

Besluit

Besluit strekkende tot het verlenen van accreditatie aan de opleiding wo-master Geomatics van de Technische Universiteit Delft

Gegevens

datum	Naam instelling	: Technische Universiteit Delft
6 september 2013	Naam opleiding	: wo-master Geomatics (120 ECTS)
onderwerp	Datum aanvraag	: 21 december 2012
Definitief besluit	Variantopleiding	: voltijd
accreditatie wo-master	Locatie opleiding	: Delft
Geomatics van de Technische	Datum goedkeuren	
Universiteit Delft	panel	: 25 september 2012
(001359)	Datum locatiebezoeken	: 29 en 30 oktober 2012
uw kenmerk	Datum visitatierapport	: 12 december 2012
O&S-UIT-702/EL/dt	Instellingstoets kwaliteitszorg	: ja, positief besluit van 22 november 2011
ons kenmerk		
NVAO/20130563/ND		

bijlagen

Aanvullende informatie

- 3 De NVAO heeft bij e-mail van 14 juni 2013 de instelling aanvullende informatie gevraagd over een aantal ontbrekende kwantitatieve gegevens.

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 voldoende heeft bevonden.

Advies van het visitatiepanel

Samenvatting bevindingen en overwegingen van het panel (hierna the committee).

This report reflects the findings and considerations of the Geomatics assessment committee on the master's programme Geomatics of Delft University of Technology. The committee's evaluation is based on information provided in the critical reflection and from examination of selected theses, additional documentation and interviews held during the site visit.

Inlichtingen

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Pagina 2 van 7 At the time of assessment, the master's programme in Geomatics was undergoing a substantial transformation. The faculty hosting the programme has been changed (from Aerospace Engineering to Architecture), the profile of the programme was redefined by a focus on the built environment, and the curriculum was thoroughly redesigned. The new master's programme was implemented in September 2012. As a consequence, the committee had to assess the previous master's programme in Geomatics over the last four years, as well as the revised master's programme in Geomatics that had just started with first-year students. The committee tried to do that in a balanced way.

The committee highlighted both positive aspects and the ones that could be improved. Taking those aspects into consideration, the committee decided that the master's programme fulfills the requirements of the criteria set by NVAO which are the conditions for accreditation.

Standard 1: Intended learning outcomes

The committee assesses this standard as satisfactory.

The committee compared the final qualifications of the programme against the domain-specific reference frameworks for Geomatics (original and revised) and examined its profile and orientation. It concludes that the framework provides an adequate reflection of the domain and the general knowledge and skills that graduates should have acquired. The committee is satisfied with the profile of the programme, in which the entire geo-information chain is covered. Given the organisational and profile shift towards the Faculty of Architecture, it agrees with the greater attention paid to the built environment and the combination of technology and applications in the revised programme. The committee concludes that the attention paid to scientific and professional development in the programme's orientation is well balanced.

According to the committee, the final qualifications clearly meet the standards for graduated students at master's level. In general, the intended learning outcomes properly reflect the general 3TU domain-specific reference framework and the programme's specified profile. However, the qualifications should be adjusted and refined for the revised master's programme, to better reflect the new focus on geo-information technology and provision for management of and decision-making for the built environment.

Standard 2: Teaching-learning environment

The committee assesses this standard as satisfactory.

The committee concludes that the original and revised master's programmes in Geomatics, the personnel available for teaching and the programme-specific facilities enable master students to acquire the final qualifications.

The committee confirms that both curricula are sufficiently explicit and adequately meet the intended learning outcomes. The old programme had a complex structure and organization that made it not very transparent and difficult to manage. This situation was aggravated by the low level of student influx. The committee noted that the structure and coherence of the curriculum are significantly improved in the renewed programme. Nevertheless, it suggests that the revised programme incorporates the orientation on the built environment more explicitly and in a more structured way. It is satisfied with the balance between the development of scientific research skills and the preparation for professional practice.

Pagina 3 van 7 The committee noted that the didactic vision underlying the teaching in the master's programme is not well elaborated and rather traditional. It recommends applying more contemporary and innovative teaching methods as soon as possible. The study facilities are first-rate. Based on the interviews conducted with students, alumni and lecturers, the committee feels that the study support for students in the master's programme is satisfactory. It also appreciates the adequate level of internationalisation.

The greatest point of concern is the low annual intake of master students, despite the many determined actions taken over time. Just like the programme management, the University Board and the staff members, the committee is aware that a larger intake is vital to the continuation of the programme. It emphatically advises the management and teaching staff to take every opportunity to improve student intake provided by the new stimulating environment of the Faculty of Architecture. It expects that encouraging sufficient numbers of bachelor students in Architecture to continue on to the master's programme in Geomatics will contribute to giving Geomatics a sustainable future. The committee was pleased to learn that the University Board will give the new programme a fair chance to develop. It will require strong leadership of the programme management to make this happen. The committee ascertained that the programme's study load is acceptable. Because of the rather low completion rates, the committee also suggests further exploration of the possibilities to prevent drop-outs and study delays. In this respect, it is positive about the recent implementation of a strict monitoring system while writing the master thesis.

The committee concludes that the teaching staff is dedicated and has the correct expertise and level. During the site visit the students expressed their very positive opinion of the didactic skills and approachability of the lecturers. The committee is confident about the ability of the Geomatics staff (and their Architecture colleagues) to make the revised master's programme in Geomatics a success.

The committee confirms that the institute is well aware of the quality of the teaching environment, in which lecturers and students are properly involved and well supervised.

Standard 3: Assessment and achieved learning outcomes

The committee assesses this standard as satisfactory.

The committee concluded that the programme has a satisfactory system of assessment and can demonstrate that the final qualifications are realised. The assessment policy is comprehensive and adequately addresses all relevant aspects. The committee was impressed by the engaged and proficient Examination Committee and ascertained that it exercises sufficient control over the quality of assessments. It is pleased with the hard work that has been done to harmonize the assessment procedures of the master's programme in Geomatics with those of the Faculty of Architecture. The assessments as a whole are sufficiently varied and well reflect the contents of the programme and the students' level. The committee compliments the programme on the sophisticated and well-organized master thesis procedure.

The committee concluded that the master students acquire an adequate final level by the end of the programme. This was confirmed by the theses the committee evaluated. It found that the final qualifications of the master's programme were realised. Moreover, it ascertained that graduates of the master's programme in Geomatics are adequately prepared for their careers.

De NVAO onderschrijft de aanbevelingen van het panel om de eindkwalificaties beter te laten aansluiten op het nieuwe programma om de nieuwe focus beter tot uiting te laten komen.

Besluit

Ingevolge het bepaalde in artikel 5a.10, derde lid, van de WHW heeft de NVAO het college van bestuur van de Technische Universiteit Delft te Delft in de gelegenheid gesteld zijn zienswijze op het voornemen tot besluit van 22 juli 2013 naar voren te brengen. Bij e-mail van 26 juli 2013 heeft de instelling gereageerd op het voornemen tot besluit. Dit heeft geleid tot aanvulling van bijlage 2 in het definitieve besluit.

Op grond van het voorgaande besluit de NVAO accreditatie te verlenen aan de wo-master Geomatics (120 ECTS; variant: voltijd; locatie: Delft) van de Technische Universiteit Delft te Delft. De NVAO beoordeelt de kwaliteit van de opleiding als voldoende.

Dit besluit treedt in werking op 1 januari 2014 en is van kracht tot en met 31 december 2019.

Den Haag, 6 september 2013

De NVAO
Voor deze:



R.P. Zevenbergen
(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	Standaard	Beoordeling door het panel
		<i>voltijd</i>
1. Beoogde eindkwalificaties	De beoogde eindkwalificaties van de opleiding zijn wat betreft inhoud, niveau en oriëntatie geconcretiseerd en voldoen aan internationale eisen	V
2. Onderwijsleeromgeving	Het programma, het personeel en de opleidingsspecifieke voorzieningen maken het voor de instromende studenten mogelijk de beoogde eindkwalificaties te realiseren	V
3. Toetsing en gerealiseerde eindkwalificaties	De opleiding beschikt over een adequaat systeem van toetsing en toont aan dat de beoogde eindkwalificaties worden gerealiseerd	V
Eindoordeel		V

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.

Cijfers voor de opleiding Geomatics t.b.v. NVAO

Datum: 22 juli 2013

Student - docent ratio: 6:1

Docent kwaliteit:

Dr	Master	BKO	overig
22	10	1	1

in percentages:

Graad	PhD	Master	BKO	Other
%	65%	29%	3%	3%

Contacturen per semester

MSc1	MSc2	MSc3	Msc4
14	14	12,5	1*

Semester MSc4 is het semester waarin men afstudeert. Dit houdt in zelfstandig onderzoek doen en een scriptie schrijven. Men heeft gemiddeld een maal per twee weken contact met de individuele begeleider.

Studierendement

Peildatum 31 augustus 2012

cohort	Aantal studenten	<= 2	<= 3	<= 4	Gemiddelde studieduur
M-GM 2008 EJ 2008	12	33 %	58 %		1,9
M-GM 2009 EJ 2009	5	40 %			2,0
M-GM 2010 EJ 2010	6				

Chair

- Prof. H.F.L. (Henk) Ottens, emeritus professor of Social Geography, University Utrecht;

Members

- Prof. P. (Paul) van der Molen, professor at the Faculty of Geo-Information Science and Earth Observation ITC, University of Twente;
- Prof. N.J. (Nico) Sneeuw, professor and head of the Institute of Geodesy, University of Stuttgart;
- Drs. W.C.A. (Wim) de Haas, senior advisor information management, Staff Directorate General Rijkswaterstaat;
- A.R. (Anne-Ruth) Sneep, BSc, student of the master's programme Geo-information Science, Wageningen University.

Het panel werd ondersteund door P.G.A. Helming MSc, secretaris (gecertificeerd).