NVAO • THE NETHERLANDS

INITIAL ACCREDITATION

ACADEMIC MASTER

COMPLEX SYSTEMS & POLICY

University of Amsterdam

SUMMARY REPORT

12 DECEMBER 2024

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.

2 Panel

Peer experts
1. Dr. Carina Wiekens (chair)
   Lector Communication, Behaviour & Sustainable Society, Lector EnTranCe-Centre of Expertise Energy, Hanze University of Applied Sciences Groningen, The Netherlands
2. Prof. dr. Karoline Wiesner
   Professor of Complexity Science at the Department of Physics and Astronomy, University of Potsdam, Germany
3. Prof. dr. Frank Boons
   Professor of Political Economy of Sustainability, School of Business and Economics; Director, Maastricht Sustainability Institute (MSI), Maastricht University, The Netherlands
4. Anne van de Rijdt (student)
   Recently graduated from the Master's programme Master Social Challenges, Policies and Interventions, Utrecht University, The Netherlands.

Assisting staff
1 Yulia Krijthe MA, Ed.M., secretary
2 Anne Klaas Schilder MA, NVAO policy advisor and process coordinator

Site visit
Amsterdam, 18 October 2024

3   Outcome

The NVAO-approved panel reaches a positive conclusion regarding the quality of the academic master's programme Complex Systems and Policy offered by University of Amsterdam. The programme is a two-year, full-time master's programme (120 EC) offered in English.

The MSc in Complex Systems and Policy (CS&P) addresses the growing complexity of societal challenges through interdisciplinary and transdisciplinary approaches. It equips students with a strong foundation in complexity science, integrating fields such as data science, computer modelling, economics, governance, ethics, and decision-making. Focusing on health and sustainability, the programme aims to develop cross-disciplinary professionals who bridge technical knowledge and policymaking, preparing graduates for roles as researchers, analysts, and policy advisors in both national and international contexts.

Stakeholder feedback confirms the programme's relevance, emphasising its goal of training professionals who can connect technical expertise with actionable policymaking. The panel finds that the programme's exit qualifications are well-defined and aligned with its educational and professional objectives. It recommends further refinement of the professional profile to enhance the international orientation.

The panel acknowledges the programme's well-developed and viable didactic approach, offering collaborative learning opportunities through workshops, real-life case studies, and simulations with external stakeholders. Challenge-based learning facilitates the application of acquired knowledge and transdisciplinary skills. The panel suggests explicitly defining the international content and learning outcomes to strengthen the programme's global focus, including the involvement of international stakeholders in challenge-based projects.

The curriculum is balanced, combining core and elective courses with transdisciplinary projects, and offers opportunities for knowledge deepening through a final thesis that integrates transdisciplinary research and practical application. The panel recommends defining transdisciplinary skills in course content and literature. They also emphasise the need for balanced preparation among all students, regardless of their prior studies, by reviewing student entry levels, including international intake, clearly articulating prerequisite knowledge for admission, and specifying available bridging or remedial options. Overall, the curriculum reflects the programme's vision, enabling students to develop a broad skill set aligned with the graduate profile. With well-equipped facilities and strong student support services, the programme provides a conducive learning environment. The staff's expertise and commitment are evident, and the assessment methods used to evaluate students are varied, ensuring quality. The programme's two-year duration (120 EC) aligns with international standards and the comprehensive curriculum, and the panel supports the argument for this duration to adequately prepare graduates for the competitive job market.

In conclusion, the panel is convinced of the quality of the proposed programme and trusts that the UvA MSc Complex Systems and Policy will be a robust, academically feasible programme.

4   Commendations

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

1. Professional Orientation – This UvA Master's programme offers a novel focus in Complex Systems and Policy, designed to equip future professionals with the broad skills to bridge technical expertise and practical policymaking. It aims to develop adaptive, socially responsible professionals capable of analysing complex societal challenges and designing evidence-based, impactful interventions.

2. Integration of interdisciplinary insights – The programme effectively integrates diverse disciplinary perspectives and actively involves non-academic stakeholders, promoting a well-rounded and collaborative approach.

3. Rigorous Curriculum Structure – The curriculum is designed with clear and well-defined learning outcomes, built on strong academic research foundations. It integrates challenge-based teamwork, aimed at expanding and enriching the students' learning experience, while effectively balancing disciplinary depth with inter- and transdisciplinary knowledge and skills.

4. Collaborative effort – The development of the programme is a collective endeavor involving highly qualified academic staff, interdisciplinary scholars, and programme management. The team is dedicated to delivering a robust and academically feasible curriculum and has formed a close-knit, supportive community that plays an integral role in the success of this Master's programme.

5. Comprehensive Assessment Programme – The intended curriculum features a diverse and well-rounded array of assessment methods, ensuring a balanced and comprehensive evaluation of students' knowledge and skills.

5   Recommendations

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

1. Enhancing International Orientation – Strengthen the programme's international ambitions by explicitly integrating them into the intended learning outcomes, thereby ensuring a more pronounced emphasis on international orientation.

2. Global Engagement in Curriculum – Clearly articulate the international components of the curriculum and actively engage international stakeholders in challenge-based projects to enrich the learning experience.

3. Stakeholder Alignment in Curriculum Design – Continuously assess the expectations of key stakeholders, especially in data science and statistical fields, and incorporate their insights into the curriculum to ensure its relevance and alignment with industry needs.

4. Transdisciplinary Approach – Strengthen the transdisciplinary focus as a core component of the curriculum. Integrate advanced technical and interpersonal skills into the course content and literature to support a transformative learning experience of the change-making learning trajectory and ensure the achievement of intended learning outcomes.

5. Harmonising Admission Criteria – Reevaluate the intake criteria and required prior knowledge for all students, including international applicants, to ensure alignment with programme expectations. Clearly specify prerequisites and selection procedures and provide details on bridging or remedial options for students who do not meet direct admission requirements.

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]

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[1] https://www.nvao.net/nl/besluiten
[2] https://www.uva.nl/

7   Summary in Dutch

Het panel oordeelt positief over de kwaliteit van opleiding wo-master M Complex Systems & Policy van Universiteit van Amsterdam. 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 18 oktober 2024.

Deze tweejarige, voltijdse master (120 EC) wordt in het Engels gegeven en richt zich op het aanpakken van complexe maatschappelijke problemen. De MSc in Complex Systems and Policy biedt studenten een brede basis in vakgebieden zoals datawetenschap, economie en ethiek. Het programma legt de nadruk op gezondheid en duurzaamheid en bereidt studenten voor op banen als onderzoekers, analisten en beleidsadviseurs, zowel nationaal als internationaal.

Belanghebbenden vinden het programma zeer relevant en waarderen dat het professionals opleidt die technische kennis kunnen vertalen naar praktisch beleid. Het panel heeft vastgesteld dat de eindkwalificaties van het programma duidelijk zijn en goed aansluiten bij de onderwijs- en beroepsdoelstellingen. Ze raden aan om het professionele profiel verder te verfijnen om de internationale oriëntatie te versterken.

Het programma biedt veel mogelijkheden voor samenwerking door middel van workshops, real-life casestudies en simulaties met externe belanghebbenden. Challenge-based learning helpt studenten om de opgedane kennis en vaardigheden in de praktijk te brengen. Het panel adviseert om de internationale inhoud en leerresultaten duidelijker te definiëren en internationale belanghebbenden te betrekken bij de projecten.

Het curriculum is goed uitgebalanceerd en combineert kern- en keuzevakken met transdisciplinaire projecten. Studenten krijgen de kans om hun kennis te verdiepen door middel van een eindscriptie die zowel onderzoek als praktische toepassing integreert. Het panel benadrukt het belang van een evenwichtige voorbereiding voor alle studenten, ongeacht hun achtergrond, en adviseert om duidelijk te maken welke voorkennis nodig is voor toelating en welke overbruggingsmogelijkheden beschikbaar zijn.

Over het algemeen weerspiegelt het curriculum de visie van het programma en stelt het studenten in staat om een breed scala aan vaardigheden te ontwikkelen die aansluiten bij het afgestudeerdenprofiel. Met goed uitgeruste faciliteiten en sterke ondersteuning biedt het programma een stimulerende leeromgeving. De expertise en toewijding van het personeel zijn duidelijk zichtbaar, en de diverse beoordelingsmethoden zorgen voor een hoge kwaliteit van de evaluaties.

Kortom, het panel is overtuigd van de kwaliteit van het voorgestelde programma en heeft er vertrouwen in dat de UvA MSc Complex Systems and Policy een robuust en academisch haalbaar programma zal zijn.

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3 https://www.uva.nl/en