

Universiteit van Amsterdam
College van bestuur
Postbus 19268
1000 GG AMSTERDAM

Besluit strekkende tot een positieve beoordeling van een aanvraag om accreditatie van de opleiding wo-master Logic van de Universiteit van Amsterdam

1. Inleiding

datum	
29 april 2008	Bij brief van 2 oktober 2007 heeft de heer dr. K. van der Toorn, voorzitter van het college van bestuur van de Universiteit van Amsterdam (UvA) te Amsterdam, bij de Nederlands-Vlaamse Accreditatieorganisatie (NVAO) een aanvraag ingediend om accreditatie, als bedoeld in artikel 5a.9 van de Wet op het hoger onderwijs en wetenschappelijk onderzoek (WHW; Stb.2002, 302) voor de opleiding wo-master Logic, afstudeerrichtingen Logic & Computation, Logic & Language, Logic & Mathematics, en Logic & Philosophy.
onderwerp	
Besluit accreditatie	
wo-master	
Logic	
Universiteit van Amsterdam	
(#2399)	Het betreft een opleiding met een voltijdse en deeltijdse variant die blijkens de aanvraag te Amsterdam wordt verzorgd.
uw kenmerk	
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ons kenmerk	
NVAO/20081172/AMO	Ter ondersteuning van de aanvraag heeft de UvA een rapport overgelegd van een door haar ingeschakelde Visiterende en Beoordelende Instantie (VBI): Certiked. De visitatie van de opleiding heeft plaatsgevonden op 1 en 2 november 2006. Het rapport van Certiked (VBI-rapport) dateert van augustus 2007 en is door de NVAO ontvangen op 3 oktober 2007. De NVAO heeft op 31 maart 2008 nadere informatie gevraagd aan Certiked betreffende de beoordeling van de scripties. Certiked heeft deze aanvullende informatie verstrekt bij e-mail op 31 maart 2008.
bijlagen	
2	

Het VBI-rapport is opgebouwd aan de hand van het Accreditatiekader bestaande opleidingen hoger onderwijs [wo-master] van de NVAO (Accreditatiekader; Strct. 2003, 120).

2. Bevindingen

Op grond van het toepasselijke Accreditatiekader wordt een opleiding beoordeeld aan de hand van zes onderwerpen, te weten: doelstellingen van de opleiding, programma, inzet van personeel, voorzieningen, interne kwaliteitszorg en resultaten.

Doelstellingen opleiding

Het Certiked-panel (het panel; the committee) komt tot de volgende bevindingen en overwegingen.

"Internationally logic is positioned as a specialization of, for instance, mathematics, philosophy or computer science. The Master in Science in Logic of the UvA has opted for

pagina 2 van 10 logic as a subject matter in its own right that should be studied in an interdisciplinary way and can be applied to various sciences. A survey of similar, other programmes in the Netherlands and around the world indicates that the programme has a rather unique position in that it is comprehensive in the subjects it covers. The domain-specific requirements of the programme derive from a broad concept of logic. The programme has taken these as the final qualifications. The aim of the Master of Science in Logic programme is to create an international, interdisciplinary and research-oriented learning environment in which students are educated as researchers in the area of Logic, Language and Information. To this the programme has formulated eight intended final qualifications. These aim at a solid foundation in knowledge of the most important aspects of logic and its applications in computer science, linguistics, philosophy and mathematics. Specialized knowledge is intended at an advanced level of one or more of the following research areas: Logic & Computation, Logic & Language, Logic & Mathematics, and Logic & Philosophy. Intended specific research skills are: the ability to formulate research questions, and address these in a research plan; to make a contribution to the theories and research methods in the area of expertise; to critically evaluate contributions to the field of expertise, based on an awareness of its research traditions and conventions. Intended communicative skills are the ability to collaborate with others in a multidisciplinary team and to deliver and defend presentations of one's own work, both orally and in writing.

The committee has taken the Dublin descriptors to verify whether and to what extent the final qualifications of the programme meet these general, internationally accepted descriptions of a master. On the basis of these findings the committee evaluates the final qualifications to be fully in accordance with, and in many respects to go further than, the general descriptions of a master. The report substantiates these findings.

The final qualifications aim at the level of a research master. Graduates are educated to be able to obtain a position as PhD-student and to be able to pursue a career as a researcher in the academic world. The programme is nevertheless also apt for students who want to go and work in the industry like, e.g. the information technology industry."

De NVAO stelt vast dat in het VBI-rapport deugdelijk en kenbaar is gemotiveerd op welke gronden Certified dit onderwerp positief heeft bevonden.

De NVAO beoordeelt derhalve het onderwerp 'doelstellingen opleiding' als voldoende.

Programma

Het panel komt tot de volgende bevindingen en overwegingen.

"The courses are given by lecturers who themselves are active researchers and who bring their own research work into the courses. The courses normally end with high-level research questions. Some of the courses and the weekly colloquia and seminars are entirely devoted to current research. The students are required to do at least one research project of 6 EC, the results of some of which lead to publications. Students also exercise their ability to do research by writing their master theses.

The programme offers in total 42 courses which deal with all of the topics that are relevant for the study of logic and its applications in the various sciences. Part of the programme consists of mandatory courses. This part varies from 28 to 36 EC, depending on the area of specialization. The students can therefore choose the major part of the programme freely.

pagina 3 van 10 The mandatory part includes hard core logic and hard core mathematics; that is to say that the broad perspective of the programme does not have a detrimental effect on the depth of the teaching of topics in the programme.

The programme has four specializations: Logic & Computation, Logic & Language, Logic & Mathematics, and Logic & Philosophy. The core courses have an integrating effect and offer a common starting point. Mentors (lecturers) advise the students in an individual programme that makes use of their strengths and remedies their weaknesses. The mentors see to it that the programmes are broad enough as well as deep enough. Most of the students (79 %) agreed (in March 2006) to the statement that the programme was coherent.

The students who participate in the programme are very highly motivated and talented. Frequently students acquire more than 30 EC per semester. On average the students acquire 126 EC over the whole of the programme of 120 EC. There are exceptions of up to 170 EC. The programme, and notably the mentors, have actually to restrain some of the students not to try and study too much.

The programme will admit academic bachelor students from various backgrounds; like mathematics, philosophy, computer science, linguistics and artificial intelligence. The programme has an intake procedure, which is very much adjusted to the individual student. In this procedure the applicants are requested to send in an application form, a certified copy of their degree, transcripts, proof that they master the English language, a letter with their own motivation to embark upon the programme and two letters of recommendation. On the basis of these documents the programme director, after having asked a second opinion of a lecturer in the subject area of interest of the student, selects the applicants who can be admitted and hands the application over to the Board of examiners. This board takes the final decision. The motivation of students often is more important than meeting the formal prerequisites. In some cases additional prerequisites apply. These students have to follow extra courses to remedy deficiencies.

The full time programme takes two years to obtain 120 credits. There is no difference in the full time and the part time programmes. Some of the students will follow a fast track. On the basis of their previous study these students can be given waivers for up to 40 credits. The fast track students will finish the programme within two or three semesters.

The didactic concept of the programme is foremost instrumental to achieve the aims and objectives of the programme. The interdisciplinary approach works out in the overlap between courses of various areas and by discussing topics from different angles throughout the programme. During the courses the students have to demonstrate their oral and written communication skills: they are frequently requested to write papers and give oral presentations. This is even more the case in writing the master thesis. By working together in projects students learn to collaborate.

The programme uses various forms of assessment: computer lab assignments, essays or papers, homework assignments or take-home examinations, oral presentations and written examinations. These forms of examinations are adjusted to the specific knowledge or skills the students are to achieve. In most of the courses the lecturers evaluate the work and the performance of the students during the course. At their regular meetings the mentors discuss the assessments and examinations as well as the grading. The students are

pagina 4 van 10 generally satisfied with their marks. There is a procedure for the master thesis in place. The student asks the approval of the programme director and the chairman of the Board of examiners. Each master thesis is assessed by a thesis committee that consists of at least three members. The supervisor and a member of the Board of examiners are always included in. The criteria for the assessment and grading of the thesis are the content of the thesis, how the thesis is written and, least important, the presentation of the thesis by the student. After the presentation the supervisor suggests a grade to the committee. According to the audit committee, the grading of the thesis should be more transparent: in the present situation it is not always fully clear on the basis of which criteria the grading was given."

De NVAO stelt vast dat in het VBI-rapport deugdelijk en kenbaar is gemotiveerd op welke gronden Certiked dit onderwerp positief heeft bevonden.

De NVAO beoordeelt derhalve het onderwerp 'programma' als voldoende.

Inzet van personeel

Het panel komt tot de volgende bevindingen en overwegingen.

"The lecturers in the programme are nearly all researchers at the Institute for Logic, Language and Computation. The Institute is one of the leading research centres in the world in the area of logic, language and computation as well as in the area of applied logic. In the subject area of logic and games the Institute has a specially strong position. All the regular lecturers in the programme hold a PhD degree.

The programme has a very favourable student-teacher ratio of 6,8 students per teacher.

The lecturers take care that the students actively engage in the courses. They are motivated and well-equipped to cross the borders between the various backgrounds of the students so as to come to a common ground for the exchanging of views and opinions in research questions."

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De NVAO beoordeelt derhalve het onderwerp 'inzet van personeel' als voldoende.

Voorzieningen

Het panel komt tot de volgende bevindingen en overwegingen.

"The facilities of the programme as offered by the University of Amsterdam are good. They include the library and various electronic environments for the administrative aspects of the courses and for teaching purposes. The facilities of the programme include teaching rooms, which are sufficiently available. The computer facilities in the building are good and sufficient in number. There is a room, the MoL room, which is specially designated for the students of the programme and which is of great value to them.

The students get assistance from their lecturer mentors, the programme administrator en student mentors who help them to find their way in the city of Amsterdam and the UvA. The students have a supervisor during their work on the thesis on an almost weekly basis."

pagina 5 van 10 De NVAO stelt vast dat in het VBI-rapport deugdelijk en kenbaar is gemotiveerd op welke gronden Certiked dit onderwerp positief heeft bevonden.

De NVAO beoordeelt derhalve het onderwerp 'voorzieningen' als voldoende.

Interne kwaliteitszorg

Het panel komt tot de volgende bevindingen en overwegingen.

"The various aspects of the courses are evaluated by surveys which are conducted by the Educational Institute of the Information Sciences at the end of each course. The programme has organized a meeting with students in March 2006 and will organize meetings with students concerning their opinion about the various aspects of the programme regularly. Since the programme differs in some aspects from the other programmes of the Educational Institute, the programme is considering its own evaluation procedures. These will be implemented in 2006/2007.

The Programme Committee (Opleidingscommissie) reviews the surveys after each semester. When the surveys give unfavourable results, the Programme Committee may advise to take measures to make the necessary improvements. The courses Core logic and Core logic B, respectively have been or will be improved on account of discussions with students.

Both students and staff are actively engaged by participating in the Programme Committee. The programme does not conduct a survey amongst the alumni. Nevertheless, the programme keeps track of the careers of most of the alumni and keeps in touch with them. The committee has spoken with some of the alumni and has been able to verify that they are still very content with the programme. Through the contacts of the researchers of the Institute of Logic, Language and Computation the programme has a definitive relationship with the professional field."

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De NVAO beoordeelt derhalve het onderwerp 'interne kwaliteitszorg' als voldoende.

Resultaten

Het panel komt tot de volgende bevindingen en overwegingen.

"Of the master theses of the programme about 1/3 has been published. 79 % of the graduates of the programme went on to engage in a PhD programme. They rather easily obtain these positions with prestigious universities like Carnegie Mellon, Princeton, Stanford, Massachusetts Institute of Technology and Imperial College. Some of the graduates have already gained reputable positions in the academic world, although the first students finished the programme only in 1997. Students of the programme won prizes and obtained financial support in the form of grants". According to the additional information given by Certiked, the panel examined a cross-section of the theses, and in particular the most recent. The theses proved to be excellent, both conceptual and in the way the concepts had been elaborated upon. The theses had been very well written as well.

pagina 6 van 10 "The programme has not yet set a target for the number of students that will finish the programme. In the years 1995/1996 to 2002/2003 about 80 % of the students that enrolled actually finished the programme."

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De NVAO beoordeelt derhalve het onderwerp 'resultaten', mede gezien de aanvullende informatie, als voldoende.

pagina 7 van 10 **3. Besluit**

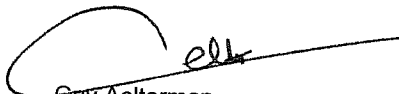
Ingevolge het bepaalde in artikel 5a. 10, tweede lid, van de WHW heeft de NVAO het college van bestuur van de Universiteit van Amsterdam te Amsterdam in de gelegenheid gesteld zijn zienswijze op het voornemen tot besluit van 8 april 2008 naar voren te brengen. Van deze gelegenheid is geen gebruik gemaakt.

De NVAO besluit dat accreditatie wordt verleend aan de wo-master Logic (voltijdse en deeltijdse variant; locatie Amsterdam) van de Universiteit van Amsterdam te Amsterdam, afstudeerrichtingen Logic & Computation, Logic & Language, Logic & Mathematics, en Logic & Philosophy.

Overeenkomstig het bepaalde in artikel 5a.9, vierde lid, van de WHW treedt dit besluit in werking met ingang van de dag waarop het vorige accreditatiebesluit vervalt (accreditatie van rechtswege tot en met 31 december 2008), derhalve op 1 januari 2009. Ingevolge het bepaalde in het zesde lid van genoemd artikel vervalt dit besluit zes jaren na de dag van inwerkingtreding, derhalve op 31 december 2014.

Den Haag, 29 april 2008

Nederlands-Vlaamse Accreditatieorganisatie


Guy Aelterman
(vicevoorzitter)

Tegen dit besluit kan op grond van het bepaalde in de Algemene wet bestuursrecht door een belanghebbende bezwaar worden gemaakt bij de NVAO. De termijn voor het indienen van bezwaar bedraagt zes weken.

Bijlage 1: overzicht van beoordelingen door het panel

Bijlage 2: samenstelling van het panel

pagina 8 van 10 **Bijlage 1: Overzicht van beoordelingen door het panel**

Onderwerp	Facet	Beoordeling door VBI	Beoordeling door VBI
		Voltijd	Deeltijd
1. Doelstellingen	1.1 domeinspecifieke eisen	G	G
	1.2 niveau master	G	G
	1.3 oriëntatie wo	G	G
Beoordeling onderwerp		V	V
2. Programma	2.1 eisen wo	E	E
	2.2 relatie doelstellingen – programma	G	G
	2.3 samenhang programma	G	G
	2.4 studielast	V	V
	2.5 instroom	G	G
	2.6 duur	V	V
	2.7 afstemming vormgeving en inhoud	G	G
	2.8 beoordeling en toetsing	G	G
Beoordeling onderwerp		V	V
3. Inzet personeel	3.1 eisen wo	E	E
	3.2 kwantiteit personeel	G	G
	3.3 kwaliteit personeel	G	G
Beoordeling onderwerp		V	V
4. Voorzieningen	4.1 materiële voorzieningen	G	G
	4.2 studiebegeleiding	E	E
Beoordeling onderwerp		V	V
5. Interne kwaliteitszorg	5.1 evaluatie resultaten	V	V
	5.2 maatregelen tot verbetering	V	V
	5.3 betrokkenheid medewerkers, studenten, alumni en beroepenveld	G	G
Beoordeling onderwerp		V	V
6. Resultaten	6.1 gerealiseerd niveau	E	E
	6.2 onderwijsrendement	G	G
Beoordeling onderwerp		V	V
7. Bijzonder kwaliteitskenmerk	n.v.t.		

V = voldoende (satisfactory); G = goed (good); E = excellent

pagina 9 van 10 **Bijlage 2: Samenstelling van het panel**

Naam	Deskundigheid
<p>Ir. R.S. Kloosterman (chairman)</p> <p><i>(visitatiedeskundigheid)</i></p>	<p>Mr. Kloosterman (1967) has been involved with Certiked since 1995. He performs audits in the area of ISO 9001 and Investors in People at various knowledge-intensive organisations. Apart from that he regularly functions as chairman in the accreditation process of the higher education in the Netherlands. René Kloosterman has studied Management Science at the TU Eindhoven. He has obtained substantial international experience in the areas of marketing, market research and quality assurance.</p>
<p>prof.dr. P. Koepke (member)</p> <p><i>(vakdeskundigheid, werkvelddeskundigheid)</i></p>	<p>Peter Koepke (1954) is currently a C3 professor at Bonn University. He obtained in 1979 a Master of Arts, University of California, Berkeley and his PhD in 1984 at Freiburg University. He is editor of Mathematical Logic Quarterly and of Determinacy axioms, infinitary combinatorics and their interactions (DFG project 2003-2006). His research concentrates on Axiomatic set theory, Constructability theory and hyper computations, Descriptive set theory and infinitary games, General logic. He was editor for descriptive set theory in the edition of the collected works of Felix Hausdorff. He supervised Diplom theses: 45, currently 7; PhD theses: 7, currently 3</p>
<p>prof.dr. R. Jansana (member)</p> <p><i>(vakdeskundigheid, werkvelddeskundigheid)</i></p>	<p>Ramon Jansana (1951) is currently full Professor at the Faculty of Philosophy, University of Barcelona. He graduated in Philosophy at the Universitat Autònoma de Barcelona. 27 June 1974. He obtained his PhD in Philosophy at the Universitat de Barcelona. 27 November 1981. He is head of the Departament de Lògica, Història i Filosofia de la Ciència de la Universitat de Barcelona. He is director of the Research Group on Non-classical Logics of the University of Barcelona. He has ample teaching and supervising experience. He took part in many research projects.</p>
<p>G.O. Passmore BSc (student member)</p> <p><i>(studentgebondendeskundigheid)</i></p>	<p>Grant Olney Passmore followed the Master Class in Mathematical Logic, Mathematical Research Institute in the Netherlands and graduated in 2007. He obtained a Bachelor of Arts in Mathematics with Honors at the University of Texas, Austin. In 2007 Grant started as a Ph.D. Student in LFCS (University of Edinburgh) working in Mathematical and Computational Logic and Algebraic and Algorithmic Number Theory</p>
<p>ms. N. Chapliuk BSc (student member)</p> <p><i>(studentgebondendeskundigheid)</i></p>	<p>Natalia Chapliuk is a student in International Business Administration, Rotterdam School of Management. She obtained a bilingual international Baccalaureate at Pinewood, Thessalonike, Greece. Natalia runs "Xpat Xposure", which aims to create a community through expatriates and encourage people to participate in social, community and sports events.</p>
<p>Drs. W.J.J.C. Vercouteren RC (secretary)</p> <p><i>(visitatiedeskundigheid)</i></p>	<p>Mr. Vercouteren (1953) is a part time lecturer at Nyenrode University. He studied Economics at the Erasmus University Rotterdam and Controlling at Nyenrode University. He was a manager in publishing companies and educational institutes for a</p>

	<p>number of years. Since 1990 he has been working on a free lance basis, mostly for educational institutes. He is specialized in matters of management, external assessment and quality assurance. Mr. Vercouteren is a secretary to Certiked's assessment teams on a regular basis.</p>
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