

Besluit **Besluit strekkende tot het verlenen van accreditatie aan de opleiding wo-master Software Engineering van de Universiteit van Amsterdam**

Gegevens

datum	Naam instelling	: Universiteit van Amsterdam
31 juli 2014	Naam opleiding	: wo-master Software Engineering (60 ECTS)
onderwerp	Datum aanvraag	: 10 december 2013
Besluit accreditatie wo-master	Varianten opleiding	: voltijd, deeltijd
Software Engineering van de	Locatie opleiding	: Amsterdam
Universiteit van Amsterdam	Datum goedkeuren	
(002297)	panel	: 15 juli 2013
uw kenmerk	Datum locatiebezoek	: 18 juni 2013
--	Datum visitatierapport	: 2 oktober 2013
ons kenmerk	Instellingstoets kwaliteitszorg	: ja, positief besluit van 10 juni 2013
NVAO/ 20142402/SL		
bijlagen		

3 Beoordelingskader

Beoordelingskader voor de beperkte opleidingsbeoordeling van de NVAO (Stcrt. 2010, nr 21523).

Bevindingen

De NVAO stelt vast dat in het visitatierapport deugdelijk en kenbaar is gemotiveerd op welke gronden het panel de kwaliteit van de opleiding goed heeft bevonden.

Advies van het visitatiepanel

Samenvatting bevindingen en overwegingen van het panel.

The panel has observed that the programme management has taken up the suggestions for improvement, made by the panel that conducted the previous review of the programme in 2007. In particular, the intake requirements concerning computer programming knowledge and skills have been tightened, evaluation criteria for the master's thesis have been specified and the topics for the master's theses have become more focused, to bring these in line with the research themes addressed in the courses.

The panel considers the programme's objectives to be relevant for a master's programme in the software engineering field. The objectives include relevant scientific as well as professional knowledge and skills. As the graduates of the programme are to gain scientific knowledge and skills, they will be able to address software engineering problems in a scientific way, thereby contributing to the success of software engineering projects.

Inlichtingen

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Pagina 2 van 6 The learning outcomes are rather focused but cover the software engineering domain in a sufficiently complete way. The panel has ascertained the learning outcomes to comply fully with the requirements of a master's level programme. The intended learning outcomes meet the SWEBOK framework and the ACM Computing Science Curriculum and, therefore, correspond to the international requirements in the software engineering field. The panel finds the profile of the programme, addressing both theory and practice and both technology and the human factor interesting and very useful in the professional field.

The panel considers the entry requirements for the programme to be relevant and the admission process to be conducted in a responsible manner, only admitting the students who have a fair chance of completing the programme. The pre-master programme for students with a hbo-bachelor diploma is fit-for-purpose and gives these students the chance to start the programme at the required level. The panel finds the students are well-informed about the challenging nature of the programme. The study modes (full-time and part-time), which are offered, give different student groups of students the opportunity to complete this programme.

The panel has observed the curriculum to meet the intended learning outcomes. The course contents as well as the literature are at an academic master's level. The panel considers the courses in this one-year programme to have been very well chosen. The structure of the curriculum is logical and clear, although the panel advises to consider introducing electives to allow some form of specialization. The programme management is very active in improving the curriculum and in keeping the course contents up-to-date. The panel regards the professional field to be satisfactorily represented but advises to install an advisory board to inform the programme management first-hand about current developments in the professional field.

The expertise and educational abilities of the lecturers in the programme meet the requirements. The panel was, especially, impressed by the drive and the motivation of the teaching staff to promote the learning processes of the students. The panel has some concerns about the continuity of the programme. As the number of incoming students tends to increase, the work load of the lecturers will undoubtedly rise further. Since the student-teacher ratio is already rather high (nearly 29.0) and as some of the lecturers may leave the programme in the coming years, the panel recommends to take measures to maintain and, preferably, to raise the number of qualified lecturers in the programme.

The educational model of the programme and the study methods derived from this model contribute, in the panel's opinion, strongly to the learning processes of the students and allow them to achieve steep learning curves. The programme is challenging for the students, who regularly spend more than 40 hours per week. The study guidance and supervision which the programme management has implemented, are both very intense and play a prominent role in keeping the study load manageable.

The role of the student advisor is important, especially in case of study problems. Although the housing and the material facilities are appropriate, the panel recommends to find a designated space for the programme within the Faculty of Science campus where both students and teaching staff work in close proximity. A specific location for the programme would promote further the learning processes of the students. The panel is positive about the formal and informal evaluation mechanisms which have been put in place.

Pagina 3 van 6 The assessment policy of the programme is appropriate, the regulations being in line with the university's policy. The panel has observed the programme's board of examiners is in the process of implementing measures to fully ensure examinations quality control. For the panel, the knowledge and skills the students are to have acquired, may be appropriately tested by means of the papers, essays, written examinations and assignments. The examinations the panel has studied, are of an appropriate quality and level. The feedback on the draft assignments, undoubtedly, fosters the learning processes of the students. The master project process is perfectly adequate with very frequent meetings of the student and the supervisor. The assessment of the theses is appropriate as well, as the assessment criteria are very relevant and the examination committee with three to four examiners ensures a reliable assessment.

The panel has studied the master theses. The quality of these theses and the level the graduates have reached, are definitely more than just satisfactory. The contents of the theses are relevant for the software engineering field, the scientific structure and quality are up to standard and the level of complexity more than meets the requirements. The panel feels that on account of the very effective learning processes and the steep learning curves, the students achieve a high level of relevant knowledge and appropriate skills in this one-year programme.

Aanbevelingen

De NVAO onderschrijft de aanbevelingen van het panel.

Besluit

Ingevolge het bepaalde in artikel 5a.10, derde 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 26 mei 2014 naar voren te brengen. Bij e-mail van 1 juli 2014 heeft de instelling ingestemd met het voornemen tot besluit

De NVAO besluit accreditatie te verlenen aan de wo-master Software Engineering (60 ECTS; variant: voltijd, deeltijd; locatie: Amsterdam) van de Universiteit van Amsterdam te Amsterdam. De NVAO beoordeelt de kwaliteit van de opleiding als goed.

Dit besluit treedt in werking op 31 juli 2014 en is van kracht tot en met 30 juli 2020.

Den Haag, 31 juli 2014

De NVAO
Voor deze:

 
Dr. A.H. Flierman
(voorzitter) 
(bestuurder)

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.

Onderwerp	Omschrijving	Score
1. Beoogde eindkwalificaties	De beoogde eindkwalificaties van de opleiding zijn wat betreft inhoud, niveau en oriëntatie geconcretiseerd en voldoen aan internationale eisen	Goed
2. Onderwijsleeromgeving	Het programma, het personeel en de opleidingsspecifieke voorzieningen maken het voor de instromende studenten mogelijk de beoogde eindkwalificaties te realiseren	Goed
3. Toetsing en gerealiseerde eindkwalificaties	De opleiding beschikt over een adequaat systeem van toetsing en toont aan dat de beoogde eindkwalificaties worden gerealiseerd	Goed
Eindoordeel		Goed

De standaarden krijgen het oordeel onvoldoende (O), voldoende (V), goed (G) of excellent (E). Het eindoordeel over de opleiding als geheel wordt op dezelfde schaal gegeven.

Tabel 1: Rendement.

Cohort	2009	2010	2012
Rendement	86%	71%	-

Tabel 2: Docentkwaliteit.

Graad	Ma	PhD	BKO
Percentage	100%	88%	25%

Tabel 3: Student-docentratio.

Ratio	27:1
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Tabel 4: Contacturen.

Studiejaar	1	2
Contacturen	17,4	nvt

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- Prof. A. van Deursen Ph.D., panel chair, professor of Software Engineering and head of the Software Engineering Research group of Delft University of Technology;
- Prof. T. Mens Ph.D., panel member, professor of Software Engineering and head of the Software Engineering Lab at Université de Mons, Belgium;
- Prof. R. van Solingen Ph.D., panel member, professor of Computer Science at Delft University of Technology and chief technical officer at Prowareness;
- Y. Oualhadj, student member, studying the master programme Dutch Language and Culture at Leiden University.

Het panel werd ondersteund door W. Vercooteren MSc, secretaris (gecertificeerd).