

The logo for AeQui, featuring the letters 'AeQui' in a purple, sans-serif font. A light blue, brush-stroke-like line loops around the letters, starting from the 'A', passing under the 'e', looping around the 'Q', and ending under the 'i'.

AeQui

Postbus 5050
NL-3502 JB Utrecht
+31 30 87 820 87
www.AeQui.nl
info@AeQui.nl

**Bachelor Diergeneeskunde
(Veterinary Medicine)
Utrecht University**

*Report of the limited programme assessment
19 and 20 May 2021*

Utrecht, The Netherlands
July 2021
www.AeQui.nl
Assessment Agency for Higher Education

Colophon

Programme

Utrecht University
Bachelor Diergeneeskunde (Veterinary Medicine)
Location: Utrecht
Mode of study: fulltime
Croho: 56570
Result of institutional assessment: positive

Assessment committee

prof. dr. D.J. (David) Argyle, chair
prof. dr. K.E. (Kerstin) Müller, domain expert
dr. H.A.T. (Heleen) Miedema, domain expert
prof. dr. F. (Fedde) Scheele, domain expert
DVM E. (Esben) Østergaard Eriksen, student member
Linda van der Grijspaarde, secretary

The Assessment committee was presented to the NVAO for approval.

The assessment was conducted under responsibility of
AeQui Nederland
Postbus 5050
3502 JB Utrecht
The Netherlands
www.AeQui.nl

This document is best printed in duplex

Table of contents

Colophon	2
Table of contents	3
Summary	4
Introduction	6
1. Intended learning outcomes.....	7
2. Teaching-learning environment	8
3. Student assessment.....	13
4. Achieved learning outcomes.....	16
Attachments.....	19
Attachment 1 Assessment committee.....	20
Attachment 2 Program of the assessment	21
Attachment 3 Documents	22

Summary

On 19 and 20 May 2021 an assessment committee of AeQui visited the Bachelor's programme Diergeneeskunde (Veterinary Medicine) at Utrecht University online. The committee judges that the programme meets each standard; the overall quality of the programme **meets the standard**.

Intended learning outcomes

The aim of the Bachelor's programme in Veterinary Medicine is preparing students for a subsequent course of study. This course is primarily the Master's programme in Veterinary Medicine, but students are equally well-prepared for Master's programmes in the biomedical field. The committee notes that the 26 intended learning outcomes of the programme, divided into four key areas of competence, reflect this aim. The intended learning outcomes are well described in terms of orientation and are in line with the domain-specific requirements for veterinary medicine. The focus on basic skills and concepts in a pre-clinical context shows the level is that of a Bachelor's programme. The assessment committee assesses that the intended learning outcomes **meet the standard**.

Teaching-learning environment

The full-time Bachelor's programme consists of 180 EC. 165 EC are mandatory courses (the major); 15 EC may be spent on elective courses. The programme runs in Dutch. The committee feels the curriculum is designed in a conducive manner to the achievement of the intended learning outcomes. In a redesign of the curriculum that will be implemented in the coming years, the Faculty adequately addresses issues as 'over teaching', fragmentation and a lack of experiencing practice early on in the current programme. The curriculum ties in with the qualifications of the incoming students and the selective character of the programme safeguards the entrance of students who are motivated and fit for the demands of the study. The staff is qualified, enthusiastic and very supportive for the students. The accommodations are sufficient for the realisation of the curriculum. Students have access to state-of-the-art facilities for veterinary medicine. The programme has an active mentoring and guidance system for students in place. The assessment committee assesses that the teaching-learning environment **meets the standard**.

Student assessment

Summative assessment of courses with a study load up to 7,5 EC is mostly limited to one exam. The Bachelor's programme uses two types of practical tests: the Objective Structured Clinical Examination (OSCE) for the assessment of clinical competences and the response tests to assess knowledge of topographical anatomy. According to the committee, the programme has an adequate assessment system. The system assesses the students' knowledge and practical skills at Bachelor's level. The assessments are valid, reliable and sufficiently independent. The requirements are transparent to the students. The quality of the assessments is sufficiently safeguarded and meets the quality standards. The tests support the students' own learning processes. The assessment committee assesses that the student assessment **meets the standard**.

Achieved learning outcomes

The examinations for assessing the achieved learning outcomes of the Bachelor's students are a thesis, the practical assessment OSCE of year 3 and the third year assessments of two longitudinal courses: Veterinary Clinical Reasoning and Ethics, Law and Environmental studies. By far the most of the Bachelor's graduates proceed to the Master's programme in Veterinary Medicine. Partly based on the assessment of fifteen recent theses of the programme, the committee establishes that the students reach a sufficient level of achievement and are well prepared for entering the Master in Veterinary Medicine or another Master in the biomedical field. The achievement of the intended learning outcomes of the students is also demonstrated by the good performance of graduates in the Master's programme. The assessment committee assesses that the achieved learning outcomes **meets the standard**.

Recommendations

In order to bring the programme to an even higher level of quality in the future, the committee issues the following recommendations:

- Formalise the contacts with the stakeholders e.g. from clinical practices, industry perhaps in the form of an advisory board, so the Faculty can discuss on a regular basis issues such as the topicality of the intended learning outcomes and the relevance to societal needs.
- In the redesign of the programme, make sure there is a good alignment between the intended learning outcomes and the courses and strengthen the continuous learning lines. In addition, consider making the course on euthanasia mandatory rather than having it as an elective;
- Provide students with guidance on how to cope with a large amount of mandatory and additional literature provided as background reading in courses;
- Reinforce the learning process of the students by providing, at an earlier stage, more OSCE-oriented practice and feedback moments as a preparation for the practical test OSCE.
- Conduct periodic evaluations among all graduated Bachelor's students.

All standards of the NVAO assessment framework (2018) are assessed positively; the assessment committee therefore awards a positive recommendation for the accreditation of the programme.

On behalf of the entire assessment committee,
Utrecht, July 2021

Chair
prof. dr. D.J. (David) Argyle

Secretary
drs. L. (Linda) van der Grijspaarde

Introduction

This report describes the limited programme assessment of the Bachelor's programme in Veterinary Medicine (in Dutch: Diergeneeskunde) offered by Utrecht University. The programme is a three-year full-time Bachelor's programme, amounting to 180 EC.

The institute

Utrecht University boasts seven faculties and three teaching institutes. The university has about 30.000 students and 6.700 staff members.

The Faculty of Veterinary Medicine is one of seven Faculties. It is the only institution in the Netherlands that offers an academic degree in Veterinary Medicine. The Faculty is organised in a matrix structure wherein the three research departments represent the vertical lines and education as well as the research themes form the horizontal lines.

The programme

The programme is a three-year full-time Bachelor's programme, amounting to 180 EC.

The Bachelor's programme is taught by the staff of the three departments Biomolecular Health Sciences, Clinical Sciences and Population Health Sciences. It provides students with the knowledge, skills and understanding they need to enter a range of biomedical Master's programmes including the Master's programme in Veterinary Medicine. Its setup gives students a cross-species understanding of health and disease in veterinary-relevant species, and teaches theoretical knowledge, in-depth understanding and insight as well as academic, practical and communication skills. The curriculum is taught in Dutch and graduates receive a Bachelor of Science (BSc) degree.

The assessment

Utrecht University assigned AeQui to perform a quality assessment of its Bachelor's programme in Veterinary Medicine. In close co-operation with the programme management, AeQui convened an independent and competent assessment committee. A preparatory meeting with representatives of the programme was held to exchange information and plan the date and programme of the online site-visit.

In the run-up to the site visit, the assessment committee has studied the Critical Self-Reflection on the programme and reviewed a sample of student work. The findings were input for discussions during the virtual site visit.

The online site visit was carried out virtually on 19 and 20 May according to the programme presented in attachment 2. The Bachelor's programme and the Master's programme in Veterinary Medicine are both assessed in this visit.

The committee has assessed the programme in an independent manner. At the end of the visit, the chair of the assessment committee presented the initial findings of the committee to representatives of the programme and the institution.

In this document, the committee is reporting on its findings, considerations and conclusions according to the 2018 NVAO framework for limited programme assessment. A draft version of the report was sent to the programme management; its reactions have led to this final version of the report.

1. Intended learning outcomes

The assessment committee assesses that the intended learning outcomes **meet the standard**. The programme has a clear profile aiming to prepare students for the Master's programme in Veterinary Medicine or another Master's programme in the biomedical field. The programme has translated its profile into 26 intended learning outcomes that are divided into four competence areas. These intended learning outcomes are well described in terms of level and orientation and are in line with the domain-specific (international) requirements for veterinary medicine.

Findings

The aim of the Bachelor's programme in Veterinary Medicine is preparing students for a subsequent course of study. This course is primarily the Master's programme in Veterinary Medicine, but the programme aims that students are equally well-prepared for Master's programmes in the biomedical field.

Practicing as a veterinarian is governed by (international) laws and regulations. The Master's programme, resulting in the authority to practice as a veterinarian, must take these laws and regulations into consideration. As the main programme preparing students for this Master, the Bachelor's programme also takes them into consideration.

The intended learning outcomes of the programme have been updated in 2017 according to the then formulated learning outcomes of the Master's programme. Four key areas of competence were formulated: 1. Veterinary knowledge, understanding and skills, 2. Animal, vet and society, 3. Scientific thinking and practice and 4. Personal and professional development. The 26 intended learning outcomes were formulated according to these areas.

Considerations

The committee established that students of the Bachelor's programme obtain knowledge and

skills that are important as preparation for the Master's Programme in Veterinary Medicine or other Master's programmes in the biomedical field.

The profile of the programme is elaborated into intended learning outcomes, structured clearly by four competence areas. According to the committee, these intended learning outcomes are well described in terms orientation and are in line with the domain-specific requirements for veterinary medicine. The focus on basic skills and concepts in a pre-clinical context shows the level is that of a Bachelor's programme.

The committee notes that the Bachelor's and Master's programme together have many contacts with the professional field. The committee recommends that these contacts with the stakeholder industry be formalised in, for example, an advisory board. In such a board, the Faculty can discuss issues such as the topicality of the intended learning outcomes and the relevance to societal needs.

Based on the interviews and examination of the underlying documentation, the assessment committee establishes that the intended learning outcomes **meet the standard**.

2. Teaching-learning environment

The assessment committee assesses that the teaching learning environment **meets the standard**. The curriculum is designed in a conducive manner to the achievement of the intended learning outcomes. In a redesign of the curriculum that will be implemented in the coming years, the Faculty addresses issues such as 'over teaching', fragmentation and a lack of experiencing clinical practice early on in the programme on a qualitative high level. The curriculum ties in with the qualifications of the incoming students and the selective character of the programme safeguards the entrance of students who are motivated and fit for the demands of the study. The staff are qualified, enthusiastic and very supportive for the students. The accommodations are sufficient for the realisation of the curriculum and in the new building they will strengthen the facilities considerably. Students have access to state-of-the-art facilities for veterinary medicine. The programme has an active mentoring and guidance system for students in place.

Findings

Contents

The full-time Bachelor's programme consists of 180 EC. 165 EC are mandatory courses (the major); 15 EC may be spent on elective courses provided by the faculty, other faculties of Utrecht University or other universities.

The major consists of two types of courses: thematic courses, which span three to ten weeks, and longitudinally programmed courses, which continue the whole duration of the programme. The thematic courses mostly provide knowledge, insight and skills of the first key competence area (veterinary knowledge, understanding and skills). They cover basic knowledge in related scientific fields such as biochemistry, cell biology, genetics, anatomy and embryology, but also specific themes such as digestion, reproduction, metabolism & endocrinology, emerging infectious diseases and adaptation & welfare. The longitudinal courses focus on the remaining three key competence areas: Animal, vet and society, Scientific thinking and practice and Personal and professional development.

The Bachelor's programme is divided into two phases. In the first phase, encompassing a great part of year 1, coursework offers students foundational knowledge of basic biological concepts: processes at the level of molecules, cells, tissues,

organism and population, both under healthy and diseased conditions, and of interactions of animals with their environments. The second phase, which runs until the end of year 3, offers courses that focus on organs and organ systems. Throughout the whole programme, the longitudinal courses, which teach academic skills, professionalism and clinical reasoning skills, run along these sequentially planned courses.

In the past years, the programme added some elements to the programme to help students make the decision for a Master's programme well-informed. Students reflect on their future profession by learning about and experiencing real-world challenges in the veterinary profession.

According to the Critical Self-reflection, the Bachelor's programme is effective when it comes to teaching the knowledge and skills required to pursue a Master's in the biomedical field. However, it is not very efficient when it comes to staffing matters and it does not follow the scheduling formats that are shared by most other Utrecht University programmes. The first issue results in a high staff work load, while the other makes it difficult for students to, for instance, follow an international exchange programme or elective courses outside the Faculty. As of academic year 2019-2020 a group of lecturers is exploring ways to improve the programme in these respects, while leaving the intended learning outcomes as they

are. The revised programme is planned to start in academic year 2022-2023. The committee discussed the plans for the new curriculum with students and staff. They told the new programme will have more practical opportunities due to the expansion of the use of skills labs. In addition, the programme will be better structured so it is less fragmented and there is more integration of topics.

Didactic approach

Most courses teach basic theoretical principles through lectures. Lectures are followed up by more (inter)active teaching and learning formats, which range from class-based tutorials, labs and project assignments to self-study and blended learning formats. Wherever possible, students work in groups of no more than 25 students.

According to the Critical self-reflection, courses challenge students to take active roles in lectures and tutorial groups, make presentations, and work on projects. They include innovative active- and deep-learning approaches, e-modules (e.g. digital microscopy), knowledge clips and peer-teaching. Issue- and problem-driven case studies or assignments reflect real-world challenges in veterinary medicine.

Recent developments

Due to the pandemic in 2020 the programme was offered online for a larger part. Theoretical courses were switched to online courses. Study groups (in Dutch: werkcolleges) were partially replaced by question hours, but also supervised online. Practical courses (e.g. lab courses and clinical rotations) were not available for the weeks that the University was closed. After that period, they were resumed, with safety precautions.

Student counsellors have created extra opportunities for students with urgent needs to meet personally on campus. Both the University and the Faculty have created online information sessions, training and workshops for students' wellbeing.

The quality of the learning environment and the wellbeing of students was monitored. After each education period, questionnaires were distributed to all students and results were evaluated both by the vice-deans as by the Program Committee. Regular evaluations have continued to take place as much as possible. Additionally, the directors have organized regular online meetings for all students. Here, students could air their concerns, share ideas and receive moral support as a group.

The staff and students profited from the fact that the Faculty of veterinary sciences is a small coherent community in which students and staff know each other well.

Incoming students

Around 1000 students per year are interested in starting the programme. The influx is limited to 225 students per year. Since 2017, due to new national legislation, admission to the Bachelor's programme is based on candidate selection and no longer on a weighted lottery. Prospective students who live in other countries can participate in the process through validated and proctored secure online channels. In the student chapter video, students tell they feel the selection process is fair and gives them a good view on the contents of the programme. They state 'the procedure was quite hard, but it was all very well organised and clear what to do'.

Staff

The student staff-ratio is approx. 1:16. A great number of the lecturers are veterinarians. The Faculty employs a number of junior lecturers and full-time lecturers (i.e., lecturers without a research appointment). Both these types of lecturers support scientific staff in their teaching duties. Junior lecturers have a PhD, while this is not a requirement for full-time lecturers. Both are usually not responsible for a course or its content on their own and teach alongside scientific staff.

Assistant professors, associate professors and full professors who aspire to a permanent position have to obtain a University teaching qualification and may pursue a Senior teaching qualification. For continuing education in lecturing, Utrecht University's Centre of Academic Teaching offers courses and training programmes lecturers can follow to raise their teaching skills. The centre also offers a one-year course on 'academic leadership in education', which several senior Faculty staff members have followed.

Language and international focus

The programme runs in Dutch. This means that lectures, tutorials and rotations take place in a Dutch environment. However, because the programme is preparing for an international labour market, the programme is internationally oriented. On course level, international standard works are used. The Bachelor's thesis is written in English. Additionally, the Faculty has teaching mobility agreements in place with sister veterinary schools in and outside the European Economic Area. To meet these agreements the Faculty planned in the new curriculum to teach more in English.

Infrastructure

The Faculty uses seven buildings on Utrecht Science Park, some of which house facilities and equipment that are suited to the specific needs of Veterinary Medicine. The Faculty features two clinics: the companion animal clinic and the equine clinic including an ambulatory service. Both are open 24 hours a day, seven days a week and function as the veterinary emergency healthcare facilities and referral hospital of the Utrecht region. Students can gain farm animal clinic experience at a similar level in a protected environment on the teaching farm run by the Faculty (Tolaker). The Faculty offers facilities for students to cultivate social contacts.

To practice the skills that are taught in coursework, the Faculty offers skills labs in which students can practise. They are supervised by lectur-

ers, technicians and specially trained teaching assistants. The aim of skills labs is to offer a safe learning environment where students can practise their skills safely until they feel ready to practise on live animals, but also to reduce the number of experimental animals. The Faculty has numerous plastinates that are used for education purposes and has the facility to produce plastinates. In the Bachelor's programme plastinates are used in all anatomy and in pathology courses.

Tutoring and student information

In the Bachelor's tutoring system, personal tutors support students in their personal and professional development. Scientific and other teaching staff serve as a tutor for up to eight students. Most tutors support students throughout their Bachelor's programme. In the student chapter, students relate that 'The student counselling and tutoring is sufficient, most of the tutors and teachers are very helpful whenever you ask them for help'.

In addition to the tutors, the study advisors play an important role in the more private or study competences related topics.

During their studies, students take on assignments that focus on their personal and professional development. They collect and reflect on these in a personal digital portfolio. Tutors and students discuss the portfolios on a regular basis. Tutors assess students' commitment and development. Tutors also play a role in flagging problems related to students' health and well-being. Over recent years problems have grown such as students experiencing high study loads and (financial) pressure to perform. In the Student Chapter, students say the following about this: 'I think sometimes the schedules are very fully booked' and 'I think the study pressure is high, some students struggle with that'.

Utrecht University uses Blackboard as its learning management system. The Bachelor's programme uses it for blended learning and for connecting

students to recorded lectures, tutorials, study materials, and information on logistics and procedures. Blackboard also provides access to the Veterinary Education Portal which contains e-modules, and Vetportal, a veterinary science information resource.

Considerations

The committee has established that the contents of the curriculum enable students to achieve the intended learning outcomes. The committee also noticed there is a tendency to 'over teach': the need to teach the students all there is to know about veterinary medicine. The committee welcomes the intention of the Faculty to omit or redesign subjects in the new programme. This will allow a better focus on the most important subjects and a better alignment between the intended learning outcomes and the curriculum. The committee also is positive about the intention making the renewed Bachelor's programme more practical, with students visiting veterinary practice early on in their studies.

The Bachelor's programme's current structure, combining thematic courses with those that address skills, works well. However, the committee is of the opinion that the continuous lines of competence development in the programme could be strengthened. This will be realised in the new programme, the committee noticed.

The committee feels the teaching-learning concept of the programme is supportive for the learning process of the students. The educational formats are adequate. The programme has made a good start offering innovative teaching methods. The committee encourages further implementation of innovative teaching methods as new ways of improving the programme.

Students experience a high study load. The committee notes that the Faculty will include this point in the redesign. One of the causes, according to the students, is the amount of literature offered in courses. Part of it is non-compulsory background literature. The committee suggests

that students is offered a guidance in how to cope with this and teach them what is important and what part is just for their interest: 'learning to learn'-support.

According to the assessment committee, the curriculum ties in with the qualifications of the incoming students. The assessment committee feels that the admission procedure functions well and is very informative for students and the management.

The assessment committee observed that the staff team is qualified for the realisation of the curriculum in terms of content and educational expertise. The committee found an acceptable balance between scientific staff and full-time lectures, but underlines the importance of continuously overseeing this. A strong feature of the programme is the staff- student ratio and the intensive, personal contact between staff and students which stimulates collaboration and provides ample opportunities for feedback between students and staff. The students have personal contacts with the teaching staff, who are easily accessible: 'we know all of the teachers by name, that's the biggest hit'.

The infrastructure, such as accommodation and material facilities, is sufficient for the realisation of the curriculum. Students have access to state-of-the-art veterinary facilities. The committee is positive about the reduction of using laboratory animals in education.

The tutoring of and provision of information to students are conducive to study progress and tie in with the needs of the students. The programme has an active mentoring and guidance system, that continues in the Master's programme.

The Faculty has responded adequately to the limitations in the past year due to the COVID-19 restrictions and has applied suitable alternative forms of education, including online lectures.

Based on the interviews and examination of the underlying documentation, the assessment committee establishes that the programme **meets this standard**.

3. Student assessment

The assessment committee assesses that the student assessment **meets the standard**. The programme has an adequate assessment system. The student assessments assess the students' knowledge and practical skills at Bachelor's level. The assessments are valid, reliable and sufficiently independent. The requirements are transparent to the students. The quality of the assessments is sufficiently safeguarded and meets the quality standards. The tests support the students' own learning processes. This can be reinforced by providing more practice and feedback moments as a preparation for this test.

Findings

Assessment system

Summative assessment of courses with a study load up to 7.5 EC is mostly limited to one exam. Each summative assessment is preceded by at least one formative assessment. Assessments are tailored to the intended learning outcomes and instructional methods of the individual courses by using assessment matrices. Almost all courses use written tests for their final summative assessments. To reduce workload for course coordinators, the majority (70%) of courses offer these 'written' tests in digital format using software that can process many types of questions (e.g. multiple choice, open, matching and hot spot questions and questions using sound or video). According to the Critical self-reflection, advantages also include readability, speedier correction and performance analysis. The programme aims to expand the use of digital written assessments to 95% of courses.

The Bachelor's programme uses two types of practical tests:

- The Objective Structured Clinical Examination (OSCE) - The OSCE is used by many veterinary schools to assess clinical competences. It is offered halfway year 2 and at the end of year 3 as part of the longitudinal 'Diagnostic and Manual Skills' course, which teaches basic veterinary clinical, diagnostic and communicational skills required for veterinary practice. The OSCE assesses students' skills in fourteen subsequent examination

rooms ('stations') with real or simulated veterinary patients and equipment. Each station has an examiner present. Students practice and prepare for the tests in a 'clinical skills lab'.

- Response tests - Response tests are used to assess knowledge of topographical anatomy. They assess students' knowledge skills in 10 subsequent stations with anatomical preparations.

The university's online course catalogue specifies course requirements, assessment criteria and assessment methods. Coordinators of individual courses design procedures and tests. Currently, pilots are performed within the programme with a digital tool that support this review at both the course level and the programme level.

Quality assurance of the assessment

The Faculty Assessment Policy was updated in 2018 and complies with the Utrecht University Education Guidelines and the programme's Education and Examination Regulations (OER). In the policy is described how assessments should support the learning process of the students and offers guidance to course coordinators on how to organize assessments. It has been formulated at programme as well as course level.

The Board of Examiners of the Bachelor's programme formally assures the quality of assessment and examination of the programme to ensure that all graduates have attained the intended learning outcomes. It does so by determining assessment guidelines within the framework of the

programmes Education and Examination Regulations (OER). The Board is made up of senior staff members, is independent of the programme and reports to the dean on its activities annually. The Board of Examiners also determines if students have fulfilled the requirements of the programme and in this event awards the degree certificate.

The Board of Examiners has mandated an Assessment Committee Veterinary Medicine to monitor the quality of assessments using a three-year review cycle. They review the assessments on alignment with intended learning outcomes, validity, reliability, transparency, and learning impact. The committee reports on its work to the Board of Examiners and the programme's director of education.

The programme's director of education reviews annually the assessment programme as described in the assessment plan. In an annual quality assurance meeting held with members of the Programme Committee and representatives of students, lecturers, and support staff assessments are also discussed. Students can also raise issues related to assessments with the director of education directly.

Within individual courses, all assessments are peer-reviewed by other teaching staff prior to implementation. Peers verify the assessment quality and its relevance to the intended learning outcomes. Following written exams, course coordinators analyse the overall results using software. If called for, they can adjust grading.

Recent developments

All assessments took place online last year, most of them with proctoring. The third year OSCE could not take place, as it was scheduled in the period that students were not allowed on campus due to the restrictions. As this would have meant that a whole cohort would not be able to obtain their Bachelor's and access the Master's programme, the Board of Examiners granted all students who met certain specific conditions (e.g.

graduating in the year 2019-2020) an exemption for this assessment.

Considerations

The committee has established that the Bachelor's programme has an adequate assessment system and assessment procedures. The assessment procedures are sufficiently implemented in the programme. Multiple assessment types are implemented in the programme and these are aligned with the learning outcomes. The assessments are planned in such a way that students have sufficient time to prepare.

The practical tests fit the purpose of measuring the practical skills of the students at Bachelor's level. As many students find the OSCE test very stressful, the committee suggests introducing more practice and feedback moments during the programme. The committee is positive about the programme's intention to re-evaluate the OSCE to make it less demanding and stressful.

According to the committee, some assessment methods, such as longitudinal testing, are currently not be used to their full potential. The committee welcomes the analysis to see if programmatic testing can also be introduced in the Bachelor .

The Faculty has responded adequately to the limitations in the past year due to the COVID-19 restrictions and has applied suitable alternative forms of testing, including online assessments.

The assessment policies are transparent, comprehensive and up to date. The Board of Examiners and the Assessment Committee perform thoroughly and pro-actively its tasks to control the quality of the exams, the assessment procedures and graduation research projects. The Board shows good knowledge of the programme and its assessment.

Based on the interviews and examination of the underlying documentation, the assessment committee establishes that the programme **meets this standard**.

4. Achieved learning outcomes

The assessment committee assesses that the achieved learning outcomes **meet the standard**. The students reach a sufficient level of achievement and are well prepared for entering the Master in Veterinary Medicine of another Master in the biomedical field. The achievement of the intended learning outcomes is demonstrated by the results of the several assessments and the performance of graduates in the Master's programmes.

Findings

The assessments for assessing the achieved learning outcomes of the Bachelor's students are a thesis, the practical assessment OSCE of year 3 and the third-year assessments of two longitudinal courses: Veterinary Clinical Reasoning and Ethics, Law and Environmental studies.

In the 'Academic skills' longitudinal course in the final semester of year 3, students write a thesis worth 7.5 EC. They pick a subject on their own or select one from a list of themes provided by supervisors. Thesis subjects must have relevance to Veterinary Medicine. The thesis assessment contains scores for learning process (20%), study design/content (40%) and professional development (satisfied/not satisfied). The remaining 40% of the final score comes from an assessment of the final thesis by a second reviewer.

To ensure that lecturers of all departments act equally and that students are judged fairly, the programme organises a thesis review annually.

The intended learning outcomes from the Veterinary Clinical Diagnostics course in year 3 are assessed with the practical assessment OSCE, which covers all veterinary diagnostic and clinical knowledge, insights and skills and most competencies for academic skills and professional development.

The course Veterinary Critical Reasoning addresses core competencies related to veterinary knowledge and insights. Its learning outcomes are assessed with a multiple-choice test.

The course Ethics, Law and Environment science mainly addresses key competence areas related to the veterinary profession and society. The summative assessment of the course comprises of a case study researched and written up by a group of five students. The assignment requires students to produce a report in which ethical, legal and environmental aspects of a case are analysed and integrated. The course also addresses social competencies such as cooperation, reflecting on co-worker perspectives and giving them feedback.

By far the most of the Bachelor's graduates proceed to the Master's programme in Veterinary Medicine. Almost all students in the Master's programme are alumni of this Bachelor's programme. The success rate of its students can therefore be regarded as an indicator of how well the Bachelor's programme prepares them for it. Most students finish the Master's programme within a reasonable period of time, indicating that they leave the Bachelor's programme well-prepared. Very few students decided to enter non-veterinary Master's programmes: one entered the One Health programme at Utrecht University, one entered a pre-Master's programme ahead of a Master's programme in Environmental Health, and one entered a Master's programme at Wageningen University. The programme has no information about the success of the students in these programmes.

Considerations

The committee assessed fifteen recent theses of the programme and looked into the topics of the OSCE. The committee established that all theses

met the requirements. On average the theses are of good quality. Some theses show limited methodological skills. The grading is in accordance with these methodological limitations. Together with the outcomes of the other final assessments, these outcomes illustrate that the students have achieved the intended learning outcomes as formulated by the programme.

The committee is positive about how the final grade is determined on the basis of the four different assessments. This way, not only the research skills but also the other competences, including the practical skills, are assessed at Bachelor's level.

Based on evaluations, the committee concludes that students perform well in the Master's programme in veterinary medicine. Although there is no reason to assume that students are not doing well in other Master's, the committee suggests that periodic evaluations should be conducted among all graduated Bachelor's students. The committee welcomes the Faculty's intention to introduce a survey for alumni, that can be used in part to obtain feedback on the Bachelor's programme.

Based on the interviews and examination of the underlying documentation, the assessment committee establishes that the programme **meets this standard**.

Attachments

Attachment 1 Assessment committee

Prof. dr. D.J (David) Argyle	William Dick Professor of Veterinary Clinical Studies (since 2005), Dean of Veterinary Medicine and Head of School (since 2011)
dr. H.A.T. (Heleen) Miedema	Director of the Education Division University of Twente Faculty of Science and Technology
Prof.dr. F. (Fedde) Scheele	Professor in Health Systems Innovation and Education, a com- bined professorship at the School of Medical Sciences of the VU medical centre and at the Athena institute for transdisciplinary research, VU, Amsterdam - OLVG Gynaecologist and Dean for education of health professionals and for scientific work (since 2015)
Prof.dr. K.E. (Kerstin) Müller	Professor for Internal Medicine and Surgery of Ruminants, Fac- ulty of Veterinary Medicine, Freie Universität Berlin, Germany - Managing Director Clinic for Ruminants and Pigs, Faculty of Vet- erinary Medicine, Freie Universität Berlin, Germany
E. (Esben) Østergaard Eriksen	MSc Veterinary Medicine and PhD student University of Copen- hagen, department of Veterinary Medicine and Animal Sciences

The panel was supported by Linda van der Grijspaarde, MSc.

Attachment 2 Program of the assessment

Online visit

Wednesday 19 May

9:00: 9:45	Assessment committee deliberations
9:45 – 10:30	Management
10:30 – 10:45	Short Break
10:45 – 11:30	Bachelor's students
11:30 – 12:15	Master's students
12:15 – 13:15	Break for lunch, Open Office Hour, Blackboard tour
13:15 – 13:45	Alumni
13:45 – 14:00	Short break
14:00 – 14:45	Field of employment
14:45 – 15:00	Short break
15:00 – 15:15	Possibility for feedback on process
15:15 – 16:15	Assessment committee deliberations

Thursday 20 May

9:00 – 9:45	Bachelor's lecturers
9:45 – 10:30	Master's lecturers
10:30 – 10:45	Short break
10:45 – 11:15	Board of Examiners Bachelor's programme
11:15 – 11:45	Board of Examiners Master's programme
11:45 – 12:00	Short break
12:00 – 12:15	Closing discussion with board & management
12:15 – 13:15	Break for lunch
13:15 – 15:15	Assessment committee deliberations
15:15 – 16:30	Development discussion
16:30 – 17:00	Feedback to all interested

Attachment 3 Documents

- Course evaluations Bachelor and Master 2019
- Accreditation report 2014
- Annual report Board of Examiners Bachelor and Master 2018-2019 and 2019-2020
- Applicability of progress testing in veterinary medicine
- Assessment plan Bachelor's programme and Master's programme
- Assessment policy
- Besteding studievoorschotmiddelen
- Curriculum survey B-VM 2019
- Development and validation of a competency framework
- Education and Examination Regulations Bachelor and Master
- Educational concept
- Eindrapport Stationstoetscommissie
- Employment rates Veterinary Medicine Graduates
- Erasmus+ Progress testing proposal
- EU directive 2013_55
- Examination requirements Companion Animals
- Examination requirements Equine
- Examination requirements Farm Animals and Vet
- Faculty Strategic Plan 2017-2021
- Framework Revised Master's programme
- Handboek Kwaliteitszorg
- List of Lectureres active in the programme
- Master revision questionnaire
- National Student Survey 2019 Bachelor and Master
- Netherlands Qualification Framework level 6 and 7
- New Faculty building
- Organigramme FVM
- OSCE exemption letter 2019-2020
- Partner universities
- Plan of action assessment committee
- Progress Assessment
- Repository of Online Veterinary Resources
- Selection regulations
- Self-reflection 2014
- Student mobility
- Study guide Bachelor's thesis
- Study guide research project
- Summer School prep course
- TCD advisory report
- Thesis review report
- Track descriptions
- Utrecht University Education Guidelines
- Student chapters (including clips of buildings, facilities and education)
- Bachelor theses of 15 students