nvao
nederlands - vlaamse accreditatieorganisatie

Besluit

Besluit strekkende tot het verlenen van accreditatie aan de opleiding wo-bachelor Kennistechnologie van de Universiteit Maastricht

datum
30 mei 2014
onderwerp
Definitief besluit accreditatie wo-bachelor Kennistechnologie van de Universiteit Maastricht (002248)
uw kenmerk
-
ons kenmerk
NVAO/20141852/ND
bijlagen
3

Gegevens

Naam instelling	:	Universiteit Maastricht
Naam opleiding	:	wo-bachelor Kennistechnologie (180 ECTS)
Datum aanvraag	:	6 december 2013
Variant opleiding	:	voltijd
Locatie opleiding	:	Maastricht
Datum goedkeuren panel	:	9 april 2013
Datum locatiebezoeken	:	28 en 29 mei 2013
Datum visitatierapport	:	10 november 2013
Instellingstoets kwaliteitszorg	:	ja, positief besluit van 16 mei 2013

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 ook: the committee).

Standard 1: Intended learning outcomes

The committee assesses Standard 1 as satisfactory. The committee compared the programme to the domain-specific reference framework. It concludes that the framework gives an adequate picture of the AI domain and the basic knowledge and skills that graduates need to acquire. The intended learning outcomes of the programme are, in general, in line with the framework. The programme chooses a more technical approach to AI, however, by focusing on applied mathematics and computer science. In addition, linguistic and cognitive aspects are not covered. The committee is of the opinion that because of this, the programme is not a classical AI programme. It operates on the borders of the AI domain.

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The committee considers the intended learning outcomes to be adequately defined. It finds them suited to the objectives and appropriate for the level and orientation of an international bachelor's programme. Also, the relation with the Dublin descriptors is evident in the intended learning outcomes.

Even though the committee values the international and academie level and orientation of the programme, it advises the programme to define its position in the field of AI more clearly, so the choices made can be better accounted for.

Standard 2: Programme
The committee assesses Standard 2 as satisfactory. The committee concludes that the programme, the personnel and the programme-specific facilities enable the students to realise the intended learning outcomes. It noted that all intended learning outcomes are cross- matched to the different components of the programme in the self-evaluation report. It also concludes that the match between the intended learning outcomes and the projects could be more balanced. This would enable monitoring of the realisation of the intended learning outcomes and ensure that the intended learning outcomes fit the increasing complexity of the projects.

The committee concludes that the more technical approach to AI (see standard 1) is evident in the programme. It is of the opinion that the curriculum is coherent and academie and that professional skills are adequately addressed. The projects play an important role in this. For courses directly related to the projects, the coherence is distinct. Courses that are not related to projects are more isolated. The committee finds that reflective skills could receive more attention in the programme. Students learn to analyse and solve complex problems but do not learn how to reflect on the scientific relevance of their work or the relation with the broader field of AI.

The committee appreciates the international character of the programme and the opportunities it gives students to study abroad. It is also pleased to see that students take advantage of these opportunities. It concludes that the intake procedure and study load are adequate. The completion rates are relatively low, however. The committee expects that the introduction of a binding and matching procedure and the binding study advice will improve these rates.

The programme is based on a Project-Centred Learning concept. The committee is of the opinion that the educational format is consistently implemented. Students also appreciate this and confirmed that they learn to apply theory in practice. The number of contact hours is also adequate.

The committee concludes that the staff consists of sufficient numbers of motivated and competent lecturers. It is of the opinion that the BKO training can be intensified. Regarding the training of lecturers, the committee recommends formalising the didactical training of new lecturers regarding the PCL concept.

The committee confirms that an adequate quality assurance system is in place. It notes that the programme is quite small in scale and informal. To provide more structural management information, the programme committee will start drawing up annual reports. The committee supports this step.

Standard 3: Assessment and achieved learning outcomes

The committee assesses Standard 3 as satisfactory. The committee concludes that the programme has an adequate assessment system in place. The different components of the programme are assessed in different ways. Students are content with the assessment in general. The committee advises the programme to develop and implement an assessment policy. It is of the opinion that the Board of Examiners has sufficient insight into the quality of the assessments and takes adequate measures as necessary. It recommends that the programme instruct lecturers to fill out all the aspects of the thesis assessment forms systematically. In addition, it advises the Board of Examiners to regularly assess a selection of theses and to actively monitor the relationship between the thesis and the field of AI.

Even though the studied theses do not all have a direct relationship with the field of AI, the committee is of the opinion that their overall quality and level are good. Therefore, it concludes that graduates of the bachelor's programme achieve the required level.

Aanbevelingen

De NVAO onderschrijft de aanbevelingen van de commissie en vraagt met name aandacht voor:

De constatering van de commissie dat in het landelijke domeinspecifieke referentiekader een nadere operationele definitie van het begrip 'kunstmatige intelligentie' wenselijk is. Daarnaast behoeft daarin het bachelor- en het masterniveau nadere uitwerking.

Verder onderstreept de NVAO de aanbeveling van de commissie om de positie van de opleiding in het veld van de Artificiële Intelligentie te verduidelijken zodat de keuzes bij de inrichting van het curriculum kunnen worden verantwoord.

En vraagt de NVAO aandacht voor de aanbeveling om het toetsbeleid te ontwikkelen en te implementeren.

Besluit

Ingevolge het bepaalde in artikel 5a.10, derde lid, van de WHW heeft de NVAO het college van bestuur van de Universiteit Maastricht te Maastricht in de gelegenheid gesteld zijn zienswijze op het voornemen tot besluit van 22 april 2014 naar voren te brengen. Bij e-mail van 15 mei 2014 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-bachelor Kennistechnologie (180 ECTS; variant: voltijd; locatie: Maastricht) van de Universiteit Maastricht te Maastricht. De NVAO beoordeelt de kwaliteit van de opleiding als voldoende.

Dit besluit treedt in werking op 30 mei 2014 en is van kracht tot en met 29 mei 2020.

Den Haag, 30 mei 2014

De NVAO
Voor deze:

Dr. A.H. Flierman
(voorzitter)

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

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

Data on intake, transfers and graduates

Number of Bachelor students	07/08	08/09	09/10	10/11	11/12	12/13
Total number of students	110	105	100	110	117	127
New students (1st year)	39	35	39	42	50	51
Of which originating from VWO	15	11	18	13	18	13
Other pre-education	24	24	21	29	32	38
Re-registered students	71	70	61	68	67	76
Graduates	18	21	14	13	19	3*

* Graduates 2012-2013 up till 1-2-2013

Dropout after 1, 2, and 3 years (VWO inflow

Cohort	2006	2007	2008	2009	2010	2011
Size	17	15	11	18	13	18
Dropout after 1yr	18% (n=3)	13% (n=2)	27% (n=3)	28% (n=5)	46% (n=6)	33% (n=6)
Dropout after 2yr	0% (n=O)	0% (n=O)	9% (n=I)	6% (n=I)	8% (n=I)	
Dropout after 3yr	6% (n=I)	33% (n=5)	0% (n=O)	0% (n=O)		

Dropout after 1, 2, and 3 years (total inflow)

Cohort	2006	2007	2008	2009	2010	2011
Size	35	39	35	39	42	50
Dropout after lyr	31% (n=II)	36% (n=14)	43% (n=15)	38% (n=15)	52% (n=23)	28% (n=14)
Dropout after 2yr	0% (n=O)	0% (n=O)	6% (n=2)	13% (n=5)	7% (n=3)	
Dropout after 3yr	9% (n=3)	21% (n=8)	0% (n=O)	0% (n=O)		

Success rate (VWO inflow)

Cohort	2006	2007	2008	2009
Cohort Size*	14	13	8	13
Success rate after 3 years	43% (n=6)	31% (n=4)	38% (n=3)	46% (n=6)
Success rate after 4 years	64% (n=9)	31% (n=4)	75% (n=6)	
Success rate after 5 years	71% (n=IO)	38% (n=5)		
Success rate after 6(+) years	79% (n=II)			

*Number of students re-registered after 1st year

Success rate (total in/low)

Cohort	2006	2007	2008	2009
Cohort Size*	24	25	20	24
Success rate after 3 years	38% (n=9)	32% (n=8)	30% (n=6)	42% (n=IO)
Success rate after 4 years	63% (n=15)	44% (n=II)	50% (n=IO)	
Success rate after 5 years	67% (n=16)	52% (n=13)		
Success rate after 6(+) years	71% (n=17)			

*Number of students re-registered after Ist year

Average amount of face-to-face instruction per stage of the study programme

Type	Contact hours per week
Regular (group)	18
Project (group	3
Bachelor thesis (individual)	1

Teacher-student ratio achieved

Given that the number of Bachelor students in 2011-2012 was 117 and the deployed teaching FTE was 7.0, a teacher-student ratio was achieved of **1:** 16.7

Tabel: ***Docentkwaliteit.***

Graad	PhD	BKO
Percentage	92%	48%

Bijlage 3: panelsamenstelling

- Prof. drs. dr. L.J.M. (Leon) Rothkrantz (chairman), Associate Professor at Delft University of Technology and Professor of Intelligent Sensor-Systems at the Netherlands Defense Academy;
- Prof. dr. ir. D.K.J. (Dirk) Heylen, Professor of Socially Intelligent Computing, Department of Computer Science at the University of Twente;
- Dr. (Gimmy) Troost, Director Thales Research & Technology Delft;
- Prof. dr. P. (Patrick) de Causmaecker, Professor of Computer Science at K.U. Leuven, Kortrijk Campus, Belgium, guest professor at KaHo St.-Lieven, Gent, Belgium, and Head of the CODes research group, coordinator of the interdisciplinary research team itec at K.U. Leuven, Kortrijk Campus;
- Y. (Yfke) Dulek, student of the bachelor's programme Artificial Intelligence at Utrecht University.

Het panel werd ondersteund door drs. Han Wilbrink en drs. Titia Buising (gecertificeerd).