



NVAO • THE NETHERLANDS

INITIAL ACCREDITATION

WO-BACHELOR

DATA SCIENCE AND SOCIETY

University of Groningen

SUMMARY REPORT

28 NOVEMBER 2021

1 Peer review

The quality of a new programme is assessed by means of peer review. A panel of independent peers including a student reviews the plans during a site visit to the institution. A discussion amongst peer experts forms the basis for the panel's final judgement and the advisory report. The focus is on the curriculum, the teaching and learning environment, and student assessment.

The Accreditation Organisation of the Netherlands and Flanders (NVAO) takes a formal decision on the quality of the new programme based on the outcome of the peer review. This decision can be positive, conditionally positive or negative. Following a positive NVAO decision with or without conditions the institution can proceed to offer the new programme. Upon completion of the programme graduates are entitled to receive a legally accredited degree.

This summary report contains the main outcomes of the peer review. A full report with more details including the panel's findings and analysis is also available. NVAO bases an accreditation decision on the full report.

Both the full and summary reports of peer reviews are published on NVAO's website www.nvao.net. There you can also find more information on NVAO and peer reviews of new programmes.

Because of COVID-19 temporary measures apply for this peer review.

2 Panel

Peer experts

Prof. dr. Peter van der Sijde (chair), Professor Organisation, Entrepreneurship & Technology at Vrije Universiteit Amsterdam

Prof. dr. Paul de Hert, Full Professor in criminal and privacy law at Vrije Universiteit Brussel, Associated Professor at Tilburg University;

Prof. dr. Tamar Sharon, Professor of Philosophy, Digitalization and Society at Radboud University;

Drs. Bart Wezeman, Applied statistician and project leader at CBS ;

Ruward Karper (student) BSc., Student Joint Master Data Science & Entrepreneurship, Tilburg University & TU/e.

Assisting staff

Ikrame Faris MSc, secretary

Reina Louw MA, NVAO policy advisor and process coordinator

Site visit (online)

16 November 2021

3 Outcome

The NVAO approved panel reaches a conditionally positive conclusion regarding the quality of the bachelor programme Data Science and Society offered by the University of Groningen. The programme complies with standards 1 and 3 of the limited NVAO framework and partially complies with standard 2.

The bachelor programme in Data Science and Society has established a challenging and interesting profile that will enable graduates to become data scientists who can bridge the gap between different disciplinary approaches in the field of data science. There is a high demand for specialists who possess technical skills and are also able to identify and adequately respond to the ethical, legal and societal implications of data science. Various stakeholders, notably representatives of the professional field, were closely involved in the process of developing the programme.

Strong elements of the teaching-learning environment include the quality of the teaching staff and the didactical concepts of project-based and challenge-based learning that bring together theoretical and practical aspects of data science. Nonetheless, the panel also identified points for improvement. The rationale behind the two specialisations was not entirely clear. This especially applies to the way the specialisation *Regulation, Governance and Innovation* leads to the intended graduate profile. The panel is of the opinion that more balance could be created between technical courses and courses on ethical, legal and societal aspects (ELSA), also in the first year. In addition, the ELSA-courses could be better tailored to data science. Finally, the exact function of learning lines within the programme should be made more explicit.

The bachelor programme has a sound and transparent assessment system in place. Adequate measures are applied to ensure reliability and validity in assessment. The Board of Examiners is requested to remain alert on the challenges of interdisciplinary assessment, especially in relation to these.

4 Commendations

The programme is commended for the following features of good practice.

1. Involvement professional field – The professional field, represented in an Advisory Council, was closely involved in the design of the programme.
2. Scientific and societal need – The programme addresses an important scientific and societal need in the field of data science. The panel applauds the UG's integrated approach and considers the programme timely and much needed.
3. Teaching staff – The teaching staff is characterized by professionalism, enthusiasm and dedication. The staff members bring in a wide array of expertise from various disciplines. Their vast experience instils confidence in their ability to deal with the challenges of interdisciplinary teaching.
4. Group effort – The development of the programme was a truly collaborative effort by the teaching staff and programme management. All staff members seem well involved and have developed into a close-knit community that is very supportive of this bachelor programme.
5. Project-based and challenge-based learning – The educational concepts of project-based and challenge-based learning contribute to a valuable connection between theoretical and practical aspects of data science.

5 Recommendations

For further improvement to the programme, the panel recommends a number of follow-up actions.

1. Extend scope of mandatory literature – Incorporate more literature from critical data studies, especially by computer scientists, in the mandatory literature to better tailor courses on ethical, legal and societal aspects to data science.
2. Number and complexity mandatory literature – Review the number and complexity of the mandatory literature of ELSA-courses, especially in the first year, to ensure better correspondence with the level of starting students.
3. Challenges of interdisciplinary character – Be aware of the challenges the interdisciplinary character of the programme can pose for students who are either technically or socially-oriented.
4. Marketing of programme – Be attentive to the way the programme is marketed and communicated towards prospective students.
5. Interdisciplinary assessment– Remain alert on the challenges of interdisciplinary assessment, especially in relation to theses.

6 What comes next?

NVAO grants initial accreditation to a new programme on the basis of a panel's full report. The decision is valid for a maximum of six years. For conditional accreditation other regulations apply. Upon accreditation the new programme will follow the NVAO review procedures for existing programmes. NVAO publishes the accreditation decision together with the full report and this summary report. ¹

Each institution has a system of quality assurance in place ensuring continuous follow-up actions and periodic peer-review activities. Peer reviews help the institution to improve the quality of its programmes. The progress made since the last review is therefore taken into consideration when preparing for the next review. The follow-up activities are also part of the following peer-review report. For more information, visit the institution's website. ²

7 Summary in Dutch

Het panel oordeelt positief onder voorwaarden over de kwaliteit van de Bachelor Data Science and Society van Rijksuniversiteit Groningen. Dit is de uitkomst van de kwaliteitstoets uitgevoerd door een panel van peers op verzoek van de Nederlands-Vlaamse Accreditatieorganisatie (NVAO). Voor deze beoordeling heeft het panel gesprekken gevoerd met de opleiding op 16 november 2021.

De bacheloropleiding Data Science and Society heeft een uitdagend en interessant profiel uitgewerkt dat afgestudeerden in staat stelt om een brug te kunnen slaan tussen diverse disciplines op het terrein van data science. Hier is grote vraag naar op de arbeidsmarkt. Bij de ontwikkeling van de opleiding waren diverse stakeholders betrokken, waaronder vertegenwoordigers uit het werkveld.

Sterke elementen van de onderwijsleeromgeving betreffen de kwaliteit van het onderwijspersoneel en de didactische concepten 'project-based learning' en 'challenge-based learning' waarin theoretische en praktische aspecten van data science worden samengebracht. Het panel constateerde ook enkele punten voor verbetering. De rationale achter de twee specialisaties was niet helemaal duidelijk. Dit geldt in het bijzonder voor de wijze waarop de specialisatie *Regulation, Governance and Innovation* bijdraagt aan het voorgenomen afstudeerprofiel. Volgens het panel kan meer balans worden gecreëerd tussen de technisch georiënteerde cursussen en cursussen over ethische, juridische en maatschappelijke aspecten, ook in het eerste jaar van de opleiding. De cursussen over

¹ <https://www.nvao.net/nl/besluiten>

² <https://www.rug.nl/>

ethische, juridische en maatschappelijke aspecten kunnen ook beter worden toegespitst op data science. Tot slot zouden de leerlijnen nader kunnen worden geëxpliciteerd.

De bacheloropleiding kent een gedegen en transparant systeem van studentbeoordeling. Diverse maatregelen zijn in plaats om de betrouwbaarheid en validiteit van toetsing te garanderen. De examencommissie is verzocht om alert te blijven op de uitdagingen van interdisciplinaire toetsing, in het bijzonder in het geval van scripties.

Al met al beoordeelt het panel de kwaliteit van de beoordeling als voorwaardelijk positief.

Meer informatie over de NVAO-werkwijze en de toetsing van nieuwe opleidingen is te vinden op www.nvao.net. Voor informatie over de Rijksuniversiteit Groningen verwijzen we naar de website van de instelling.³

Als gevolg van de beperkende omstandigheden door COVID-19 geldt voor deze kwaliteitstoets een tijdelijke procedure.

³ <https://www.rug.nl/>

