

# Besluit

Besluit strekkende tot het verlenen van accreditatie aan de opleiding woonderzoeksmaster Methodology and Statistics for the Behavioural, Biomedical and Social Sciences (research) van de Universiteit Utrecht

### Gegevens

datum 31 oktober 2016 onderwerp Besluit	Naam instelling Naam opleiding	0	Universiteit Utrecht wo-onderzoeksmaster Methodology and Statistics for the Behavioural, Biomedical and Social Sciences (research) (120 EC)
accreditatie wo-	Datum aanvraag	:	10 augustus 2016
onderzoeksmaster	Variant opleiding	:	voltijd
Methodology and Statistics for	Locatie opleiding	:	Utrecht
the Behavioural, Biomedical and	Datum goedkeuren		
Social Sciences (research) van	panel	:	29 februari 2016
de Universiteit Utrecht	Datum locatiebezoeken	:	15 en 16 maart 2016
(005033)	Datum visitatierapport	:	25 mei 2016
ons kenmerk	Instellingstoets kwaliteitszorg	:	ja, positief besluit van 12 juli 2012
NVAO/20162338/LL			

bijlagen

#### Beoordelingskaders 2

- Beoordelingskader voor de beperkte opleidingsbeoordeling van de NVAO (Stcrt. 2014, nr 36791); en
- Richtlijn beoordeling onderzoeksmasters vanaf 1 september 2015.

#### Bevindingen

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

#### Advies van het visitatiepanel

Samenvatting bevindingen en overwegingen van het panel.

The research master's programme in Methodology and Statistics for the Behavioural, Biomedical and Social Sciences (MSBBSS) is offered by the Faculty of Social and Behavioural Sciences (FSBS) of Utrecht University (UU). The programme is executed by Utrecht University (department of Methodology and Statistics of FSBS, department of Biostatistics of the University Medical Centre Utrecht) in collaboration with the University of Twente (department of Research Methodology, Measurement Methods and Data Analysis of the Faculty Behavioural, Management and Social Sciences).

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Pagina 2 van 6 The research master's programme MSBBSS has positioned itself within its disciplinary domain by choosing an explicit focus on applied statistics rather than on more mathematical statistics. The broad perspective on (applied) methodology and statistics that is established by the commitment of the three contributing departments offers a rich research environment.

The research master's programme MSBBSS is primarily designed to prepare students for entry to a PhD programme. However, the programme also provides training for students who wish to pursue their professional career as a researcher outside of academia.

The programme subscribes to general aims that apply to all research master's programmes at the FSBS in addition to its programme specific aims. MSBBSS graduates are explicitly able to apply methodological and statistical approaches in cooperation with behavioural, biomedical, and social scientists. They are also able to evaluate methodological and statistical approaches that are regularly used in behavioural, biomedical, and social scientific research, and they are able to develop methodological and statistical approaches that are required by new developments in behavioural, biomedical, and social scientific research. In addition, MSBBSS graduates have a strong foundation in the state of the art methodology and statistics of the behavioural, biomedical, and social sciences as the basis for growth throughout the professional career.

MSBBSS is a full-time two-year programme that comprises 120 EC. The content of the programme is closely connected to the research that is executed by the three participating departments of Utrecht University and the University of Twente, which is visible in the content of the curriculum and the possible locations to execute traineeships and theses. The panel has studied the curriculum and finds that all elements of the programme are good and assist the students in acquiring the intended learning outcomes. The different curriculum elements provide students with a profound basis in applied statistics with a solid theoretical background in their field of specialization. Students are thus enabled to become very capable in the inventive applications of methods.

The panel finds that the coherence of the curriculum could benefit from systematic reflection on alternative ways in which to structure the programme. The first year offers students a broad basis in methodology and statistics. Elements of certain methodological and statistical subjects are scattered throughout this year and reoccur in several courses, such as missing data, statistical modelling, categorical data, and generalised linear modelling frameworks. The panel asks the programme to consider the possible unwanted effects of this scattering and to make sure that the students are enabled to interconnect the elements in order to grasp the full landscape of these important subjects. In addition, the panel asks the programme to remain focused on the sequencing of scattered elements in different courses and to make sure that students experience a logical build up of their knowledge and skills.

The second year is mainly dedicated to the in-depth exploration of a contemporary research topic leading to the thesis. Students develop their own profile by choosing their thesis topic and one elective course, which results in a so-called track. MSBBSS offers a free track and four pre-designed tracks that reflect the expertise of the participating research groups: survey track, educational measurement track, biomedical track, and EMOS track (official statistics). The panel finds that the balance of the curriculum in the second year is somewhat asymmetric since the focus on the thesis (Research Seminar (7.5 EC), Preparation for the Thesis (15 EC), Research Seminar II (7.5 EC), Master's Thesis (22.5 EC)) leads to sparsity in training and acquisition of new substantive knowledge. The panel

Pagina 3 van 6 sees opportunities for the programme to offer training in topics that could be useful for the students in their thesis process, such as missing data, optimization methods, and designing simulation studies.

The programme recruits and selects students with bachelor's degrees in a variety of disciplines which results in a heterogeneous inflow. Furthermore, the limited mathematical training of students in their bachelor's programmes, and the collaboration between three departments at two universities are challenging factors in designing and executing the programme. Due to the resilience of its staff members, the programme is able to cope with these challenges.

Staff members are all high quality, active researchers and are members of very good to excellent research groups. Based on the reputation and recent track record of the teaching staff and the fact that students perform their final projects at universities and research institutes with a strong reputation, the panel concludes that students are educated within a very good to excellent research environment. The staff-student ratio is favourably low which enables students to have considerable interaction with each other and with lecturers.

The Education Committee (EC) advises the Board of Studies at the level of the graduate school of FSBS. Since 2015 each research master's programme in the graduate school has a Programme Advisory Committee (PAC) that plays a crucial role in the quality assurance of an individual programme. The close relationship of the MSBBSS PAC to the programme on the one hand and the Education Committee on the other contributes to a culture of quality in which problems are quickly and efficiently addressed.

The Board of Examiners (BoE) operates at a faculty level, which creates a distance from the programme. However, MSBBSS has its own assessment committee, which is closely involved with the programme. The panel finds that the programme and the BoE have installed adequate measures to monitor assessment quality. The consistent implementation and execution of assessment guidelines and regulations could benefit from more attention since teaching staff work autonomously in the development and grading of assessments. The BoE and its assessment committee could adopt a more proactive approach to guard the assessment processes. The small scale of the programme and informal contacts between students and staff ensure that any problems regarding assessments are adequately and quickly resolved.

The panel has established that the programme uses diverse assessment methods that are aligned with the learning objectives of each course unit. Safeguarding the quality of final research projects gets sufficient attention from examiners. The panel urges the programme to make sure that there is a strict separation between the roles of the thesis supervisor and co-author of the subsequent publication after graduation. Any impression that a supervisor of a thesis is a co-author of the thesis should be avoided.

After studying multiple theses and the accompanying research archives, the panel finds that students realize the intended learning outcomes of the research master's programme in - Methodology and Statistics for the Behavioural, Biomedical and Social Sciences. The achieved level in the theses is generally high; students demonstrate good research qualities in their work. According to the panel, this high quality of the reports and the fact that they often lead to publication in international peer reviewed journals demonstrate the success of the research orientation of the programme.

Pagina 4 van 6 Based on the performance of alumni the panel concludes that the programme prepares students well for a research career in and outside of academia. The majority of graduates obtain a PhD position. The panel concludes that the programme succeeds in its ambition to prepare students for a. strong career in methodology and statistics.

#### 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 Utrecht te Utrechtin de gelegenheid gesteld zijn zienswijze op het voornemen tot besluit van 26 september 2016 naar voren te brengen. Bij e-mail van 3 oktober 2016 heeft de instelling ingestemd met het voornemen tot besluit.

De NVAO besluit accreditatie te verlenen aan de wo-onderzoeksmaster Methodology and Statistics for the Behavioural, Biomedical and Social Sciences (research) (120 EC; variant: voltijd; locatie: Utrecht) van de Universiteit Utrecht te Utrecht. De NVAO beoordeelt de kwaliteit van de opleiding als goed.

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

De NVAO Voor deze: Dr. AH Flierman (voorzitter)

Den Haag, 31 oktober 2016

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.

# Pagina 5 van 6 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 de instromende studenten mogelijk de beoogde ende 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 beoogde eindkwalificati worden gerealiseerd.		Goed	
Eindoordeel		Goed	

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. Gerard van Breukelen, (voorzitter) professor in Methodology & Statistics, Maastricht University;
- Prof. Francis Tuerlinckx, (lid) professor of Quantitative Psychology and Individual Differences, KU Leuven (Belgium);
- Prof. Jelle Goeman, (lid) professor in Biostatistics, Leiden University Medical Centre;
- Associate prof. Nikos Tzavidis, (lid) associate professor in Social Statistics, University of Southampton (UK);
- Elise Crompvoets BSc, (student-lid) research master student Social and Behavioural Sciences, Tilburg University.

Het panel werd ondersteund door drs. L.C. te Marvelde, secretaris (gecertificeerd).