

Besluit

Besluit strekkende tot het verlenen van accreditatie aan de opleiding wo- bachelor Nanobiology (joint degree) van de Technische Universiteit Delft en de Erasmus Universiteit Rotterdam

	Gegevens	
datum	31 juli 2017	Naam instelling : Technische Universiteit Delft Erasmus Universiteit Rotterdam
onderwerp	Besluit	Naam opleiding : wo-bachelor Nanobiology (joint degree) (180 EC)
accreditatie wo-ba	Nanobiology (joint degree)	Datum aanvraag : 1 mei 2017
Technische Universiteit Delft	Erasmus Universiteit Rotterdam	Variant opleiding : voltijd
(005653)		Locaties opleiding : Delft, Rotterdam
uw kenmerk	-	Datum goedkeuren panel : 6 februari 2017
		Datum locatiebezoek : 8 maart 2017
ons kenmerk	NVAO/20171908/ND	Datum visitatierapport : 12 april 2017
		Instellingstoets kwaliteitszorg : Technische Universiteit Delft Positief besluit van 21 november 2011
bijlagen	2	Erasmus Universiteit Rotterdam Positief besluit van 17 oktober 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 voldoende heeft bevonden.

Advies van het visitatiepanel

Samenvatting bevindingen en overwegingen van het panel.

The panel noted that programme management followed up on the recommendations, made during the initial programme assessment in 2012 of the Bachelor programme Nanobiology (joint degree) of the Delft University of Technology and Erasmus University Rotterdam. Programme management, among others, has taken measures to improve the information to

Pagina 2 van 6 prospective students and to adjust the curriculum. The panel is convinced the programme is monitored in a process of continuous improvement.

The cooperation agreement drafted by Delft University of Technology and Erasmus University Rotterdam adequately describes the responsibilities of these two institutions and provides satisfactory assurances for the quality of the joint degree programme.

The panel supports the objectives of the programme to study and understand molecular or cellular biology phenomena by means of concepts and methods of mathematics and physics. The panel is positive about the clear choices programme management made in this respect and feels the programme has added value to both of the partner institutions. The panel acknowledges the specific profile of the programme.

The programme primarily prepares students for master programmes in this and related fields. In the future, not all students may find positions in the academic world. The panel recommends programme management to intensify the relations to the professional field to make sure that the programme also fits well to the needs of the professional fields and to help students find positions there.

The learning outcomes of the programme meet the programme objectives. They are related to international concepts in this field and meet the requirements of an academic bachelor programme. The panel advises to mention chemistry more explicitly in the learning outcomes, as this is an important discipline in this field. The panel also suggests including ethics or ethical awareness in the learning outcomes.

The panel considers the admission requirements to be in line with legal regulations and the admission procedures to be effective in informing the applicants about the challenging nature of the programme. The panel supports the 'numerus fixus' decision, as the practical part of the programme would otherwise suffer.

The curriculum meets the intended learning outcomes. The panel is very positive about the curriculum, especially because of the intimate connection to current research in this field. In addition, the panel is very pleased with the curriculum design, displaying logical structure and strong coherence. The courses in the first year primarily offer students disciplinary knowledge and understanding in the constituent disciplines. In the second year, focus is on interdisciplinary and integrating courses. In the third year, students are given the opportunity to prepare for the master programme of their preference and to specialise within the field of nanobiology. The panel welcomes the bridge courses and is very confident that these courses will be further optimised.

The educational principles to promote students actively engaging in their studies and taking responsibility for their learning processes were confirmed by both programme management and lecturers. The study methods are consistent with these educational principles. The panel regards the study load and study guidance in the programme to be appropriate. The bilocation presents no problems for the teaching.

In addition, the panel regards the laboratories of Rotterdam University of Applied Sciences to provide good facilities for the practical work in the programme.

Pagina 3 van 6 The lecturers are renowned researchers in their field, ensuring research to be strongly represented in the programme. The panel observed the lecturers identifying themselves not only with their own courses, but also with the programme as a whole, adding to the coherence of the curriculum. Lecturers meet regularly. As the proportion of lecturers with the UTQ¹-certificate is quite low, the panel advises raising this number. The program is taught in English. Both lecturers and students indicate that this is working well. The panel suggests introducing formal requirements for proficiency in English for the lecturers of Erasmus Medical Centre (as is currently the case at Delft University of Technology).

The examination and assessment rules and regulations of the programme meet the Assessment System of the Faculty of Applied Sciences of Delft University of Technology, providing a solid basis. These rules and regulations include peer-review among lecturers in preparing examinations, drafting test matrices, selecting appropriate examination methods, inspecting the outcomes of examinations in case of abnormal grade distributions and verifying the quality of the projects and of the assessments thereof. The panel advises to refrain from communicating examination outcomes and to investigate the examination first, if the grade distribution would be abnormal.

The Board of Examiners monitors the examination and assessment processes and outcomes adequately. The panel is positive about the active approach this Board is taking, meeting every two years with every one of the lecturers to discuss a number of important topics in this respect.

The examination methods conform to the course contents. Having multiple examinations in the courses allows assessing students' performances on different dimensions, relevant for the courses. The panel considers the processes of supervision and assessment for the Bachelor End Projects to be appropriate. The supervision during the project is sufficiently intensive. The assessment by two examiners, using rubrics scoring models leads to reliable assessments.

The panel assesses the examinations to be satisfactory in breadth and depth and to reflect the learning goals of the courses. The panel agrees with the grades awarded by the programme examiners for the Bachelor End Projects. The panel noted that these grades are relatively high. As this concerns the first group of students graduating in a short period, this group may include relatively many very good students. From the master programmes the graduates have been admitted to, the panel deduces the students to have been well educated and to have ample opportunities to continue their studies in a wide array of disciplines.

Aanbevelingen

De NVAO onderschrijft de aanbevelingen van het panel.

¹ University Teaching Qualification

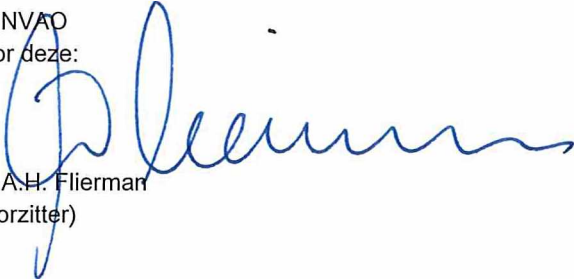
Ingevolge het bepaalde in artikel 5a.10, derde lid, van de WHW heeft de NVAO het college van bestuur van de Technische Universiteit Delft te Delft en de Erasmus Universiteit Rotterdam te Rotterdam in de gelegenheid gesteld zijn zienswijze op het voornemen tot besluit van 26 juni 2017 naar voren te brengen. Van deze gelegenheid hebben de colleges van bestuur geen gebruik gemaakt.

De NVAO besluit accreditatie te verlenen aan de wo-bachelor Nanobiology (joint degree) (180 EC; variant: voltijd; locaties: Delft, Rotterdam) van de Technische Universiteit Delft te Delft en de Erasmus Universiteit Rotterdam te Rotterdam. De NVAO beoordeelt de kwaliteit van de opleiding als voldoende.

Dit besluit treedt in werking op 31 juli 2017 en is van kracht tot en 30 juli 2023.

Den Haag, 31 juli 2017

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.

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.	voldoende
2. Onderwijsleeromgeving	Het programma, het personeel en de opleidings specifieke voorzieningen maken het voor de instromende studenten mogelijk de beoogde eindkwalificaties te realiseren.	goed
3. Toetsing	De opleiding beschikt over een adequaat systeem van toetsing.	voldoende
4. Gerealiseerde eindkwalificaties	De opleiding toont aan dat de beoogde eindkwalificaties worden gerealiseerd.	voldoende
Eindoordeel		voldoende

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

Pagina 6 van 6 **Bijlage 2: Panelsamenstelling**

- Prof. dr. ir. E. Peterman, full professor Physics of Living Systems, Vrije Universiteit Amsterdam (panel chair);
- Prof. dr. ir. M. Claessens, full professor Nanobiophysics, University of Twente (panel member);
- Prof. dr. J. Eggermont, full professor Cell Physiology, KU Leuven (panel member);
- J. van Campenhout LLB, student pre-master programme Law, Tilburg University (student member).

Het panel is ondersteund door drs. W. Vercouteren RC, secretaris (gecertificeerd).