the institute's electronic learning environment):

- Teaching and Examinations Regulations 2015-2016
- Macro-efficiency decisions CDHO
- Overview of teaching staff
- Curricula Vitae faculty FEB.
- Plan of approach to improve study success at FEB
- Thesis evaluation / grading grid
- Policy plan Assessment UvA
- Policy plan Assessment FEB
- Quality Assurance Framework UvA
- Quality Assurance Manual FEB
- NVAO Assessment report of the institutional audit UvA
- Mid-term reviews per programme (2014)
- Self-assessment summaries per programme (2015)
- Document on study credits Master International Finance
- Document on study credits MBA