nvao
nederlands - vlaamse accreditatieorganisatie

Besluit

Besluit strekkende tot het verlenen van accreditatie aan de opleiding wo-master Offshore and Dredging Engineering van de Technische Universiteit Delft

datum
26 juni 2013
onderwerp
Definitief besluit accreditatie wo-master Offshore and Dredging Engineering van de Technische Universiteit Delft (001376)
uw kenmerk
O&S-UIT-698/EL/dt
ons kenmerk
NVAO/20131671/ND
bijlagen
3

Gegevens

Naam instelling	:	Technische Universiteit Delft
Naam opleiding	:	wo-master Offshore and Dredging Engineering (120 ECTS)
Datum aanvraag	:	27 december 2012
Variant opleiding	:	voltijd
Afstudeerrichtingen	:	Bottom Founded Structures Floating Structures Ship & Offshore Structures Dredging Engineering
Locatie opleiding	:	Delft
Datum goedkeuren panel	:	10 juli 2012
Datum locatiebezoeken	:	20 en 21 september 2012
Datum visitatierapport	:	30 november 2012
Instellingstoets kwaliteitszorg	:	ja, positief besluit van 21 november 2011

Aanvullende informatie
De NVAO heeft bij brief van 1 maart 2013 de instelling aanvullende informatie gevraagd over de stand van zaken bij de verbeteringen om de beschikbare onderwijsformatie te vergroten. Bij brief van 9 april 2013 heeft de NVAO de aanvullende informatie ontvangen.

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

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 goed heeft bevonden.

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Advies van het visitatiepanel

Samenvatting bevindingen en overwegingen panel.

Standard 1

Offshore & Dredging Engineering concerns the systematic and responsible application of science and other organized knowledge for practical purposes, where the applications

1. are situated at sea away from the coast, and
2. are centered at a more or less localized area on, in, or under the sea, and where these applications deal with man-made structures (hardware) that
3. by design and method of construction are strongly influenced by the environmental conditions at the intended location, while accepting the natural circumstances and the state of the environment at the location as given facts, and
4. serve for the exploitation of natural resources above, on, in or under the sea or for the support of a public utility.

The programme is a co-operation between the Faculty of Civil Engineering and the Faculty of Mechanical, Maritime and Materials Engineering (3mE).

The master's programme Offshore and Dredging Engineering has the ambition to provide students with a profound educational basis, allowing them to find excellent job positions after their graduation, either in business or in academia. The committee established that the international standards for the master's level are reflected in the intended learning outcomes. The intended learning outcomes are transparent and in line with the ambitions of the programme.

Standard 2

The first year of the master's programme consists of a core curriculum of about 27 EC courses. Students also have to carry out a project of 8 EC, either a field development project or an experimental exercise. The specialisations require compulsory courses of 15-17 EC. The first year is completed with elective courses.

The second year consists of an internship of 15 EC and the graduation project of 45 EC. The core curriculum is a combination of courses offered by the Faculty Civil Engineering and by the Faculty 3mE.

The programme offers four specialisations:

1. Bottom Founded Structures
2. Floating Structures
3. Ship & Offshore Structures
4. Dredging Engineering

The committee studied the content of the core curriculum and concludes that this provides the knowledge and skills students with different backgrounds need to be able to make a choice for a specialisation as well as to be able to do an internship and a research project in the second master's year.

The quantity and the quality of the teaching staff are adequate. Quality assurance on programme level is functioning adequately. The experimental facilities, like model basins, the dredging engineering lab and the cavitation tunnel are excellent.

The committee appreciates that these facilities are used in teaching and are available for students. The facilities contribute to the quality of the programme.

Standard 3

The committee has looked into the assessment system and the master's theses in order to assess whether the intended learning outcomes are achieved. The committee is convinced that the assessment system is sufficiently valid and reliable. The committee has established that the Board of Examiners is in control and has made a start with the implementation of an updated, adapted to renewed legislation, test policy and with achieving uniformity of the Master's theses assessment forms.

The theses are at the required level of an academic Master's programme. Master's graduates have a good foundation for a career in industry as well as in research.

Aanbevelingen

De NVAO onderschrijft de aanbeveling van het panel om de beschikbare onderwijsinzet te bewaken.

Besluit

Ingevolge het bepaalde in artikel 5a.10, tweede 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 3 mei 2013 naar voren te brengen. Bij e-mail van 7 juni 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 Offshore and Dredging Engineering (120 ECTS; variant: voltijd; locatie: Delft) van de Technische Universiteit Delft te Delft. De opleiding kent de volgende afstudeerrichtingen: Bottom Founded Structures, Floating Structures, Ship & Offshore Structures, Dredging Engineering. 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 2019.

Den Haag, 26 juni 2013

Nederlands-Vlaamse Accreditatieorganisatie

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.

 Bijlage 1: Schematisch overzicht oordelen panel

Onderwerp	Standaard	Beoordeling door het panel *voltijd*
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 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	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.

 Bijlage 2: Feitelijke gegevens

Tabel 1: Rendement

It is not possible to give a reliable overview of the intake of Master's students in the programme. For graduates from the 3mE's Bachelor's programme it is often difficult to determine when they commenced the Master's programme. A lot of them participated in master's courses (long) before they have passed their bachelor's graduation. The Bachelor before-Master rule (Harde Knip) introduced in 2010 will put an end to this.

However accurate data is available for international students, who accomplish their MSc programme at TUDelft. Both tables below present yield and drop-out data for international students attending the MSc programme Offshore Engineering.

The average duration of the study is estimated at 2.6 years for all students. The dropout rate is low, although no exact numbers exist. An estimate would be between 0% and 5%.

cohort	cohort size	relative cumulative MSc yield: relative to n years of study		average study duration	% with distinction	still enrolled	drop-out cumulative	maximum yield
		<= 2	<= 3					
2005	1	100 %		1.9			0 %	100 %
2006	1		100 %	2.1			0 %	100 %
2007	8	38 %	75 %	2.2	17 %		25 %	75 %
2008	11	27 %	73 %	2.2		27 %	0 %	100 %
2009	8	50 %		1.5		50 %	0 %	100 %
2010	12					100 %	0 %	100 %
[redacted]				2.1	5 %			

MSc Offshore Engineering: International-student yield data. Reference date: January 20th, 2012.

cohort	cohort size	cumulative MSc dropout: relative to n years of study				
		<=1 year	<= 2 years	<= 3 years	<= 4 years	at date of reference
2005	1	0 %	0 %			0 %
2006	1	0 %	0 %	0 %		0 %
2007	8	0 %	13 %	13 %	13 %	25 %
2008	11	0 %	0 %	0 %	0 %	0 %
2009	8	0 %	0 %	0 %		0 %
2010	12	0 %	0 %			0 %

MSc Offshore Engineering: International-student drop-out data. Reference date January 20th, 2012.

Tabel 2: Docentkwaliteit

titulatuur / BKO	MSc	PhD	BKO
Percentage	93%	76%	18%

Titulatuur en behaalde BKO certificaten wetenschappelijke staf Faculteit 3mE

Zie ook de voetnoot bij Tabel 3

 Tabel 3: Student-docentratio

year	number of students 3mE as per December 1st	total staff 3mE [FTE] as per December 31st	student/staff
2005	1,803	113.2	15.9
2006	1,914	126.2	15.2
2007	2,090	133.7	15.6
2008	2,308	133.3	17.3
2009	2,525	136.3	18.5
2010	2,633	137.8	19.1
2011	2,809	135.9	20.7

[Table 4] Student-staff ratio for the faculty 3mE. All degree students enrolled in any of the 3mE programmes have been counted. All scientific staff members (full, associate, and assistant professors and other lecturers) have been counted with respect to their total appointment within 3mE.

Note:
3mE lecturers provide education for both Bachelor's programmes (Mechanical Engineering and Marine Technology) and the five Master's programmes (ME, MT, MSE, S&C, BME and ODE). Because of the complexity of determining exactly who the providers of the attended courses are, and of determining exactly which students are attending the different courses, it has been decided to restrict the calculation of the student-staff ratio to the total student population enrolled at 3mE and to the total number of staff appointed at 3mE.

Table 3 provides an overview of the FTE (Full Time Equivalent) of the staff involved in the ODE MSc programme. The student staff ratio in Table 3 refers to the fte Teaching.
The number of registered students currently varies between 180 and 190. For the student staff ratio the number of 180 is applied. The current inflow is about 70 students/year.

[Table 3] Staff quantity and teaching load at ODE.

Category	Number	FTE	FTE Teaching	% PhD	% Teaching	Student Staff Ratio
Full Professor	4	2,40	1,50	100%	63%	120,0
Associate Prof.	2	1,50	0,80	100%	53%	
Assistant Prof.	5	1,65	0,95	80%	58%	
Scientific Staff	3	1,60	1,10	67%	69%	
Total Fixed Staff	14	7,15	4,35	88%	61%	41,4
Externally hired	4	0,50	0,50	25%	100%	
PhD students	34	34,00	1,05	0%	3%	
Total	52	41,65	5,90			30,5

Tabel 4: Contacturen

Studiejaar	1	2
Contacturen	442	135

Bijlage 3: panelsamenstelling

- Prof. dr. J.K.M. De Schutter, professor in Mechanical Engineering, KU Leuven, Belgium;
- Prof. dr. ir. M. Vantorre, professor in Martime Technology, Ghent University, Belgium;
- Prof. dr. ir. P. Van Houtte, professor in Material Sciences, KU Leuven, Belgium;
- Ir. G. Calis, Chairman Division of Mechanical Engineers of the Royal Institute of Engineers in the Netherlands, former manager of Stork group of companies;
- Ir. H. Grunefeld, Department of Training and Consultancy, Centre for Education and Learning, University Utrecht;
- E.M. Porte, master student Mechanical Engineering, University Twente.

Het panel werd ondersteund door dr. B.M. van Balen, secretaris (gecertificeerd).