nvao
nederlands - vlaamse accreditatieorganisatie

Besluit

Besluit strekkende tot het verlenen van accreditatie aan de opleiding wo-master Plant Biotechnology van Wageningen Universiteit

datum
28 juni 2013

onderwerp
Besluit accreditatie wo-master Plant Biotechnology van Wageningen Universiteit (001189)

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12/31439

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NVAO/20132134/SL

bijlagen
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Gegevens

Naam instelling	:	Wageningen Universiteit
Naam opleiding	:	wo-master Plant Biotechnology (120 ECTS)
Datum aanvraag	:	11 december 2012
Variant opleiding	:	voltijd
Afstudeerrichtingen	:	Functional Plant Genomics Plants for Human and Animal Health Molecular Plant Breeding and Pathology
Locatie opleiding	:	Wageningen
Datum goedkeuren panel	:	1 februari 2012
Datum locatiebezoeken	:	18 en 19 april 2012
Datum visitatierapport	:	26 oktober 2012
Instellingstoets kwaliteitszorg	:	positief besluit 2 juli 2012

Aanvullende informatie
De NVAO heeft bij brief van 6 maart 2013 de instelling een nieuwe samenvatting van het visitatierapport gevraagd. Bij brief van 1 mei 2013 heeft de NVAO deze 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 nieuwe samenvatting 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 bacheloropleiding Plantenwetenschappen en de masteropleidingen Plant Sciences, Organic Agriculture en Plant Biotechnology van Wageningen Universiteit. Het panel heeft de vier opleidingen gezamenlijk beoordeeld.

Inlichtingen
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Advies van het visitatiepanel

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

Standard 1: Intended Learning Outcomes

In the upcoming bio based economy, non-food products are manufactured from renewable resources: green biomass produced through photosynthesis. Innovations in this new and competitive field are based on knowledge of the molecular and genetic background of plants and the biomass they produce. The master programme in Plant Biotechnology specifically addresses the molecular and genetic aspects of plant-based innovations. The programme focuses on the integration of plant sciences and molecular biology in order to develop healthy plants for food, non-food and health applications. The programme is oriented towards molecular and cell biology and genomics. It shares its focus on plants with the master programme in Plant Sciences, and its focus on development of novel technologies with the master in Biotechnology. The fundamental approach is combined with the development of tools and technologies that can be applied to plant breeding, plant pathology, post-harvest quality control, and the production of renewable resources.

Based on the description of the objectives, the committee feels that Plant Biotechnology could be a specialization within the master programme in Plant Sciences. The programme management is aware of this issue and is looking for ways to profile the programme more strongly externally.

The committee encourages this process, since it is important to give both programmes their own objectives and differentiate between them. This should first be done by deciding in what respect both programmes differ from each other and subsequently by formulating a distinct programme profile and objectives.

The committee is positive regarding the intended learning outcomes. They are differentiated for the three specializations and according to the committee will lead to graduates at the academic master level. The relation with the professional field is good. Students that graduate from the master programmes are well prepared to enter the labour market in the committee's view. The committee concludes that international requirements of the field and discipline are met.

Standard 2: Teaching-Learning Environment

The committee has studied the various aspects of the teaching and learning environment. The master programme in Plant Biotechnology is assessed as satisfactory. The main criticism by the committee is that the programme provides students with such freedom in choosing their courses that it is very difficult to think of it as one master programme. This was confirmed by the students, who don't feel part of a group, not even within their own specialization. The committee thinks that this is an issue that should be taken seriously by the programme management. It also became clear that description of the programme in the critical reflection implies there are more free choices than are actually present. In practice, the study advisers actively reduce the choices in order to create coherent, individual programmes. The committee strongly advises the programme management and the management of the Education Institute of Wageningen University to look into this situation. The programme has a strong research orientation founded on the educational concept of research-based learning. In the last few years, many adaptations to the programme were implemented, and the programme committee has started discussions on updating the content of specializations and courses to incorporate recent developments in systems biology and the biobased economy. This showed the committee the programme is continuously improving. The committee was impressed by the collaboration between

management, staff, students and programme committees in their focus to improve the programme. The integration of multiple disciplines is well done. Teaching methods are well balanced within and between courses. Many courses include a certain amount of attention to feedback and reflection. The student-staff ratio for the master programme in Plant Biotechnology is 6.1:1, enabling frequent interaction between staff and students. Research qualities of the staff are impressive and the staff is involved in continuously improving their didactical skills. Student support and facilities are good. Especially the before mentioned support by the study advisers is a valuable asset to the programmes. Without this support it would be impossible to run these programmes. Because the master programme in Plant Biotechnology is not linked to a specific bachelor programme, the minor in Plant Biotechnology was developed. Initiatives have been taken to increase the student intake, which were modestly successful. Student numbers increased from 7 in 2003 to 24 in 2010. Study load is considered to be high, but acceptable.

Standard 3: Assessment and achieved learning outcomes
The committee is very positive with regard to the initiatives Wageningen University is currently implementing in the bachelor and master programmes. The Examining Boards are in the process of strengthening their role in ensuring the quality of assessment and seem committed to formalizing the assessment system. The secretaries of the four committees have a key role in the communication between programme management and Examining Board. Each programme at Wageningen University standardized the filling in of free choice credits. The programme is on schedule to implement the new initiatives. The use of course guides makes the assessment procedures very clear and transparent, and they are very useful to the students. The learning outcomes at the course level are connected to the intended learning outcomes at the programme level. The committee is very positive about the use of different assessment strategies within and between courses. Although formalization of the assessment strategy is still in progress, the committee is convinced that it will be a good strategy. The committee especially values the use of the rubric for the thesis. The committee encourages the programme management to use the rubric conscientiously, as in other programmes it appears to have had a positive effect on the verification of the grades. The committee concludes that the programme provides a balanced set of assessments.
Overall, the committee was impressed by the level of the theses, and it agreed with all the grades. It was clear to the committee that the thesis projects are executed in excellent research surroundings. It would be beneficial to the students to equalize the outlines of the thesis projects. The success rates show that 80-100% of the students finish within the standard duration of three years. Due to the low student numbers, the percentages fluctuate considerably. Almost all international students complete the programme in two years. The number of drop-outs is very low. More than 75% of the graduates start a PhD project, often at Wageningen University. Other graduates work at research institutes or in research-related functions. This leads to the conclusion that the programme educates students primarily for a research function.

Aanbevelingen
De NVAO onderschrijft de aanbevelingen van het panel om
- de opleiding sterker te profileren ten opzichte van Plant Sciences;
- signalen van studenten serieus te nemen dat zij zich door de enorme keuzevrijheid geen deel van een groep voelen;
- bij het beoordelen van afstudeertheses consequent de rubrics te gebruiken;
- de opzet van afstudeerprojecten enigermate gelijk te trekken.

Besluit

Ingevolge het bepaalde in artikel 5a.10, tweede lid, van de WHW heeft de NVAO het college van bestuur van de Wageningen Universiteit te Wageningen in de gelegenheid gesteld zijn zienswijze op het voornemen tot besluit van 27 mei 2013 naar voren te brengen. Bij e-mail van 12 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 Plant Biotechnology (120 ECTS; variant: voltijd; locatie: Wageningen) van Wageningen Universiteit te Wageningen. De opleiding kent de volgende afstudeerrichtingen: Functional Plant Genomics; Plants for Human and Animal Health; Molecular Plant Breeding and Pathology. 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, 28 juni 2013

Nederlands-Vlaamse Accreditatieorganisatie

b/a

Ann Demeulemeester
(vicevoorzitter)

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	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	G
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.

 Bijlage 2: Feitelijke gegevens

Docent-student ratio	1 : 6.1

Kwalificatie docenten	97% PhD 3% wo-ma

Studielast	42 uur per week

Contacturen

jaar	aantal in dat jaar	% van 1680
1	609	36
2	112 of 160*	7 of 10*

*afhankelijk van de keuze tussen een academische stage en een tweede thesis

Rendement

cohort	2003	2004	2005	2006	2007	2008	2009	2010
omvang bij start	7	9	13	5	10	18	18	24
diploma na 2 jaar (%)	57	56	59	80	40	56		
diploma na 3 jaar (%)	86	78	92	80	100			
diploma na 4 jaar (%)	86	78	100	80				
uitval 1 oktober 2010 (%)	14	22	0	20	0	0	11	

 Bijlage 3: panelsamenstelling

- Prof. F. Zwarts (chair), professor at University of Groningen and professor and manager at University Campus Fryslân;
- R.L. Prenen, MSc, independent educational adviser;
- Dr. G. Lieblein, associate professor at the Department of Plant and Environmental Sciences, Norwegian University of Life Sciences, Norway;
- Prof. H. Stützel, professor in Vegetable Systems Modelling at the Institute of Biological Production Systems, Gottfried Wilhelm Leibniz University, Hannover, Germany;
- Prof. E. Van Damme, professor at the Department of Molecular Biotechnology, Ghent University, Belgium;
- Prof. M. De Proft, full professor at the Faculty of Bioscience Engineering, Catholic University Leuven, Belgium;
- Mr. Karl Agius, MSc, graduated in 2012 as master at the University of Malta.

Het panel werd ondersteund door dr. M.J.V. Van Bogaert, secretaris (gecertificeerd).