nvao
nederlands-vlaamse accreditatie organisatie

Besluit

Besluit strekkende tot het verlenen van accreditatie aan de opleiding wo-bachelor Technische Bedrijfskunde van de Universiteit Twente

datum
31 juli 2017
onderwerp
Besluit accreditatie wo-ba Technische Bedrijfskunde van de Universiteit Twente (005556)
uw kenmerk
CvB UIT - 2570
ons kenmerk
NVAO/20171910/ND
bijlagen
2

Gegevens

Naam instelling	:	Universiteit Twente
Naam opleiding	:	wo-bachelor Technische Bedrijfskunde (180 EC)
Datum aanvraag	:	11 april 2017
Variant opleiding	:	voltijd
Locatie opleiding	:	Enschede
Datum goedkeuren panel	:	10 oktober 2016
Datum locatiebezoeken	:	12 en 13 oktober 2016
Datum visitatierapport	:	13 maart 2017
Instellingstoets kwaliteitszorg:		ja, positief besluit van 2 mei 2014

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 bachelor's programme Technische bedrijfskunde (hereafter: TBK; 'Industrial Engineering and Management Science' in English) is a three-year programme, offered by the University of Twente. It aims to train good qualified professionals in the field of Industrial Engineering and System Engineering (hereafter: IE&SE), with good problem-solving abilities and a broad knowledge of the academic field. Graduates will be able to embark on further studies in the field and in adjacent programmes in engineering, or may choose to launch a professional career. Characteristic for the bachelor's programme is its unique and original didactic concept underpinning student-driven learning. Through multidisciplinary project work, students are encouraged to work with and alongside students from different

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disciplines. Consequently, the programme aims to educate highly independent and self-driven problem solvers, which are well prepared for a career in the intrinsically multidisciplinary work field that is IE&SE.

The bachelor learning objectives have been formulated in fifteen intended learning outcomes that are in line with (inter)national requirements. The learning outcomes reflect the bachelor's academic profile, paying attention to both professional academic and general academic qualifications. The panel approves the explicit division between professional academic and general academic learning outcomes, which it deems fit for a programme that trains students for a professional career in a highly competitive and challenging work field or further academic studies. Although the panel strongly advises the management to reflect on the nature of the current learning objectives, it established that the programme has adequate control over the interpretation of its learning outcomes at the appropriate degree level. The intended learning outcomes are adequately described and concretised in the curriculum design and as a result, they enable students to meet the required achievement level. In the panel's view, distinctive learning outcomes could further translate the unique features of the bachelor's programme at Twente, strengthening its current profile within the field.

The panel deems the bachelor curriculum design original, challenging and of the appropriate academic degree level. It provides a broad theoretical basis, is informed by relevant *scientific research and incorporates professional demands and necessary skills to succeed* in further studies or at entry level in the professional field of IE&SE. During their three years of study, students follow twelve modules, thematic overarching courses that are shaped by project work. In these modules, students are amply encouraged to deepen their knowledge of the disciplinary field as well as to explore adjacent disciplinary fields. The panel applauds the multidisciplinary set up of the curriculum, which allows students to reflect upon their own practice and development and which also simulates the tensions sometimes experienced in real-life working situations. It also appreciates the attention paid to personal development and to time management skills. It advises the programme to look into the design of their thesis preparation module to align the design and presentation of bachelor theses, while simultaneously reflecting upon ways in which to translate the remarkable multidisciplinary approach of the programme into the thesis design. It encourages the programme's management to keep the curriculum aligned with changes within the field, and to continue rejuvenating and developing the underlying teaching model.

The panel is positive about the support network for students, which encompasses a well-organised mentoring system; involved lecturers, senior students, management and support staff; an active programme committee and student association; and a good informal open-door policy that really works. The panel has verified in meetings with the programme management and academic staff that both have a proactive and problem-solving attitude towards problems within modules. The programmes are supported by academic staff with good research and teaching credentials. The panel is impressed by the intensity and flexibility of the staff and management, which both embraced the university-wide imposed educational redesign of the curriculum. It applauds the staff's willingness to experiment with its own teaching practice and is satisfied with the availability of didactic expertise to support staff at faculty level and to strengthen teaching practice at all levels within the university.

It recommends the programme to keep on allowing all teaching staff to continuously develop their teaching practice through reflection and further pedagogical training, and to stimulate

its staff to expand their international networks through research and teaching in order to strengthen the programme's international profile and to further fortify its international ambitions.

The encountered student support network also allows for plenty of formal and informal feedback on teaching practice, curriculum design and assessment methods. The management, module coordinators and examination board formally assure the quality of assessment of the curriculum. Modules are regularly examined by the programme and its staff, and by institutional educationalists and the examination board. Spot checks, test screening and calibration procedures assure the quality of assessment at the programme. Nevertheless, the panel recommends paying further attention to the quality assurance of theses. It advises formalising existing practice or introducing new initiatives to further shape a structural mechanism for performing spot checks in order to assure the assessment quality of theses. It also advises the programmes to redesign its thesis assessment forms to allow for additional qualitative feedback and to introduce greater transparency into the assessment process by asking all examiners to fill in assessment forms independently.

The panel verified that bachelor students meet the intended learning outcomes at satisfactory level; it studied a representative selection of bachelor graduation projects and agreed with the assessment. The theses reflected sound disciplinary research at the appropriate degree level. The panel invites the programme to consider incorporating features of its unique multidisciplinary profile into the bachelor thesis' design in the future. Additionally, the panel spoke with recent graduates. It found recent bachelor graduates well-prepared for further studies, both within the field of IE&SE and within adjacent fields of study.

The bachelor's programme TBK at the University of Twente has many strong and some unique features, including a solid connection with the professional field, a science-based academic curriculum, an original programme design which allows students to take control over their own learning trajectory and to develop an independent and responsible attitude, and a strong multidisciplinary approach. The panel applauds the challenging and inspiring curriculum design and innovative approach of student learning, which it considers highly suitable for the field of IE&SE. Students perform at a satisfactory achievement level at a sufficient pace. The new curriculum design has increased the time weekly spent by students on their studies, which meets the panel's approval. Nevertheless, there is room for improvement at the programme, in particular with regards to the formulation of its learning outcomes and the formalisation of the quality assurance of their thesis assessment. Consequently, the panel assesses the bachelor's programme as a whole as satisfactory.

Aanbevelingen
De NVAO onderschrijft de aanbevelingen van het panel.

Besluit

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

De NVAO besluit accreditatie te verlenen aan de wo-bachelor Technische Bedrijfskunde (180 EC; variant: voltijd; locatie: Enschede) van de Universiteit Twente te Enschede. 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 met 30 juli 2023.

Den Haag, 31 juli 2017

De NVAO
Voor deze:

R.P. Zevenbergen
(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
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.	**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.

 Bijlage 2: panelsamenstelling

- Prof. dr. ir. R.E.C.M. (Rob) van der Heijden, Radboud University Nijmegen (chair), is since 2016 Professor in Innovate Planning Methods within the Nijmegen School of Management (NSM);
- Prof. dr. H.M.C. (Harrie) Eijkelhof, Utrecht University, has specialised knowledge of didactics and teaching methods in science education;
- Prof. dr. E. (Erik) Demeulemeester, KU Leuven, Belgium, is Full Professor at the Faculty of Economics and Business since 2001 and Head of the Research Center for Operations Management at KU Leuven;
- M.G. (Maarten) van Ruitenbeek BSc, University of Groningen([student member), is a second-year master's student in Industrial Engineering and Management at the University of Groningen.

Het panel werd ondersteund door dr. E. (Els) Schröder, secretaris (gecertificeerd).