

## Besluit

### Besluit strekkende tot het verlenen van accreditatie aan de opleiding wo-master Biology van de Universiteit Leiden

#### Gegevens

datum	Naam instelling	: Universiteit Leiden
31 augustus 2016	Naam opleiding	: wo-master
onderwerp		Biology (120 EC)
Besluit	Datum aanvraag	: 15 april 2016
accreditatie wo-master	Variant opleiding	: voltijd
Biology van de	Afstudeerrichtingen	: Animal Biology and Disease Models
Universiteit Leiden		Microbial Biotechnology and Health
(004535)		Plant Sciences and Natural Products
uw kenmerk		Evolution, Biodiversity and Conservation
2016/8928		Biology and Education
ons kenmerk		Biology and Science Based Business
NVAO/201618217/AH		Biology and Science Communication and Society
bijlagen	Locatie opleiding	: Leiden
2	Datum goedkeuren	
panel		: 6 juli 2015
Datum locatiebezoeken		: 18 en 19 juni 2015
Datum visitatierapport		: 4 november 2015

Instellingstoets kwaliteitszorg: ja, positief besluit van 2 juli 2013.

#### Beoordelingskader

Beoordelingskader voor de beperkte opleidingsbeoordeling van de NVAO (Stcrt. 2014, nr 36791).

#### Bevindingen

De NVAO stelt vast dat in het visitatierapport deugdelijk en kenbaar is gemotiveerd op welke gronden het panel de kwaliteit van de opleiding als 'good' [goed] heeft bevonden.

#### Advies van het visitatiepanel

Samenvatting bevindingen en overwegingen van het panel.

The master's programme Biology distinguishes four research specialisations falling under the scope of the IBL: Animal Biology and Disease Models (AB), Microbial Biotechnology and Health (MB), Plant Sciences and Natural Products (PS), and Evolution, Biodiversity and

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The panel has established that the intended learning outcomes of the master's programme are in line with (inter)national requirements. The programme has, according to the panel, clear profiles for the research master as well as for the vocational specialisations. The panel would welcome a future-directed view on the outcomes, recognizing the central role of Biology in the multidisciplinary area of the life sciences.

The panel has studied the master's programme Biology and established that the curricula of the different tracks offer students good opportunities for academic specialisation. The programme consists of a common component of mandatory courses (24 EC). Additionally, students participate in specialisation courses, electives and one or two research projects.

The mandatory courses offer students a state-of-the art overview of the research of the departments that are involved in the programme. The Genomic Architecture course provides all students with a broad and up-to-date perspective on the domain of Biology at master's level. The research projects offer students further options for specialisation and deepening. Being part of the research group, they are well guided while developing themselves as an independent researcher.

The three vocational specialisations enable students to obtain complementary knowledge and skills that enable them to use their biological knowledge in business, communication or educational environments. Each specialisation offers scientific insights from relevant disciplines, and graduates qualify for a PhD position.

The programme uses a variety of teaching methods: lectures, case studies and research projects. According to the panel these are adequate didactic practices for a master's programme. Attention for the science-society debate is limited.

The panel established that the programme is feasible. Individual programmes are well monitored by the student advisor and the Board of Examiners. The panel observed that students who enrol in February should get a better introduction in the faculty and departments, since they cannot participate in the 'Orientation' course at the start of their programme.

The programme is delivered by qualified and highly motivated staff members. Students can profit from research collaborations within the Faculty of Science and the Leiden Bioscience park and with LUMC and the Technical University Delft, and with the CML and Naturalis participating in the programme, students enjoy an interesting and diverse learning environment. According to the panel the strong increase in student intake requires attention in order to prevent too much pressure on the staff. These high numbers could impede the small scale of the programme and the availability of challenging research projects for all students. Quality assurance and study facilities suffice.

The panel has checked whether the programme has adopted an adequate assessment system.

The panel has established that the programme uses diverse assessment methods that are aligned with the learning objectives of each course. The panel is convinced that the

Pagina 3 van 6 programme, and particularly the Board of Examiners (BoE), has installed adequate measures to monitor assessment quality. Safeguarding the quality of final research projects gets sufficient attention from examiners and the BoE. The BoE has a proactive and careful attitude. However, the panel is of the opinion that checking the quality of exams and surveillance of the assessment procedures has had limited attention until now, the assessment system needs to further mature in the organisation of the programme. The panel encourages the BoE in the priority it will be giving this surveillance in the nearby future. Furthermore, concerted consultation of teachers about assessment should be encouraged. Assessment quality profits from 'continuously learning from each other'. In this respect, the programme can profit from best practices elsewhere in academia.

After studying a sample of final reports, the panel establishes that students realise the intended learning outcomes of the master's programme in Biology. The achieved level in the final research internships is high, students demonstrate good research qualities in their work.

According to the panel, this high quality of the reports shows the success of the research orientation of the programme. The panel concludes that graduates obtain the final qualifications to be expected in a high-quality research environment. Based on the performance of alumni the panel concludes that the programme prepares students well for an academic or business position on the labour market.

The panel assesses the standards from the Assessment framework for limited programme assessments in the following way:

Standard 1: Intended learning outcomes	satisfactory
Standard 2: Teaching-learning environment	good
Standard 3: Assessment	satisfactory
Standard 4: Achieved learning outcomes	good
General conclusion:	<b>good</b>

Pagina 4 van 6 **Besluit**

Ingevolge het bepaalde in artikel 5a.10, derde lid, van de WHW heeft de NVAO het college van bestuur van de Universiteit Leiden te Leiden in de gelegenheid gesteld zijn zienswijze op het voornemen tot besluit van 27 juni 2016 naar voren te brengen. Van deze gelegenheid heeft het college van bestuur geen gebruik gemaakt.

De NVAO accreditatie te verlenen aan de wo-master Biology (120 EC; variant: voltijd; locatie: Leiden) van de Universiteit Leiden te Leiden. De opleiding kent de volgende afstudeerrichtingen: Animal Biology and Disease Models; Microbial Biotechnology and Health; Plant Sciences and Natural Products; Evolution, Biodiversity and Conservation; Biology and Education; Biology and Science Based Business en Biology and Science Communication and Society.

De NVAO beoordeelt de kwaliteit van de opleiding als goed.

Dit besluit treedt in werking op 31 augustus 2016 en is van kracht tot en met 30 augustus 2022.

Den Haag, 31 augustus 2016

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.

Onderwerp	Standaard	Beoordeling door het panel
<b>1. Beoogde eindkwalificaties</b>	De beoogde eindkwalificaties van de opleiding zijn wat betreft inhoud, niveau en oriëntatie geconcretiseerd en voldoen aan internationale eisen.	<b>Satisfactory</b>
<b>2. Onderwijsleeromgeving</b>	Het programma, het personeel en de opleidingsspecifieke voorzieningen maken het voor de instromende studenten mogelijk de beoogde eindkwalificaties te realiseren.	<b>Good</b>
<b>3. Toetsing</b>	De opleiding beschikt over een adequaat systeem van toetsing.	<b>Satisfactory</b>
<b>4. Gerealiseerde eindkwalificaties</b>	De opleiding toont aan dat de beoogde eindkwalificaties worden gerealiseerd.	<b>Good</b>
<b>Eindoordeel</b>		<b>Good</b>

De standaarden krijgen het oordeel onvoldoende, voldoende, goed of excellent.  
 Het eindoordeel over de opleiding als geheel wordt op dezelfde schaal gegeven.

Voorzitter:

- Prof. dr. Jan Kijne (voorzitter), emeritus hoogleraar BioScience, Universiteit Leiden.

Leden:

- Prof. dr. Ton Bisseling, hoogleraar Moleculaire Biologie, Wageningen University;
- Prof. dr. Herman Verhoef, emeritus hoogleraar Bodemecologie, Vrije Universiteit Amsterdam;
- Prof. dr. Joost Teixeira de Mattos, hoogleraar Kwantitatieve Microbiële Fysiologie, Universiteit van Amsterdam;
- Jeffrey Verhoeff BSc. (student-lid), masterstudent Biologie en Dierwetenschappen, Wageningen University.

Het panel werd ondersteund door drs. José van Zwieten, secretaris (gecertificeerd).