

Besluit

Besluit strekkende tot het verlenen van accreditatie aan de opleiding wo-master Civil Engineering and Management van de Universiteit Twente

Gegevens

	Naam instelling	: Universiteit Twente
datum	Naam opleiding	: wo-master
21 oktober 2013		Civil Engineering and Management (120 ECTS)
onderwerp	Datum aanvraag	: 20 december 2012
Definitief besluit	Variant opleiding	: voltijd
accreditatie wo-master	Afstudeerrichtingen	: Construction Process Management
Civil Engineering and		Transport Engineering and Management
Management van de Universiteit		Water Engineering and Management
Twente	Locatie opleiding	: Enschede
(001396)	Datum goedkeuren	
uw kenmerk	panel	: 3 juli 2012
S&B/399.305/jb	Datum locatiebezoeken	: 10 en 11 oktober 2012
ons kenmerk	Datum visitatierapport	: december 2012
NVAO/20133229/ND	Instellingstoets kwaliteitszorg	: aangemeld en geaccepteerd voor het invoeringsregime
bijlagen		(art.18.32b en c van WHW)
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Beoordelingskader

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

Aanvullende informatie

De NVAO heeft bij brief van 26 februari 2013 de voorzitter van het panel uitgenodigd om een toelichting te geven op het beoordelingsrapport. Dat gesprek heeft op 23 april 2013 plaatsgevonden. Het gesprek heeft voor de NVAO aanvullende informatie opgeleverd op grond waarvan dit besluit tot stand is gekomen.

Bevindingen

De NVAO stelt vast dat in het visitatierapport en de aanvullende informatie deugdelijk en kenbaar is gemotiveerd op welke gronden het panel de kwaliteit van de opleiding voldoende heeft bevonden. Het visitatierapport geeft de bevindingen en overwegingen weer van het panel over de opleidingen bachelor Civiele Techniek en de master Civil Engineering and Management van de Universiteit Twente. Het panel heeft beide opleidingen gezamenlijk beoordeeld. In het rapport worden de oordelen per standaard voor de opleidingen afzonderlijk voldoende beargumenteerd.

Inlichtingen

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Samenvatting bevindingen en overwegingen panel. De samenvatting heeft betrekking op zowel de bachelor als de masteropleiding. In dit besluit is alleen de masteropleiding aan de orde. Het rapport geeft voldoende inzicht in de kwaliteit van de afzonderlijke opleidingen.

Intended learning outcomes

The BSc and MSc programmes aim to provide academic knowledge, understanding and skills in the domain of Civil Engineering (CE) and certain sub-domains of Business Administration and Public Administration. A graduate of the BSc programme is qualified for independent professional practice at a BSc level in the CE field and for enrolment in educational programmes at a MSc level in the field. A graduate of the MSc programme is qualified for independent professional practice at a MSc level in the CE field, for research in the field (including enrolment in PhD programmes in the CE field) and for enrolment in post-MSc design programmes (PDEng programmes) in the CE field.

The programmes derive their final qualifications from the seven competence areas of the 3TU Federation of the three Universities of Technology in the Netherlands, the so called Meijers' criteria. These criteria are consistent with the Dublin descriptors. The programmes thoroughly worked out these criteria in learning outcomes with regard to Civil Engineering as well as Management and discussed them with the professional field. The final qualifications are relevant to the academic and professional field.

The programmes have chosen a broad profile concerning the integration of Civil Engineering and Management, which is distinctive in the Netherlands. A comparison with international criteria for BSc and MSc programmes shows that the final qualifications of the BSc programme is in complete accordance with these international criteria. The MSc programme incorporates most of the criteria but places more emphasis on research and on management and less on construction itself, which is in line with the focus of the programme.

The panel assesses standard 1 for both programmes as good.

Teaching and learning environment

Both programmes tie in adequately with the final qualifications.

The BSc programme is well-structured; it consists of courses and design projects. Within the courses there is a balanced variety of teaching methods, like oral lectures, individual assignments and small projects. Obtaining knowledge and applying knowledge go hand in hand. The content of the curriculum is coherent and there is a logical interrelationship between the courses and the design projects. As a consequence of the choice for a broad profile concerning the integration of Civil Engineering and Management, there is some tension between programme breadth and depth. Especially the BSc programme for NLDA students should focus more on improving its academic level. The MSc programme is well attuned to the BSc programme. The quality of study materials is state-of-the-art and of a high academic level. The research aspect is of a high level, a major part being conducted within the research lines of the CE department. Although the MSc programme also has a strong relationship with the professional field, it's orientation is essentially scientific.

The programmes have adequate procedures for intake and admission. A lot of attention is devoted to student guidance in the BSc programme. Under the guidance of a MSc tutor, MSc students understandably have a great deal of responsibility for their own individual study programme.

Pagina 3 van 8 The study programmes are feasible and the number of contact hours are consistent with the educational concept of the programmes. Both programmes are taught by well-qualified staff and students are very satisfied with their teachers.

The programme-specific facilities create an environment where programmes can be conducted adequately, but extra room for lab work is recommended.

The programmes have taken appropriate actions to guarantee the quality of the educational environment. The programmes have discussed and reformulated the learning goals thoroughly and translated these into test plans.

The panel assesses standard 2 for the BSc programme as satisfactory and the MSc programme as good.

Assessment and achieved learning outcomes

The programmes have a systematic assessment policy. Various kinds of assessment procedures are used, which assess the learning goals and the content in an adequate way. Most courses are assessed individually, some are group assessments, especially design projects. The learning goals are included in test plans for all courses, which have been checked by an assessment expert. Every year, the Examination Board selects a number of theses to verify their quality and their assessment. The Board has made operational plans to check the quality of all programme assessments.

The programmes assess the final qualifications in a proficient way. Besides assessments throughout the entire curriculum, the programmes particularly assess whether the BSc or MSc standard is achieved, through assessment of the individual thesis projects, for the BSc programme always outside the UT, for the MSc programme outside or inside the UT. BSc students can demonstrate they are capable of applying their knowledge in an integral project in the professional field. The MSc thesis has a more academic and research character, mostly linked to the research programmes of Civil Engineering. Students are comprehensively prepared for the MSc thesis project during the Preparation MSc Thesis course.

For the assessment of the theses, the programmes make use of relevant, although rather globally formulated criteria, which should be elaborated on to make the judgment more transparent. Assessment of the BSc theses is done by two assessors of the UT staff, with an external supervisor who has an advisory role. Supervision and assessment of the MSc thesis project is done by a graduation committee, which consists of at least two members of the scientific staff of the UT. The final responsibility lies with the Chair, who is a professor or associate professor.

The programmes achieve the intended learning outcomes. The BSc theses studied by the panel meet BSc standards, although there was some doubt about one thesis of the BSc programme NLDA. The quality of the theses varies substantially: some are very practical and less academic. In contrast, theses with a higher mark show considerable depth. The quality of the MSc theses is good. They have a good, sometimes even high, academic level.

The professional field is satisfied with the level of the graduates. In the opinion of alumni, the programmes provide a sound basis for a start in the professional field. Almost all students continue with an MSc programme after finishing their BSc degree except most graduates of the BSc programme, NLDA. They continue their military career in the Army. Most MSc graduates find a job that requires a MSc degree.

The panel assesses standard 3 for the BSc programme as satisfactory, and the MSc programme as good.

Pagina 4 van 8 **Aanbevelingen**

De NVAO onderschrijft de aanbevelingen van het panel om binnen het gelegitimeerde brede profiel van de opleiding de diepgang in het programma goed te bewaken: "The panel however, also emphasizes the importance of in-depth technical knowledge and profound understanding of the essential physical and functional causal relationships that determine the performance of systems addressed in the study". In dit verband is ook relevant de aanbeveling die specifiek betrekking heeft op de MSc CEM: "The panel observed a balance between knowledge and skills, but stresses that the programme must be alert to ensure that students gain sufficient teaching parts that aim at deepening knowledge on the civil engineering fundamentals".

Ingevolge het bepaalde in artikel 5a.10, derde lid, van de WHW heeft de NVAO het college van bestuur van de Universiteit Twente te Enschede in de gelegenheid gesteld zijn zienswijze op het voornemen tot besluit van 13 mei 2013 naar voren te brengen. Bij e-mail van 9 oktober 2013 heeft de instelling gereageerd op het voornemen tot besluit. Dit heeft geleid tot aanvulling van bijlage 2 in het definitieve besluit.

De NVAO besluit accreditatie te verlenen aan de wo-master Civil Engineering and Management (120 ECTS; variant: voltijd; locatie: Enschede) van de Universiteit Twente te Enschede. De opleiding kent de volgende afstudeerrichtingen: Construction Process Management, Transport Engineering and Management, Water Engineering and Management. De NVAO beoordeelt de kwaliteit van de opleiding als goed.

Dit besluit treedt in werking op 1 januari 2014 en is van kracht tot en met 31 december 2017 (2019)¹.

Den Haag, 21 oktober 2013

De NVAO
Voor deze:



Lucien Bollaert
(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.

¹ Gelet op het bepaalde in artikel 18.32c, derde lid, van de Wet op het hoger onderwijs en wetenschappelijk onderzoek (Wet) bedraagt de geldigheidsduur van de accreditatietermijn van de opleiding maximaal vier jaar zolang de instelling nog niet beschikt over een positieve instellingstoets kwaliteitszorg. Zodra de instellingstoets is verkregen, wordt de accreditatietermijn verlengd naar zes jaar.

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

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	2005	2006	2007	2008	2009	2010	2011
Rendement	88%	51%	69%	84%	71%	60%	17%*

* Dit is het rendement na 2 jaar, d.w.z. na de nominale studieduur

Tabel 2: Docentkwaliteit.

Graad	MA	PhD	BKO
Percentage	17%	78%	46%

Tabel 3: Student-docentratio.

Ratio	1/16
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Tabel 4: Contacturen.

Studiejaar	1	2
Contacturen	8	5

- Prof. Dr. Ir. R.E.C.M. van der Heijden (chairperson, representative profession / discipline Transport and Logistics). Sinds 2011 decaan van de Faculteit Management-wetenschappen van de Radboud Universiteit;
- Prof. Dr. J.W. Kamphuis (representative profession / discipline Civil Engineering), was professor of Civil Engineering aan Queen's University in Canada.;
- Ir. R.P. Mulder (representative profession / discipline Civil Engineering and Building Construction), algemeen directeur NPC en directeur businessunit Rail en Stations (DHV R&M);
- S.M. Kleinendorst BSc, volgt de wo-masteropleiding Mechanical Engineering aan de Technische Universiteit Eindhoven (student member).

Het panel werd ondersteund door Drs. L.S van der Veen, secretaris (gecertificeerd).