

# **VISITATION REPORT**

To the Faculty of Veterinary Sciences of the Norwegian University of Life Sciences, Ås, Norway

On 16 – 20 October 2023

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# Introduction

The current Faculty of Veterinary Medicine, Norwegian University of Life Sciences (NMBU-VET, from now on 'the VEE' /Veterinary Education Establishment/) was founded in 1935, as the Norwegian School of Veterinary Science (NVH) and was located together with the National Veterinary Institute (NVI) on the Adamstuen Campus in Oslo.

The decision of the Norwegian Parliament in 2008 to merge the NVH, the only institution that offered veterinary education in Norway, with the NMBU, as its seventh faculty, was accomplished in 2014, while the relocation to the campus in Ås took place in 2021. NVI was also moved to Ås.

The VEE also holds for teaching purposes a section located 600 km from Oslo, on the SW coast of Norway, in Sandnes, Rogaland County, an area with intensive farming.

The first EAEVE visitation of the NVH took place in 1994, the next in 2004; for both the VEE was granted approval status. The VEE was conferred the accreditation status, subsequent to its 2014 visitation.

As the only institution providing veterinary education in Norway, the VEE offers two degrees, one in Veterinary Medicine (90 students per year) and another in Veterinary Nursing (30 students per year), while also offering postgraduate training: PhD, residency and intern programs and also courses for continuing education. The VEE has four Departments and is led by a management team including the Dean, heads of the departments and head of administration, all veterinarians.

Since the last EAEVE visitation in 2014 the VEE held the name of VET-BIO till 2016, and was renamed as NMBU-VET in 2017. The relocation of the VEE to the Ås Campus took place from December 2020 to September 2021, and for some sections till early 2022.

The annual uptake of veterinary students increased from 70 to 90 along with the starting of a new curriculum in 2021.

The Self-Evaluation Report (SER), including annexes, was provided on time.

The ESEVT SOP 2019 as amended in September 2021 is valid for the Full Visitation of October 16 to 20, 2023.

# Area 1. Objectives, Organisation and QA Policy

Standard 1.1: The VEE must have as its main objective the provision, in agreement with the EU Directives and ESG recommendations, of adequate, ethical, research-based, evidence-based veterinary training that enables the new graduate to perform as a veterinarian capable of entering all commonly recognised branches of the veterinary profession and to be aware of the importance of lifelong learning.

The VEE must develop and follow its mission statement which must embrace all the ESEVT Standards.

# 1.1.1. Findings

As the only one of its kind in Norway, the VEE has responsibility for the veterinary profession and its development. The VEE is responsible for education, research, dissemination and innovation within veterinary medicine, including animal health, animal welfare, food safety and related disciplines; it has a special responsibility for the topics fish heath and fish welfare within aquaculture.

The VEE aims to train veterinarians who 1) have good basic knowledge and skills in veterinary medicine enabling them to work for improved animal health, public health and animal welfare; 2) understand both the meaning of the terms One Health and "animal intrinsic value" and act ethically in line with these principles; 3) have a broad understanding of natural science issues and are able to identify, formulate and solve complex issues within the field of veterinary medicine and research; 4) have the ability to communicate in an understandable, effective and respectful way with clients, the general public, colleagues and responsible authorities; and 5) know their professional limitations and take care of the professional obligation linked to further education, training and professional development throughout their life. The aim for research-based and evidence-based teaching became evident on presentations on site.

All veterinary graduates receive a general authorization as a veterinarian from the National Food Safety Authority (NFSA). This authorization allows a free choice of work within all fields of veterinary medicine after graduation, regardless of tracking during the last year. The learning outcomes of the old, 2002 Curriculum were recognised to be aligned with the ESEVT Day One Competences at the previous ESEVT visitation in 2014. The ESEVT Day One Competences are also a basis for the new curriculum introduced in 2021.

The mission of NMBU (from now on "the University") is "Investing together in a sustainable future". This is common for all faculties so the VEE does not have an opportunity to have its own mission. Onsite interview revealed that the new mission of the University has already provoked some discussion within the VEE. A specific aim in curriculum 2021 is to introduce sustainability in the course "Professional studies" and to make sustainability visible in all relevant courses.

# 1.1.2. Comments

The mission statement of the VEE and how it is developed was not explicitly explained in the SER but was clarified to exist at the university level and to be integrated to the veterinary curriculum.

EU directives and ESG have not been mentioned as such, but the learning outcomes of old 2002

and new 2021 curricula are aligned with the ESEVT Day One Competences.

The objectives of the veterinary training are defined and include ethics and taking care of lifelong learning. Research-based and evidence-based teaching was substantiated to be taken seriously at the VEE.

All veterinary graduates receive a general authorisation as a veterinarian, allowing a free choice of work within all fields of veterinary medicine. Special features of the programme are fish health and fish welfare within aquaculture.

# 1.1.3. Suggestions for improvement

None.

#### 1.1.4. Decision

The VEE is compliant with Standard 1.1.

Standard 1.2: The VEE must be part of a university or a higher education institution providing training recognised as being of an equivalent level and formally recognised as such in the respective country.

The person responsible for the veterinary curriculum and the person(s) responsible for the professional, ethical, and academic affairs of the Veterinary Teaching Hospital (VTH) must hold a veterinary degree.

The decision-making process, organisation and management of the VEE must allow implementation of its strategic plan and of a cohesive study programme, in compliance with the ESEVT Standards.

# **1.2.1. Findings**

NMBU-VET is the only VEE in Norway. It is part of Norwegian University of Life Sciences, which is under the supervision of the Ministry of Education and Research. The VEE has been one of the seven faculties in the University since 2014.

The Dean and the Head of Teaching (responsible for the Veterinary Curriculum) are veterinarians. The Head of Department of Companion Animal Clinical Sciences (SPORTFAMED) has responsibility for the professional, ethical, and academic affairs in the Small Animal Hospital and the Equine Hospital and reports to the Dean. The Head of the Department of Production Animal Clinical Sciences (PRODMED) has the same responsibilities regarding the Production Animal Clinic. Both these Department Heads are veterinarians.

It has been decided that the University has a common strategy, mission and values and that the faculties create their strategic action plans only, building on the university's strategy. The current strategy of the University (2023-2030), together with the strategic action plans for the faculties, is available on the website. The university had a strategy process in 2022 where all employees were invited to provide input at various stages in the process. There were also meetings where faculty leaders and trade union leaders were invited.

The VEE had a process involving employees, leaders at all levels and trade union representatives when the strategic action plan was created. The work with the new strategic action plan related to veterinary education started with a seminar where representatives of external stakeholders presented their thoughts about expectations to the newly graduated veterinarians. This was followed by a workshop, open for the whole teaching staff at the VEE, where the following topics were discussed: 1) Expectations to the newly graduated veterinarian in a 10 years' perspective; 2) The VEE's strengths, weaknesses, options and threats within the veterinary education, related to Day One Competences; and 3) Prioritizations in the light of the points

above, curriculum overload and number of students.

The next step was a workshop in the VEE's Academic Affairs Committee resulting in a draft of the new strategic action plan within education. The draft was discussed with the VEE's management team and in the Faculty Board during the process. The plan was finalised by the Head of Teaching in cooperation with the VET Management Team and approved by the Faculty Board in June 2023. The Dean has the overall responsibility for the implementation. The operational responsibility is divided between the Heads of Departments, Head of Teaching and the Faculty administration, depending on the nature of the measures.

The Faculty Board has the main responsibility for strategic planning and follow-up. It determines goals, priorities and strategies for the VEE and approves the annual plan and budget. The Board is responsible for follow-up through the approval of plans and systems for QA and quality development and approves the VEE's Quality Report. It annually approves the study program portfolio, and if necessary, creation/closure of study programmes.

The University Board appoints the Dean and the Faculty Board appoints the Heads of Departments for four years. The Board has three external members, one of whom is the chairman, two members representing permanent staff, one member from the temporary staff, one support staff member and two student members. The Dean is the secretary of the Board.

The Dean decides the mandate and appoints members and chairperson to the VEE's main committees. The Dean leads the VEE's Management Team, which is composed of the Leader of the Faculty Administration and the four Heads of the Departments. The Head of Teaching participates in meetings in the VEE's Management Team when issues concerning teaching and curriculum are discussed. The Head of the VEE's Research Committee participates in meetings in the VEE's Management Team when relevant matters connected to research are discussed and the Head of the PhD committee 1-2 times per year.

The VEE has four departments:

- 1) Department of Preclinical Sciences and Pathology (PREPAT) has six units, and contributes to teaching, research and dissemination in the veterinary basic sciences, clinical pathology and pathology. The Head of Department leads the management group composed of Heads of Units.
- 2) Department of Paraclinical Sciences (PARAFAG). PARAFAG has eight units, and contributes to teaching, research, and dissemination in the veterinary paraclinical sciences including aqua medicine. The Head of Department leads the management group composed of Heads of Units.
- 3) Department of Production Animal Clinical Sciences (PRODMED) has six sections: Herd Health Services; Production Animal Clinic; Small Ruminant Research and Herd Health; Experimental Biomedicine; Animal Welfare, Epidemiology and Population Medicine; and Technicians' team. PRODMED contributes to teaching, research and dissemination in production animal clinical sciences, laboratory animal medicine, animal welfare and population medicine. The department provides the ambulatory herd health service and production animal clinic. Its management is composed of the Head of Department, and the Heads of the six Sections.
- 4) Department of Companion Animal Clinical Sciences (SPORTFAMED) is the largest department with four sections: Small Animal Sciences; Small Animal Care and Hospital Administration; Equine Sciences; and Anaesthesia and Radiology. SPORTFAMED contributes to teaching, research, and dissemination in veterinary companion animal clinical sciences. Its management consists of the Head of Department and the Heads of the four Sections.

The University Animal Hospital includes the Equine Hospital and the Small Animal Hospital and is the only veterinary teaching hospital in Norway. The Head of SPORTFAMED has responsibility for the professional, ethical, and academic affairs in the Small Animal Hospital and the Equine Hospital and reports to the Dean.

The VEE's administration has three units each led by a Head of Unit: Academic and Research Administration, Human Resources and Finance, in addition to a Staff/support unit organised under the Administration Manager. The Section leader of the Academic and Research Administration has overall responsibility for study guidance and general information within education and provides secretary resources to the VEE's Academic Affairs Committee. The Section leader has ongoing responsibility for the quality system, form and content, including student evaluations and reporting routines in the quality system, and prepares the Study QA report.

The Faculty Academic Affairs Committee (the VEE's Academic Affairs Committee) is the council responsible for the entirety of the veterinary program and the VEE's strategic body within education. It is chaired by the Head of Teaching. The VEE's Academic Affairs Committee has one member from each Department, appointed by the Dean for a period of four years, as well as two veterinary student representatives and one veterinary nurse student representative elected by the students for two years. The VEE's Academic Affairs Committee promotes work with study quality and academic development of the study program and courses. It approves all study semesters and course plans annually and is involved in the annual program evaluation. The VEE's Academic Affairs Committee adopts the Study QA report.

The Biosecurity Committee has representatives from PREPAT, PARAFAG, PRODMED, SPORTFAMED Small Animal Hospital and SPORTFAMED Equine Hospital, appointed by the Dean for a period of four years. It is an advisory body for the Dean and Heads of Departments in matters concerning infection control, while responsibility and authority for infection control work rests with the line management at the VEE. The committee shall ensure that procedures are developed and collaborate with department leadership on their internal implementation. The ESEVT biosafety SOP is an important basis for the committee's work, but the committee does not have any role in performing regular audits.

The VEE's Research Committee is responsible for improving the quality of research at the VEE and advises the Dean on matters related to research. It is chaired by the Head of Research at the VEE. PhD Programme and Diplomate Education Committee (PhD Committee) has the operative responsibility for the contents, organisation, development and annual evaluation of the PhD programme. Both the Appointment and employment authority for academic staff positions and that for support staff positions consist of two committees: Nomination committee and the Employment committee.

Student Council at the VEE is formed by a leader and a deputy leader elected by a general meeting open to all students at the VEE. The general meeting takes place twice a year and is the highest student body at the VEE. It elects student representatives to the university's Student Council, the VEE's Appointment and employment authorities for academic and support staff positions, the VEE's Academic Affairs Committee and the VEE's PhD Committee.

The Dean has overarching responsibility for the quality of study programmes, for work on the quality of education at the VEE, for personnel management and competence development and economic management of the faculty. The Faculty Board sets strategic guidelines for the work. The Dean is responsible for annual and periodic program evaluations and for ensuring that the VEE's measures are followed up. The Dean reports annually to the Rector on the status of the quality of education through the VEE's Quality of Education Report (Study QA report) and study

program reports and advises the Rector on the study program portfolio.

The Head of Teaching, appointed by the Dean (in a 50% position) has responsibility for the veterinary curriculum and reports to the Dean. The Head of Teaching is responsible for the development of the learning environment and the academic and educational quality of courses and study programs at undergraduate level.

Heads of Departments carry out QA work at the Department and document it through an annual report, and allocate resources and set priorities for the department's teaching. They appoint course coordinators and give feedback to teachers on their teaching. They are also responsible for implementing measures concerning the Department's teaching and teachers when necessary, together with the immediate supervisor.

Course Coordinators plan, coordinate, implement and develop the courses together with the teachers. They ensure the connection between learning outcomes, learning activity and form of assessment, and support students to achieve learning outcomes. Course Coordinators call the reference group after the course has been completed and when necessary. They are responsible for the course report and that measures are initiated at the next implementation. They give feedback to the student cohorts about measures taken to improve learning since the previous implementation.

Teachers carry out and develop the teaching and implement the necessary measures in collaboration with the Course Coordinator.

# 1.2.2. Comments

The VEE is a part of Norwegian University of Life Sciences. The Head of teaching, responsible for the veterinary curriculum as well as the Heads of the Production Animal Clinic and the Head of the Small Animal Hospital and Equine Hospital, responsible for the professional, ethical and academic affairs of the VTH are all veterinarians.

The decision-making process, organisation and management of the VEE allow implementation of its strategic plan and of a cohesive study programme. These two turned out to be connected time wise in a relevant manner.

The QA work regarding education, from the course level to the departmental level, from departmental level to the VEE's Academic Affairs Committee level, from the VEE's Academic Affairs Committee level to the Faculty Board level and the University's role in the process were presented as a chart and thoroughly discussed with relevant representatives on site. Timing of the educational reports allows both monitoring of the activities and feeding new activities to the next year's Annual Plan. The strategic process is under construction, but the current system documents the implementation of the Annual Plan for 2023.

# 1.2.3. Suggestions for improvement

None.

#### 1.2.4. Decision

The VEE is compliant with Standard 1.2.

Standard 1.3: The VEE must have a strategic plan, which includes a SWOT analysis of its current activities, a list of objectives, and an operating plan with a timeframe and indicators for its implementation.

# **1.3.1. Findings**

The VEE's Strategic Plan of 2019-2022 was largely focused on planning the move to the new

premises at Campus Ås. In spring 2022, the VEE started a process involving employees, leaders at all levels and staff union representatives working towards a new strategic action plan. A SWOT analysis was performed in connection with this process. Well qualified personnel, highly motivated students, modern facilities and development of the new curriculum were identified as strengths, but challenges were identified e.g. regarding the full utilisation of the facilities and curriculum overload.

In autumn 2022, the University adopted the 2023-2030 Strategy that applies to all faculties. Based on it, the VEE developed the Strategic Action Plan for 2023-2026, approved by the Faculty Board in June 2023. The VEE's current action plan identifies five areas of priority, which correspond to the four priority areas of the University (1) Lifelong Learning; 2) Joint Research Effort; 3) Innovation and Creativity; 4) a Unified University, "Our NMBU") as well as a faculty specific activity 5) Clinical Operations and Laboratory Diagnostics. Each priority area has a defined list of strategic goals. The Strategic Action Plan is followed up with concrete measures and relevant measurement parameters. However, measures and measurement parameters are currently being designed in a coordinated process involving all faculties at the University.

Measures and measurement parameters are selected for annual operating plans. The VEE also does annual risk evaluations in association with the annual operating plans. In 2023, the plans related to veterinary education at the VEE are prioritised to include 1) Curriculum 2021; 2) Pedagogical training, and 3) Clinical communication. Each year the VEE's Annual Plan must be approved by the Faculty Board and sent to the University. The Faculty Board follows up progress throughout the year via the tertiary reports, given by the Dean in June and October, and via annual report after the end of the year, in February/March. In connection with the reporting, the Faculty Board will review measures and assess the need for changes. A management dialogue is held with the VEE once a year, involving the University academic leadership, the VEE management and the chair of the Faculty Board. The Dean is responsible for ensuring that the changes that the necessary changes to achieve the goals are implemented.

The current government in Norway is in the process of changing the governance structure linked to the university sector. Instead of having a number of centrally defined parameters, each university must now decide to a greater extent which measurement parameters and which targets they should have. Agreements are then to be made with the ministry on annual target achievements. The University is currently in a process where work is being done to identify new relevant measurement parameters. At present, the VEE reports in its Annual Report to the University on a number of parameters related e.g. to credit production, research production, number of employees and equality. In line with the changes in the governance structure linked to the university sector, the new measurement parameters will be identified during autumn 2023.

# 1.3.2. Comments

The VEE has a strategic plan, which includes a SWOT analysis of its current activities, a list of objectives, and an operating plan. Currently, the measurement parameters are under construction at the national level and university, but the traditionally used indicators are used. The implementation is planned and systematically reported on an annual basis and the measures are monitored using a traffic-light system.

The annual plan for 2023 and a report for the second tertiary were presented to the Team in English, together with last year's annual report with two of its appendices (the financial report and the HSE report). The activities continuing over more than one year are cut into smaller activities and continued on the next year if needed.

# 1.3.3. Suggestions for improvement

None.

#### 1.3.4. Decision

The VEE is compliant with Standard 1.3.

Standard 1.4: The VEE must have a policy and associated written procedures for the assurance of the quality and standards of its programmes and awards. It must also commit itself explicitly to the development of a culture which recognises the importance of quality, and quality assurance, within their VEE. To achieve this, the VEE must develop and implement a strategy for the continuous enhancement of quality. The development and implementation of the VEE's strategy must include a role for students and other stakeholders, both internal and external, and the strategy must have a formal status and be publicly available.

# **1.4.1. Findings**

The Act Relating to Universities and University Colleges (2005) regulates higher education in Norway. The Norwegian Agency for Quality Assurance in Education is an independent government agency for higher education, and as a member of ENQA it is committed to the ESG standards. The Norwegian Agency for Quality Assurance in Education carried out supervision of the systematic quality work at the University in autumn 2019 and approval was granted in spring 2020. The process itself was centralised, but Veterinary Medicine was one of the five selected study programmes fully involved in the evaluation process. The next inspection by the Norwegian Agency for Quality Assurance in Education will take place in the period between 2025-2027.

The University adopted the current QA system in 2015. At central level there are 3 full-time positions working with the system description and routines and central processes in the QA system. These receive their training through courses and training under the auspices of the Norwegian Agency for Quality Assurance in Education and follow seminars organised by ENQA. The University's Quality Assurance of Education Description is presented on the university's webpage. The understanding of quality at the University is based on the strategy and the learning philosophy. The VEE is a part of the QA system on university level on an equal basis as the other six faculties. There is an annual dialogue meeting between the University and the VEE about the QA work.

The VEE's current QA protocol is published on the intranet in Norwegian. It describes the responsibilities of the VEE and contains templates for reporting for all responsible parties according to described processes. At the faculty level, the study quality system is coordinated and developed by a senior advisor in the Academic and Research Administration, who has also been trained through seminars by the Norwegian Agency for Quality Assurance in Education and has extensive experience. The VEE's written QA documents include 1) Roles and responsibilities in the QA work and reporting routines at the VEE, 2) QA System at the VEE: Report from Course Coordinator; 3) QA System at the VEE: Report from Head of Department; and 4) Annual Report on the Study QA work for academic year. The VEE's current QA system from 2015 is built on the same principles as the system from 2004. The cyclical nature of QA work ensures broad and good involvement of staff and students at all levels, which promotes a culture of quality.

The Plan-Do-Check-Adjust (PDCA) cycle forms the basis for advancement of education and teaching and forms the basis of QA work at course and programme level. The procedures are

intended to ensure that relevant parties including students are involved and that decision-making bodies have the necessary knowledge to enable continuous advancement. Together with the evaluations, representation on boards, councils, committees and groups will give all involved parties, students and staff an opportunity to raise concerns and to point out areas for improvement. The PDCA cycle of the education system operates on course level, department level, faculty level and university level according to a predetermined timetable.

Each course in the veterinary curriculum has a Course Coordinator, who is, together with the course teachers, responsible for planning, implementing, evaluating, and improving the course. All courses are evaluated by analysing student results in examinations, informal student feedback during a course and the anonymous student feedback survey at the end of a course. Meetings with the student reference group is a further evaluation of the course. The Course Coordinator reports annually to the Head of department; these course reports are important as a basis for the reports of the individual departments. The Head of each department is responsible for QA work being followed up and annually prepares an aggregated report on their department's QA work. The departments' reports are discussed in the management group at the department and distributed to all employees. The reports from each department are presented to the VEE's Academic Affairs Committee and are included as core documents for the Study QA report for the entire VEE.

The faculty level Study QA report describes the QA work for the previous academic year and the results of the measures that were worked on as well as new measures for the coming academic year. This report is well endorsed by the students and the VEE management at all levels and goes to the University, and is further approved by the Faculty Board. Follow-up here lies with everyone with operational responsibilities and embraces all areas of importance for study quality. The next academic year is the timeframe for following up the measures. The Heads of Departments, and others with operational responsibility for measures in the Study QA report, have to write a half-yearly status report on the progression of the measures. The Study QA report is presented in the General Meeting at the Faculty. Selected topics are also presented in the Faculty's Newsletter and can also serve as background for seminars on e.g. relevant educational topics.

The Study QA report with comments from the VEE's Student Council and an appendix with several data, analyses and assessments is sent to the Pro-Rector for education at the University and is included as a basic document for both the university's QA report and the learning environment report to the University board. Bi-annual status reports to the VEE's Academic Affairs Committee have been introduced to ensure continuity in the QA work through the academic year.

Students participate in the QA work by providing input in relevant forums, taking part in evaluations and being active participants in the learning process. Students receive training in the quality system at the start of their studies and they get a reminder every time they get an evaluation form and during meetings at the start of the semester, and by e-mails from the Academic and Research Administration. Two kinds of systematic student feedback are collected: via a web-based electronic system and by meetings with the student reference groups. The actual student evaluation routine is carried out by study advisors. The VEE's Student Council discusses and gives comments to the QA report before it is approved by the Faculty Board. Additionally, the VEE's Student Council has regular meetings with the VEE management and can also raise concerns directly with the Dean and Academic and Research Administration. Students are represented on the Faculty Board and the VEE's Academic Affairs Committee.

The reports from the students' online evaluation of courses are available to students and staff on

the e-learning platform Canvas. The annual Study QA reports, the Departments' QA reports as well as meeting documents and minutes from the VEE's Academic Affairs Committee meetings are also available on Canvas. The VEE's Study QA report, the University's QA report, the Learning Environment Committee (LMU) report to the Faculty Board and national questionnaires that are processed by the VEE's Academic Affairs Committee are available (in the case files) at NMBU.no.

The University carries out a survey to recent graduates every 4 years, last time for the period 2016-2020. The report on the results was background material for the ongoing strategy work. The survey mapped working conditions and participation, as well as perceived learning outcomes in the programme. Based on the University's strategy, emphasis was placed on issues of sustainability and interdisciplinarity. This year, these data were entered as key figures from NMBU central to the VEE's Study QA report. The VEE scored quite low on the emphasis on sustainability in the studies, and it was therefore a measure to highlight sustainability better in the veterinary study programme in autumn 2022 and spring 2023. Since then, sustainability has become an important part of the University's strategy and the VEE's strategic Action Plan, and the work on sustainability in the studies has been continued in this year's report as a measure.

The VEE has both formal and informal contacts with private and public actors of the community, which give valuable input to VEE about relevance, prioritisation and feedback on the quality of the newly graduated candidates as perceived by external stakeholders. This is used in both development of courses and for prioritizations in the development of the curriculum. Contact with stakeholders is ensured by external representatives in the Faculty Board, including the chair of the Board. Stakeholders are involved in the preparation of the strategic Action Plan.

The PhD Committee is responsible for the quality of the PhD program and drafts annually a report, which is formally adopted by the Dean. The final report is sent to the VEE Board and the Pro-Rector for Research. In addition to the annual report, the University's quality system calls for an external evaluation of each PhD program approximately every 10 years. The VEE's PhD program is to be evaluated in 2023-2024.

Health, safety and environment (HSE) work and the laboratories have their own QA systems. The VEE provides diagnostics services for ten quality assured methods that follow the ISO/IEC 17025 standard.

At faculty level, all staff and students involved in teaching/learning have a role in quality work. The system places responsibility in line management, courses and committees. Routines, templates and roles/responsibilities have been made available to employees and students on Canvas.

# 1.4.2. Comments

The University has a formal and publicly available strategy for the continuous enhancement of quality, and the VEE follows the guidelines of the university level QA system.

The VEE has a policy and written procedures for QA. The QA system is largely based on systematic reporting, associated with related discussion and collaboration.

The cyclical nature of QA work, based on the PDCA cycle ensures broad and good involvement of staff and students at all levels; students, teachers and external stakeholders are well included in the process.

The Study QA report is used as a strategic tool within the VEE. The VEE has a commitment to QA and an established culture of QA.

# 1.4.3. Suggestions for improvement

None.

#### 1.4.4. Decision

The VEE is compliant with Standard 1.4.

Standard 1.5: The VEE must provide evidence that it interacts with its stakeholders and the wider society. Such public information must be clear, objective and readily accessible; the information must include up-to-date information about the study programme, views and employment destinations of past students as well as the profile of the current student population.

The VEE's website must mention the ESEVT VEE's status and its last Self Evaluation Report and Visitation Report must be easily available for the public.

# **1.5.1. Findings**

The VEE's important stakeholders for teaching, research and PhD education include Norwegian Veterinary Institute, Norwegian Medicine Agency, and Fish health industry, industry organisations such as Animalia (Norwegian Meat and Poultry Research Center) and TINE BA (dairy company). Breeding organisations such as Geno and Norsvin have contact with Departments including PRODMED and PARAFAG in relation to teaching, research and other developments. Norwegian Food Safety Authority (NFSA) is an important employer for graduates and contributes to teaching meat inspection and hosts students for participation in inspection work. NFSA organises yearly contact meetings at director level with the University where the Dean of the VEE participates. The VEE's Heads of Departments and relevant section leaders at NFSA have meetings each year. Staff of the VEE are represented in Norwegian Scientific Committee for Food and Environment and its subcommittees Animal health and welfare, Biological Hazards and Plant protection products. The committee contributes to advancing knowledge and identifies new societal issues, which are quickly implemented in teaching.

The VEE arranges meetings with relevant stakeholders representing various parts of society when necessary. The University has a formal Advisory Board for contact with the business world. Contact with industry stakeholders is important to ensure cooperation and co-financing of research projects. The departments at the VEE have extensive contact with their stakeholders through the activities in the hospitals, clinics, laboratories, continuing education courses run by the Center of Further and Continuing Education, research, and through meetings and collaboration in various for such as breeding organisations, the industry and administrative bodies. There is also cooperation with external stakeholders on continuing education courses.

The University provides information on its veterinary study programme on its website in Norwegian. The possible career options are also presented, and student videos give insight to students' views. Veterinary students express a broad field of interest, as mapped in student surveys performed regularly by the Norwegian Veterinary Association. In 2022, the survey focused on what kind of work students want to do after their studies. In spring 2022 the VEE also conducted a survey with general questions about the choice of education, but with a focus on how to recruit more male students; the gender balance of the current student population overall is approximately 83 % female. In 2019 and 2023, a survey has been carried out at the start of veterinary studies to map the background and interest of the students.

Student surveys are of great importance for the VEE and are utilised in many ways, for instance for highlighting areas within education which need to be made more known. The figures for

those who want to work with combined practice, production animals and aquatic medicine, have increased as the students have become more familiar with the subjects. To make potential applicants aware of all career options for a veterinary degree, the VEE has produced recruitment films on YouTube, uses campaigns in social media and provides veterinarians with information material describing the veterinary program for their local use. The VEE has data on what basis our students have chosen for their tracking year. An increase in interest for aquatic medicine during the studies is seen also here.

The ESEVT status of the VEE and its last ESEVT Self Evaluation Report and Visitation Report are available on the University website.

#### 1.5.2. Comments

The VEE has wide evidence on how it interacts with its stakeholders and the wider society.

Information on the study programme and career options are presented on the websites.

Student surveys are widely used and not only provide updated information on the profile of students but offer important data for highlighting areas that are less known for students or potential applicants.

Information related to the ESEVT status of the VEE is provided on the University's website.

# 1.5.3. Suggestions for improvement

None.

#### 1.5.4. Decision

The VEE is compliant with Standard 1.5.

Standard 1.6: The VEE must monitor and periodically review its activities, both quantitative and qualitative, to ensure that they achieve the objectives set for them and respond to the needs of students and society. The VEE must make public how this analysis of information has been utilised in the further development of its activities and provide evidence as to the involvement of both students and staff in the provision, analysis and implementation of such data.

Any action planned or taken as a result of this data analysis must be communicated to all those concerned.

#### **1.6.1. Findings**

The VEE systematically and continuously monitors and reviews its activities and has broad involvement and specified responsibilities in this work, as described in Standard 1.4. The Study QA report is made known to all staff and students through newsletters and is published on Canvas and the intranet, and presented in the General Meeting at the VEE. In addition, students receive a review of the QA system at the start of their studies where they receive information about their role, representation in councils and committees, the student evaluation system and how their feedback is followed up in the organisation. At the start of each semester, the students receive a review of the upcoming semester plan and what improvements have been made at the overall level based on information obtained through the QA system of Academic and Research Administration. Course coordinators are responsible for informing students about changes in individual courses.

In the ongoing work with the newly introduced Curriculum 2021, there is comprehensive staff and student participation. Additionally, external representatives of stakeholders from various areas are invited to seminars and meetings where issues such as required competence for new

graduates, need for veterinarians in different areas and sustainability in veterinary medicine are discussed.

The Faculty Board of the VEE has external members representing important sectors. External stakeholders have also contributed input on the Strategic Action Plan for the VEE (2023-2026). Examples were given of input to the Strategic Action Plan from the Faculty Board and from external stakeholders, such as associations within the Norwegian Veterinary Association and private veterinarians.

In 2022, the Government Department (Education and Research) established an interdisciplinary working group on veterinary shortages, in which the Dean participated.

#### **1.6.2.** Comments

The VEE has a system to monitor and review its activities, both quantitative and qualitative, to ensure that they achieve the objectives set for them and respond to the needs of students and society. Students, staff and external stakeholders are included. The annual Study QA report is the main document. Information is delivered e.g. through newsletters, Canvas, the intranet, seminars and meetings.

# 1.6.3. Suggestions for improvement

None.

#### 1.6.4. Decision

The VEE is compliant with Standard 1.6.

Standard 1.7: The VEE must undergo external review through the ESEVT on a cyclical basis. Evidence must be provided of such external evaluation with the assurance that the progress made since the last ESEVT evaluation was linked to a continuous quality assurance process.

# **1.7.1. Findings**

The previous ESEVT visitation (Stage I and Stage II) took place in 2014. No major deficiencies were identified. The VEE submitted its interim report in 2020.

The ESEVT Evaluation Report (2014) included proposals for improvements. The VEE prepared an action plan with measures, responsibilities, and timetable for implementation, which was adopted by the Faculty Board in 2017 as part of its quality work. In 2018, status of measures was considered by the Faculty Board in connection with the annual Study QA report. By then most measures had then been initiated, implemented, or assessed as not relevant in the period 2014-2018. Remaining measures were reviewed, processed by the VEE management, and signed off in the winter of 2023.

Detailed description of the measures, responsibilities and time frame has been presented, together with status per 2018 (Stage I suggestions) and per 2023 (both stages).

# **1.7.2.** Comments

The VEE had the previous ESEVT visitation in 2014 and submitted an interim report in 2020. The suggestions and recommendations given in the evaluation report were thoroughly examined based on an action plan. The progress of measures has been monitored and their outcome has been reported. Numerous measures were taken during the move to Ås and the organisational change associated with it, and in planning the new 2021 curriculum. Some measures have been

considered and not found feasible; some other measures are still ongoing.

# 1.7.3. Suggestions for improvement

None.

#### **1.7.4. Decision**

The VEE is compliant with Standard 1.7.

# Area 2. Finances

Standard 2.1: Finances must be demonstrably adequate to sustain the requirements for the VEE to meet its mission and to achieve its objectives for education, research and services. The description must include both expenditures (separated into personnel costs, operating costs, maintenance costs and equipment) and revenues (separated into public funding, tuition fees, services, research grants and other sources).

# **2.1.1. Findings**

NMBU is a Public University that consists of 4 Departments and is funded by the Norwegian Ministry of Education and Research, which provides the majority of resources for the operation of the university. Thus the main resource for VEE's financial maintenance is the allocation from public authorities, with additional income from the animal teaching hospitals. Other income sources are from research activity. There is separate accounting for activities related to research and to the education of researchers and this is reported in Tables 2.1.1 and 2.1.2. The annual balance between expenditures and revenues in the last three years was negative.

#### **2.1.2.** Comments

The VEE depends mainly on public funding, which is not sufficient to cover all expenses.

Due to the extended relocation and start-up period, the VEE has been operating steadily at a loss over the past three years.

The actual location requires highly educated technical staff and contains advanced equipment with high operating costs and large costs for service and maintenance.

For the time being, the VEE's deficit remains uncovered while the University as a whole is in balance. Nevertheless, the University screens the deficit at the VEE through regular meetings with the dean to supervise the financial status. This is paralleled by the VEE with a plan to reduce this deficit by measures intended to reduce the costs and increase the revenues (i.e., considering selling the equipment less used, very costly to maintain).

On site, the Rector substantiated that as soon as the VEE kept an annual balance of the budget, all debts derived from the relocation and start-up period would be assumed by the University.

# 2.1.3. Suggestions for improvement

None.

#### 2.1.4. Decision

The VEE is compliant with Standard 2.1.

Standard 2.2: Clinical and field services must function as instructional resources. Instructional integrity of these resources must take priority over financial self-sufficiency

of clinical services operations. The VEE must have sufficient autonomy in order to use the resources to implement its strategic plan and to meet the ESEVT Standards.

# **2.2.1. Findings**

The Production Animal Clinic is operated as a referral teaching hospital, with the service free of charge for animal owners. The Farm Service Unit of Herd health services is part of a 24-7 on-call emergency service covered by the municipality. The VEE is reimbursed for operating this service, which covers transportation and running costs for it. In addition, farmers pay for on-call visits. The Small Animal Hospital and the Equine Hospital are operated as commercial teaching hospitals with specialist staff and paying customers. The financial management of departmental funds is entirely run by the VEE own board that is responsible for activities and finances at the VEE. Revenues derived from clinical and diagnostic services are managed through the department cost centre.

#### **2.2.2.** Comments

The VEE is responsible for its own finances and can make academic and strategic plans on an independent basis, taking into account that a deficit at the VEE level can be accepted as long as other parts of NMBU have a surplus.

# 2.2.3. Suggestions for improvement

None.

#### 2.2.4. Decision

The VEE is compliant with Standard 2.2.

# Standard 2.3: Resources allocation must be regularly reviewed to ensure that available resources meet the requirements.

#### **2.3.1. Findings**

The administrative, accounting, and financial management of the VEE is set by the VEE management and the leader groups of the four Departments. Managers at multiple levels are informed and involved in the budget work before the budget plan is proposed by the VEE management team and approved by the VEE Board. Throughout the year, financial reports are prepared and presented to the VEE Board every four months. The contents of the reports are presented and discussed in meetings with managers and at general meetings at the Departments.

# 2.3.2. Comments

Resources allocations are reviewed on a regular basis.

# 2.3.3. Suggestions for improvement

None.

# 2.3.4. Decision

The VEE is compliant with Standard 2.3.

# Area 3. Curriculum

Standard 3.1: The curriculum must be designed, resourced and managed to ensure all graduates have achieved the graduate attributes expected to be fully compliant with the EU Directive 2005/36/EC (as amended by directive 2013/55/EU) and its Annex V.4.1. The curriculum must include the subjects (input) and must allow the acquisition of the Day One Competences (output) listed in Annex 2. This concerns Basic Sciences, Clinical Sciences in companion animals (including equine and exotic pets), Clinical Sciences in food-producing animals (including Animal Production and Herd Health Management), Food Safety and Quality, and Professional Knowledge.

# 3.1.1. General findings

# **3.1.1.1. Findings**

Education of veterinary students in Norway is ruled by the Act relating to universities and university colleges (2005) and the Regulation on studies at the University, while the responsibilities of veterinarians are regulated by the Act (2001.96-15 nr 75) relating to veterinarians and other animal health personnel. The degree granted by the VEE is Candidata/candidatus medicinae veterinariae (Cand.med.vet.).

Educational aims at the VEE to educate veterinarians are the same for both curriculums and in agreement with EU Directive 36/2005, as amended by Directive 2013/55/EU.

At the time of the visitation the VEE has two co-existing curriculums, the new one starting in 2021 in place in the Year 1, Year 2, and Year 3 (semester 5) and the old one starting in 2002 still in place for the rest of the Years with two major reviews in 2006 and 2011. The old curriculum (2002) offers a tracking system in the final Year consisting of 5 tracks: Production Animal Medicine and Food Safety, Small Animal Medicine, Equine Medicine, Aquatic Medicine, and Project specific (Research) with compulsory courses for all tracks on Infection Prevention and Control, State Veterinary Medicine, and Wildlife and Exotic pet Medicine. This tracking is no longer offered in the new curriculum (2021). New curriculum 2021 includes all subjects from the old curriculum but changes the tracking choice for a broad basic veterinary education.

Duration of the full curriculum at the VEE is 5.5 to 6 years (11 or 12 semesters from August to June of the next year) in the old curriculum and the new curriculum, depending on the election of students to graduate in the autumn (end of semester 11) or spring (end of semester 12) periods offered by the VEE. Ratio of students graduated after semester 11 (autumn graduates): students graduated after semester 12 (spring graduates) is approximately 23/45.

To get the Diploma, students are trained in the EU subjects addressed in Table 3.1.2 which includes practical rotations and 15 ECTS in Graduate thesis (and tracking courses in the old curriculum 2002 as mentioned above), plus 8.6 weeks in EPT (addressed in Table 3.5.1). All activities necessary to get the Diploma amount for a total of 330 ECTS. The VEE offers some optional courses (Table 3.1.5) but their completion is not mandatory to obtain the Diploma.

During the onsite visit the Team detected some errors in the figures caused by misunderstandings, provided in Table 3.1.1 and 3.1.2, which were corrected by the VEE. In the corrected SER provided onsite, students must complete before graduation a total of 4,977 hours in 5.5-6 years of the programme (Table 3.1.1). Theoretical training (lectures, seminars, self-learning) amounts to 3048.5 hours and practicals (laboratory/desk, non-clinical, clinical and other-EPT) to 1928.5 hours (ratio 1:0.63) (Table 3.1.1).

The curriculum has the following number of hours of training, (Table 3.1.1, SER): Year-1 1148 Year-2 710, Year-3 634, Year-4 978.5, Year-5 909.5, and Year-6 597. Chemistry has 3 hours of training as shown in Table 3.1.2.

Appendix 2C shows the mapping of units of study and Day One Competences (DOCs) to be acquired by students, as listed in Annex 2 of the SOP 2019, in both curricula (2002 and 2021).

As the VEE's entrance requirement, prior to enrolment in Year-1, students must graduate from Norwegian upper secondary school with extended courses in mathematics and chemistry.

# **3.1.1.2.** Comments

All groups of subjects addressed in the SOP 2019 are covered. The entrance requirements applied by the VEE compensate for the few hours of training in Chemistry.

The curriculum conforms to the duration, and contents, addressed in the Directive EC/2005/36 as amended by EU Directive 2013/5/EU, and covers all domestic species.

Most of the students elect to graduate after semester 12 (Spring graduates) because veterinary shortage in Norway makes it easy for these students to find a job as veterinary assistant during semester 11, or because they want to follow other courses at the University. During this waiting semester students may get loans from the Norwegian State Educational Loan Fund.

The hours of training are not balanced between the years of study, having Years-1, 4, 5 and 6 (in this case only 1 semester of training) a heavier workload in comparison to Years-2 and 3. The ratio of theoretical: practical hours indicates a more theoretical than practical training in the VEE. Nevertheless, the VEE is highly committed to better balance the hours of training between the Years of study and between the theoretical and practical training in the new curriculum, which is still under development.

The VEE has a clear mapping of DOCs and units of study (appendix 2C), and each one of the DOCs listed in Annex 2 of the SOP 2019 is trained in many subjects/units of study, which is the basis to guarantee the acquisition and reinforcement of these DOCs through the students' progression in the studies.

The VEE is acknowledged for the constant discussions for the design of the new curriculum and encouraged to achieve the aim of developing a more balanced distribution of students' workload (hours of training) between all the years in the curriculum and a progressive increase of practical training to meet a better balance with the theoretical training.

# 3.1.1.3. Suggestions for improvement

None.

#### **3.1.1.4. Decision**

The VEE is compliant with Standard 3.1.1.

# 3.1.2. Basic Sciences

# **3.1.2.1. Findings**

All Basic Sciences (Anatomy, Histology & Embryology, Physiology, Biochemistry, Genetics, Pharmacology, Pharmacy and Pharmacotherapy, Pathology, Toxicology, Parasitology, Microbiology, Immunology, Epidemiology, Information literacy and data management, Professional Ethics and communication, Animal ethology, Animal Welfare and Animal nutrition) addressed in the SOP 2019 are covered. The teaching of Basic Sciences is included in the first three years of both curricula 2002 and 2021.

# **3.1.2.2.** Comments

Some Basic Sciences have a high number of hours of training (Table 3.1.2) mainly as a consequence of a high number of hours in seminars: Anatomy, histology and embryology (453h total/102h seminars), Physiology (206/105), Biochemistry (120/74); these situation was pointed out by the students and it is seriously considered by the VEE in the new curriculum, which is still under development, to substantially decrease these hours in seminars in Basic sciences to increase the hours of training in other specific veterinary subjects. Moreover, the VEE is developing a better vertical integration of Basic Sciences in the clinics, for example with the introduction of Clinical Anatomy in advanced courses.

Information literacy and data management has a high number of hours of training (444)(Table 3.1.2) but this is explained by the inclusion of the hours in the Final Degree Thesis.

The VEE is acknowledged for the constant discussions between the management board and academic staff and for the actions taken in the design of the new curriculum for a better vertical integration of the Basic Sciences in the clinics, and encouraged to achieve the aim of developing a more balanced distribution of the hours of training between Basic Sciences and other Specific Veterinary subjects (Clinical Sciences, Animal production, Food Hygiene).

# 3.1.2.3. Suggestions for improvement

None.

#### **3.1.2.4. Decision**

The VEE is compliant with Standard 3.1.2.

# 3.1.3. Clinical Sciences in companion animals (including equine and exotic pets) 3.1.3.1. Findings

In the 2021 Curriculum, clinical sciences are introduced in Year 1 and Year 2 through lectures on anatomy, diagnostic imaging, physiology, and anaesthesiology. Clinical cases serve as a framework for teaching these subjects. From Year 3 in the 2002 Curriculum, core clinical training for companion and production animals begins. This starts with basic propaedeutics in semester 6, followed by rotations in Production Animal Clinic and Small Animal/Equine Hospitals in semester 7. Lectures and seminars continue in semesters 7, 8, and 9. Pathology training, including hands-on necropsy, is integrated into clinical rotations in semesters 7 and 8. In the 2002 Curriculum, core clinical training at VEE comprises three compulsory semesters and two elective track training semesters. Compulsory core training spans semesters 7, 8, and 9. The curriculum allocates a total of 1,342 hours to clinical science for each student. Notably, the distribution is as follows: Lectures: 263 hours; Seminars: 166 hours; Supervised Self-learning: 82 hours; Laboratory and Desk-based Work: 14 hours; Clinical Animal Work: 814 hours.

Core clinical training begins in semester 7 with a focus on special pathology, diagnostic work, and animal welfare. Students are organised into small groups for hands-on experience in Pathology, Production Animal Clinic, Reproduction, Equine Hospital, Surgery, and Small Animal Hospital. In semesters 8 and 9, rotations continue in Small Animal and Equine Hospitals, Production Animal Clinic, Herd Health, and Pathology.

Students participate actively in all aspects of clinical rotations, including history-taking, examinations, diagnostics, treatments, and surgeries. They also manage patient records using the Provet Cloud digital system. Responsibilities vary by rotation, with students presenting cases, performing examinations, and assisting in procedures.

In the Equine Hospital, students engage in internal medicine and surgery, presenting cases

during rounds. At the Production Animal Clinic, students work on referrals, conducting comprehensive patient assessments and maintaining records. The Farm Service Unit involves students in all stages of practice, from history-taking to diagnosis and treatment, including on-call duties.

Emergency services are integrated into the curriculum, with students participating in on-call rotations in Small Animal and Equine Hospitals and the Farm Service Unit. They handle emergency calls, perform examinations, and assist in diagnostic and treatment procedures as part of their training.

# **3.1.3.2.** Comments

All the subjects in the clinical science part of the curriculum are covered thoroughly. These allocations reflect a balanced and comprehensive approach to clinical education, with a substantial emphasis on hands-on clinical animal work, constituting a significant portion of the curriculum.

The curriculum is carefully planned, resourced, and overseen to make sure that every graduate meets the expected standards outlined in the EU Directive 2005/36/EC, as updated by directive 2013/55/EU. This means that graduates are well-prepared and meet the requirements set by European educational standards in veterinary medicine.

# 3.1.3.3. Suggestions for improvement

None.

#### **3.1.3.4 Decision**

The VEE is compliant with Standard 3.1.3.

# **3.1.4.** Clinical Sciences in food-producing animals (including Animal Production and Herd Health Management)

# **3.1.4.1. Findings**

Clinical Sciences in food-producing animals are part of Professional Practical Training (intramural part), taking place in the Year 3, Year 4 and Year 5. The practical rotations related to Clinical Sciences in food-producing animals, performed at the VTH (intra-mural clinics) under academic staff supervision start in Year 3 with basic propaedeutics (4 hours lectures, 3 hours supervised self-learning, 28 hours clinical animal work, dedicated to all species) and the first stay at the Farm of the VEE.

Introductory clinical training starts in semester 7 with rotations through the Production Animal Clinic (1 week/student). The core clinical rotations, which are compulsory, are complemented by lectures and seminars in semester 7, 8 and 9. Clinics take place in groups during a week in the 8th semester, additionally there is a half day small ruminant teaching in Sandnes in 9th semester. Animal Production teaching represents 6 hours of lectures and 42 hours of non-clinical animal work. Herd Health management represents 15 hours of seminars, 3 hours of supervised self-learning, and 19 hours of clinical animal work.

Intramural rotations in Production Animals Clinics represent 5 weeks/student in year 4 and year 5, plus rotations in Herd Health and ambulatory clinic. In detail, each student rotates through 3 weeks in the Production animal clinic (internal medicine and surgery) (2+1 week), 2 weeks in the Reproduction Clinic (1+1 week, also including horses), 1 week in Herd Health (8th semester) and 3 weeks in the Farm Service Unit (ambulatory clinic) (1 + 2 weeks). At the Production Animal Clinic, the students are assigned hospitalised patients and work in groups of 2-3. The patients in the clinic (cattle, small ruminants, and pigs) are referrals. Shifts are scheduled during

day and night hours, including emergencies and the weekends. The ESVET indicators are good to excellent. Competences achieved by attending practical and clinical activities are validated by vet supervisors of the teaching team.

External Practical Training (EPT) occurs in the summer between the Year 1 and Year 2 of study on a farm or in sea-based fish farming (4 weeks).

# **3.1.4.2.** Comments

Table 3.1.2.: Clinical Sciences represent a total of 1,760 hours/student, *versus* 2,629 hours of non-clinical disciplines (about 40% of the total). This total and this ratio is kept in mind by the VEE for discussion, with better balance in favour of clinical teaching.

The farm owned by the VEE is an important tool for the education in Food Animal Production, from semester 1 to the last of the curriculum. The students learn all disciplines related, from nursing, breeding, reproduction, herd survey, medicine and surgery, with a ratio teacher: student between 1:2 to 1:4.

The ESVET indicators are good to excellent. In addition, the number of referred cases (Table 5.1.3) indicates that on average 96 cattle, 51 small ruminants, 102 pigs are presented at the VEE hospital per year. On the other hand, the number of individual cases seen in the Farm Animal Unit (Table 5.1.4) looks adequate (2,546 cattle, 457 small ruminants, 1,326 pigs) and compensates for the low numbers of intramural patients. The impossibility to hospitalise animals which can go back home (except if they are kept in the two isolation pens) imposed by the Norwegian Law, limits probably the number of hospitalised animals.

The number of first-year students choosing EPT on a farm (dairy, swine, etc. and not in a fish-farm) is on average >80.

There is no mandatory EPT in farm animals' practices (the compulsory EPT occurring in years 4-6 allows a free choice for the EPT).

Incidentally, curriculum hours taken as "electives" in Production Animal medicine and food safety (semesters 10 and 11 or 11 and 12) represent 654 hours.

# 3.1.4.3. Suggestions for improvement

None.

# **3.1.4.4. Decision**

The VEE is compliant with Standard 3.1.4.

# 3.1.5. Food Safety and Quality

# **3.1.5.1. Findings**

Food safety and quality (FSQ), Veterinary public health (VPH) and the One Health concept are integrated into courses in the Basic sciences and included in the core clinical rotations and elective tracks. Training on VPH and FSQ aspects of the veterinary profession is provided in Year 1 in the Animal Husbandry course (2021 Curriculum). In Year 3 (2002 Curriculum) the Food Safety course focuses on food hygiene and food microbiology, zoonoses, food technology and toxicology. In the old curriculum (2002), VPH is included in the courses Introduction to Diagnostic Work and Veterinary Public Health (control of infectious diseases and zoonoses) in semester 6, Veterinary Public Health 2 (meat inspection) in Semester 9 and State Veterinary Medicine in the final year. The basis for the practical training in meat inspection and related topics and food control are provided in the 6th semester, through a full-day excursion to a range of five abattoirs that also perform deboning and processing. Moreover, during the rotation in the

9th semester, groups of 5-6 students are trained in meat inspection including animal welfare, *antemortem* inspection, slaughter hygiene and HACCP. Veterinary Officers employed by NFSA provide the teaching in meat inspection. The veterinary officer works in close contact with the VEE staff member responsible for meat inspection.

#### **3.1.5.2.** Comments

During the FSQ subjects, students get enough practical experiences in meat inspection. Veterinary Officers employed by NFSA are very helpful and well-qualified to explain to students all matters related to their work in meat inspection.

The virtual slaughterhouse is a very good tool for preparing students for practical visits to such establishments that is not used yet by the VEE.

# 3.1.5.3. Suggestions for improvement

The VEE would benefit to consider equipping itself with a virtual slaughterhouse to be used prior to the real visit to the slaughterhouse, to familiarise students theoretically with all activities related to the slaughtering process and veterinarian activities in slaughterhouses.

# **3.1.5.4. Decision**

The VEE is compliant with Standard 3.1.5.

# 3.1.6. Professional Knowledge

# **3.1.6.1. Findings**

Education in Professional Knowledge has been extremely changed in curriculum 2021 compared to curriculum 2002. In curriculum 2002, Professional Knowledge has been taught as part of other subjects during the whole curriculum. Instead, in the new curriculum a thread during the whole study (semester 1 until semester 11/12) has been established named Professional Studies (VET352), which is partly a restructuring of subjects in the 2002 curriculum, but with a strengthening of generic competences.

In curriculum 2002, education in Professional Knowledge consists of a total of 1,318 hours.

More detailed: Information literacy and data management (444 h, including Graduation thesis of 375 h); Professional ethics and communication (78,5 h); Animal Welfare (211 h); Clinical practical training in common animal species (251 h); Veterinary legislation including official controls (151,5 h), and Herd health management (182 h). During semester 8 (old curriculum), students participate in a Herd Health rotation in addition to their farm service rotation. In their final year, students write a thesis of 15 to 40 ECTS depending on the research area (see table 3.1.2.). They choose the topic for their thesis in semester 8. For all tracks in the last year, the course "Clinical Communication, Mental health and Clinic management" (28 h) can be chosen as an optional course.

The main parts of Professional Studies in the new curriculum 2021 (VET352) are:

<u>Veterinary Public Health and Veterinary Regulations</u> with the following elements: legal framework for veterinary professional practice; ethics; social responsibility related to food production, disease control, animal welfare, the environment, and sustainability; meat control (practical training in Sandnes) and veterinary regulations.

<u>Epidemiology</u>, <u>statistics</u> and <u>research methodology</u>. The course starts in semester 1 and ends with the delivery of an in-depth essay in semester 8, in which students practise writing scientific papers.

Communication, starting with learning groups in the 1st semester, but later, in the clinical

situation (semester 8), focussed on communication with colleagues and clients. Transferring information between colleagues/teachers during daily shifts takes place, and during clinical rounds, presentations of cases, and discussions about patients.

<u>General competence</u>: reflection on own level of knowledge and skill level in relation to the learning outcome; self-evaluation and identification of own professional strengths and weaknesses within the different subject areas.

Animal Welfare and ethical dilemmas are discussed in different practical situations e.g during the lambing season and other courses on Campus Sandnes, and during the clinical rotations. Parts of the course Professional Studies are mandatory for students including group assignments with performances, specific group discussions with teachers, all excursions, and parts of meat inspection. The number of credit points of VET352 (Professional Studies) is 33 ECTS, equivalent to a workload of 825 h (Appendix 02). In curriculum 2021, no elective courses are available. In curriculum 2021, Herd Health Management will be included in the course "Herd Health Management and Nutrition" in the 7th semester. This course is 10 weeks in total. The basic principles and methodology in Herd Health Management, including biosecurity will be taught. Herd health management will further be included in the clinical rotations with tentatively 10 days with practical work/ farm visits. The total workload of Professional Knowledge in curriculum 2021 is calculated as 1,327 hours.

Besides theoretical education in communication, practical communication is part of the regular clinical work and includes communication between colleagues and clients. In the Small Animal Clinic, the Equine Hospital and the Production Animal Clinic, students are responsible for recording patient's history in the digital systems under supervision of academic staff. In the ambulatory Farm Service Unit, students are responsible for maintenance of drugs and equipment in the service vehicles under supervision of the teaching staff.

# **3.1.6.2.** Comments

It is commendable that the VEE has identified teaching in Professional Knowledge as a very important part of the curriculum.

The shift of the education in Professional Knowledge from many fragmented parts in curriculum 2002 to one allocated spiral line course Professional Studies in curriculum 2021 gives a clear insight in the education in the main aspects of Professional Knowledge.

The wide field of Professional Knowledge is covered.

The number of hours of teaching Professional Knowledge will not differ essentially between the curricula.

# 3.1.6.3. Suggestions for improvement

None.

#### **3.1.6.4 Decision**

The VEE is compliant with Standard 3.1.6.

Standard 3.2: Each study programme provided by the VEE must be competency-based and designed so that it meets the objectives set for it, including the intended learning outcomes. The qualification resulting from a programme must be clearly specified and communicated and must refer to the correct level of the national qualifications framework for higher education and, consequently, to the Framework for Qualifications of the European Higher Education Area.

The VEE must provide proof of a QA system that promotes and monitors the presence of an academic environment highly conducive to learning including self-learning. Details of the type, provision and updating of appropriate learning opportunities for the students must be clearly described, as well as the involvement of students.

The VEE must also describe how it encourages and prepares students for self-learning and lifelong learning.

# **3.2.1. Findings**

Curriculum 2002 was ensured to satisfy Day One Competences as well as meet the national qualification framework and the Universities and Colleges Act with its underlying regulations. The new Curriculum 2021 includes all subjects from the old curriculum, but places emphasis on delivering a broad basic veterinary education at the expense of the choice offered in the tracking year of Curriculum 2002. The learning outcomes for the individual courses are listed in the course plans available online (EPN).

The qualification from the programme in Veterinary Medicine (Cand.med.vet degree) refers to level 7 of the national qualifications framework for higher education.

The annual Study QA report to the University documents whether the veterinary study programme meets its objectives. The overall goals are written into the general descriptions for both current curriculums. The University is also required to have a learning environment committee with student representation that reports directly to the University Board. The annual Study QA report from the VEE to the Pro-Rector for Education provides basic data for the Learning environment committee report. Measures related to the physical and psychosocial learning environment are then implemented at faculty level according to the QA loop.

Through the Act relating to universities and university colleges, the University Board has full responsibility for the students' learning environment. The expertise and qualifications of academic staff at the VEE contribute to a learning environment directed to research-based education. Many staff members have qualifications in research and board certification in a clinical discipline. The PhD programme and the intern and residency programmes as well as the involvement of students within active research groups contribute to the academic environment for students at the VEE.

Development of Curriculum 2021 includes requirements for student-activating learning methods, less use of traditional lectures to stimulate students' self-activity and the use of cases to highlight relevance and increase motivation. The VEE's Academic Affairs Committee has made overall guidelines for e.g. number of lectures per week and inclusion of cases and practical tasks. The teachers at the VEE have didactic freedom but the VEE's Academic Affairs Committee holds seminars and gives instructions to promote teaching forms that facilitate the students' self-learning and activity. Examples of ways to enhance self-learning include giving time to active search and processing of knowledge, assignments and group discussions as well as quizzes for self-monitoring of learning. In the graduation thesis students carry out literature searches and critically assess the literature. The development of skills in self-learning prepares the student for lifelong learning. The academic environment at the VEE also prepares the student for lifelong learning by exposing and informing the students on career development through PhD, intern and residency programmes and continuing education networks.

The VEE's Academic Affairs Committee gives feedback on proposed learning outcomes, timetable proposals and other aspects of the course planning. Deviations from general guidelines would become apparent to the VEE's Academic Affairs Committee through course evaluation processes.

# 3.2.2. Comments

Both current curricula provided by the VEE are competency-based and whether the programme meets its objectives is checked in the annual Study QA reporting process.

The Cand.med.vet degree refers to the correct level of the national qualifications framework for higher education.

The University has a learning environment committee and staff of the VEE are qualified for their roles.

The VEE's Academic Affairs Committee is responsible for the entirety of the veterinary programme.

In the new Curriculum 2021 there are requirements for learning methods to stimulate students' learning, including self-directed learning. The VEE also states how it encourages and prepares students for life-long learning.

# 3.2.3. Suggestions for improvement

None.

#### 3.2.4. Decision

The VEE is compliant with Standard 3.2.

# **Standard 3.3: Programme learning outcomes must:**

- ensure the effective alignment of all content, teaching, learning and assessment activities of the degree programme to form a cohesive framework
- include a description of Day One Competences
- form the basis for explicit statements of the objectives and learning outcomes of individual units of study
- be communicated to staff and students
- be regularly reviewed, managed and updated to ensure they remain relevant, adequate and are effectively achieved.

# **3.3.1. Findings**

The VEE aims to train veterinarians who 1) have good basic knowledge and skills in veterinary medicine enabling them to work for improved animal health, public health and animal welfare; 2) understand both the meaning of the terms One Health and "animal intrinsic value" and act ethically in line with these principles; 3) have a broad understanding of natural science issues and are able to identify, formulate and solve complex issues within the field of veterinary medicine and research; 4) have the ability to communicate in an understandable, effective and respectful way with clients, the general public, colleagues and responsible authorities; and 5) know their professional limitations and take care of the professional obligation linked to further education, training and professional development throughout their life.

To achieve the programme learning outcomes, the curriculum 2021 has adopted an educational framework of three levels. Level 1 focuses on the healthy animal (semester 1-4), level 2 focuses on the diseased animal (semester 5-7) and level 3 focuses on applied veterinary medicine (semester 8-11). Professional studies and Animal welfare continue throughout all levels. The other strategic changes in the curriculum have been to promote a better integration between the basic science and clinical science subjects and to introduce early animal contact. An organ-based approach to subjects in the "healthy" (level 1) and "diseased" (level 2) animal contributes cohesion in the curriculum, as do the longitudinal threads in professional studies and animal welfare. Detailed mapping of all ESEVT Day One Competences across the active courses in the

2002 Curriculum and the active and planned courses of the 2021 Curriculum is presented in Appendix 2 of the SER.

The Course Coordinators are responsible for defining learning outcomes for courses. The VEE's Academic Affairs Committee may appoint working groups for development and planning of new courses and to suggest learning outcomes. The VEE's Academic Affairs Committee is responsible for the entirety of the programme and adopts learning outcomes. Learning outcomes are reviewed annually together with the rest of the course descriptions following the QA loop described under Standard 1.4. and revised when needed. The annual Study QA report summarises the review of educational activities of the VEE.

#### **3.3.2.** Comments

Course Coordinators are responsible for learning outcomes and constructive alignment regarding individual courses, whereas the VEE's Academic Affairs Committee is responsible for the entirety of the programme and adopts the learning outcomes.

Mapping of Day One Competences across the 2002 and 2021 curricula has been performed.

To achieve the programme learning outcomes, the curriculum 2021 has adopted an educational framework of three levels, together with longitudinal threads in professional studies and animal welfare.

Vertical integration is enhanced in the 2021 curriculum.

The reporting process from course level to the VEE level Study QA report summarises the annual review of the educational activities and allows getting feedback for development.

# 3.3.3. Suggestions for improvement

None.

# 3.3.4. Decision

The VEE is compliant with Standard 3.3.

Standard 3.4: The VEE must have a formally constituted committee structure (which includes effective student representation), with clear and empowered reporting lines, to oversee and manage the curriculum and its delivery. The committee(s) must:

- determine the pedagogical basis, design, delivery methods and assessment methods of the curriculum
- oversee QA of the curriculum, particularly gathering, evaluating, making change and responding to feedback from stakeholders, peer reviewers and external assessors, and data from examination/assessment outcomes
- perform ongoing and periodic review of the curriculum at least every seven years by involving staff, students and stakeholders; these reviews must lead to continuous improvement. Any action taken or planned as a result of such a review must be communicated to all those concerned
- identify and meet training needs for all types of staff, maintaining and enhancing their competence for the ongoing curriculum development.

# 3.4.1. Findings

The VEE's Academic Affairs Committee is the VEE's strategic body within education, chaired by the Head of teaching. The committee provides advice and strategic input to the Dean in matters relating to education. It has two veterinary student representatives and one veterinary

nurse student representative, one staff member from each department. The QA senior advisor of the Academic and Research Administration is secretary of the VEE's Academic Affairs Committee.

The VEE's Academic Affairs Committee has a central role in the QA system and in developing the curriculum. It is responsible for the development of educational strategy, for effective use of teaching resources, for QA of the educational activities including the annual Study QA report, for national and international educational cooperation including exchange, for international accreditation, for guidelines in educational matters, for revision of the annual curriculum and semester plans, for pedagogical development work and for local student admissions.

The Study management, consisting of the Head of teaching, Head of Academic and Research Administration and the QA senior advisor, have weekly meetings. These meetings facilitate work with the study programs and provide administrative support to the Head of Teaching. As the Academic and Research Administration administers the student evaluation system and the study administrative system, deviations are rapidly detected, e.g. if a high proportion (more than 20%) of the students have below average satisfaction with a course or if a high proportion of the students have failed the course or the participation in the voluntary teaching in the course is low. Measures can then be initiated, either immediately by the Study management or discussed in the VEE's Academic Affairs Committee or introduced as measures in the Study QA report. The Study management may also meet with student cohorts to obtain suggestions for changes when necessary.

The Study QA report gives an annual account of the activity of the VEE's Academic Affairs Committee and the seminars that have been conducted. In the last academic year, 12 seminars related to educational matters have been held in addition to three open information meetings related to planning and implementation of Curriculum 2021.

# 3.4.2. Comments

The VEE's Academic Affairs Committee is the formal committee responsible for veterinary curriculum, its delivery and QA. It is chaired by the Head of Teaching, appointed by the Dean. The secretary of the committee is QA senior advisor of the Academic and Research Administration, which is the responsible body for the student evaluation system. Annual reviews of the curriculum are performed and all relevant information is included in the Study QA report (explained in detail in Standard 1.4). Training needs of the staff are identified e.g. along the strategy process.

# 3.4.3. Suggestions for improvement

None.

#### 3.4.4. Decision

The VEE is compliant with Standard 3.4.

Standard 3.5: External Practical Training (EPT) is compulsory training activities organised outside the VEE, the student being under the direct supervision of a non-academic person (e.g. a practitioner). EPT cannot replace the core intramural training nor the extramural training under the close supervision of academic staff (e.g. ambulatory clinics, herd health management, practical training in FSQ and VPH).

Since the veterinary degree is a professional qualification with Day One Competences, EPT must complement and strengthen the academic education inter alia by enhancing student's professional knowledge.

# **3.5.1. Findings**

Three compulsory training activities (EPT) are organised during the study. The first one is a new activity in curriculum 2021, named Husbandry practice (VET350b). Between semester 2 and semester 3, during the holiday period (table. 3.1.1.), students have four weeks of minimally 37,5 working hours per week mandatory practice on a farm (dairy cattle, dairy goat, piglet, poultry) or in a sea-based fish farming to gain practical knowledge and experience of animal husbandry. One week can be redeemed for a sheep farm on the Campus Sandnes during the lambing season. After the practice, a written essay must be delivered at Canvas for peer-evaluation. Students do not get ECTS-points for this course. For companion animals no pre-clinical EPT is scheduled. Another EPT activity in the old curriculum 2002 is 3 weeks of observing veterinary practice, aimed to give students an orientation on working life as a veterinarian. The student is free to choose the type and location of the practice. This activity takes place after completion of the 3rd year and before the end of the study. The veterinary practitioner completes a form confirming that the student was present. In the 2021 curriculum, EPT at veterinary practices will be part of tentatively 6 elective weeks. Active participation of students will be required and there will be stricter requirements for follow-up and documentation for both students and external practitioners.

The third one, EPT on meat inspection and orientation on the work of veterinary inspectors takes place in semester 9. Teaching in these activities is carried out by veterinarians of the NFSA. The practical teaching in meat inspection is done by veterinarians (veterinary officers) employed by the Norwegian Food Safety Authorities (NFSA) in slaughterhouses in the region around the Campus Sandnes. The VEE academic staff, responsible for the teaching activities, which are carried out in collaboration with the NFSA, plan the teaching activities in cooperation with the staff from NFSA.

# 3.5.2. Comments

Including VET350b in the new curriculum is very useful for all students, especially those students who are not familiar with animal husbandry. According to the description of course VET350b these weeks of practice are mandatory including a written essay afterwards, but no ECTS-points are granted to this course, which is very unusual.

The course Observation Veterinary Practises (VET323) as part of an EPT of 3 weeks in curriculum 2002, will be extended in curriculum 2021 to a period of 6 weeks with strict requirements, which will mean an improvement compared to the old curriculum. Both courses are valuable as an orientation on the future professional field.

Practical teaching in meat inspection has been carried out by very dedicated employers of the NFSA in the environment of the Campus Sandnes, which is an excellent place for practical training.

# 3.5.3. Suggestions for improvement

None.

#### 3.5.4. Decision

The VEE is compliant with Standard 3.5.

Standard 3.6: The EPT providers must have an agreement with the VEE and the student (in order to state their respective rights and duties, including insurance matters), provide a standardised evaluation of the performance of the student during their EPT and be allowed to provide feedback to the VEE on the EPT programme.

There must be a member of the academic staff responsible for the overall supervision of the EPT, including liaison with EPT providers.

# **3.6.1. Findings**

In VET350b, Husbandry practice, a contract between the EPT provider and the student has been signed, including a confidential agreement. In VET323, observing veterinary practice, a form has been completed confirming the presence of the student. Both forms (see Appendix 9) have been digitised recently. VET323 will not be continued in its present form in curriculum 2021, but in a form more strictly organised with clear and harsh requirements.

The National Food and Safety Authority (NFSA) and the responsible academic staff for education in meat inspection and practice of veterinary inspectors are in close contact in planning teaching and in processing feedback from students and the NFSA.

The Academic and Research Administration is responsible for EPT documentation and student feedback at veterinary practices. The responsible academic persons for the supervision of the EPT activities are described in the SER. Feedback from students has been discussed by the responsible academic staff with the NFSA employees.

# 3.6.2. Comments

All required documentation (contract, forms) is digitised and clearly shown in Appendix 9. Feedback procedures are clear.

# 3.6.3. Suggestions for improvement

None.

#### 3.6.4. Decision

The VEE is compliant with Standard 3.6.

Standard 3.7: Students must take responsibility for their own learning during EPT. This includes preparing properly before each placement, keeping a proper record of their experience during EPT by using a logbook provided by the VEE and evaluating the EPT. Students must be allowed to complain officially and/or anonymously about issues occurring during EPT. The VEE must have a system of QA to monitor the implementation, progress and then feedback within the EPT activities.

# **3.7.1. Findings**

After the period of extramural work on an animal production farm, the students must write an individual report that has to be approved by the supervising teacher. Reflections and experiences are exchanged in an afternoon workshop supervised by staff members. There is no logbook in which students record their experience during EPT.

For the EPT at veterinary practices, documentation of attendance is required. Meat inspection training and practical training in NFSA in semester 9 are both mandatory. In curriculum 2002 students must pass an examination in State Veterinary Medicine including the role and tasks of the Norwegian Food Safety Agency in semester 11. Meat inspection training and practical training in NFSA in semester 9 will be continued in curriculum 2021, while the EPT in veterinary practices (VET323) will be changed.

Students can complain about EPT by direct contact with the responsible person and/or Academic and Research Administration.

Until now, QA has been performed by informal close working because of relatively small numbers of students. Development of a logbook is started as well as a more transparent system of monitoring.

# 3.7.2. Comments

There is no logbook that students use for recording all the experiences during EPT in the old curriculum. Students have to write a reflection paper that has to be approved by the responsible teacher so the VEE uses this individual report written by the student as a recording system. In curriculum 2021 a full assessment of EPT has been planned. Monitoring of implementation, progress and feedback will be included in the QA system.

# 3.7.3. Suggestions for improvement

The VEE should improve the recording system for EPT in the new curriculum, and ensure the appropriate record of Day One Competences individually acquired by the student during EPT which has to be QA monitored to guarantee the implementation, progress and feedback within the EPT activities.

# 3.7.4. Decision

The VEE is partially compliant with Standard 3.7 because of suboptimal recording and quality control of EPT.

# Area 4. Facilities and equipment

Standard 4.1: All aspects of the physical facilities must provide an environment conducive to learning, including internet access. The veterinary VEE must have a clear strategy and programme for maintaining and upgrading its buildings and equipment. Facilities must comply with all relevant legislation including health, safety, biosecurity, accessibility to people with reduced mobility, and EU animal welfare and care standards.

# **4.1.1. Findings**

The VET building, the largest public structure in Norway at 63,000 m², serves as a hub for veterinary education, research, and animal care. This extensive complex integrates teaching facilities, research labs, and a veterinary teaching hospital. The University owns its own buildings including the new VEE. The National Veterinary Institute (NVI) is located within the same building complex, but with separate buildings owned by the NVI. Key components of the VEE include the Hippocampus building, central to teaching and administrative functions, and the Morphology building, which hosts advanced facilities for anatomy and pathology studies. The Laboratory building (comprising Lab Sør and Lab Nord) provides cutting-edge diagnostic and research labs, meeting high biosecurity and GMO standards.

Campus Sandnes, located in Rogaland County, plays a pivotal role in agricultural research, with a concentrated focus on small ruminants and farm animal health. At Campus Sandnes, accommodations for students align with Norwegian housing regulations.

#### 4.1.2. Comments

VET building is a state-of-the-art facility with modern and functional architectural solutions.

The VEE has a clear strategy and programme for maintaining and upgrading its buildings and equipment.

The whole campus is designed to meet the highest possible standard of education in veterinary medicine.

Facilities comply with all relevant legislation including health, safety, and biosecurity demonstrating a continued dedication to providing a safe and conducive learning environment for all.

# 4.1.3. Suggestions for improvement

None.

#### 4.1.4. Decision

The VEE is compliant with Standard 4.1.

Standard 4.2: Lecture theatres, teaching laboratories, tutorial rooms, clinical facilities and other teaching spaces must be adequate in number, size and equipped for the instructional purposes and must be well maintained. The facilities must be adapted for the number of students enrolled. Students must have ready access to adequate and sufficient study, self-learning, recreation, locker, sanitary and food service facilities.

Offices, teaching preparation and research laboratories must be sufficient for the needs of the academic and support staff.

# **4.2.1. Findings**

The VEE has to be commended on the VET building, which stands as a paragon of modern architectural achievement, showcasing functional excellence in its design. Its state-of-the-art facilities exemplify a commitment to efficiency and innovation. This facility is a credit to all involved in its creation.

Lecture facilities include 4 large theatres, each equipped with audio-visual tools and Wi-Fi. Smaller rooms like Vomma, Innsikten, Admiralen, and Fornix also facilitate learning. Hippocampus houses 12 group rooms, while "Bikuben" provides 4 rooms for collaborative work. Practical work areas feature specialised facilities, like anatomy dissection halls, necropsy rooms, and laboratories for various disciplines. Skill labs for clinical training are available in the Small Animal and Equine Clinic and Production Animal Clinics, offering students hands-on experience with clinical models. Premises for study and self-learning encompass reading rooms in Hippocampus (47 seats) and "Bikuben" (70 seats), along with access to group rooms. Catering services are available in "Bikuben," supplemented by 4 other establishments on campus, and a commercial café/restaurant. Locker rooms are provided for students and staff, including shower facilities. On-call students can access sleeping facilities in both Small Animal and Equine Hospitals, with additional accommodation in Sandnes Campus. For leisure, students have dedicated areas with kitchenettes, sofas, and communal spaces for studying and relaxation. Research labs are spread across 4 wings on 2 floors, each section connected by stairs and passages.

# 4.2.2. Comments

Lecture theatres, teaching laboratories, tutorial rooms, clinical facilities, and other teaching spaces are sufficient in both number and size.

The teaching rooms, including lecture halls and laboratories, are well-equipped and carefully maintained.

The facilities are tailored to accommodate the current enrolments of students.

The VEE has a significant opportunity to implement the education program and utilise all facilities to their fullest potential.

# 4.2.3. Suggestions for improvement

None.

# 4.2.4. Decision

The VEE is compliant with Standard 4.2.

Standard 4.3: The livestock facilities, animal housing, core clinical teaching facilities and equipment used by the VEE for teaching purposes must:

- be sufficient in capacity and adapted for the number of students enrolled in order to allow safe hands-on training for all students
- be of a high standard, well maintained and fit for the purpose
- promote best husbandry, welfare and management practices
- ensure relevant biosecurity and bio-containment
- be designed to enhance learning.

# **4.3.1. Findings**

The VEE has to be commended for its farm which is an important tool for the education in Food Animal Production, from semester 1 to the last of the curriculum. The University Farm at Ås comprises 12,000 m<sup>2</sup> for cattle, sheep, pigs, and a 1,500 m<sup>2</sup> facility for poultry. Adjacent fish facilities support around 10,000 salmon for teaching and research. Production Animal Clinic accommodates 4-6 sheep, 1-2 dairy cows, and some goats for instructional purposes. Equine Hospital provides space for 5 training horses and examination practice on 5 clinical dogs owned by staff. Hospitalised Animals: Small Animal Hospital features 7 dog wards, 2 cat wards, an isolation area, and 12 roof-covered outside kennels. Equine Hospital offers stabling for 40 inhouse patients, an ICU unit, and separate isolation facilities. Production Animal Clinic provides various rooms and pens for hospitalised patients, including special spaces for different species. Clinical Activities and Diagnostic Services: Small Animal Hospital encompasses reception areas, examination rooms, specialist rooms, treatment areas, surgical theatres, an ICU, and specialised wards. Equine Hospital includes reception, surgical theatres, recovery stalls, isolation facilities, lameness evaluation areas (indoor arena), and diagnostic imaging rooms (CT, MRI). Production Animal Clinic houses an operation theatre, examination room, clinical demonstration room, pharmacy room, and clinical laboratory. Diagnostic Services including Necropsy: the Clinical Pathology Laboratory conducts clinical-chemical, haematological, and endocrinological analyses. Microbiology Laboratory specialises in virological, bacteriological, and parasitological diagnostics. In Pathology, a BSL2 necropsy hall facilitates postmortem examinations. Practical Teaching of FSQ & VPH: occurs at five slaughterhouses, serving as food processing units. Among them, the Nortura Forus slaughterhouse in Sandnes, is used by the VEE to carry out the EPT in FSQ & VPH.

# 4.3.2. Comments

Facilities and equipment utilised by the VEE for teaching purposes are plentiful in capacity and tailored to the number of enrolled students, ensuring secure hands-on training for all. The VEE has to be commended for its state-of-the-art diagnostic, treatment, surgical, and medical equipment for advanced veterinary care of all animal species. An exceptional standard of facilities is evident for housing all animal species at the veterinary hospital. The Small Animal

Hospital is equipped with advanced diagnostics, treatment, and surgical equipment. The Equine Hospital is well-prepared for surgeries, lameness evaluations (cameras and software in an indoor arena), and diagnostic imaging. The Production Animal Clinic boasts specialised equipment for clinical procedures, including a pharmacy. Among the five slaughterhouses where practical teaching of FSQ & VPH occurs, the Nortura Forus slaughterhouse in Sandnes, represents excellence in this field. This slaughterhouse is equipped with slaughter lines for sheep/goats and pigs, large stabling stalls for ante-mortem inspection, stunning systems with electronarcosis for sheep/goats and gas for pigs, adequate spaces for post-mortem inspection. Official veterinarians, slaughterhouse operators, students and teachers respect high levels of biosecurity during the practical activities.

# 4.3.3. Suggestions for improvement

None.

#### 4.3.4. Decision

The VEE is compliant with Standard 4.3.

Standard 4.4: Core clinical teaching facilities must be provided in a veterinary teaching hospital (VTH) with 24/7 emergency services at least for companion animals and equines. Within the VTH, the VEE must unequivocally demonstrate that standard of education and clinical research are compliant with all ESEVT Standards, e.g. research-based and evidence-based clinical training supervised by academic staff trained to teach and to assess, availability for staff and students of facilities and patients for performing clinical research and relevant QA procedures.

For ruminants, on-call service must be available if emergency services do not exist for those species in a VTH.

The VEE must ensure state-of-the-art standards of teaching clinics which remain comparable with or exceeding the best available in the private sector.

The VTH and any hospitals, practices and facilities (including EPT) which are involved with the curriculum must meet the relevant national Practice Standards.

# **4.4.1. Findings**

VTH and ambulatory clinics at the VEE prioritise hands-on training alongside top-tier clinical services. The Small Animal Hospital operates on weekdays from 08:00 to 15:45 with 24/7 emergency access. The Equine Hospital maintains weekday hours from 8:00 to 14:00, with 24/7 emergency care available. In the Production Animal Clinic, hands-on training is facilitated through small group rotations. Students gain experience in internal medicine, surgery, reproduction, and ambulatory care. The Section of Small Ruminant Research and Herd Health provides students with unique opportunities during the lambing season.

# 4.4.2. Comments

The VEE strictly adheres to national Practice Standards, comprising the Small Animal Hospital, Equine Hospital, Production Animal Clinic, Farm Service Unit, and Ambulatory Clinic.

Clinical activities and teaching are research-based and in line with or exceeding private sector practices.

The hospitals provide 24/7 emergency services of exceptional quality, affording students invaluable exposure to excellent clinical practices.

# 4.4.3. Suggestions for improvement

None.

#### 4.4.4. Decision

The VEE is compliant with Standard 4.4.

Standard 4.5: The VEE must ensure that students have access to a broad range of diagnostic and therapeutic facilities, including but not limited to: diagnostic imaging, anaesthesia, clinical pathology, intensive/critical care, surgeries and treatment facilities, ambulatory services, pharmacy and necropsy facilities.

# **4.5.1. Findings**

The VEE employs a card access system to grant relevant students access to specific areas, either for defined periods or during designated hours. Students in the Small Animal Hospital have unrestricted movement, barring the MRI and scintigraphy zones. Observing surgeries and endoscopic examinations is facilitated through advanced technology. Likewise, students in the Equine Hospital enjoy open access, except to MRI and scintigraphy areas. Spacious facilities and advanced streaming capabilities allow students to observe and engage in various procedures. In the Production Animal Clinic and Farm Service Unit, students in clinical rotation have full access to essential diagnostic resources, often travelling to relevant farms in practice vehicles. The Section of Small Ruminant Research and Herd Health offers clinical teaching opportunities during the lambing period, with facilities for diagnostics, treatment, and *postmortem* examinations. While students have daytime access to necropsy facilities, they require supervision. The demonstration auditorium is accessible to all students, where findings from necropsies are presented daily.

# 4.5.2. Comments

The VEE uses a card system for student area access, ensuring safety protocols are observed, such as in the necropsy hall.

Small Animal Hospital allows movement, except in MRI and scintigraphy zones, where students actively participate in diagnostics, utilising a well-equipped in-house laboratory.

Equine Hospital has open access, except in specific areas, due to safety measures. Facilities offer extensive hands-on experience.

Production Animal Clinic provides diagnostic resources, often on farms.

Students have access to a broad range of diagnostic and therapeutic facilities in all departments of the VEE.

# 4.5.3. Suggestions for improvement

None.

#### 4.5.4. Decision

The VEE is compliant with Standard 4.5.

Standard 4.6: Appropriate isolation facilities must be provided to meet the need for the isolation and containment of animals with communicable diseases. Such isolation facilities must be properly constructed, ventilated, maintained and operated to provide for animal care and for prevention of spread of infectious agents. They must be adapted to all animal species commonly handled in the VTH.

# **4.6.1. Findings**

In the Small Animal Hospital, a dedicated infection unit with a separate entrance ensures the isolation of patients suspected of infectious diseases. Staff utilise disposable garments and pass through barriers for containment. The unit has separate spaces for cats and dogs, each equipped with examination facilities and cages. Two rooms are designated for airway diseases and two for gastrointestinal cases. An isolation area is also reserved for severe zoonoses like rabies. The Equine Hospital's isolation unit consists of four separate stalls and an examination room. Patients for isolation are received in a fenced-off area separate from the main admittance zone. Staff employ disposable garments and pass through barriers for safety. Advanced equipment like ultrasound and endoscopy are exclusively designated for isolation unit patients. Patients suspected of severe contagious diseases aren't initially admitted to the Production Animal Clinic. If such conditions are detected post-admission, isolation within the clinic is implemented.

#### **4.6.2.** Comments

The Small Animal Hospital showcases excellence in isolation care, featuring dedicated spaces equipped for examination and containment of infectious cases, including separate areas for cats and dogs.

In the Equine Hospital, the isolation unit stands out with four separate stalls, an examination room, and advanced equipment like ultrasound and endoscopy exclusively available for isolated patients.

The Production Animal Clinic demonstrates a proactive approach to disease control, reserving isolation for patients with severe contagious diseases.

# 4.6.3. Suggestions for improvement

None.

#### 4.6.4. Decision

The VEE is compliant with standard 4.6.

# Standard 4.7: The VEE must have an ambulatory clinic for production animals or equivalent facilities so that students can practise field veterinary medicine and Herd Health Management under academic supervision.

# **4.7.1. Findings**

The Equine Hospital employs an ambulatory service, and they utilise one practice vehicle accommodating 4 students besides the clinician, equipped for routine and emergency procedures. Radiography, ultrasonography, and endoscopy equipment are brought as needed. Students actively participate in equine rotations, attending routine visits and emergency calls.

The Farm Service Unit serves around 20 farms in the Oslo area, mostly family-run dairies. Students engage in scheduled and emergency visits, gaining hands-on experience. As part of their training, each production animal track student adopts a designated farm, managing its Herd Health. This entails communication with farmers, diagnostic testing, treatment plans, and program evaluation. The Farm Service Unit is equipped with five fully outfitted practice vehicles accommodating up to five individuals. These vehicles facilitate the transportation of clinicians, equipment, and students. Additionally, the department possesses a mobile hydraulic hoof-trimming chute that is transported to farms when needed.

# **4.7.2.** Comments

The Equine Hospital offers an ambulatory service, featuring a practice vehicle for 4 students and a clinician, equipped for both routine and emergency equine procedures.

The Farm Service Unit supports approximately 20 Oslo-area farms, providing invaluable handson experience through scheduled and emergency visits. Production animal track students take charge of designated farms, overseeing Herd Health with tasks including diagnostics, treatment, and program assessment. The ambulatory clinic has five fully equipped vehicles for clinicians, equipment, and students, and possesses a mobile hydraulic hoof-trimming chute for on-site farm use. The ambulatory clinic brings more hands-on training on equine and large animals for the students.

# **4.7.3.** Suggestions for improvement

None.

#### **4.7.4. Decision**

The VEE is compliant with standard 4.7.

Standard 4.8: The transport of students, live animals, cadavers, materials from animal origin and other teaching materials must be done in agreement with national and EU standards, to ensure the safety of students and staff and to prevent the spread of infectious agents.

# **4.8.1. Findings**

The VEE's Real Estate Department employs 5 cars with 9 seats each, facilitating student transportation for off-campus classes. A specialised vehicle, managed by a trained animal handler, is designated for the safe transportation of live animals from the field to the Production Animal Clinic. All vehicles and containers undergo thorough disinfection before departing the necropsy area. Horses and production animal cadavers are transported in custom-made, closed metal containers. Small and experimental animal cadavers are transported directly to the necropsy facilities in sealed containers. Organs from the abattoir are transported in closed boxes within a car.

# **4.8.2.** Comments

The VEE's Real Estate Department employs 5 spacious cars, each with 9 seats, ensuring convenient transportation for off-campus classes.

For live animal transport to the Production Animal Clinic, a specialised vehicle with a trained handler is assigned, prioritising the safety and well-being of the animals.

Those standards agree with national and EU regulations.

# 4.8.3. Suggestions for improvement

None.

# **4.8.4. Decision**

The VEE is compliant with standard 4.8.

Standard 4.9: Operational policies and procedures (including e.g. biosecurity, good laboratory practice and good clinical practice) must be taught and posted for students, staff and visitors and a Biosafety manual must be available. The VEE must demonstrate a

clear commitment for the delivery of biosafety and biosecurity, e.g. by a specific committee structure. The VEE must have a system of QA to monitor and assure clinical, laboratory and farm services, including a regular monitoring of the feedback from students, staff and clients.

## **4.9.1. Findings**

The VEE deals with biosafety and biosecurity through a committee overseen by the Dean. Health, safety, and environmental concerns are annually assessed using the Landax system, digital quality management, and student feedback. An annual Health Safety and Environment (HSE) inspection evaluates on-site practices, with findings reported to the Dean for action. The HSE coordinator and safety representatives manage HSE matters. Ultimate responsibility rests with the Dean, departmental heads, and unit leaders.

The Landax system logs and addresses acute HSE incidents, while online manuals guide employees. Eco-online tracks chemicals and exposures. Students receive education on biosecurity, laboratory, and clinical practices. HSE-related queries are integrated into course evaluations. Hands-on training in safe animal handling is provided. Students are insured for occupational injuries, with additional coverage recommended.

In all areas, HSE procedures are communicated to staff and students before use. At the Small Animal Hospital, triage guidelines, specialised rooms, and isolated areas cater to patient needs. The Equine Hospital employs measures to minimise interactions and isolate contagious cases. Biosecurity oversight is led by the Head of SPORTFAMED Department. Students and staff are given the opportunity for feedback on HSE. . A dedicated Biosafety Manual governs Small Animal Hospital operations. In the Department of Production Animal Clinical Sciences, stringent measures are in place with the aim to prevent potential disease spread. Access guidelines apply to all personnel. Procedures undergo regular reviews, and information is communicated through Canvas. Incidents involving student safety are duly reported for resolution.

#### **4.9.2.** Comments

The VEE places a strong emphasis on and prioritises biosafety and biosecurity, overseen by a committee led by the Dean.

Regular assessments, student and staff feedback, and inspections ensure a comprehensive approach to health, safety, and environmental concerns. Feedback from students and staff is valued, contributing to ongoing improvements.

Clear responsibilities are assigned to the HSE coordinator and safety representatives to ensure safe working conditions, with ultimate accountability lying with the Dean and unit leaders. The institution employs advanced systems and online resources for incident reporting and chemical tracking.

Students receive a thorough education in biosecurity, laboratory, and clinical practices, with a focus on hands-on animal handling. The insurance coverage for occupational injuries is provided.

## 4.9.3. Suggestions for improvement

None.

#### 4.9.4. Decision

The VEE is compliant with standard 4.9.

## Area 5. Animal resources and teaching material of animal origin

Standard 5.1: The number and variety of healthy and diseased animals, cadavers, and material of animal origin must be adequate for providing the practical and safe hands-on training (in the areas of Basic Sciences, Clinical Sciences, Pathology, Animal Production, Food Safety and Quality) and adapted to the number of students enrolled.

Evidence must be provided that these data are regularly recorded and that procedures are in place for correcting any deficiencies.

## **5.1.1. Findings**

The VEE's global strategy to provide animal resources for training relies on:

- 1-Early contact with live animals (beginning in Year 1 with healthy animals)
- 2-A four-weeks EPT in a commercial farm or fish-farm between Year 1 and Year2
- 3-The recruitment of first opinion patients (Companion Animals including horses)
- 4-The recruitment of referral patients with a "free of charges" strategy (gratuitousness of transport, diagnostics and treatments) and communication campaigns (Production Animals).
- 5- An ambulatory activity where students see a variety of patients (cattle, small ruminants, pigs, and some camelids) and herd health problems on farms, both emergency cases as well as routine herd health.

The students participate in all parts of the patient management and daily clinical work. The students are divided into groups of 4-7 that work in the different parts of the clinics for small animals, horses, and production animals. The students usually form smaller groups of 2-3 in practical and clinical work with the patients. In addition, the clinical training also includes active participation in collecting and submitting diagnostic tests, performing relevant diagnostic tests themselves, using systems for medical recording and presenting their cases for other students, teachers, or owners in a relevant way.

Cadavers and organs for training in Anatomy and Pathology are obtained from the VEE's clinics (dogs, cats, horses, cattle, small ruminants, and pigs), from abattoirs (organs) and from the VEE's farm (calves, pigs, goats, sheep). Poultry (hens and roosters) are purchased from Hvam high school. Fish are obtained directly from fish farms. Cadavers of dogs are obtained fully fixed in formalin, washed, and kept in ethanol solution from a commercial company. In pre-clinical teaching, the number and variety of animals (live or organs and cadavers) are evaluated and decided by the course coordinator and teachers developing and teaching each course. In Pathology, the cadavers or other material are stored in a refrigerated room if received the day before the necropsy is performed. After necropsy, the material is routinely destroyed in an alkaline hydrolysis system but can also be sent in a container for incineration, if necessary.

SER Tables 5.1.1 to 5.1.8 give the number of animals or materials of animal origin used during the courses (including clinics, necropsy, animal production and herd health management, plus visits to slaughter houses).

#### 5.1.2. Comments

To be compliant with Day One Competences in line with EU Directives (2005/36 and 2016/35), the use of animals and material of animal origin (dead or alive) is essential for the practical training in different core subjects, from Anatomy to Pathology, Food Hygiene and all clinical subjects. All animals that are used for teaching or experimental purposes are handled and housed in agreement with Norwegian legislation and EU- regulations.

The VEE adheres to the principles of "never the first time on a live animal" and the 3Rs (replace, reduce, refine) in educational, as well as research activities.

Animal welfare is a focus in all teaching and clinical practice in Farm Animals, Small Animals, Horses, and staff using laboratory animals in accordance with the requirements set by the Directive 2010/63/EU. Veterinary students in clinical rotations and academic staff from the animal welfare group (PRODMED) meet regularly to discuss animal welfare in the VEE's hospitals and clinics.

For basic sciences and for pre-clinical training, the number and variety of healthy and diseased animals, cadavers, and material of animal origin is considered adequate to provide the practical and safe hands on training, and appropriate for the number of students enrolled. The number of animals used for clinical training is sufficient for all species (SER tables 5.1.3 and 5.1.4)

For clinical training, there is a constant ambition to maintain a sufficient caseload in food production animals and horses, with respect to intramural cases and extramural cases.

All procedures to obtain, prepare, store and destroy the cadavers and material of animal origin are considered satisfactory.

## **5.1.3.** Suggestions for improvement

None.

#### 5.1.4. Decision

The VEE is compliant with Standard 5.1

Standard 5.2: In addition to the training provided in the VEE, experience can include practical training at external sites, provided this training is organised under direct academic supervision and following the same standards as those applied in the VEE.

## **5.2.1. Findings**

All students have periods of practical training at the university farm (SHF). Ambulatory clinics in farm animals are under the constant supervision and assessment of teachers.

During the outplacement week in semester 8, students are taken through the production/value chain for Atlantic salmon.

#### 5.2.2. Comments

Students have periods of practical training at the university farms (SHF and Sandnes) during their first year (healthy animals) and the following years. 3 weeks of observing veterinary practice (VET323 Compulsory Practices) are mandatory between year 3 and year 6. Meat inspection is mainly taught by veterinary officers from the Norwegian Food Safety Agency (year 5). All activities are under close supervision of academic staff.

## **5.2.3.** Suggestions for improvement

None.

#### 5.2.4. Decision

The VEE is compliant with Standard 5.2

Standard 5.3: The VTH must provide nursing care skills and instruction in nursing procedures. Under all situations students must be active participants in the clinical workup of patients, including problem-oriented diagnostic approach together with diagnostic decision-making.

## **5.3.1. Findings**

Skills in animal's hygiene and nursing are acquired by undergraduate students during their rotations, beginning early in the curriculum (Basic Husbandry, Propaedeutic...), and later during consultations and hospitalisation of intra mural patients. Students are involved during hospitalisation and emergencies as well as in front of the owners, under constant supervision by a vet.

## 5.3.2. Comments

The active participation of students in the clinical workgroups is facilitated by the adequate (and small) group size for the different types of clinical training (both intramurally and extramurally). Younger students can be mentored by more advanced students.

## **5.3.3.** Suggestions for improvement

None.

#### 5.3.4. Decision

The VEE is compliant with Standard 5.3

Standard 5.4: Medical records must be comprehensive and maintained in an effective retrieval system (preferably an electronic patient record system) to efficiently support the teaching, research, and service programmes of the VEE.

## **5.4.1. Findings**

The clinical departments, SPORTFAMED and PRODMED, since 2020 have been using a cloud based electronic patient record system, Provet Cloud. All students and clinical staff members have access to comprehensive patient records. The Provet system provides all information about the patients including laboratory tests, diagnostic imaging, information to the owners, and billing information. The electronic laboratory journal system (eLabJournal; also FileMaker) is available to all staff to record material of animal origin. For routine pathology, a journal system (BasamPro) is used to record each necropsy.

#### 5.4.2. Comments

The implementation of a single integrated system for patient records for all species in the VEE guarantees efficient support to the teaching, research, and service programmes.

## **5.4.3.** Suggestions for improvement

None.

## 5.4.4. Decision

The VEE is compliant with Standard 5.4

## Area 6. Learning resources

Standard 6.1: State-of-the-art learning resources must be adequate and available to support veterinary education, research, services and continuing education. When the study programme is provided in several tracks/languages, the learning resources must be available in all used languages. Timely access to learning resources, whether through print, electronic media or other means, must be available to students and staff and, when

# appropriate, to stakeholders. State-of-the-art procedures for bibliographical search and for access to databases and learning resources must be taught to undergraduate students. 6.1.1. Findings

The basis regarding the learning resources on the VEE is the University's learning philosophy "to make adequate learning resources available to veterinary students so that learning can be a student active process that promotes reflection and independence. Learning resources are provided to enable students to take responsibility for and manage their own learning".

Wireless internet on and off campus gives students admittance to the VEE's library.

The different digitised supporting systems used by the VEE are listed in the table below.

At the beginning of each semester information meetings are held to inform students about learning resources. VET320 and VET 352 are courses to teach students in literature searching and using databases.

The digitised supporting systems at the VEE

Name	Function
Canvas	e-learning platform for students
TimeEdit	Timetable system for all courses
EPN	Course planning system
StudentWeb	Personal information for students incl. receiving study
	results
Fagpersonweb	Student information for teaching staff incl. registration of
	study results
WISEflow	Administering examinations (general)
Qpercom	Administering examinations (OSCE)
QR-code	Electronic registration tracing infection (COVID-19),
	now sometimes used as registration of presence
Teams/Zoom	Tools for meetings and streaming of teaching
e-Clinic	An electronic game-based digital veterinary clinic
Learning Center	Assistance for teachers in developing teaching and
	creating materials
Writing Centre	Guidance for students in academic writing
Landax	Register of incidents related to Health Safety and
	Environment (HSE)
Eco-online	Register of chemicals related to HSE (location, hazard
	issues)
Provet-Cloud	Patient record system of PRODFAMED and PRODMED
PACS	Archiving Diagnostic images (interfaced with Provet-
	Cloud
eLabJournal	Electronic laboratory journal system
BasamPro	Recording necropsies

Canvas LMS (Learning Management System) is the main virtual meeting place for students and teachers relating to courses.

Sikt (Norwegian Agency for Shared Services in Education and Research) coordinates the digital learning resources for the institutions for higher education in Norway. Sikt is also responsible for the consortium's agreements with the various international publishers. The University

Library participates in national collaboration for open research data repository. Staff at the VEE are consulted before acquisition or subscription to databases and journals. Models are increasingly used in veterinary teaching, forming a central element in the Skills labs at the VEE. The aim is to integrate the use of models even more into the organised clinical practical teaching as well as having models available for "evening events" and the student's self- study. Other innovations are e-Clinic, an electronic game-based digital veterinary clinic, Plastic Pluto (plastinated organs) and VetRepos (progress testing).

## 6.1.2. Comments

Digitalisation has a priority within the University, including forms of learning, feedback, assessment, and teaching. Digital technology is available for students and staff, and also contributes to life-long learning for graduates. The learning resources for the institutions for higher education in Norway have been coordinated by the Sikt, which is also responsible for the consortium's agreements with the various publishers.

Models (e.g. plastination) and innovations are more and more used in teaching, but also for self-learning, which is an excellent tool to keep the principle of never the first time on an animal.

Canvas has been in use for several years and the teaching staff is very familiar with its use. There is extensive assistance available for students and teachers, organised by the VEE as well as the University Department of Academic Affairs, including many online user guides and tips provided by the issuer of Canvas (Instructure).

There is a close cooperation between the University Library and the VEE Librarians and the library's Collection Development Team.

## **6.1.3.** Suggestions for improvement

None.

#### 6.1.4. Decision

The VEE is compliant with Standard 6.1.

Standard 6.2: Staff and students must have full access on site to an academic library administered by a qualified librarian, an Information Technology (IT) unit managed by an IT expert, an e-learning platform, and all the relevant human and physical resources necessary for the development of instructional materials by the staff and their use by the students. The relevant electronic information, database and other intranet resources must be easily available for students and staff both in the VEE's core facilities via wireless connection (Wi-Fi) and from outside the VEE through a hosted secured connection, e.g. Virtual Private Network (VPN).

## **6.2.1. Findings**

The University Library has two library units on the Campus Ås (Sørhellinga Library and the Hippocampus Building Library), with in total 160 seats. The service areas are according to the University's development plan namely education and learning, research support, open research and innovation, development and management of knowledge sources and the library as a common arena for students and staff. The staff has 18 permanent positions and 7 committed student assistants. The opening hours are Monday-Thursday 8.00-20.00 and Friday 8.00-18.00. The annual budget is around € 3,060,000. The Library Discovery System can be used to search for journal articles, books, e-books, and other publications, and gives access to interlibrary loan from other academic libraries. The bibliographic databases can be used on and off campus

(University login credentials). The Sandnes campus of the VEE at Høyland in Rogaland County has a large book collection with relevant literature which is available for the staff and the students while they are there.

IT-facilities are maintained by the University-IT department which is divided into 4 sections for staff, support, systems, and infrastructure. Services are hosted on campus (accessible using VPN or similar connection tools) as well as from external cloud services. All buildings have extensive Wi-Fi-coverage for guests, employees, and students.

## **6.2.2. Comments**

The two library units on the Campus Ås and the book collection on the Sandnes Campus provide students and staff with all possibilities for research, education, learning and study, necessary for the development of instructional materials by them.

IT-facilities, maintained by the University-IT Department, are available within all buildings of the campus (Wi-Fi, VPN and similar connection tools) and of high quality.

## **6.2.3.** Suggestions for improvement

None.

#### 6.2.4. Decision

The VEE is compliant with Standard 6.2.

Standard 6.3: The VEE must provide students with unimpeded access to learning resources, internet and internal study resources, and equipment for the development of procedural skills (e.g. models). The use of these resources must be aligned with the pedagogical environment and learning outcomes within the programme and have mechanisms in place to evaluate the teaching value of changes in learning resources.

## **6.3.1. Findings**

The table on page 67 of the SER shows key numbers of available resources at the University Library in 2021, namely the total number of printed books, e-books, printed periodicals, e-periodicals, and databases.

Two of the librarians, specialised in medical databases, are collaborating with the veterinary staff. They hold search courses for the students. The University Library has 5 academic teams: Research and innovation support, Education support, System development and digital services, Collection development, and Public services and events. The Education support team consists of 7 people and organises the library's courses and training.

The students have access to two clinical skills labs (training clinics). The skills lab in the Small Animal Hospital can be used by students without supervising staff members by registering and borrowing an access card. The other skills lab (Production Animal Clinic) is not open for students outside ordinary working hours and is only used during organised teaching. The VEE also has models for training in horses (a head and a full horse for rectal palpation).

Supplementary on the skills lab is a video project where clinical procedures are filmed to prepare students for the clinical rotations.

## 6.3.2. Comments

The Library has an Educational Support Team, that organises courses for students. It is clear and obvious for students that there is a team that can support them if needed.

Other learning resources are skills labs and a video project where clinical procedures are

demonstrated preparing the clinical rotations. These resources are up-to-date and of high quality. Many learning resources are used within the teaching programme, but also outside ordinary working hours except the skill lab in the Production Animal Clinic, which is very useful for students. It provides students with the opportunity to meet their own needs.

## **6.3.3.** Suggestions for improvement

None.

## 6.3.4. Decision

The VEE is compliant with Standard 6.3.

## Area 7. Student admission, progression and welfare

Standard 7.1: The VEE must consistently apply pre-defined and published regulations covering all phases of the student "life cycle", e.g. student admission, progression and certification. In relation to enrolment, the VEE must provide accurate and complete information regarding all aspects of the educational programme in all advertisings for prospective national and international students. Formal cooperations with other VEEs must also be clearly advertised.

## **7.1.1. Findings**

Information concerning enrolment is published at the University admission webpages and the Norwegian Universities and Colleges Admission Service (NUCAS) webpage. Specific information about admission requirements and procedures for the veterinary program is at the University webpage in Norwegian. The website mentions that after graduating students receive the cand.med.vet title, and with this title they can receive authorisation from the Norwegian government to be recognised as a veterinarian. Learning outcomes are described in the specific course information in EPN and information regarding the educational program, progression, certification and collaborations with other VEEs in respect to student exchange can be found on the webpage for the veterinary program.

There are several recruitment measures for prospective applicants. To make potential applicants aware of all career options for a veterinary degree, the VEE uses campaigns in social media (for example videos on YouTube) and provides informational materials describing the veterinary program for local use. The University participates in a university tour visiting Norwegian high schools where a student ambassador gives presentations. The VEE also provides information during high school events. During the University open day, both physical and online, prospective applicants can visit the VEE, attend presentations and receive information about the programme. Student progression is described in detail under Standard 7.5.

Formal collaborations with other VEEs include student exchange, mainly with VEEs teaching in English, but also with VEEs in Germany, Switzerland, Finland, France, and Spain. The University is part of the Nordic Forestry, Veterinary and Agricultural University Network, which offers courses for PhD candidates and specialist candidates in veterinary medicine. The VEE also maintains scientific and research collaborations through numerous individual and institutional professional partnerships. Currently the VEE is a partner in a European Erasmus+project (VetRepos) with five other European VEEs.

## 7.1.2. Comments

The VEE has pre-defined and published regulations on student admission, progression and certification and these are consistently applied.

The VEE provides accurate and complete information regarding the educational programme in advertising for prospective national students.

Some information is in Norwegian only, as the veterinary programme is taught in Norwegian.

## 7.1.3. Suggestions for improvement

None.

#### 7.1.4. Decision

The VEE is compliant with Standard 7.1.

Standard 7.2: The number of students admitted must be consistent with the resources available at the VEE for staff, buildings, equipment, healthy and diseased animals, and materials of animal origin.

## **7.2.1. Findings**

In the academic year 2019, the VEE was localised in the buildings and facilities on Campus Adamstuen in Oslo and the study programme in veterinary medicine had 70 students per year. With the construction of new buildings on Campus Ås, the Ministry of Education has granted funding for 20 additional students since 2020. A recent report from the Ministry of Agriculture suggests increasing the capacity to 120 students per year.

Based on Table 7.2.1, the number of new veterinary students recently admitted by the VEE has varied between 85 (2019) and 100 (2021). Some admitted students do not register and start studying at the VEE; possible reasons can be that they were also admitted to other programs or changed their mind. All students are standard students as the VEE does not admit fee-paying students.

Currently, the VEE finds the available resources acceptable for the number of students. The relocation of the VEE resulted in a decrease of small animal patients' caseload. However, currently the case load is increasing. The number of equine patients has been increasing as well.

The VEE has already plans for reorganising of the clinical rotations in the 2021 curriculum to enhance the use of the total caseload throughout the year. Extended use of practical training in external clinics or practices will also be considered. Access to healthy animals and material of animal origin is not likely to cause problems.

In the relocation process there was a considerable investment in new equipment and there will not be an urgent need for new equipment.

## 7.2.2. Comments

The current number of students admitted is in balance related to the resources available at the VEE for staff, buildings, equipment, healthy and diseased animals, and materials of animal origin. The relocation of the VEE resulted in a decrease of small animal patients, but the case load is increasing, also for equine patients.

The student capacity in veterinary medicine is currently under investigation by the national authorities, but the VEE has already plans for managing the possible increase in student numbers.

Based on the ESEVT indicators, the numbers of academic and support staff for the current number of students are well above the median values of other accredited/approved VEEs in

2019.

The new buildings and equipment in Ås are very suitable for the current number of admitted students and more, although some facilities such as laboratory course rooms are limited to 90 students. However, the number of students who are currently in their clinical rotations has not yet reached 90 or more students, which means that the number of students in the clinics and the number of students graduating will increase in the coming years.

Considering the progressive increase in the number of admitted students, there will be a need for adjustments by the VEE on the use of the rooms or planning of courses. In the near future, the increase in student admission would affect the students' numbers in the clinics, so there would be a need to relocate the practice area for the Farm Service Unit to reduce travelling and to recruit new farms for skills training in reproduction and herd health management.

## 7.2.3. Suggestions for improvement

The VEE is encouraged to continue to increase the number of patients suitable for teaching purposes, especially acute cases to ensure that all students are exposed to emergency practice. To better face the potential increase of students, an upgrade of the skills lab would be beneficial, and a more systematic use would be as important; the recruitment of new farms for skills training in reproduction and herd health management would be advantageous.

#### 7.2.4. Decision

The VEE is compliant with Standard 7.2.

Standard 7.3: The selection and progression criteria must be clearly defined, consistent, and defensible, be free of discrimination or bias, and take into account the fact that students are admitted with a view to their entry to the veterinary profession in due course. The VEE must regularly review and reflect on the selection processes to ensure they are appropriate for students to complete the programme successfully. If the selection processes are decided by another authority, the latter must regularly receive feedback from the VEE. Adequate training (including periodic refresher training) must be provided for those involved in the selection process to ensure applicants are evaluated fairly and consistently.

## **7.3.1. Findings**

There is no selection committee for admission to study veterinary medicine at the University . The admission is regulated and coordinated by the Norwegian Ministry of Education. The Ministry of Education and Research establishes the rules for admission to educational programmes and the Norwegian Universities and Colleges Admission Service (NUCAS) coordinates the admission process. The University management has regular meetings with the Ministry. The VEE can provide feedback and request changes to the admission process through the University.

Applicants must meet national entrance requirements for higher education and requirements in chemistry and mathematics. 50% of the places are given to students 21 years of age or younger, ranked based on their high school diploma grades and additional points for examinations in certain sciences and languages. One place is given to the highest ranking applicant of the Sami minority. The remaining applicants are ranked based on points given to their high diploma grades and improved grades. Additionally, points are given for age, military service, higher education, folk high school and to men who are the underrepresented gender.

The use of gender points is much debated in Norway but is still used for certain study programmes and can benefit either female or male applicants. Gender points for men were

introduced in the application to the VEE in 2004. The Ministry of Education and Research removed the gender points in 2017 as it was decided to be in violation with the equality and discrimination act, but these points were re-introduced in 2018. In the academic year of 2017/2018 the proportion of male veterinary students dropped to 5 and in 2018/2019 that rose to 11.

International applicants are eligible for admission if they meet the requirements stated per country at the website of NUCAS and if they are proficient in Norwegian, English, chemistry, and mathematics. The VEE also offers additional education for veterinarians from non-EU countries to qualify for authorisation as a veterinarian in Norway. This is the only local student admission at the VEE, organised by a separate admission committee. The role of the VEE's Academic Affairs Committee in this part is to decide the curriculum and the study plan for the additional education, and to decide how many additional education students the faculty can admit.

The policy for applicants with disabilities and permanent illnesses adheres to Norwegian law may give the right to apply for a special assessment for admission to higher education through NUCAS.

All applicants receive an appeal guide and can file a complaint if they think a mistake has been made in the application process. The case manager is usually the University but occasionally NUCAS. If the decision is not changed, the applicant has the right to submit a new complaint to the National Board of Appeals.

#### **7.3.2.** Comments

The Ministry of Education and Research establishes the rules for admission to educational programmes and NUCAS coordinates the process; even though the VEE has only limited account to the fact that students are admitted to studying veterinary medicine, it can provide feedback and request changes to the admission process through the University.

The selection criteria are clearly defined.

Applicants for veterinary medicine must meet special requirements in chemistry and mathematics, and international applicants must have a high-level proficiency in Norwegian.

The Ministry of Education and Research has considered gender points for male applicants to veterinary medicine appropriate.

An appeal mechanism is in place.

## 7.3.3. Suggestions for improvement

None.

## 7.3.4. Decision

The VEE is compliant with Standard 7.3.

Standard 7.4: There must be clear policies and procedures on how applicants with disabilities or illnesses are considered and, if appropriate, accommodated in the programme, taking into account the requirement that all students must be capable of meeting the ESEVT Day One Competences by the time they graduate.

## **7.4.1. Findings**

The policy for disabled and ill students regarding admission is described in 7.3. The requirement for facilitation during education applies to both universal design and individual adaptation. The VEE follows national regulations and does not have policies of its own on how applicants with

disabilities or illnesses are considered. By Norwegian law, applicants with disabilities are treated at the same standard with all other applicants. The ministerial order on examinations permits the university to adapt examination forms for students with disabilities such as dyslexia as well as students with mental or physical disabilities if the academic level of the examination is not lowered.

According to the Act relating to universities and university colleges, students with a disability and students with special needs are entitled to suitable individual adaptation of the learning environment, teaching, teaching materials and examinations, to ensure equal training and education opportunities. However, this right concerns adaptation that do not place a disproportionate burden on the educational institution, and special attention must be paid to the effect of the adaptations in removing barriers for the students in question, the costs of the adaptations and the institution's resources. Information on help and support is available on the University's webpage.

The Act also states explicitly that adaptations must not result in a reduction of the academic requirements in the individual courses. Thus, the ESEVT Day One Competences play an important role in considering which kind of adaptations can be made. The most common forms of special support have included adaptation of exams both on the day of the exam or in advance, longer study period, help with planning the student's life, and day shifts on weekends or evenings instead of night shifts in the hospital. The documentation for special requirements is a medical certificate or documentation from other experts, such as psychologists, speech therapists or social workers.

## **7.4.2.** Comments

The VEE follows national procedures on how applicants with disabilities or illnesses are considered and Day One Competences play an important role in considering the possible adaptations.

The VEE has also presented good examples for special support and adaptations.

## 7.4.3. Suggestions for improvement

None.

## 7.4.4. Decision

The VEE is compliant with Standard 7.4.

Standard 7.5: The basis for decisions on progression (including academic progression and professional fitness to practise) must be explicit and readily available to the students. The VEE must provide evidence that it has mechanisms in place to identify and provide remediation and appropriate support (including termination) for students who are not performing adequately. The VEE must have mechanisms in place to monitor attrition and progression and be able to respond and amend admission selection criteria (if permitted by national or university law) and student support if required.

## **7.5.1. Findings**

Students are granted the right to study for up to eight years. Legal leave such as maternity leave is added to this period. The progression criteria and procedures are available for all students in the curriculum description for their academic year. The criteria and procedures for student progression are published on the University website. At the VEE level, the progression criteria and procedures are decided and adopted by the VEE's Academic Affairs Committee and are

revised annually. It is the student's responsibility to familiarise themselves with the current regulations.

A student progresses from one course to the next by producing credits when all study requirements or compulsory teaching is approved and the examination for the course is passed. This progression requirement comes into effect at the end of the study year; to proceed after the continuation period in August, the student must provide academic documentation on learning outcomes for completed 60 credits in courses belonging to this academic year. In May/June, every student that has failed a final course examination receives a letter from Academic and Research Administration, stating the consequences of not achieving the required production of credits after the retake period in August. The student is also invited to a counselling meeting at Academic and Research Administration. After August, a student must have sufficient credit production from completed courses to be allowed to continue to the next course in the curriculum. If a student does not pass the retake examination and is not allowed to continue to the next year of study, the student must participate in a meeting with Academic and Research Administration. If the student applies for exemption from the progression criteria to continue in the next year, he/she must also meet the Head of Teaching and give reasons for waiving of the requirements. The study supervisors in the Academic and Research Administration help to make the education plan for students for whom the expected progress is delayed. This is done in cooperation with the Course Coordinators to ensure that the new plan is feasible, and in the clinical part of the study, in close collaboration with the clinics. If necessary, the supervisor at the VEE informs the student about the welfare support and health care at Si Ås.

If a student fails to attend an examination, fails to attend compulsory teaching, fails to have contact with the supervisor and does not respond to inquiries from Academic and Research Administration or course coordinator for a period of 3 months, the student is considered to have interrupted their study and loses the right to study. In practice, this is not likely to happen. Students that do not show up are called to a meeting and are followed up closely to find the reason(s) for their absence. They are encouraged to apply for leave of absence, sick leave and/or facilitation if there is basis for it.

The attrition rate is low. Most graduating students (87%) complete their degree within the minimum time (5.5 years). A drop out survey conducted in 2013 showed that illness, study problems and wrong choices were the most common reasons for failure to complete studies, but no dominant reason could be identified. Due to General Data Protection Regulations, no recent survey has been conducted on causes of attrition. Several measures have been implemented to decrease dropout during the first year, including student mentoring programmes, group work to facilitate interaction and early contact with live animals.

The Ministry of Education and Research establishes the rules for admission to educational programmes. The Dean decides the exact number of admissions, following annual estimations by the VEE of student dropouts and admits a correspondingly slightly higher number of students to ensure that after the first year there are still 90 active students in the cohort.

## **7.5.2.** Comments

The basis for decisions on progression is explicit and available to the students.

The VEE has established mechanisms to identify and provide remediation and appropriate support for students with delayed progression. Study supervisors in the Academic and Research Administration play a major role in student guidance and support.

The VEE monitors attrition and progression. Several measures have been implemented to decrease dropout during the first year. The Dean may admit a slightly higher number of students

to compensate for dropouts.

## 7.5.3. Suggestions for improvement

None.

#### **7.5.4. Decision**

The VEE is compliant with Standard 7.5.

Standard 7.6: Mechanisms for the exclusion of students from the programme for any reason must be explicit. The VEE's policies for managing appeals against decisions, including admissions, academic and progression decisions and exclusion, must be transparent and publicly available.

## **7.6.1. Findings**

Guidelines concerning cheating and censurable acts at the University are available online. The document presents the concept of cheating and the possible consequences for students who are guilty of cheating or other censurable misconduct, as well as the procedure and appeal mechanism. Misconduct can in principle lead to expulsion of the student, in addition to cancellation of academic performance.

The progression criteria for veterinary studies describe the mechanisms for exclusion of students who do not meet the criteria (Standard 7.5).

The webpages of the University offer a detailed description of how students proceed with an appeal, and how the mechanisms for resolution of student grievances are, in accordance with the Act relating to Universities and University Colleges. Students can appeal formal errors and individual administrative decisions.

## 7.6.2. Comments

Mechanisms for the exclusion of students from the programme are explicit.

Students can appeal the given grade of results in written examinations, formal errors in examination and individual administrative decisions. The mechanisms are described on the University webpages.

## 7.6.3. Suggestions for improvement

None.

#### 7.6.4. Decision

The VEE is compliant with Standard 7.6.

Standard 7.7: Provisions must be made by the VEE to support the physical, emotional and welfare needs of students. This includes, but is not limited to, learning support and counselling services, career advice, and fair and transparent mechanisms for dealing with student illness, impairment and disability during the programme. This shall include provision of reasonable adjustments for disabled students, consistent with all relevant equality and/or human rights legislation. There must be effective mechanisms for resolution of student grievances (e.g. interpersonal conflict or harassment).

## **7.7.1. Findings**

At the start of study, students are informed orally and given written information about being a student at the University. Students have an optional mentor programme and many social

activities for the new students. The student mentoring programme is an optional part of the startup programme for new students, and normally lasts for 2-3 weeks in August. Second-year students help the new students get to know each other and aim to give them a safe and social start to the first semester. It includes both university- and faculty-specific activities. The welfare association for students at the University, SiÅs, also has student mentors. These mentors organise social activities for all students at all faculties that are easy for everyone to participate in, at fixed times each week throughout the year. Each activity is posted as an event on the Facebook page.

The main VEE specific support services for students are the Academic and Research Administration with its study supervisors. Academic and Research Administration informs about the curriculum, regulations and the SiÅs and practises an "open door" policy. It offers guidance during the studies and information on students' rights, and the study supervisors offer, if necessary, learning support to students in need of it, in close collaboration with the academic staff. The Academic and Research Administration also organises information meetings later in the study. The Writing Centre offers free guidance in academic writing and statistics for students.

The VEE's Student Council is a political body for students at the VEE, and a part of the Student Democracy at the University. It is the formal link between students at the VEE and the University SiÅs is responsible for student accommodation, international guest accommodation, sport facilities, the bookshop, print and copy services, cafeterias / restaurant and the rental of meeting and function rooms. The Student Union (Samfunnet) is a large facility offering students a cafeteria, bar and numerous rooms that students can use for student activities, such as concerts and dances. The Student Associations Act regulates the duties and organisation of student associations. The purpose of the act is to safeguard the students' welfare through student-led associations.

There are 80 different associations and clubs offered at the University. Students are encouraged to pursue their passions and can also apply for funding to create their own club or association. The University has a football and sports field and a large indoor sports facility. The university is located in close proximity to both a ski track and a national rowing facility.

The student life coordinator works to increase well-being and inclusion, and to reduce the feeling of loneliness among students and functions as a hub in the collaboration between the University, the Student Board, the Health Center for Youth and Students and SiÅs, regarding the psychosocial life of University students. If students are unsure who to contact and how, the student life coordinator can assist them.

The University has a Career Center that offers career counselling to help students and PhD candidates in questions related to career and job seeking. The Center for Further and Continuing Education, Academic and Research Administration and associations for veterinarians and veterinary nurses organise a career day at the University.

The VEE has an international adviser who takes special care of students going on exchange or international students who come to the University.

The Working Environment Act provides rules for vaccination necessary for the course and this is free for students. The VEE offers a tetanus vaccine paid by the institution to veterinary students up to and including the 9th semester and who have not had the vaccine during the last 10 years.

In Norway, everyone has the right to a doctor and pays a relatively low deductible for treatment. An upper ceiling has been set for the excess and after that a free pass is given for further processing. The Health Center for Youth and Students collaborates with SiÅs and the Universidyon a free health service in sexual health, mental health and lifestyle problems for all

University students who have paid semester fees. The collaboration covers both psychiatric health services, preventive health services and low-threshold social services. Students can meet health nurses, psychologists, doctors, midwives and family therapists. Students do not need a referral to receive this short-term offer, and in case of psychological issues the student in need will get a short-term offer relatively quickly, within days/week. For conditions that require more and longer treatment follow-up, referrals will be made to the doctor and the specialist health service. The offer does not cover a doctor but can assist with information.

The VEE strives to make necessary arrangements for students with disabilities or special needs, whether it is due e.g. to visual or hearing impairment, reading and writing difficulties, or health issues. This includes facilitation during the study period and/or examinations. This is explained in more detail under Standard 7.4.

Student grievances relating to administrative decisions or psycho-social grievances are resolved through direct contact with Academic and Research Administration and/or the health and welfare services for students at the University. Various problems can be resolved in dialogue between the student and the Academic and Research Administration. Students are also informed about other systems or health services as needed. In case of more serious incidents, the University has a deviation system where the student can report and be followed up. Issues such as harassment, bullying and unwanted sexual attention have their own notification online (Speak Up!) and the support system including relevant contact persons is described. Students can also speak up on educational quality, learning environment and services. The University has its own security manager who deals with serious incidents.

Students can get legal assistance from the University Student ombudsman. The ombudsman is bound by professional secrecy and provides impartial legal counselling related to academic life including whistleblowing and the reporting of censurable conditions. This assistance is free of charge.

#### **7.7.2. Comments**

The VEE and the University in a wider sense support the physical, emotional and welfare needs of students in various ways. This includes e.g. student mentoring, learning support and counselling, international exchange advice, career advice and health services.

The Academic and Research Administration offers guidance to students on a wide range of issues and practises an "open door" policy".

The University student life coordinator helps students who are unsure who to contact or how.

The VEE strives to make necessary arrangements for students with disabilities or other kinds of special needs.

An online platform, Speak Up!, allows whistleblowing and reporting of censurable conditions as well as information of relevant contact persons such as the Ombudsman.

## 7.7.3. Suggestions for improvement

None.

#### 7.7.4. Decision

The VEE is compliant with Standard 7.7.

Standard 7.8. Mechanisms must be in place by which students can convey their needs and wants to the VEE. The VEE must provide students with a mechanism, anonymously if they wish, to offer suggestions, comments and complaints regarding compliance of the VEE with

## national and international legislation and the ESEVT Standards. 7.8.1. Findings

Students elect their representatives to faculty and university councils and committees, e.g., the Faculty Board, the VEE's Academic Affairs Committee and the VEE's PhD Committee.

The University encourages students to offer constructive feedback on teaching, supervision, courses and programmes. Students' role in the QA of education is described on the University webpage (in Norwegian). Students evaluate all courses each time they are offered, both during the course and in an evaluation offered by Academic and Research Administration after the course. After the course is completed, a course reference group of students meets with the course coordinator to evaluate the course. The course coordinator prepares a course report based on these assessments and the report is submitted to the Head of Department and an aggregated report from the Department is forwarded to the VEE's Academic Affairs Committee. The course reports are available online. In addition to course surveys, students participate in national study barometer surveys for the Norwegian Agency for Quality Assurance in Education.

Other channels providing opportunities for students to report their needs or complaints anonymously and confidentially include the whistleblowing portal at the University. The procedure for whistleblowing is presented on the website of the University's Studentombud. The Ombudsman can also be contacted regarding errors and problems related to educational quality and the learning environment. Course evaluations, national evaluations such as the annual study barometer, and the study start survey at NMBU are also anonymous and it is possible to provide comments on these.

#### **7.8.2.** Comments

Students can convey their needs and wants to VEE in various ways, including anonymous and confidential channels.

Students have representatives in main committees of the VEE.

## 7.8.3. Suggestions for improvement

None.

## 7.8.4. Decision

The VEE is compliant with Standard 7.8.

## Area 8. Student assessment

Standard 8.1: The VEE must ensure that there is a clearly identified structure within the VEE showing lines of responsibility for the assessment strategy to ensure coherence of the overall assessment regime and to allow the demonstration of progressive development across the programme towards entry-level competence.

## **8.1.1. Findings**

The VEE's Academic Affairs Committee is responsible for the variety and alignment of the assessment methods with the learning outcomes (including Day-One Competences) previously defined in both old (2002) and new (2021) curricula. The course coordinator, together with the course teachers are responsible for the planning, implementing, evaluating, and improving of the course, including assessment. The Head of each one of the four Departments contribute to the Study QA report with the preparation of the Department's QA report and follow up of the QA

work.

The University Learning Center provides guidance to staff on assessment methods.

#### **8.1.2.** Comments

The VEE's and University assessment strategy defines lines of responsibility, ensures coherence of the overall assessment policy applied for students' assessment, and verifies progressive development of undergraduates from Year 1 to Year 5.5-6.

## **8.1.3.** Suggestions for improvement

None.

#### 8.1.4. Decision

The VEE is compliant with standard 8.1.

Standard 8.2: The assessment tasks and grading criteria for each unit of study in the programme must be published, applied consistently, clearly identified and available to students in a timely manner well in advance of the assessment. Requirements to pass must be explicit.

The VEE must properly document the results of assessment and provide the students with timely feedback on their assessments.

Mechanisms for students to appeal against assessment outcomes must be explicit.

## **8.2.1. Findings**

Examinations, marking and appeals procedures, are regulated under the Act on Universities and University colleges in Norway, plus regulation of studies and internal guidelines for examiners and rules in the NMBU that are provided on the University website (NMBU.no) for staff and students. Grading can be pass/fail, or grading A-F, and is based on defined criteria. Description of the examination methods and the requirements to pass are available in EPN (curriculum and course planning system) and at NMBU.no.

The course description for the subjects includes the method/s of assessment, duration of the examination, assessment criteria, special requirements to complete the exams, rules and grades for the examinations. Students may influence the setting of dates and time for examinations which are published on Canvas in June for the next academic year. After approving the education plan in Autumn, students register for the examination and receive the dates via Studentweb.

Except for multiple choice tests, students have access to all previous written examinations on Canvas; they have the right to see the examination papers, and guidelines, and to receive an explanation for the result upon request. In some courses examiners explain the assessment criteria after performing a test; also some courses offer meetings of examiner-students to better prepare the examinations.

Students can get assessments in the Canvas room for the course and have the right to three attempts per examination; a fourth attempt may be granted by the Dean. Retake period is in August.

Only after completing a course students receive credits in August to be allowed to continue to the next year of the curriculum (for further information see 7.5). The VEE normally uses 2 or more examiners, being at least one an external examiner, previously approved by the Head of Teaching, who has to approve the questions used in the examination and may discuss with the internal examiner the grading for each student. For each examination regulations require

examiner guidelines. For written examinations results have to be submitted within 3 weeks and marking is anonymous.

Students have the right to three examination attempts per examination. If the student fails the same examination on three consecutive attempts, he/she loses the right to study. The student has the right to apply for a fourth attempt, which may be granted by the Dean or a delegated person such as the Head of Teaching. These fourth attempts are rare (1-3 per year during the past 3 years). These decisions may be appealed to the University Board of Appeals.

The Small Animal Hospital provides feedback to all students on the last day of the rotation on their performance in the clinic by a standardised evaluation form filled out by the responsible/s clinician/s.

Students receive by email information of the examination grades available in StudentWeb and may request an explanation of the grade given to an exam within one week from its publication. Written or oral explanations are given normally within 2 weeks after the request. Afterwards, the student may appeal the grade.

Students may appeal formal errors (which are resolved by the Board of Appeals) and written examinations, being the appeal rights and procedures available on the University website (NMBU.no). Appeals must be submitted within 3 weeks of publication of the grade. The student appeals for a grade in StudentWeb. A new assessment of written work is performed by a new set of internal and external examiners and the outcome of the appeal is processed within a month. The grade awarded as a result of the new assessment may not be appealed but an explanation may be requested.

Students may request guidance to the study supervisor, the Academic and Research Administration and SiAs. Support for students who failed is further explained under 7.5.

#### 8.2.2. Comments

The VEE applies consistently to assessment tasks and grading or passing criteria for each unit of study that are published and timely available in advance to students.

Students receive timely feedback on their assessments and have explicit mechanisms in place for appeal.

## 8.2.3. Suggestions for improvement

None.

## 8.2.4. Decision

The VEE is compliant with standard 8.2.

Standard 8.3: The VEE must have a process in place to review assessment outcomes, to change assessment strategies and to ensure the accuracy of the procedures when required. Programme learning outcomes covering the full range of professional knowledge, skills, competences and attributes must form the basis for assessment design and underpin decisions on progression.

## **8.3.1. Findings**

Appendix 4 (<a href="https://www.nmbu.no/en/about/quality-assurance-courses">https://www.nmbu.no/en/about/quality-assurance-courses</a>) shows the guidelines for course evaluation at the University level in 3 steps: i.) Conducting a formative evaluation during the course (each course can involve several subjects); the course responsible is in charge of selecting the appropriate methods and time for the evaluation; the methods have to be consistent with contents, learning objectives, learning outcomes (and their links), placement of the course

in the curriculum, size and composition of the group of students, anonymity, etc. ii.) Conducting an end of the semester evaluation in courses with at least 5 students (to guarantee anonymity) normally during the last 2 weeks of the semester; it consists of seven graded and two open text questions, and iii.) Conducting a periodic evaluation of the course/s during a joint meeting every 3-6 years with students, peers and relevant representatives to evaluate the whole course, connections between courses and the place of the course in the programme. The results of the 3 steps evaluation must be described in the course report. The VEE applies some exceptions to these guidelines because of a different semester structure, course organisation and profession specific study programme. The VEE uses questions from the University guidelines and adds other questions about exams and other specific questions. Instead of performing the course evaluation at the end of the teaching period, for any course once an exam has been completed, the evaluation is done directly after the exam. The Course coordinator meets the reference groups, staff and students for discussion of the evaluation outcomes.

At the VEE's level, all courses are evaluated not only by the anonymous student feedback survey at the end of each one of the course exams as explained before, but also by analysing student results in examinations, and informal student feedback during the course. For example, if more than 20% of students fail in an examination, the Course coordinator must take action and report on it.

The course coordinator (responsible for the quality of examinations), the unit leaders and the teachers are responsible for the alignment of learning outcomes and assessment methods. In both curricula, revision of assessment (April/May) starts with a proposal from the teachers of the course to change the assessment methods for the next academic year that is revised and approved, after consulting teaching staff and students, by the VEE's Academic Affairs Committee. Minutes are available for staff and students via intranet and Canvas.

## 8.3.2. Comments

The VEE is acknowledged for adapting the course evaluation in 3 steps run by the University to the specific needs of the veterinary syllabus, by adding to the anonymous survey some question/s about the assessment methods, and facilitating the meetings with the student reference group. In fact, the VEE applies a more complete review of assessment than the guidelines proposed by the University which result in a more efficient tool for changing assessment strategies.

## 8.3.3. Suggestions for improvement

None.

## 8.3.4. Decision

The VEE is compliant with standard 8.3.

Standard 8.4: Assessment strategies must allow the VEE to certify student achievement of learning objectives at the level of the programme and individual units of study.

The VEE must ensure that the programmes are delivered in a way that encourages students to take an active role in creating the learning process, and that the assessment of students reflects this approach.

## **8.4.1. Findings**

To demonstrate achievement of the learning outcomes students must pass final summative examinations at the end of each course (see 8.5) but first they have to approve all compulsory teaching and clinical rotations. No teaching activity is programmed 1-3 weeks before the final

examinations. Retakes take place in the last week of the summer holidays or Christmas holidays (for further information on progression criteria see 7.5).

In the new curriculum 2021, working groups planning new courses receive instructions from the VEE Academic Affairs Committee who is the decision body to approve them. Teaching staff may take seminars on student-centred learning, improvement of methods for formative assessment, systems for documentation of achieved skills, etc.

On site it was verified a common system of formative assessment of the learning objectives used by most of the courses called "Journal", which is a report on the practical or theoretical (seminars) training which is written by the student, which may include photos taken during the activity, descriptions, differential diagnose, etc. The Journal is submitted to the teacher for feedback.

#### **8.4.2.** Comments

The VEE certifies the achievement of learning outcomes by the students in the different courses by attendance to compulsory training and summative examinations at the end of each course.

The VEEs encourages the active role of students in the learning process through training of teachers in student centred learning and the use of formative assessments such as the completion of the Journals in the courses.

## **8.4.3.** Suggestions for improvement

None.

#### 8.4.4. Decision

The VEE is compliant with standard 8.4.

Standard 8.5: Methods of formative and summative assessment must be valid and reliable and comprise a variety of approaches. Direct assessment of clinical skills and Day One Competences (some of which may be on simulated patients), must form a significant component of the overall process of assessment. It must also include the quality control of the student logbooks in order to ensure that all clinical procedures, practical and hands-on training planned in the study programme have been fully completed by each individual student.

## **8.5.1. Findings**

The VEE describes a range of assessment methods under 8.1 of the SER to assess students' knowledge and acquisition of skills. Summative written or oral examinations are used to test knowledge, plus supplementary assessment through compulsory attendance requiring active participation of the students, and completing various activities like case presentations, laboratory courses, dissection, reflection notes, peer evaluation, reports (Journals, see 8.4.1) and group work and rotations with live animals.

For theoretical knowledge, in curriculum 2002 final summative examinations are placed at the end of the course, and also at the middle of the course some summative not final exams, mostly based on written and some on oral examinations using a combination of short answer questions, multiple choice, and essay questions. For assessing the knowledge and ability for clinical diagnosis and reasoning, at the end of the 9th semester students have to perform a clinical examination in Production Animal Medicine ("long case"). In the case of Companion Animals and Equines Medicine, knowledge and clinical reasoning is tested in a multiple choice/short answer test, and skills are tested via an OSCE. Before sitting the final clinical examinations, students have to approve all clinical rotations separately (80% attendance, delivery of case

reports, patients status report required).

In the new curriculum 2021, summative assessment of clinical courses will be a combination of digital, OSCE and clinical examination, and formative assessment will be systematic. Students start the course "Professional studies" that runs throughout the whole curriculum where Soft skills (team work, cooperation, communication, professional ethics,...) are assessed.

Formative assessment is done via Canvas by using course tests that must be approved and reporting through Journals (see 8.4.1). Students also do quizzes in the course Canvas room. Formative assessment of clinical skills and procedures are based on clinical tests, feedback on journals, case presentation and clinical work by the students; some formative assessment of clinical skills could be made in the skills labs.

For administering examinations the VEE uses two digital systems: WISEflow (general exams) and Q-percom (OSCE exam). The OSCE exam also uses models to test clinical procedures.

The VEE is not using a permanent logbook system to record and grade direct assessment of student's acquisition of Day One Competences and clinical skills. In the old curriculum it is a new Logbook for Small Animal clinical rotations in semesters 7, 8 and 9 which started in 2022. Clinical competence of students in Production animal medicine is evaluated through a clinical/practical examination at the end of the rotation and continuous assessment of student attitude and aptitude in the clinic. Students underperforming have to repeat the clinical rotation. At the end of the Small animals and Horse rotations students have to pass an OSCE exam.

In the case of Veterinary Public Health the multiple choice test is done by an external examiner, plus practical exam in meat control and oral examination on Legislation.

In the new curriculum the VEE's aim is to keep a permanent Logbook system for the recording and assessing the individual acquisition of Day One Competences by the students after the evaluation, in the autumn of 2023, of the new Pilot Logbook applying in the Small Animal Clinical rotations.

The records and assessment of students' acquisition of skills and DOCs are kept in some courses by the teachers and in other cases by the Course coordinator.

In the old curriculum, the hosting veterinary practitioner during EPT (VET323) must fill-in and send a form confirming student attendance for the allocated period and does not assess the student.

In the new curriculum the VEE's aim is to implement mandatory hands-on EPT veterinary practice with defined learning outcomes, appointment of responsible academic staff, and a complaint and feedback process.

#### 8.5.2. Comments

The VEE uses many different methods for recording and assessment of students' acquisition of Day One Competences that in some cases are not based on individual assessment but on group assessment.

The quality control of the records is applied only in each course but not in a holistic way to verify student progression in the acquisition of Day One Competences.

There is no assessment of students by the hosting veterinary practitioner during EPT.

## 8.5.3. Suggestions for improvement

The VEE is encouraged to achieve the aim of implementing a permanent Logbook system after the evaluation of the current Pilot Logbook for recording a student's individual work throughout the whole curriculum and his/her progression in the acquisition of competencies and skills, including EPT.

The permanent Logbook has to be submitted to periodic quality control to ensure that all necessary competences to work as a Day 1 veterinarian are acquired before graduation.

#### 8.5.4. Decision

The VEE is partially compliant with standard 8.5 because of suboptimal formal monitoring of individual performance and quality control of the logbooks.

## Area 9. Academic and support staff

Standard 9.1: The VEE must ensure that all staff are appropriately qualified and prepared for their roles, in agreement with national and EU regulations and must apply fair and transparent processes for the recruitment and development of staff.

A formal training (including good teaching and evaluation practices, learning and elearning resources, biosecurity and QA procedures) must be in place for all staff involved with teaching.

Most academic staff (calculated as FTE) involved in veterinary training must be veterinarians. It is expected that more than 2/3 of the instruction that the students receive, as determined by student teaching hours, is delivered by qualified veterinarians.

## **9.1.1. Findings**

Staff recruitment (teaching and support staff) is governed by Norwegian national regulations and all staff recruited are selected according to strict national rules and the rules set by the VEE itself. Pedagogical and technical training programs are organised at local level to provide teaching theory and new teaching technologies. The VEE's Academic Affairs Committee organises regular educational seminars for the teachers at the VEE. Both national and international lecturers are used for this purpose. Heads of Departments report on the status for training in pedagogics for their academic staff (senior and junior). The VEE has one employee recognized as an Excellent Teacher Practitioner. Employees (out of the academic staff) also have the possibility to attend relevant courses, financed by specific budgets in the Departments. The VEE has >85% of veterinarians on the teaching staff (Table 9.2.2.). In the clinical departments, most of the teaching staff are veterinarians (>95% Annex 1). Qualifications as a veterinarian are given priority in the recruitment process. 35 members of the academic staff are diplomates of a European college (16 different colleges are represented), approximately ¼ of the academic staff, and 14 people are enrolled in a program for achieving Diplomate.

## 9.1.2. Comments

The recruitment and development of academic and non-academic staff applies a fair and transparent process, which is commendable.

The pedagogical and technical training programme for the staff is an added value.

The number and the percentage of diplomates is good, even if not all colleges are represented, but the ratio residents/diplomates is low because of budget limitations which result in the offer of only 4 to 5 residency programmes per year.

The VEE needs to be commended for the presence of a high number of diplomates and PhD students, which significantly enhances educational opportunities in all areas of veterinary medicine, underscoring excellence.

Onsite, the Diplomates stated that they would be very happy to have as many residents as possible, but this depends on the University.

## 9.1.3. Suggestions for improvement

None.

#### 9.1.4. Decision

The VEE is compliant with Standard 9.1

Standard 9.2: The total number, qualifications and skills of all staff involved with the programme, including teaching staff, 'adjunct' staff, technical, administrative and support staff, must be sufficient and appropriate to deliver the educational programme and fulfil the VEE's mission.

A procedure must be in place to assess if the staff involved with teaching display competence and effective teaching skills in all relevant aspects of the curriculum that they teach, regardless of whether they are full or part time, residents, interns or other postgraduate students, adjuncts or off-campus contracted teachers.

## **9.2.1. Findings**

Tables summarise the number and composition of the academic staff (9.2.1. and 9.2.2. 9.2.2), and support staff (9.2.3.), as well as the research staff of the VEE (9.2.4.). Permanent teaching staff covers all areas of the present veterinary curriculum at the VEE from Basic Sciences to Professional Knowledge. The hiring process of the teaching staff is done by appointing an expert evaluation committee, a nomination committee, and an appointment committee. The composition and mandate of these committees are described under Standard 1.2. The selection and recruitment of support staff is conducted under the expertise of an Appointment authority which consists of two committees. The composition and mandate of these committees are described under Standard 1.2.

## 9.2.2. Comments

The ESEVT indicator, I2 (n. of FTE vets involved in veterinary training/n. of students graduating annually) is good, as are the indicators I1 and I3.

The total number, qualifications and skills of the staff involved in the curriculum are sufficient and appropriate to deliver the educational programme. In canine and feline medicine, in-house diplomates in ophthalmology, dermatology, dentistry and cardiology were lost (brain drainage to private practice) and these disciplines are assured by contracted Diplomates.

The quality of the hiring process of the teaching staff is assured by appointing the expert evaluation committee, nomination committee, and appointment committee.

## 9.2.3. Suggestions for improvement

None.

#### 9.2.4. Decision

The VEE is compliant with Standard 9.2

Standard 9.3. Staff must be given opportunities to develop and extend their teaching and assessment knowledge and must be encouraged to improve their skills. Opportunities for didactic and pedagogic training and specialisation must be available. The VEE must clearly define any systems of reward for teaching excellence in operation.

Academic positions must offer the security and benefits necessary to maintain stability, continuity, and competence of the academic staff. They must have a balanced workload of

teaching, research and service depending on their role. They must have reasonable opportunities and resources for participation in scholarly activities.

## **9.3.1. Findings**

Stability and continuity of all staff is implicit in their status. The main rule is permanent employment, and temporary employment may only take place if authorised by law. Numerous opportunities are provided to the academic and non-academic staff to develop and extend their professional knowledge and competencies; didactic and pedagogic training courses and seminars are available for teaching staff as already described (see 9.1.). A reward system for teaching excellence has been defined (see above).

## 9.3.2. Comments

The VEE recognises that stability of the teams is a challenge and recruitment is difficult in many academic disciplines especially for Diplomates since competition with the private sector is fierce.

## 9.3.3. Suggestions for improvement

None.

#### 9.3.4. Decision

The VEE is compliant with Standard 9.3

Standard 9.4. The VEE must provide evidence that it utilises a well-defined, comprehensive and publicised programme for the professional growth and development of academic and support staff, including formal appraisal and informal mentoring procedures.

Staff must have the opportunity to contribute to the VEE's direction and decision-making processes.

Promotion criteria for academic and support staff must be clear and explicit. Promotions for teaching staff must recognise excellence in, and (if permitted by the national or university law) place equal emphasis on all aspects of teaching (including clinical teaching), research, service and other scholarly activities.

## **9.4.1. Findings**

The modalities for professional training of staff are described above (9.1). Veterinarians and veterinary nurses in Norway are compelled by the law governing animal health professionals to keep themselves professionally up to date. Initiatives to reform academic career assessment are being prepared at the University in connection with monitoring the European agreement.

There are five specific criteria for academic positions that support a claim for a raise in salary.

## 9.4.2. Comments

National legislation promotes lifelong learning. Staff has the opportunity to participate in decision-making processes and to contribute to the VEE's direction through direct participation in the various decisional bodies. The specific process for the professional promotions could be more detailed (for example, the steps between a young graduate beginning an academic career and his accession to a professorship).

## 9.4.3. Suggestions for improvement

None.

## 9.4.4. Decision

The VEE is compliant with Standard 9.4

Standard 9.5. A system for assessment of teaching staff must be in operation and must include student participation. Results must be available to those undertaking external reviews and commented upon in reports.

## **9.5.1. Findings**

The VEE has put in place a system for assessment of teaching staff, and such a system of assessment/evaluation includes student participation. For students, the evaluation is mandatory and anonymous. Students can comment on teachers anonymously for each block/course every year through this system. These comments are given to the Head of the responsible department. The Head of the department follows-up on these comments.

#### **9.5.2.** Comments

Teaching evaluation done by the students is a fully integrated tool for continuous improvement of the VEE.

## 9.5.3. Suggestions for improvement

None.

#### 9.5.4. Decision

The VEE is compliant with Standard 9.5

## Area 10. Research programmes, continuing and postgraduate education

Standard 10.1. The VEE must demonstrate significant and broad research activities of staff that integrate with and strengthen the veterinary degree programme through research-based teaching.

## **10.1.1. Findings**

The VEE has a research output of 545 peer reviewed articles/reviews/book chapters over 3 years (2020, 2021, 2022) (Appendix 5). The number of funded projects is 80 per year, with a total amount of grant per year 12,741,833, covering several research areas (Table 10.1.1): Aquatic animals (6,583,708), Production Animals (1,955,660), Companion Animals and Horses (1,149,022), Food Safety and Quality & VPH & One Health (2,425,384) and others (628,056). Most of the senior academic staff have a double teaching & research profile.

#### **10.1.2.** Comments

The areas of granted research match with the professional fields of Veterinary Medicine and are core areas for the training of undergraduates; this is a good basis for research-based teaching, especially when most senior teachers dedicate themselves to teaching & research.

The VEE has to be commended on the highly funded research projects in Aquatic animals, which significantly strengthen the financial support provided to the VEE, affirming a commitment to knowledge in this critical field.

## 10.1.3. Suggestions for improvement

None

## **10.1.4. Decision**

The VEE is compliant with Standard 10.1

Standard 10.2. All students must be trained in scientific method and research techniques relevant to evidence-based veterinary medicine and must have opportunities to participate in research programmes.

## **10.2.1. Findings**

All students are introduced to the concepts of evidence-based medicine, critical appraisal, and scientific research through the course-thread Professional studies, which includes an introduction to bibliographic search, scientific methods, and research techniques. Students practise writing scientific papers through performing a systematic literature-review on their chosen research topic (8 weeks) during their 8th semester of 2021 curriculum which is considered their graduation thesis. Students following the 2002 curriculum write a graduation thesis of 15 – 40 ECTS (see Standard 3.1). Prior to starting their project, all students follow a course on evidence-based medicine, critical appraisal, bibliographic search, scientific methods and research techniques. Students are also introduced to scientific literature in courses where "journal clubs" are used in teaching. Knowledge about scientific methods and critical assessment of sources of information is an important basis for lifelong learning.

Topics for the graduation thesis are suggested by the academic staff (supervisors) or the students can suggest a topic and find a supervisor themselves. Students work together, make a group submission and a group defence. Contribution from all students is ensured through follow up from the supervisor and the students have to submit a form where they declare that all students have contributed to the various phases of the work. Prior to starting their project, all students follow a course on evidence-based medicine, critical appraisal, bibliographic search, scientific methods and research techniques. Students are also introduced to scientific literature in courses where "journal clubs" are used in teaching.

## **10.2.2.** Comments

During the period of preparation of their thesis all students are familiar with the preparation of scientific papers, they get knowledge on how to use a bibliography and databases.

## 10.2.3. Suggestions for improvement

None

#### **10.2.4. Decision**

The VEE is compliant with Standard 10.2

Standard 10.3. The VEE must provide advanced postgraduate degree programmes, e.g. PhD, internships, residencies and continuing education programmes that complement and strengthen the veterinary degree programme and are relevant to the needs of the profession and society.

## **10.3.1. Findings**

The VEE offers a 3 year PhD course in Veterinary Sciences. A total of 108 students were registered at PhD postgraduate research training in 2021-2022.

There are no postgraduate courses at the VEE that are not related to clinical or research work.

Among the VEE's staff, there are 37 EBVS specialists from 15 different European Colleges and every year there is an offer of 4 to 5 new residency programmes.

## **10.3.2.** Comments

Opportunities for the advance of postgraduate research have been found in all the areas of veterinary medicine.

## 10.3.3. Suggestions for improvement

None.

#### **10.3.4. Decision**

The VEE is compliant with Standard 10.3

Standard 10.4: The VEE must have a system of QA to evaluate how research activities provide opportunities for student training and staff promotion, and how research approaches, methods and results are integrated into the veterinary teaching programmes. 10.4.1. Findings

The VEE has a broad research activity within the core areas of veterinary medicine, including animal health, animal welfare, food safety, veterinary public health, comparative medicine and aquaculture.

The VEE research programme evaluation is dependent on funding and takes place at multiple levels. Basic funding resources are managed by the VEE board according to a high level budget, while the allocation of detailed budgets is decided by the head of the Department. The significant part of the internal project funding consists of the University PhD and Residents fellowships. For external projects funding, a preventive approval of the budget and of the suitability of the proposal by the Department, is needed before the application is submitted.

The evaluation of staff is regulated through national legislation concerning promotion in academic position set by the Ministry of Research and Education,

#### **10.4.2 Comments**

The VEE does not have a formal internal quality system specific for research activities, the QA system related to this area is integrated into multiple QA systems.

## 10.4.3. Suggestions for improvement

None.

## **10.4.4. Decision**

The VEE is compliant with Standard 10.4

## 11. ESEVT Indicators

The two tables underneath represent the raw data for the last three full academic years at the Norwegian University of Life Sciences Faculty of Veterinary Medicine, Ås, Norway (the first table) and the calculated indicators from the Excel file provided by the VEE (the second one).

Name of the	Norwegian University of Life Sciences, Faculty of Veterinary
<b>Establishment:</b>	Medicine, Ås, Norway
Name & mail of the	Anne Storset; anne.storset@nmbu.no
Head:	

Date o	f the form filling: 23.07.23				
	Raw data from the 2 full academic years preceding AY 2019-2020	Year -1	Year -2	Year -3	Mean
	n° of FTE teaching staff involved in	1001	1001 2		112011
1	veterinary training	131.5	132.3	125.3	129.70
2	n° of undergraduate students	422	408	399	409.67
	n° of FTE veterinarians involved in			110.4	
3	veterinary training	118.49	117.91	8	115.63
4	n° of students graduating annually	63	65	74	67.3333333
	n° of FTE support staff involved in				
5	veterinary training	142	144.7	141.6	142.766667
	n° of hours of practical (non-clinical)				
6	training	867.5	643.5	722.5	744.5
	n° of hours of Core Clinical Training				
7	(CCT)	1056	942	847	948.333333
	n° of hours of VPH (including FSQ)				
8	training	305	264	293	287.333333
	n° of hours of extra-mural practical training	<b></b>		4.4	21.1
9	in VPH (including FSQ)	52.5	0	41	31.1666667
10	n° of companion animal patients seen intra-	(570	4014	5077	5707 ((((7
10	murally	6572	4814	5977	5787.66667
11	n° of individual ruminant and pig patients	288	283	178	249.666667
	seen intra-murally				
12	n° of equine patients seen intra-murally	1142	743	285	723.333333
13	n° of rabbit, rodent, bird and exotic patients seen intra-murally	75	261	277	204.3
13	n° of companion animal patients seen	13	201	211	204.3
14	extra-murally	0	0	0	0.0
	n° of individual ruminants and pig patients	<u> </u>	U	U	0.0
15	seen extra-murally	3038	4479	5469	4328.7
16	n° of equine patients seen extra-murally	91	138	124	117.7
	n° of rabbit, rodent, bird and exotic patients	<del>-</del>	-20	- <del>-</del>	
17	seen extra-murally	51	0	0	17.0
18	n° of visits to ruminant and pig herds	129	112	102	114.3
	n° of visits to poultry and farmed rabbit				
19	units	30	18	18	22.0
20	n° of companion animal necropsies	129	103	161	131.0
21	n° of ruminant and pig necropsies	444	298	102	281.3
22	n° of equine necropsies	87	47	13	49.0
•	n° of rabbit, rodent, bird and exotic pet		-		
23	necropsies	159	92	95	115.3
	n° of FTE specialised veterinarians				
24	involved in veterinary training	35	33	35	34.3
25	n° of PhD graduating annually	22	20	20	20.7

Name	Norwegian University of Life Sciences Faculty of Veterinary Medicine, Ås, Norway						
Nam	Name & mail of the Head: Anne Storset; anne.storset@nmbu.no						
Date	Date of the form filling: 23.07.23						
	Calculated Indicators fro	m raw data	VEE values	Median values <sup>1</sup>	Minimal values <sup>2</sup>	Balance <sup>3</sup>	
I1	n° of FTE teaching s veterinary training / n° students		0.317	0.15	0.13	0.191	
12	n° of FTE veterinaria veterinary training / n° of s annually		1.717	0.84	0.63	1.087	
13	n° of FTE support s veterinary training / n° of s annually	taff involved in students graduating	2.120	0.88	0.54	1.580	
<b>I</b> 4	n° of hours of practi training	cal (non-clinical)	744.500	953.50	700.59	43.910	
<b>I5</b>	n° of hours of Core Clinica	al Training (CCT)	948.333	941.58	704.80	243.533	
<b>I6</b>	n° of hours of VPH (include	ling FSQ) training	287.333	293.50	191.80	95.533	
I7	n° of hours of extra-mura in VPH (including FSQ)	l practical training	31.167	75.00	31.80	-0.633	
18	n° of companion animal properties and extra-murally graduating annually	patients seen intra- y / n° of students	85.955	67.37	44.01	41.945	
19	n° of individual ruminant seen intra-murally and ex students graduating annual	tra-murally / n° of	67.995	18.75	9.74	58.255	
I10	n° of equine patients seen extra-murally / n° of st annually	intra-murally and	12.490	5.96	2.15	10.340	
I11	n° of rabbit, rodent, bird intra-murally and extra students graduating annual	-murally/ n° of	3.287	3.11	1.16	2.127	
I12	n° of visits to ruminant an students graduating annual	d pig herds / n° of	1.698	1.29	0.54	1.158	
I13	n° of visits of poultry and / n° of students graduating	annually	0.327	0.11	0.04	0.282	
I14	n° of companion animal students graduating annual	ly	1.946	2.11	1.40	0.546	
I15	n° of ruminant and pig students graduating annual	-	4.178	1.36	0.90	3.278	

	n° of equine necropsies / n° of students	0.728	0.18	0.10	0.628	
<b>I16</b>	graduating annually					
	n° of rabbit, rodent, bird and exotic pet	1.713	2.65	0.88	0.833	
	necropsies / n° of students graduating					
I17	annually					
	n° of FTE specialised veterinarians involved	0.510	0.27	0.06	0.450	
	in veterinary training / n° of students					
<b>I18</b>	graduating annually					
	n° of PhD graduating annually / n° of	0.307	0.15	0.07	0.237	
I19	students graduating annually					
1	Median values defined by data from VEEs with	n Accredita	ation/Appro	oval status in	n May 2019	
2	Recommended minimal values calculated as	the 20th p	percentile o	of data from	VEEs with	
	Accreditation/Approval status in May 2019					
3	A negative balance indicates that the Indicator is below the recommended minimal value					
*	Indicators used only for statistical purpose					

The indicators for the VEE are in the positive balance range, except I7 (n° of hours of extramural practical training in VPH (including FSQ). Due to the restrictions imposed by Corona virus epidemic, in Year-2 (2020/2021), the record of practical training indicated zero hours which led to a negative I7 (-0.633). To compensate this, collection of carcasses and organs were provided for practical training at Campus Sandnes. Furthermore, the course was repeated for the students in the year (2021/2022), as provided in Appendix 10, COVID-19 Addendum.

Further, the practical activities of VPH including FSQ which take place at five slaughterhouses, all of which are also foodstuff processing units (for pigs, cattle, sheep/goats and pigs and poultry) ensures that the students can perform a very diverse activity in VPH & FSQ.

Although the raw data for the  $n^{\circ}$  of companion animal patients seen extra-murally is 0 for all years, there is a very strong compensation in the numbers of animals seen intra-murally, this leading to a high positive balance of I8 ( $n^{\circ}$  of companion animal patients seen intra-murally and extra-murally /  $n^{\circ}$  of students graduating annually = 41.945).

Under I13, only poultry units are targeted, rabbit farming being unavailable in Norway.

Rabbits are examined as single patients under I11 (n° of rabbit, rodent, bird and exotic seen intra-murally and extra-murally/ n° of students graduating annually). Although the rabbits or exotic pet clinical cases are few, the indicator stays in the positive range.

**12. ESEVT Rubrics** (summary of the decision on the compliance of the VEE for each ESEVT Standard, i.e. (total or substantial) compliance (C), partial compliance (PC) (Minor Deficiency) or non-compliance (NC) (Major Deficiency))

	C	PC	NC
Area 1. Objectives, Organisation and QA Policy			
Standard 1.1: The VEE must have as its main objective the provision, in agreement with the EU Directives and ESG			
recommendations, of adequate, ethical, research-based, evidence-based veterinary training that enables the new			
graduate to perform as a veterinarian capable of entering all commonly recognised branches of the veterinary			
profession and to be aware of the importance of lifelong learning.	X		
The VEE must develop and follow its mission statement which must embrace all the ESEVT Standards.			
Standard 1.2: The VEE must be part of a university or a higher education institution providing training recognised as			
being of an equivalent level and formally recognised as such in the respective country.			
The person responsible for the veterinary curriculum and the person(s) responsible for the professional, ethical, and			
academic affairs of the Veterinary Teaching Hospital (VTH) must hold a veterinary degree.	X		
The decision-making process, organisation and management of the VEE must allow implementation of its strategic			
plan and of a cohesive study programme, in compliance with the ESEVT Standards.			
Standard 1.3: The VEE must have a strategic plan, which includes a SWOT analysis of its current activities, a list of			
objectives, and an operating plan with a timeframe and indicators for its implementation.	X		
Standard 1.4: The VEE must have a policy and associated written procedures for the assurance of the quality and			
Standards of its programmes and awards. It must also commit itself explicitly to the development of a culture which			
recognises the importance of quality, and quality assurance, within their VEE. To achieve this, the VEE must			
develop and implement a strategy for the continuous enhancement of quality. The development and implementation	X		
of the VEE's strategy must include a role for students and other stakeholders, both internal and external, and the			
strategy must have a formal status and be publicly available.			
Standard 1.5: The VEE must provide evidence that it interacts with its stakeholders and the wider society. Such public			
information must be clear, objective and readily accessible; the information must include up-to-date information			
about the study programme, views and employment destinations of past students as well as the profile of the current	X		
student population.			
The VEE's website must mention the ESEVT VEE's status and its last Self Evaluation Report and Visitation Report			
must be easily available for the public.			
Standard 1.6: The VEE must monitor and periodically review its activities, both quantitative and qualitative, to ensure			
that they achieve the objectives set for them and respond to the needs of students and society. The VEE must make			
public how this analysis of information has been utilised in the further development of its activities and provide			
evidence as to the involvement of both students and staff in the provision, analysis and implementation of such	X		
data.			
Any action planned or taken as a result of this data analysis must be communicated to all those concerned.			
Standard 1.7: The VEE must undergo external review through the ESEVT on a cyclical basis. Evidence must be			
provided of such external evaluation with the assurance that the progress made since the last ESEVT evaluation	X		
was linked to a continuous quality assurance process.			
Area 2. Finances			
Standard 2.1: Finances must be demonstrably adequate to sustain the requirements for the VEE to meet its mission and			
to achieve its objectives for education, research and services. The description must include both expenditures			
(separated into personnel costs, operating costs, maintenance costs and equipment) and revenues (separated into	X		
public funding, tuition fees, services, research grants and other sources).			
Standard 2.2: Clinical and field services must function as instructional resources. Instructional integrity of these			
resources must take priority over financial self-sufficiency of clinical services operations.	X		
The VEE must have sufficient autonomy in order to use the resources to implement its strategic plan and to meet the			
ESEVT Standards.			
Standard 2.3: Resources allocation must be regularly reviewed to ensure that available resources meet the requirements.			
	X		
Area 3. Curriculum			
Standard 3.1: The curriculum must be designed, resourced and managed to ensure all graduates have achieved the			
graduate attributes expected to be fully compliant with the EU Directive 2005/36/EC (as amended by directive			
2013/55/EU) and its Annex V.4.1. The curriculum must include the subjects (input) and must allow the acquisition			
of the Day One Competences (output) listed in Annex 2. This concerns Basic Sciences, Clinical Sciences in	X		
companion animals (including equine and exotic pets), Clinical Sciences in food-producing animals (including			
Animal Production and Herd Health Management), Food Safety and Quality, and Professional Knowledge.			
5 // man and an extra an extra and an extra an extra and an extra an extra and an extra an extra and an extra and an extra and an extra and an extra an extra and an extra and an extra and an extra an extra an extra and an extra	1		

3.1.1. General findings			
3.1.2. Basic sciences	X		
3.1.3. Clinical Sciences in companion animals (including equine and exotic pets)	X		
3.1.4. Clinical Sciences in food-producing animals (including Animal Production and Herd Health Management)	X		
3.1.5. Food Safety and Quality	X		
3.1.6. Professional Knowledge	X		
Standard 3.2: Each study programme provided by the VEE must be competency-based and designed so that it meets the objectives set for it, including the intended learning outcomes. The qualification resulting from a programme must be clearly specified and communicated and must refer to the correct level of the national qualifications framework for higher education and, consequently, to the Framework for Qualifications of the European Higher Education Area.  The VEE must provide proof of a QA system that promotes and monitors the presence of an academic environment highly conducive to learning including self-learning. Details of the type, provision and updating of appropriate learning opportunities for the students must be clearly described, as well as the involvement of students.  The VEE must also describe how it encourages and prepares students for self-learning and lifelong learning.	X		
Standard 3.3: Programme learning outcomes must:  • ensure the effective alignment of all content, teaching, learning and assessment activities of the degree programme to form a cohesive framework  • include a description of Day One Competences  • form the basis for explicit statements of the objectives and learning outcomes of individual units of study  • be communicated to staff and students  • be regularly reviewed, managed and updated to ensure they remain relevant, adequate and are effectively achieved.	X		
Standard 3.4: The VEE must have a formally constituted committee structure (which includes effective student representation), with clear and empowered reporting lines, to oversee and manage the curriculum and its delivery. The committee(s) must:  • determine the pedagogical basis, design, delivery methods and assessment methods of the curriculum  • oversee QA of the curriculum, particularly gathering, evaluating, making change and responding to feedback from stakeholders, peer reviewers and external assessors, and data from examination/assessment outcomes  • perform ongoing and periodic review of the curriculum at least every seven years by involving staff, students and stakeholders; these reviews must lead to continuous improvement. Any action taken or planned as a result of such a review must be communicated to all those concerned  • identify and meet training needs for all types of staff, maintaining and enhancing their competence for the ongoing curriculum development.	X		
Standard 3.5: External Practical Training (EPT) is compulsory training activities organised outside the VEE, the student being under the direct supervision of a non-academic person (e.g. a practitioner). EPT cannot replace the core intramural training nor the extramural training under the close supervision of academic staff (e.g. ambulatory clinics, herd health management, practical training in FSQ and VPH).  Since the veterinary degree is a professional qualification with Day One Competences, EPT must complement and strengthen the academic education inter alia by enhancing student's professional knowledge.	X		
Standard 3.6: The EPT providers must have an agreement with the VEE and the student (in order to state their respective rights and duties, including insurance matters), provide a standardised evaluation of the performance of the student during their EPT and be allowed to provide feedback to the VEE on the EPT programme.  There must be a member of the academic staff responsible for the overall supervision of the EPT, including liaison with EPT providers.	X		
Standard 3.7: Students must take responsibility for their own learning during EPT. This includes preparing properly before each placement, keeping a proper record of their experience during EPT by using a logbook provided by the VEE and evaluating the EPT. Students must be allowed to complain officially and/or anonymously about issues occurring during EPT. The VEE must have a system of QA to monitor the implementation, progress and then feedback within the EPT activities.		х	
Area 4. Facilities and equipment  Standard 4.1: All aspects of the physical facilities must provide an environment conducive to learning, including internet access. The veterinary VEE must have a clear strategy and programme for maintaining and upgrading its buildings and equipment. Facilities must comply with all relevant legislation including health, safety, biosecurity,	X		

accessibility to manula with and you makility, and TII animal and the area of a manufactured		
accessibility to people with reduced mobility, and EU animal welfare and care standards.  Standard 4.2: Lacture theatres, teaching laboratories, tutorial rooms, clinical facilities and other teaching spaces must be	+	
Standard 4.2: Lecture theatres, teaching laboratories, tutorial rooms, clinical facilities and other teaching spaces must be adequate in number, size and equipped for the instructional purposes and must be well maintained. The facilities		
must be adapted for the number of students enrolled. Students must have ready access to adequate and sufficient		
study, self-learning, recreation, locker, sanitary and food service facilities.	X	
Offices, teaching preparation and research laboratories must be sufficient for the needs of the academic and support	Λ	
staff.		
	+ +	
Standard 4.3: The livestock facilities, animal housing, core clinical teaching facilities and equipment used by the VEE		
for teaching purposes must:		
• be sufficient in capacity and adapted for the number of students enrolled in order to allow safe hands-on		
training for all students	37	
• be of a high standard, well maintained and fit for the purpose	X	
promote best husbandry, welfare and management practices		
ensure relevant biosecurity and bio-containment		
be designed to enhance learning.    1	+-+	
Standard 4.4: Core clinical teaching facilities must be provided in a veterinary teaching hospital (VTH) with 24/7		
emergency services at least for companion animals and equines. Within the VTH, the VEE must unequivocally		
demonstrate that standard of education and clinical research are compliant with all ESEVT Standards, e.g. research-		
based and evidence-based clinical training supervised by academic staff trained to teach and to assess, availability		
for staff and students of facilities and patients for performing clinical research and relevant QA procedures.		
For ruminants, on-call service must be available if emergency services do not exist for those species in a VTH.		
The VEE must ensure state-of-the-art standards of teaching clinics which remain comparable with or exceeding the	X	
best available in the private sector.		
The VTH and any hospitals, practices and facilities (including EPT) which are involved with the curriculum must		
meet the relevant national Practice Standards.		
$Standard\ 4.5:\ The\ VEE\ must\ ensure\ that\ students\ have\ access\ to\ a\ broad\ range\ of\ diagnostic\ and\ the rapeutic\ facilities,$		
including but not limited to: diagnostic imaging, anaesthesia, clinical pathology, intensive/critical care, surgeries	X	
and treatment facilities, ambulatory services, pharmacy and necropsy facilities.		
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	X	
Standard 4.6: Appropriate isolation facilities must be provided to meet the need for the isolation and containment of	X	
Standard 4.6: Appropriate isolation facilities must be provided to meet the need for the isolation and containment of animals with communicable diseases. Such isolation facilities must be properly constructed, ventilated, maintained	X	
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the learning resources must be available in all used languages. Timely access to learning resources, whether through print, electronic media or other means, must be available to students and staff and, when appropriate, to stakeholders. State-of-the-art procedures for bibliographical search and for access to databases and learning resources must be taught to undergraduate students.	X	
Standard 6.2: Staff and students must have full access on site to an academic library administered by a qualified librarian, an Information Technology (IT) unit managed by an IT expert, an e-learning platform, and all the relevant human and physical resources necessary for the development of instructional materials by the staff and their use by the students.  The relevant electronic information, database and other intranet resources must be easily available for students and staff both in the VEE's core facilities via wireless connection (Wi-Fi) and from outside the VEE through a hosted	X	
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secured connection, e.g. Virtual Private Network (VPN).		
Standard 6.3: The VEE must provide students with unimpeded access to learning resources, internet and internal study		
resources, and equipment for the development of procedural skills (e.g. models). The use of these resources must be		
aligned with the pedagogical environment and learning outcomes within the programme and have mechanisms in	X	
place to evaluate the teaching value of changes in learning resources.		
Area 7. Student admission, progression and welfare		
Standard 7.1: The VEE must consistently apply pre-defined and published regulations covering all phases of the student		
"life cycle", e.g. student admission, progression and certification.		
In relation to enrolment, the VEE must provide accurate and complete information regarding all aspects of the	X	
educational programme in all advertisings for prospective national and international students.		
Formal cooperations with other VEEs must also be clearly advertised.		
Standard 7.2: The number of students admitted must be consistent with the resources available at the VEE for staff,	X	
buildings, equipment, healthy and diseased animals, and materials of animal origin.		
Standard 7.3: The selection and progression criteria must be clearly defined, consistent, and defensible, be free of		
discrimination or bias, and take into account the fact that students are admitted with a view to their entry to the		
veterinary profession in due course.		
The VEE must regularly review and reflect on the selection processes to ensure they are appropriate for students to	X	
complete the programme successfully. If the selection processes are decided by another authority, the latter must		
regularly receive feedback from the VEE.		
Adequate training (including periodic refresher training) must be provided for those involved in the selection		
process to ensure applicants are evaluated fairly and consistently.		
Standard 7.4: There must be clear policies and procedures on how applicants with disabilities or illnesses are considered		
and, if appropriate, accommodated in the programme, taking into account the requirement that all students must be	X	
capable of meeting the ESEVT Day One Competences by the time they graduate.	71	
Standard 7.5: The basis for decisions on progression (including academic progression and professional fitness to		
practise) must be explicit and readily available to the students. The VEE must provide evidence that it has		
mechanisms in place to identify and provide remediation and appropriate support (including termination) for		
students who are not performing adequately.	X	
The VEE must have mechanisms in place to monitor attrition and progression and be able to respond and amend		
admission selection criteria (if permitted by national or university law) and student support if required.		
Standard 7.6: Mechanisms for the exclusion of students from the programme for any reason must be explicit.		
The VEE's policies for managing appeals against decisions, including admissions, academic and progression	X	
decisions and exclusion, must be transparent and publicly available.		
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Standard 7.7: Provisions must be made by the VEE to support the physical, emotional and welfare needs of students.		
This includes, but is not limited to, learning support and counselling services, career advice, and fair and		
transparent mechanisms for dealing with student illness, impairment and disability during the programme. This		
shall include provision of reasonable adjustments for disabled students, consistent with all relevant equality and/or	X	
human rights legislation.		
There must be effective mechanisms for resolution of student grievances (e.g. interpersonal conflict or harassment).		
Standard 7.8: Mechanisms must be in place by which students can convey their needs and wants to the VEE. The VEE		
must provide students with a mechanism, anonymously if they wish, to offer suggestions, comments and	X	
complaints regarding compliance of the VEE with national and international legislation and the ESEVT Standards.	^	
Area 8. Student assessment		
Standard 8.1: The VEE must ensure that there is a clearly identified structure within the VEE showing lines of		
responsibility for the assessment strategy to ensure coherence of the overall assessment regime and to allow the	X	
demonstration of progressive development across the programme towards entry-level competence.		
Standard 8.2: The assessment tasks and grading criteria for each unit of study in the programme must be published,		
applied consistently, clearly identified and available to students in a timely manner well in advance of the		
assessment. Requirements to pass must be explicit.	X	
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The VEE must properly document the results of assessment and provide the students with timely feedback on their			
assessments.			
Mechanisms for students to appeal against assessment outcomes must be explicit.			
Standard 8.3: The VEE must have a process in place to review assessment outcomes, to change assessment strategies			
and to ensure the accuracy of the procedures when required. Programme learning outcomes covering the full range	X		
of professional knowledge, skills, competences and attributes must form the basis for assessment design and	21		
underpin decisions on progression.			
Standard 8.4: Assessment strategies must allow the VEE to certify student achievement of learning objectives at the			
level of the programme and individual units of study.			
The VEE must ensure that the programmes are delivered in a way that encourages students to take an active role in	X		
creating the learning process, and that the assessment of students reflects this approach.			
Standard 8.5: Methods of formative and summative assessment must be valid and reliable and comprise a variety of			
approaches. Direct assessment of clinical skills and Day One Competences (some of which may be on simulated			
patients), must form a significant component of the overall process of assessment. It must also include the quality		X	
control of the student logbooks in order to ensure that all clinical procedures, practical and hands-on training			
planned in the study programme have been fully completed by each individual student.			
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Area 9. Academic and support staff			
Standard 9.1: The VEE must ensure that all staff are appropriately qualified and prepared for their roles, in agreement			
with national and EU regulations and must apply fair and transparent processes for the recruitment and			
development of staff.			
A formal training (including good teaching and evaluation practices, learning and e-learning resources, biosecurity	X		
and QA procedures) must be in place for all staff involved with teaching.			
Most academic staff (calculated as FTE) involved in veterinary training must be veterinarians. It is expected that			
more than 2/3 of the instruction that the students receive, as determined by student teaching hours, is delivered by			
qualified veterinarians.			
Standard 9.2: The total number, qualifications and skills of all staff involved with the programme, including teaching			
staff, 'adjunct' staff, technical, administrative and support staff, must be sufficient and appropriate to deliver the	17		
educational programme and fulfil the VEE's mission.	X		
A procedure must be in place to assess if they display competence and effective teaching skills in all relevant			
aspects of the curriculum that they teach, regardless of whether they are full or part time, residents, interns or other			
postgraduate students, adjuncts or off-campus contracted teachers.			
Standard 9.3: Staff must be given opportunities to develop and extend their teaching and assessment knowledge and			
must be encouraged to improve their skills. Opportunities for didactic and pedagogic training and specialisation			
must be available. The VEE must clearly define systems of reward for teaching excellence in operation.			
Academic positions must offer the security and benefits necessary to maintain stability, continuity, and competence			
of the academic staff. Academic staff must have a balanced workload of teaching, research and service depending	X		
on their role. They must have reasonable opportunities and resources for participation in scholarly activities.			
Standard 9.4: The VEE must provide evidence that it utilises a well-defined, comprehensive and publicised programme			
for the professional growth and development of academic and support staff, including formal appraisal and			
informal mentoring procedures.			
Staff must have the opportunity to contribute to the VEE's direction and decision-making processes.			
Promotion criteria for academic and support staff must be clear and explicit. Promotions for teaching staff must	X		
recognise excellence in, and (if permitted by the national or university law) place equal emphasis on all aspects of			
teaching (including clinical teaching), research, service and other scholarly activities.			
Standard 9.5: A system for assessment of teaching staff must be in operation and must include student participation.			
Results must be available to those undertaking external reviews and commented upon in reports.	X		
Area 10. Research programmes, continuing and postgraduate education			
Standard 10.1: The VEE must demonstrate significant and broad research activities of staff that integrate with and	X		
strengthen the veterinary degree programme through research-based teaching.	11		
Standard 10.2: All students must be trained in scientific method and research techniques relevant to evidence-based	37		
veterinary medicine and must have opportunities to participate in research programmes.	X		
Standard 10.3: The VEE must provide advanced postgraduate degree programmes, e.g. PhD, internships, residencies			
and continuing education programmes that complement and strengthen the veterinary degree programme and are	X		
relevant to the needs of the profession and society.	<u> </u>		
Standard 10.4: The VEE must have a system of QA to evaluate how research activities provide opportunities for student			
training and staff promotion, and how research approaches, methods and results are integrated into the veterinary	X		
teaching programmes.			
		1	
C: (total or substantial) compliance; PC: partial compliance (Minor Deficiency); NC: non-compliance (Major I	Deficie	ency)	

## **Executive Summary**

## **Brief history of the VEE and its previous EAEVE Visitations**

The Faculty of Veterinary Medicine, Norwegian University of Life Sciences (NMBU-VET) was founded in 1935, and merged in 2014 with the Norwegian university of Life Sciences, as its seventh faculty. The relocation to the campus in Ås, took place in 2021. The VEE also holds for teaching purposes a section located 600 km from Oslo, on the SW coast of Norway, in Sandnes, Rogaland County, an area with intensive farming. The VEE offers two degrees, one in Veterinary Medicine (90 students per year) and another in Veterinary Nursing (30 students per year), while also offering postgraduate training: PhD, residency and intern programs and also courses for continuing education.

The VEE had been evaluated by EAEVE for the first time in 1994 and then next in 2004 in both visitations the VEE being granted the status of "approval". In the subsequent visit of 2014, the VEE was accredited.

The annual uptake of veterinary students increased from 70 to 90 along with the starting of a new curriculum in 2021.

The Self Evaluation Report (SER), including appendices, was provided on time.

## **Brief comment on the SER**

The SER was provided on time to the Visitation Team along with extended Appendices. The description of some of the Areas and Standards needed clarifications and/or raised questions; answers to those were provided by the VEE on time, ahead of the visitation. Further information and corrections were willingly provided on site, during the visitation.

#### **Brief comment on the Visitation**

The Visitation was very well prepared, well organised and carried out in a cordial and professional atmosphere. The Liaison Officer was very efficient, diligent and always helpful. The programme of the visitation was designed in advance, in constant agreement with the Chairperson and the Coordinator, some changes being made due to the state provisions concerning the biosecurity measures connected to ASF and easily implemented.

The visitors were given all courtesy and assistance needed, had full access to all the information, facilities and individuals they asked for, in a very transparent manner.

## Areas worthy of praise (i.e. Commendations):

- The VEE has a commitment and an established QA culture and continuous quality enhancement based on systematic reporting, discussions, and collaboration.
- The VEE has a clear mapping of DOCs and units of study and each one of the DOCs listed in Annex 2 of the SOP 2019 is trained in many courses.
- The farm owned by the VEE is an important tool for the education in Food Animal Production, from semester 1 to the last of the curriculum.
- It is commendable that the VEE has identified teaching Professional knowledge as a very important part of the curriculum.
- The VET building stands as a paragon of modern architectural achievement, showcasing functional excellence in its design. Its state-of-the-art facilities exemplify a commitment to efficiency and innovation. This facility is a credit to all involved in its creation.
- VTHs have state-of-the-art diagnostic, treatment, surgical, and medical equipment for

advanced veterinary care of all animal species.

- The Campus Sandnes provides an excellent facility for practical training.
- Qualification, recruitment, development, and motivation of academic and support staff are commendable.
- The presence of a high number of Diplomates and Ph.D. students significantly enhances educational opportunities, underscoring excellence in all areas of veterinary medicine.
- Highly funded research projects in Aquatic animals significantly strengthen the financial support provided to the VEE, affirming a commitment to knowledge in this critical field.

The VEE is compliant with most ESEVT Standards. However, some areas of concern have been identified.

## Areas of concern (i.e. Minor Deficiencies):

- Partial compliance with Standard 3.7., due to suboptimal recording and quality control of EPT:
- Partial compliance with Standard 8.5., because of suboptimal formal monitoring of individual performance and quality control of the logbooks.

**Items of non-compliance with the ESEVT Standards:** None.

## **Glossary**

EAEVE: European Association of Establishments for Veterinary Education

EBVS: European Board of Veterinary Specialisation ECOVE: European Committee of Veterinary Education

ENQA: European Network for Quality Assurance in Higher Education

**EPT: External Practical Training** 

ESEVT: European System of Evaluation of Veterinary Training ESG: Standards and Guidelines

for Quality Assurance in the European Higher Education Area

FSQ: Food Safety and Quality FTE: Full-Time Equivalent

FVE: Federation of Veterinarians of Europe

IT: Information Technology QA: Quality Assurance SER: Self Evaluation Report

SOP: Standard Operating Procedure

SWOT: Strengths, Weaknesses, Opportunities, Threats

VPH: Veterinary Public Health VTH: Veterinary Teaching Hospital

## **Decision of ECOVE**

The Committee concluded that no Major Deficiencies had been identified.

The Veterinary Education Establishment (VEE) of the Norwegian University of Life Sciences is therefore classified as holding the status of: **ACCREDITATION**.