Faculty of Veterinary Medicine
Ghent University

Self-Evaluation Report
EAEVE visitation 2023

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Introduction

The Faculty of Veterinary Medicine (FVMG) at Ghent University has prepared the accreditation of the European Association of Establishments for Veterinary Education (EAEVE) in March 2023. The present document serves the purpose of self-reflection and defines how quality is understood, describing the quality assurance (QA) and quality management (QM) system employed and its compliance with statutory and EAEVE requirements. Each area to be examined is described following the criteria set by the European System of Evaluation of Veterinary Training Standard Operating Procedure (ESEVT SOP of 2019, amended in September 2021).

Brief history of the Veterinary Education Establishment (VEE) and of its previous ESEVT Visitations

Ghent University was founded in 1817 by king Willem I of Oranje and started with 16 professors and 190 students divided into 4 faculties (Law, Literature, Human Medicine, and Sciences). The "School of Veterinary Medicine" was founded in 1933 in the city centre of Ghent as part of the Faculty of Medicine and it became an independent faculty in 1968. In the late 60's the decision was made to build a new campus. However, it took until 1996 to move from the city centre of Ghent to Merelbeke.

The FVMG is the only faculty in the region of Flanders (the Flemish speaking region of Belgium) which hands out the degree of "Master in Veterinary Medicine". The degree "Bachelor in Veterinary Medicine" can be obtained either at Ghent University or at the University of Antwerp, 50 km east of Ghent. The FVMG was successfully evaluated by EAEVE in 2004 and 2013 without major deficiencies. Minor deficiencies of the educational programme and organization model of the faculty have been adjusted.

Main features of the VEE

The FVMG focuses on health and welfare of animals, people, and the ecosystem. We aim to provide a stimulating and collegial environment for our students and staff. We maintain a high standard of research which resulted in the first position on the Global Shanghai Ranking of Veterinary Medicine for 6 years in a row.

Summary of the main developments since the last Visitation

Major organizational changes

- Reduction of the number of departments from 12 to 7; further reorganization of the departments to optimize functioning and visibility is part of the FVMG strategic plan.
- New boards and committees:
    - Faculty Management Board
    - Externship Committee
    - Sustainability Committee
    - Committee Alumni and Communication
- New software application, called VESTA, for managing externships of students
- New software application, called SATYR, for registration of students' activities
- Strong expansion of the activities of the skills lab and strong incorporation into the curriculum
- Rebranding of the institute of continuous education to the Academy of Veterinary Medicine as part of a bigger institute called 'Nova Academy' of Ghent University
- New staff member for internationalization.

New buildings and major items of equipment

- New, larger facilities for the skills lab together with an increase in the number of educational tools
- New restaurant for staff and students, also serving as a study and meeting place for students from 7am till 9pm
- Extra investment in the small animal dispensary 'Foundation Prince Laurent' (see 4.3 and 5.1) for people with a low income, providing additional opportunities for students to practice first line veterinary medicine
- Investment in the pig farm of the Flemish Research Institute for Agriculture, Fishery and Food (IAFF - see 5.2) for hands-on training of students
- Involvement in the small animal shelter of the city of Ghent for hands-on training of students (neutering of cats)
- Installation of a new modern milking robot at the teaching farm, Bio-Centrum Agrivet, of the FVMG
- New equipment for medical imaging (computed tomography (CT) and magnetic resonance imaging (MRI))
- New equipment for small animal orthopaedics and physiotherapy, equine cardiology, equine dental surgery, and objective equine gait analysis (lameness locator)
- New Device for hoof management in cattle.

Main changes to the academic programme

- Reform of the curriculum in 2016 and 2020
- Setup of a permanent entrance examination for studies in veterinary medicine in Flanders by the Flemish government: start academic year '23 - '24
- Adapted methods of teaching such as blended learning

Major problems encountered by the Establishment (whether resolved or not)

The ongoing needs for renovation of infrastructure including the laboratory building D1, small animals (section hospitalization, planned for 2024), experimental animal units on campus 'Merelbeke', building on campus 'Heide', large animal clinic, …
The new financial model of Ghent University does not take the specific situation of the FVMG into account (expensive education with high staff requirements) and the Ghent University's financial prognoses (balance up to 2027) predicting more cuts in expenditure are a major concern.

Version and date of the ESEVT SOP which is valid for the Visitation

The Self Evaluation Report follows the requirements set out in the ESEVT Standards for Accreditation (ESEVT SOP 2019, amended in September 2021).

Area 1. Objectives, Organization 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 recognized 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.

Mission statement and objectives

The main mission of the FVMG is to train European recognized veterinarians according to the EU Directives, the European Standards and Guidelines (ESG) recommendations and ESEVT

Standards. The trained veterinarians have all the scientific, intellectual, practical, and professional skills to perform and act in veterinary practice, commercial business, and society, all of which is supported by the high clinical and scientific expertise provided by the FVMG.

Main principles to ensure new graduates perform as a veterinarian capable of entering the veterinarian profession

The FVMG is a stimulating and facilitating environment for the education and support of veterinarians to carry out their complex tasks within society. We aim to achieve our mission by focusing on the principles below:

1. The FVMG is committed to guarantee optimal theoretical and practical training of veterinarians as described and required by the EAEVE and the ESVT standards.
2. The Veterinary Teaching Hospital (VTH) provides a clinical education that meets all international standards and requirements regarding expertise and infrastructure.
3. Training and education guarantee a widely recognized and international certificate while allowing differentiation in the veterinary profession at the same time.
4. The FVMG engages itself to stimulate high standing fundamental and applied research in veterinary medicine and comparative domains where all aspects of research are incorporated and embedded in the educational programme and where students are involved.
5. The FVMG provides a broad, accessible, and high-quality teaching programme for lifelong learning. In these courses, we offer all aspects of veterinary medicine and related subjects for veterinarians to keep improving their skills and knowledge.
6. The FVMG wants to offer a stimulating environment for all staff members, students, and alumni. We want to deliver socially engaged veterinarians with analytical and critical minds and promote innovation and entrepreneurship.
7. The FVMG offers opportunities and stimulates international experiences for staff and students.
8. The FVMG adapts the curriculum and educational process according to the needs of the profession, the professional domain and stakeholders and the evolution within society in consultation with the alumni, the professional domain, and other stakeholders.
9. The FVMG prepares veterinarians scientifically and socially to perform their tasks within society. The faculty actively participates in socially relevant debates, working groups and all other fora to obtain a broad and scientifically well-founded basis regarding animal health, animal welfare, food safety and medical ethics.

Standard 1.2: The VEE must be part of a university or a higher education institution providing training recognized as being of an equivalent level and formally recognized 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 VTH must hold a veterinary degree. The decision-making process, organization and management of the VEE must allow implementation of its strategic plan and of a cohesive study programme, in compliance with the ESEVT Standards. Organizational and structural details of the establishment.

Details of the VEE

The FVMG is part of Ghent University, headed by the Rector, Prof. Dr. Rik Van de Walle.
Ghent University is overseen by the Flemish Ministry of Education and Training headed by the Deputy Minister-President of the Flemish Government and Flemish Minister of Education, Sports, Animal Welfare and Flemish Border, Minister Ben Weyts.

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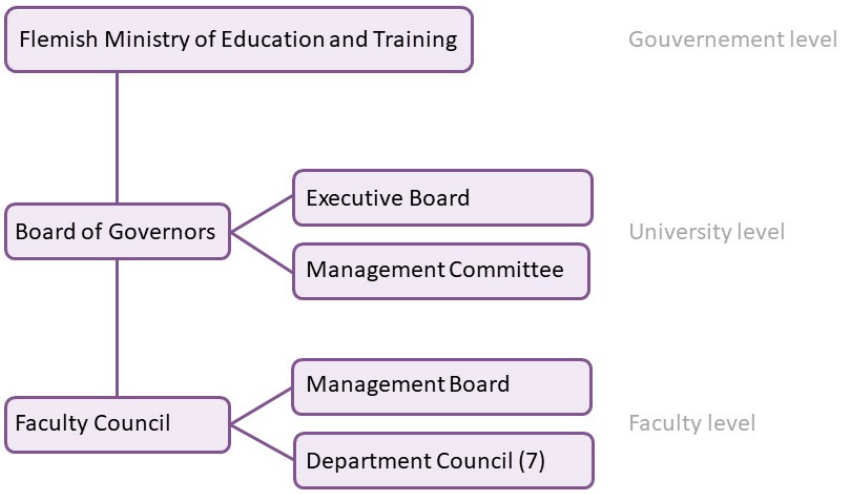
E-Mail	E-mail Dean's office
VEE's Head	Prof. Dr. Ann Martens (Dean)

Organizational chart and description of the decision-making process

All 6 universities in Flanders must act under the supervision of the Flemish Ministry of Education and Training where rules, guidelines and finances are regulated. Ghent University has 11 faculties, including the FVMG, supported by 9 administrative departments. The decision-making process at Ghent University is structured at diverse levels.



The central management of Ghent University consists of the Rector, Vice-Rector and 2 administrators (academic and logistic). Together they form the Management Committee. The central governing bodies are the Board of Governors and the Executive Board. They are advised by various central advisory bodies.

The Board of Governors is the highest governing body and, as such, has full management authority. The Board of Governors determines the academic and administrative organization of the university and is empowered to determine the mission and vision of the university, to approve the strategic plan, to define the budget, financial statements, and annual reports, and to determine the organizational regulations.

The Executive Board is, in its turn, authorized for all tasks delegated by the Board of Governors. The Board of Governors meets every month. In preparation of these meetings, relevant subjects are discussed with the management team (Rector, Vice-Rector, the 2 administrators), the 11 faculty Deans and the 9 directors of the administrative departments.

Each faculty has a Faculty Management Board. For the FVMG it consists of the Dean, the academic secretary, the director of studies, the director of research and the representative of the faculty at the Board of Governors. They meet every 2 weeks and oversee different matters related to the functioning and structure of the FVMG and prepare the agenda of the monthly Faculty Council.

The Faculty Council is chaired by the Dean and is composed of the 7 departmental heads, a delegation of professors, the members of the Faculty Management Board and a delegation of

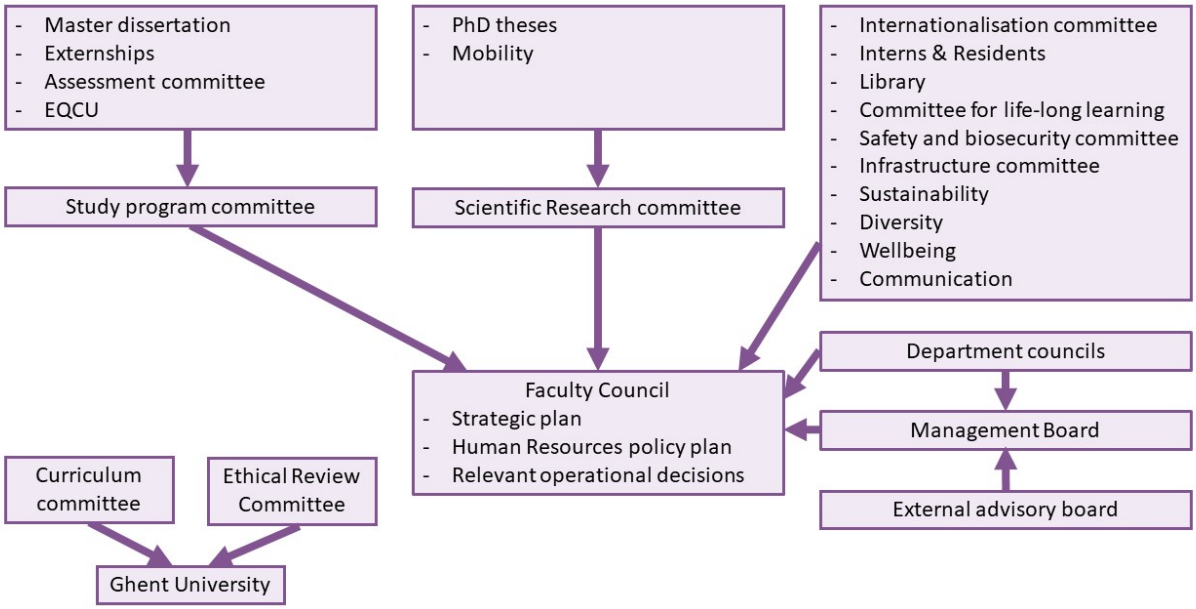
assistant academic staff, administrative and technical staff, and students. The council is responsible for the organization and coordination of teaching and research in the various disciplines within the faculty.
The Dean is elected every 4 years followed by a round of selections for the representatives of the professors and administrative and technical staff in the Faculty Council. The representatives of the assistant academic staff and students in the Faculty Council are elected every 2 years.

List of departments/units/clinics with a description of their composition and management
The FVMG has 7 departments which consist of different research units and clinics: (each with its own head of department)

Nr.	Department	Head
DI04	Department of Translational Physiology, Infectiology and Public Health	Prof. Dr. Hans Nauwynck
DI05	Department of Pathobiology, Pharmacology and Zoological Medicine	Prof. Dr. Frank Pasmans
DI07	Department of Veterinary and Biosciences	Prof. Dr. Luc Peelman
DI08	Department of Internal Medicine, Reproduction and Population Medicine	Prof. Dr. Jeroen Dewulf
DI09	Department of Small Animals	Prof. Dr. Sylvie Daminet
DI10	Department of Large Animal Surgery, Anaesthesia and Orthopaedics	Prof. Dr. Frederik Pille
DI11	Department of Morphology, Imaging, Orthopaedics, Rehabilitation and Nutrition	Prof. Dr. Jimmy Saunders

Each department has its own council and is authorized to make decisions about the day-to-day management of the department and the practical organization of education and research. This council is headed by the head of the department and consists of all the departments' professors and a representation of assistant academic, administrative and technical staff. The head of each department is elected every 4 years and must be approved by the Faculty Council.

List of the councils/boards/committees with a description of their composition/function/ responsibilities and implication of staff, students, and stakeholders
All faculty committees have representatives of the different staff categories (professors, assistant academic staff, administrative and technical staff) and in most committees there's student representation. Dialogue, open discussions, and collaboration are key within each committee of the faculty and at the university. The FVMG strives to make each committee gender-neutral but at the same time we stimulate talent-based representation. The flow chart below gives an indication of the connections between the main committees within the FVMG. Committees have an advisory function; final decisions on proposals by these committees must be approved by the Faculty Council. More information on how stakeholders are involved within the various committees is described in 1.5. A full overview of the faculty's committees can be found at: Committees (Dutch)



Formal collaborations with other VEEs

There is no formal collaboration with other VEEs regarding education. However, the FVMG has numerous agreements with other VEEs. The possible destinations or partner institutions within Erasmus, Erasmus Belgica and the Bilateral Framework Agreements outside Europe can be found on the Ghent University website (Internationalisation).

Persons responsible for the veterinary curriculum and for the professional, ethical, and academic affairs of the VTH

- Director of Studies: Prof. Dr. Jimmy Saunders (DVM, PhD Dip. ECVDI). The Director of Studies is elected by the Faculty Council for a duration of 4 years.
- Head of the Study Program Committee: Prof. Dr. Dominiek Maes (DVM, PhD, Dip. ECVPH, ECPHM)
- The departmental heads of DI05, DI08, DI09, DI10 and DI11 oversee the VTH
- Person responsible for the ethical affairs: Prof. Dr. Kathleen Hermans (Head of the Ethical Review Committee)

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.

Strategic plan and SWOT (Strengths - Weaknesses – Opportunities – Threats) analysis

The long-term (10 years) strategic plan of the FVMG is agreed by the Faculty Council. It is based on the specific needs of the faculty and on the way the faculty wants to develop and position herself in the international academic landscape and on the overall vision and strategy of Ghent University as determined by the university's Board of Governors.

The needs of the faculty and objectives to be achieved in the fields of education, research, infrastructure, governance, and people management are formulated by the faculty management team in a participative process which involves a wide consultation of all the faculty members and the faculty committees. Early 2022, a 'faculty vision day' was organized for all faculty staff to determine the future of our faculty. We discussed what our faculty wants to keep, let go and develop, within the available faculty resources. In plenary sessions all these ideas were brought

together allowing the faculty community to determine the direction and formulate specific objectives to be realized over the coming years. These objectives were subsequently discussed, developed and are part of the strategic plan. The Strategic plan can be found in appendix 1.1.
This plan also includes specific objectives to be achieved in agreement with the global university strategic plan. In the coming years, Ghent University will focus on 6 specific challenges it wishes to accomplish and to which all faculties and administrative departments need to contribute. The FVMG has formulated specific objectives to be achieved by 2027 on diversity in education, sustainability, talent management and social identity of the faculty.
Next to the FVMG strategic plan, an ambitious global strategic plan ("UGent Verbeeldt 2050") was drafted by the university in close collaboration with the faculties to redesign the university infrastructure and its relation to the city. Towards 2050, this should result in 3 university clusters on an imaginary North-South axis, each cluster encompassing 4 faculties. This innovative design will allow better interaction between faculties, more core facilities and improved mobility of students and staff. The FVMG is part of the South cluster, one of the objectives within this global strategic plan is the integration of the small campus 'Heide' in our main campus. This will require the construction of a second veterinary research building at the location of the present experimental facilities.

SWOT analysis of FVMG

STRENGTHS	WEAKNESSES
Resources, staff & policy 1. The FVMG is the only full VEE in Flanders and is financially supported by Ghent University that receives government funding for staff, resources, and infrastructure. 2. Dedicated, enthusiastic and highly qualified staff with an excellent scientific reputation and educational capacities. 3. Staff is well supported by Ghent University and has decent work regulations for staff, especially in terms of social protection. Career paths for permanent staff allow talent-based differentiation. 4. Active participation of academic staff, scientific staff, technical staff and students in all relevant decision-making bodies and frequent consultation of external stakeholders.	**Resources, staff & policy** 1. The workload among staff is (very) high, which increases the risk of demotivation and dropout. 2. The university work regulations only offer a very low degree of flexibility to deploy staff. 3. The university's remuneration is often not competitive enough to attract or retain top level specialists and researchers. 4. The mandatory knowledge of Dutch for education purposes is a barrier to attract high level international colleagues.
Education & Students 5. High quality education which is research-based, student-centred and competence-based. Balanced curriculum with advanced practical training (fully equipped skills lab and well-functioning clinics) and an integrated international component. 6. Contact with production animals for all students at the dairy cow farm Agrivet and the Pig Campus (in collaboration with the IAFF). Contact with first line companion animal cases for all students at the dispensary and shelter of the city of Ghent and a large and diverse caseload in the VTH.	**Education & Students** 5. The high number of students in the bachelor and master programme results in a high workload for the academic and support staff and limits the exposure of students to clinical cases, the possibilities for interactive education and the hands-on experience they can achieve in clinics.

7. Comprehensive and professional postgraduate education provided by the Academy of Veterinary Medicine. International training programmes such as internships and residencies to train EBVS (European Board of Veterinary Specialisation) certified specialists in various disciplines.	
Research & Valorisation 8. Strong international and competitive veterinary and interdisciplinary (human medicine, environmental) research and valorisation with significant impact on all aspects of veterinary medicine leading to the first position in the Shanghai ranking for the last 6 years (2017 – 2022). 9. Strong collaboration with leading establishments in Flanders, Europe, and the world. 10. Excellent infrastructure and equipment to perform high level research in vitro and in vivo. Availability of biosafety level 2 and level 3 laboratories and animal facilities. 11. Due to top level research, international students (e.g., Chinese Government Scholarship (CSC) students from China and Higher Education Commission (HEC) students from Pakistan) choose the FVMG to proceed to the degree of Doctor in Philosophy (PhD). 12. Support from the Ghent University 'EU-cell' which supports, guides en helps researchers with their grant applications.	**Research & Valorisation** 6. Project funding is highly competitive. Low success rates may result in demotivation of researchers. 7. Limited funding for the purchase or replacement of basic and specialized research equipment. 8. Need for permanent scientific staff to ensure continuation of expertise in laboratories and research groups.
Animal hospital 13. High-quality species-specific clinics with strong scientific focus and a large number of patients for clinical teaching and research. High number of EBVS certified specialists in all relevant veterinary disciplines. 14. Funds generated in the clinic can be used for staff or clinical equipment through simple procedures.	**Animal hospital** 9. High emergency caseload puts a lot of pressure on clinical staff that ensures the out-of-hours services.
Infrastructure 15. Large campus which is easily accessible, highly visible close to the highway and has an on-site student restaurant. 16. Costs of energy and maintenance are funded by Ghent University.	**Infrastructure** 10. Several buildings are outdated and have poor insulation and energy efficiency or do not comply with biosafety regulations. Some buildings need replacement (old stables for experimental animals and the buildings at campus 'Heide') whereas renovation is urgently needed for others. 11. The funding for infrastructure at Ghent University is insufficient. Renovation, adaptation to present energy requirements and building new facilities takes too long and costs too much at Ghent University in comparison with the private market.

	12. The small animal clinic is outdated and too small. It prevents future grow.
OPPORTUNITIES	**THREATS**
Resources, staff & policy 1. Ensure the attractiveness of the FVMG for talented applicants by highlighting our core values: a specialist environment, academic freedom, and the opportunity to conduct research at the highest level. 2. Improve the professional support and the community feeling for young researchers by setting up a PhD community. 3. Improve the career opportunities for clinical specialists by creating part-time professorship positions which gives them more responsibility but also more recognition for the research they conduct. 4. Increase work efficiency and mutual collaboration by grouping technical staff into functional units that work across departments. 5. Focus on staff well-being and work-life balance. 6. Improve the societal outreach and identity of the FVMG by increasing visibility of research and clinics.	**Resources, staff & policy** 1. The budget deficits at Ghent University for the forthcoming years (partially because of increase in energy costs and inflation) will probably result in cuts in personnel and resources and in an increased overhead percentage. This can increase the pressure on the remaining staff and impact on their well-being. It can also have a negative impact on the education, research and services provided by the FVMG.
Education & Students 7. The introduction of an entrance exam and the resulting decrease in the number of students provides opportunities to increase the quality of education. It will improve interaction with students, allow more problem-based learning and offer more possibilities for acquiring clinical and practical skills. 8. Focus on teamwork, communication skills, resilience, and mental well-being in the curriculum. 9. Ongoing development of the veterinary curriculum according to the needs of society with more attention to sustainability and diversity and further promotion of internationalization and mobility. 10. Promote contacts with former graduates of the FVMG (‘alumni’) who function as ambassadors for the faculty and can contribute to student education and connect them with the professional field. 11. The use of online tools, including virtual slaughterhouse visits.	**Education & Students** 2. The future entrance exam may have unwanted effects on the composition of the student population, e.g., reducing diversity (less students from vulnerable social backgrounds). 3. Lecturers for the postgraduate education get better paid offers for participation in private initiatives compared to the postgraduate programs organized by the Academy of Veterinary Medicine of the FVMG. 4. The access to slaughterhouses for food safety training becomes more complicated.
Research & Valorisation 12. Establish partnerships and strengthen research opportunities, valorisation, and	**Research & Valorisation** 5. The introduction of the entrance exam in veterinary medicine will make it even more difficult to find qualified veterinarians who want

collaboration with industrial partners. Continued lobbying for research funding. 13. Establish 'core facilities' at Ghent University to improve the service and access to specialized research equipment. 14. Attract young professors with new insights and skills to maintain top-level research.	to pursue a research career. Eventually, this could lead to fewer veterinarians involved in veterinary medicine education. 6. The budget deficits at Ghent University can also result in less investment in staff and resources for research. Moreover, the competition for external research funds on local, regional, national, and international levels is steadily increasing. 7. Due to the financial uncertainties, it is possible that strong research professors will leave the faculty/university.
Animal hospital 15. The introduction of an entrance exam and the resulting decrease in the number of students in clinics will improve the working conditions of clinical staff. 16. The increasing societal demand for high quality basic and specialized care for companion animals can guarantee a sufficiently high caseload for education.	**Animal hospital** 8. Increased competition for clinical cases with veterinary corporates who are highly active in branding and client communication and can offer equal or better veterinary services compared to the university animal hospital. These clinics do not have a time-consuming educational task and have the advantage of versatility and high-scale economy. 9. Increased competition with veterinary corporates for attracting specialists, mainly in the small animal disciplines. These companies can offer much better salary conditions. 10. An increase in the overhead will put pressure on the cost-effectiveness of the clinical departments, especially for the production animals.
Infrastructure 17. The university strategic plan on infrastructure ("UGent Verbeeldt 2050") plans the unification of the FVMG at campus 'Merelbeke'. This will create opportunities for a new veterinary research building including new laboratory animal facilities.	**Infrastructure** 11. A complete renovation of the laboratories and the clinics is not included in the Ghent University infrastructural strategic plan ("UGent Verbeeldt 2050"). The quality of these buildings is not sufficient to allow their use for another 30 years without thorough renovation. 12. The budget deficits of Ghent University are likely to result in a delay in the realization of the infrastructural works to unite the full faculty at the campus 'Merelbeke'.

List of objectives for the FVMG and indicative time

Resources, Staff, and policy	
- Establish an active PhD community to support young researchers with several continuing educational and social activities	2023
- Increase societal identity and visibility of the VFMG by increased exposure on social media and organization of events for the broad public	2024
- Improve retention of clinical specialists by providing opportunities for part-time professorship appointments	2025
- Group technical staff into functional units that work across departments and promote internal mobility. Information Technology (IT) -group by 2023, animal caretakers by '24 - '25. Expand to other categories if beneficial for work and well-being	2026

- A further reorganization of the departments to optimize the faculty's functioning and visibility	2027
Education and students	
- Analyse the effect of introduction of the entrance exam on the student population. Evaluate actions when an impact on student diversity is detected	2026
- Structural incorporation of various aspects of sustainability in the veterinary curriculum	2026
- Assess whether academic staff teach in a diversity-sensitive way and provide education to correct this if needed	2027
- Adapt the curriculum to the needs of society	2028
- Blend@UGent: stimulate interactive veterinary education with a well-thought-out combination of learning paths and interaction moments for several courses	2028
Research and valorisation	
- Participate in the 'core facilities' at Ghent University to improve the service and access to specialized research equipment. Establish an experimental large animal core facility	2030
Animal hospital	
- Set-up a dialogue with corporates to explore opportunities for collaboration in the fields of student education, residency training and research	2024
Infrastructure	
- Transformation of the library into a 'knowledge centre' that forms a core site for knowledge sharing for students, researchers, and alumni	2023
- Renovation of the hospitalization of the small animal clinic	2024
- Construction of VRB2 (Veterinary Research Building) building and unite the faculty at the campus 'Merelbeke'	2032

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 recognizes 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.

Global policy and strategy for outcome assessment and QA

The FMVG uses the system developed by Ghent University for quality control of its study programme. Since 2015, study programmes in Flanders have been accredited by means of the Institutional Review, discontinuing the system of mandatory external programme reviews (positive outcome on the reviews from 2018 and 2022 for Ghent University). As a result, in 2016 Ghent University developed the 'Quality Conduct 1.0', a QA system that ensures education quality within the institution itself. Ghent University chose to apply the Plan-Do-Check-Act (PDCA) method on central, faculty and study programme level. The 'Quality Conduct 1.0' ('16- '20) was assessed thoroughly and developed into the 'Quality Conduct 2.0' ('20 - '24) resulting in the current education QA system. Ghent University is already working on the 'Quality Conduct 3.0' to be implemented in 2024. A more detailed description of the system of quality control and the process that lead to this system can be found online.

By means of the Quality Control 2.0, the university evolved towards a fully-fledged and university-wide quality culture in which all stakeholders naturally strive for continuous QA as well as quality enhancement. In doing so, the university moves away from models and procedures that are only cyclic and aims at momentaneous quality control as these only produce intensive but short(-lived)

boosts to quality improvement. The general principles of the Quality Conduct 2.0 are trust, shared ownership, continuous improvement, efficient tools, and lean administrative processes.
Ghent University's vision on education is derived from the concept of "multiperspectivity" and can be listed into 6 solid and sustainable strategic Education objectives: the Ghent University education (1) trains students who dare to think, (2) is based on excellent research, (3) contributes to talent development of students and staff, (4) is fuelled by stakeholder participation, (5) includes an international dimension, (6) is of high quality and meets international standards.
Running the PDCA cycle means translating these 6 strategic education objectives into more specific university wide operational objectives. These operational objectives consider (1) the government's Quality Code for Higher Education (dated 18 May 2018), (2) its 8 quality features, and (3) the Standards and Guidelines for QA in the European Higher Education. By using these uniform operational objectives as a basic framework for faculties as well as study programmes, Ghent University guarantees that legislative requirements are met on all policy levels. For all these operational objectives, the university expects the faculties and study programmes to determine and document their vision and policy (Plan), the actions they undertake to operationalize this policy (Do), to what extent they achieve the objectives (Check), and which improvement actions are necessary (Act).
To facilitate this continuous process, digital technology is used. Ghent University has developed an online platform for study programmes and faculties to monitor their policy plans, processes and actions, results, and points for improvement. This digital data-driven reflection instrument is named the 'Education Monitors', and has been developed and implemented for each of the study programmes and faculties, including the FVMG, and for the institutional level. These monitors are a data-driven reflection tool, a digital document repository, and a dashboard and follow-up tool for improvement processes. Specifically tailored to each policy level, be it the study programme, the faculty or the Education Department, the Education Monitors enable and guarantee a continuous reflection for all stakeholders (students, lecturers, professional field, alumni, and international peers) on (complex) processes of education policy, implementation, monitoring, and improvement. The information within the monitor is assessed at every level and supported by the appropriate council or board. The FVMG has one faculty monitor and one study programme monitor.
On the other hand, an institutional monitor is used at university level and contains 44 operational monitors. The Education Department of Ghent University sets out an overarching vision and policy for these objectives (Plan), carries out the actions to achieve these objectives (Do), checks whether each objective has been achieved (Check), and, if necessary, formulates improvement actions (Act). Faculty staff working with their faculty's and/or study programmes monitors can consult the institutional monitor for university-wide education policy decisions and implementations. They can also link to the institutional monitor from their own monitor(s).
The 11 faculty monitors and underlying 102 study programme monitors have a similar structure. The Faculty Monitor and Study programme Monitor contain respectively 28 and 39 operational objectives. These objectives are binding in the sense that the study programmes must pursue a policy to achieve them. How they do so, which actions they set out, and with which focus, and whether these actions are organized at faculty or programme level, is the responsibility and autonomy of the faculty/study programme. Each faculty/study programme implements processes and actions that are in line with their identity and culture. Ownership is crucial, albeit within the contours and frameworks that have been set out at university level.
The multiperspectivistic approach is also used for reviewing and monitoring. The realization of the Ghent University education policy and education quality must be reviewed by students, lecturers, and external stakeholders. It should also be based on centrally developed tools and objective data. The emphasis here is an integration of quantitative data (via Ghent University's Integrated Business Intelligence System (UGI) for Education Policy) and qualitative information gathered in focus group meetings or consultation rounds in councils, committees, task forces or ad

hoc meetings. The result is a 360-degree feedback, which is in turn the bedrock for developing improvement actions and for making policy adjustments.
Monitoring by students takes place in a quantitative manner through the course unit feedback, the study programme feedback, the evaluation of the clinics and the master's dissertation survey. Students give more thorough qualitative feedback through student reflection, focus groups, and during structural and informal meetings. Monitoring by lecturers happens through the lecturer survey (concrete educational practice), but during numerous structural and informal meetings.
Monitoring by external stakeholders happens by inserting the external view of alumni, the professional field, policymakers, and (independent) peers. University-wide, alumni surveys are organized as well. Faculties and study programmes organize professional field committees, strategic advisory councils, or specific meeting structures. Some also develop their own surveys for these stakeholders. Finally, central monitoring tools also ensure continuous monitoring.
Since 2015, the Ghent University UGI System has been in use in process management regarding education, research, services, and central organization. The UGI for Education Policy app is the UGI education component and provides faculties and study programmes with information in a simple and user-friendly manner. It gives all staff members and all student representatives access to all education-related information on 3 policy levels: the university, the faculty, and the study programme. In addition, UGI Education Policy also has an expert environment for policy advisors at university and faculty levels to make more exhaustive and more complex analyses. UGI plays a crucial role in Ghent University's education policy and policy implementation, as well as in education QA and monitoring our quality culture. The faculties must report annually on the improvements of their action points in the monitors. Progress is discussed during the annual visit to the faculties of the Director of Studies and staff members of Ghent University in charge of education. Additionally, the Education Quality Board (EQB) (= the university's governing body that closes the quality improvement cycle at the top) screens and ensures the study programmes' QA processes on a regular basis (4-year cycles). The EQB consists of in-house and external members with complementary expertise who can think independently and make decisions on QA. As such, the EQB takes on the task of using its helicopter view to monitor and ensure the quality culture in all study programmes. For each study programme, a QA resolution is formulated and publicly available information about it is published. A critical reflection performed in 2022 of the Ghent University's Education Policy, including a SWOT analysis, is provided as appendix 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 to the public.

Informing stakeholders and the public
The FVMG External Advisory Board is made up of practitioners from the equine, farm animal and small animal sectors, a colleague from the Federal Agency for the safety of the Food Chain (FASFC), a colleague from the national public health institute of Belgium (Sciensano), a representative from the pharma industry, a representative from the Food and Agricultural Organization (FAO), 2 representatives of the "sister" veterinary faculties of Utrecht (vice-dean) and Liège (vice-dean for education) and one representative of the veterinary faculty of the University of Antwerp. The FVMG is represented by the Dean, the director of studies, and the faculty's Policy Advisor (secretary). The meetings are chaired by the Dean or the Director of Studies of the FVMG and are organized between 2 and 4 times per year. The FVMG External Advisory Board provides constructive feedback in relation to key aspects of strategy relating to

education/curriculum, research, and the clinics as well as on-going development projects and the strategy of the faculty.
In addition to the External Advisory Board, the FVMG receives feedback from the Flemish Council of Veterinarians and the professional bodies with whom the FVMG meets 4 to 6 times per year. During these meetings ongoing issues related to the FVMG (reform of the curriculum, entrance examination, EPT, involvement of practitioners in the education of the students, …) or to the profession (attitude towards the investment companies, problems with the on-call services, …) are discussed. Additionally, the professorial staff of the FVMG is actively involved in many organizations, or events linked to the veterinary profession or the health sector, where informal discussions about the profession, including the FVMG, take place.
Finally, representatives of the veterinary profession are permanent members of the Study Programme Committee (SPC) (6 representatives out of 30 members) and of the Externship Committee (3 representatives out of 13 members).
All information about the study programme, views, and employment destinations of past students as well as the profile of the current student population is online available for the public and is updated annually. The ESEVT status of the FVMG as well as the SER and visitation report are visible online in Dutch and English

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 utilized 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.

Description of how and by whom the strategic plan, the organization, the activities, and the QA policy are decided, communicated to staff, students and stakeholders, implemented, assessed, and revised.
The strategic plan is the result of an intensive participatory discussion process with all faculty members and several committees and is translated into text by the Management Board. This document outlines the university's future path and major goals in education, research, and clinical services for the next 10 years. Realisation of the strategic plan is monitored by different committees, the Faculty Council and (for the elements contributing to the global University strategic goals) the rectorate.

PDCA Cycle strategy, Organisation, Activities and QA policy

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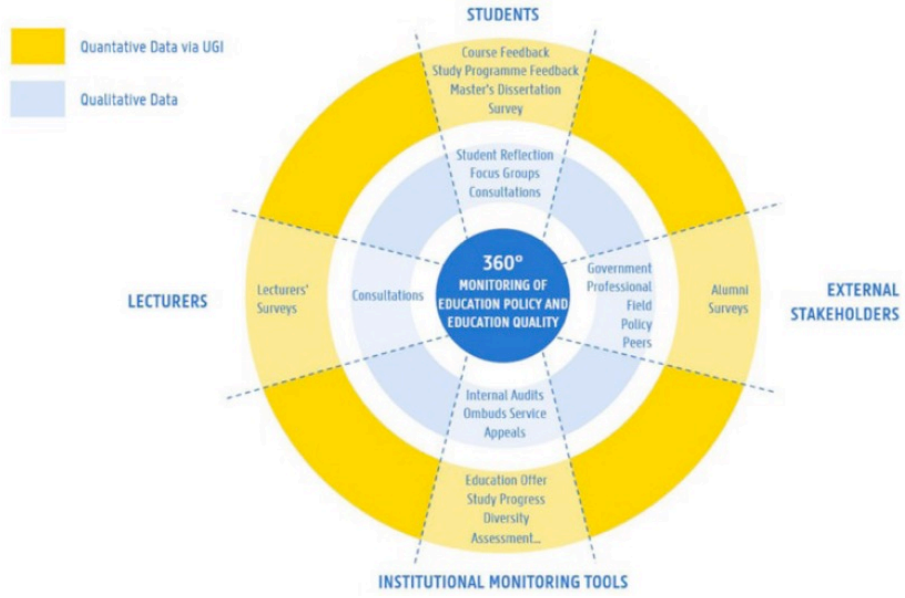
Since 2015, the EQB has been the university's specialist executive body responsible for monitoring the efficiency of QA processes and guaranteeing the quality of the study programmes. The Department of Educational Policy (DOWA) develops university-wide education policy lines and education support services and tools and follows up their implementation in close collaboration with all stakeholders. DOWA plays a mediating role by disseminating good practices and experiences across study programme and faculty boundaries. DOWA consists of a policy unit (that develops university-wide policy lines and education (support) services and tools such as e.g. data management) and 4 offices, each with their own expertise and concomitant specific tasks: (1) the QA Office provides the support services for lecturers and study programmes, translates government QA frameworks into specific policy lines, stimulates education innovation, and houses the general complaints officer for all education-related complaints, (2) the Counselling Office, (3) the Registrar's Office, (4) the International Relations Office.
Using the Central Education Monitor, DOWA carries out a critical reflection annually, scrutinizing the overall quality culture and its own operational objectives. QA at Ghent University is a joint project, in which the faculty plays an essential part as partner of the institutional university services. The different existing consultation structures (Education Council, Annual Quality Meetings, Education Quality Control Unit (EQCU) Meetings, …) confirm and strengthen the partnership between Ghent University's eleven faculties and DOWA.
The faculty provides its study programmes with education support services and monitors their QA processes. The faculty translates institutional policy lines into faculty-specific measures and guidelines, actively promotes the professional development of its lecturers and study programmes and facilitates the exchange of good practices. The faculties use their Education Monitor to carry out an annual critical self-reflection on their education policy, internal quality culture, and the implementation of university-wide policy lines. The EQCU is responsible for QA, and it examines the quality of the faculty education policy. The EQCU is chaired by the faculty Director of Studies and includes the chair of the SPC, the chair of the internationalisation committee and at least one representative of the assisting academic staff, the administrative and technical staff and one student. This Committee is the prominent body in which education providers and education users are united at faculty level. It is therefore the appropriate forum for considering educational themes that transcend individual study programmes. This often happens as a result of a reflection on QA processes, which not only give rise to remedial activities, but also to new insights, initiatives, and quality-enhancing measures.

External stakeholder input is a crucial element in our study programmes' QA. Several external stakeholder parties are surveyed systematically for feedback by means of an occupational field committee or other advisory bodies, study programmes survey companies and other organisations about the exit level and professional qualifications that are expected of Ghent University alumni. These external parties also give information about new tendencies in their respective disciplines (the Advisory Board at the level of the FVMG); by means of focus group discussions or online surveys, study programmes gauge their alumni's opinion on the (quality of the) programme they completed; Ghent University study programmes have a strong international focus: at least every 4 years and/or in case of a major curricular revision, our study programmes perform an international check by comparing their programme content to high-profile international study programmes.
QA policy and recent developments are mainly communicated via the university website while basic information can be found on the websites of the faculties.



PDCA Cycle QA Policy: 360° Monitoring of Education Policy and Education Quality

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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 QA process.

Measures taken/implemented since the last ESEVT visitation

The last ESEVT evaluation took place in March 2013. A summary of the main developments since then and the main changes due to the suggestions of the expert group is reported in the Introduction. A detailed, point-by-point description of the developments that happened following the suggestions of the expert group is reported in a catalogue of measures in appendix 1.7.

Comments on Area 1

- The FVMG has an important social responsibility as the only veterinary educational institution in Flanders providing a master's diploma in Veterinary Medicine. Therefore, it collaborates closely with the Flemish Veterinary Council and several professional organizations to secure veterinary medicine in Flanders.
- Ghent University was subjected in the autumn 2022 to an institutional review by the Accreditation Organisation of the Netherlands and Flanders, a QA-agency that safeguards the quality of higher education in the Netherlands and Flanders. For this visitation, Ghent University developed a very performant quality control system of the study programmes, from which the FVMG can take advantage.

Suggestions for improvement in Area 1

- Communication towards students and the public can be improved. A strategy on communication and enhancement of the visibility of the faculty towards the public is part of the strategic plan of the FVMG.
- The organization of the FVMG into 7 departments is rather based on historical elements, research collaborations and personal relations than on a well thought-out and logical structure of the faculty. Rethinking the faculty organization into different departments is part of the long-term strategic plan.

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).

Global financial process of the VEE

First-stream funding from Ghent University to the FVMG

Ghent University receives its funding for educational purposes mainly from the Flemish government (first-stream). These funds are used for staff (ca. 80%) and operations (ca. 20%).

- The university Board of Directors is responsible for the distribution of these funds and uses an allocation model to divide the funds for staff among the 11 faculties. This model is based on evolutions of growth and performance of faculties where each faculty evolves independently of each other (no mutual competition). It uses capacity-based indicators (80%: number of students, researchers, and staff), output-based indicators (10%: number of publications, PhD's, graduate degrees, and contract revenues) and strategic indicators (10%). Based on these t indicators, each year a faculty is granted a number of staff resources and is asked to set up an HR policy plan.
- The funds for operations are used for new infrastructure and renovations based upon a university investment plan, and for the maintenance and cleaning of the campuses, electricity, gas, water, …). The remaining funds are divided between the central offices and the faculties. From 2007 to 2013, this distribution was based upon the number of staff each faculty had but since 2014 the amount was frozen. The FVMG has her own model to divide the funds granted. The dean's office receives a part of the budget to pay for expenses like the library, festivities, internationalization, …. The rest of the budget is divided among the 7 departments based on the number of academic staff members in each department.

Second- and third-stream funding: public funding for research

Ghent University receives government funding for research in diverse ways. (Ghent University) Special Research Funds (BOF - see 10.1) are granted to the university based on performance-driven indicators and are used to support research at the faculties (funds for research mobility, support of PhD's, competitive grants, …). Government funds for specific competitive research grants (Research Foundation - Flanders (FWO), Agency for Innovation by Science and Technology (IWT)) and other European and international research funds are also included in this category (see area 10).

Fourth-stream funding: corporate and private

The individual professors and faculty departments generate income from corporate research contracts, community services, clinical and diagnostic activities, and activities of the Academy of Veterinary Medicine (see 10.3). These funds and revenues remain at the level of the department, professor, Academy and can be used for purchasing major items of equipment and extra staff positions.

Overhead

Ghent University charges 20% overhead on all revenues from teaching, from educational projects, scientific research, and service, as "central management and general operating costs", with a few exceptions possible.

Annual tuition fee for national and international students

The Belgian system of higher education is very democratic and social with students having to pay a moderate tuition fee compared to the surrounding countries. The tuition fee consists of a fixed

amount and an amount per credit, both depending on whether a student receives a study allowance (based on family situation and income) from the Flemish Government.

Table 2.1.1 Tuition fee's (in Euros)

Tuition fee's			
	Fixed amount (€)	Per ECTS credit (€)	For 60 ECTS credits (€)
Bachelor programme			
Without allowance	253.00	12.10	979.60
Almost allowance	253.00	4.40	517.60
With allowance	115.80	X	X
Master programme			
Without allowance	253.00	12.10	979.60
Almost allowance	253.00	4.40	517.60
With allowance	115.80	X	X
Master programme for non-EEU students			
	253.60	93.80	5,881.60

Table 2.1.1 Annual expenditures during the last 3 years (in Euros)

Area of expenditure	**2021**	**2020**	**2019**	**Mean**
Personnel	8,405,899.81	8,102,057.31	8,344,311.83	8,284,089.65
Operating costs	8,598,789.51	8,203,809.07	8,706,401.47	8,503,000.02
Maintenance costs	414,865.63	382,154.50	394,748.15	397,256.09
Equipment	1,756,123.18	1,766,154.18	1,687,356.59	1,736,544.65
Overhead	2,559,632.10	2,437,359.02	2,129,358.75	2,375,449.96
Total Expenditure	**21,735,310.23**	**20,891,534.08**	**21,262,176.79**	**21,296,340.37**

Table 2.1.2. Annual revenues during the last 3 academic years (in Euros)

Revenues source	**2021**	**2020**	**2019**	**Mean**
Funding Ghent University	654,630.00	654,630.00	654,630.00	654,630.00
Public authorities	2,421,549.24	6,817,771.22	2,608,852.26	3,949,390.90
Tuition fee (standard students)	0.00	0.00	0.00	0.00
Tuition fee (full fee students)	7,568.00	4,330.40	2,944.00	4,947.47
Clinical services	14,555,824.13	12,379,391.56	11,499,739.26	12,811,651.60
Diagnostic services	344,930.30	355,052.04	322,548.79	340,843.71
Other services	419,219.27	535,425.39	614,486.36	523,043.67
Research grants	1,055,586.46	547,267.54	996,368.35	866,407.45
Continuing Education	281,112.10	244,146.20	412,678.50	312,645.60
Donations	138,498.80	51,296.67	103,009.94	97,601.80
Other sources	142,301.85	142,345.99	344,432,14	209,693.33
Internal transfers	599,893.10	314,403.63	382,876.00	432,390.91
Total revenues	**20,621,113.20**	**22,046,060.64**	**17,942,565.60**	**20,203,246.50**

Table 2.1.3. Annual balance between expenditures and revenues (in Euros)

Academic year	**Total expenditures**	**Total revenues**	**Balance**
2021	21,735,310.23	20,621,113.20	-1,114,197.03
2020	20,891,534.08	22,046,060.64	1,154,526.56
2019	21,262,176.79	17,942,565.60	- 3,319,611.19

All the costs for utilities such as water, electricity, gas, and infrastructure maintenance costs are covered by Ghent University as well as a large amount of personnel costs for a total of 16.411.200,00 euro.

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.

Modus operandi for the financial management of the clinical and field services.
The VTH does not function as one single financial unit but is managed financially by the different clinical departments. These departments are largely independent in the financial management of their clinical and field services. After a deduction of 20% overhead the income is used to purchase medication, materials, and equipment, but also to pay the wages of staff members, interns and residents. Income from clinical and field services may, at the discretion of the departments, also be used to fund research.

Degree of autonomy of the VEE on the financial process
The FVMG has full autonomy of her financial process. There is no accountability required for money the FVMG receives yearly from the university nor for how the FVMG spends her revenues. For research contract revenues the faculty is bound by the specific terms of the contract agreed with the funding agency. As a public institution, Ghent University is subject to public procurement legislation for its purchases. For purchases of limited value, it is sufficient to consult the terms and conditions of several entrepreneurs. Proof of this consultation must be demonstrated and maintained by the university. For larger purchases, each purchasing department must make a complete market study. The university has set out a few global contracts for the most common purchases (e.g., office supplies, lab equipment, prints, copiers, clinical supplies, …) to offer lower prices.

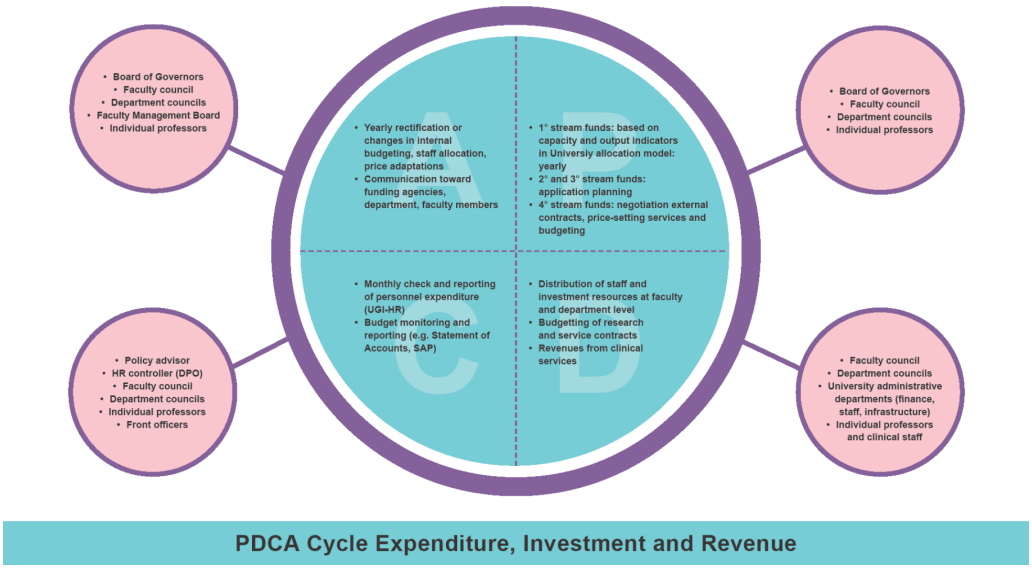
Standard 2.3: Resources allocation must be regularly reviewed to ensure that available resources meet the requirements.

List of the ongoing and planned major investments

Investments	Estimated costs	Origin	When
Renovation campus 'Heide'	€ 700,000	University	2023
Renovation Bio-centrum Agrivet	€ 40,000	University	2023-2024
Renovation stable IX	€ 120,000	University	2023
Modifications CT area	€ 220,000	Department	2022-2023
New ventilation stable IX	€ 120,000	University	2023
Renovation and reorganization small animal hospital	TBC	Univ.+ Dep.	2023-2024
New faculty bicycle parking	TBC	University	2023
Unification of the FVMG with veterinary research building	TBC	University	By 2050
Horse recovery box and anaesthesia small animals for medical imaging	TBC	University	By 2024
Automated immune Stainer	€ 80,000	Department	By 2024
Mass spectrometer for ultrasensitive quantification and imaging of small organic molecules	€ 566,395	FWO	By 2023
Autoclave	€ 108,00	BOF	By 2024
Surgical equipment (table, TENS, ophthalmic equipment	€ 30,000	Department	By 2023
Various small appliances nutrition lab	€ 40,000	Department	By 2024
Bioreactor	€ 81,000	Department	By 2025
Continuous renewal of equipment	X	FVMG	x

Prospected expenditures and revenues for the next 3 academic years
The financial amount granted by the university was frozen since 2014. The FVMG does not expect any increase for the next 3 years but hopes to maintain a positive balance between its expenditure and revenues during this period.

Description of how and by whom expenditures, investments and revenues are decided, communicated to staff, students and stakeholders, implemented, assessed, and revised.
At university level, the Board of Governors decides on the structure of the allocation model and the distribution of staff budget among the different faculties. It also makes all final decisions on the investments regarding new infrastructure and renovations within the university. Decisions of the Board of Governors can be consulted online. At faculty level, the Faculty Council decides about the distribution of the amount granted by the university. The Faculty Council reports are available online for all staff and student representatives. At department level, the Departmental Council makes the final decision on how to invest their revenues. Finally, each professor is responsible for their research budget.



PDCA Cycle Expenditure, Investment and Revenue

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Comments on Area 2

- In 2020, Ghent University implemented a new allocation model for granting staff resources to the faculties. Although this model is based on evolutions and the high increase of students in the past 10 years was partially considered, the model is not necessarily advantageous for the FVMG. It does not take the specific situation of the FVMG in account with high costs related to running a VTH and the intensive training of veterinary medicine students requiring a high commitment of staff and resources. In the end, the resources made available to the FVMG through this model are by far inferior to the needs.
- In July 2022, the Board of Governors decided that the entrance examination starting in ’23-’24 will not negatively impact the funding of the FVMG because of the decrease in number of students and delivered degrees. The parameters ‘number of students’ and ‘number of delivered degrees’ will be frozen at the level of the mean of the 3 years before introduction of the examination.

Suggestions for improvement in Area 2

- Although the different departments contributing to the VTH communicate informally on price settings and the financial management, it would be advisable to intensify this collaboration. So, a more structured monitoring of the financial situation is possible and joint investments can be made on a higher level. Based on the precarious financial situation of Ghent University for the coming years, co-investments in infrastructural works may be a means to realize the necessary improvement of the clinic infrastructure.

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 foot-producing animals (including Animal Production and Herd Health Management), Food Safety and Quality, and Professional Knowledge.

Ghent University is the only veterinary medicine educational establishment in Flanders offering a 6-year Diploma Programme in Veterinary Medicine, which is fully compliant with the EU-Directive 2005/36 (translated in the national Royal Decree of June 2, 2008) and the EU-Directive 2013/55. Upon completion of the Diploma Programme, students are awarded the "Master of Veterinary Medicine - Main subject Companion animals or Horse or Ruminants or Pig, Poultry and Rabbit or Research" degree and according to Belgian law, are eligible for license to practice as veterinarians in Belgium and the EU and to enrol in postgraduate programmes.

Educational aims and general strategy for the design of the curriculum

The entire veterinary curriculum, which was implemented as a competence-based curriculum in 2020, spans 6 years, equivalent to 360 ECTS. It focuses on the acquisition of day-one competences with ample hands-on training and problem-based learning in a research-based environment. The broad-based coverage from the development of veterinary medical expertise to the development of personal, scientific, and social skills is its primary strength.

The 3 clusters in the second semester of the fifth year (Companion animals, Horse, Production animals) and the 5 graduation tracks in the final year (Companion animals, Horse, Ruminants, Pig, Poultry and Rabbit, and Research) deepen knowledge and skills regarding selected species or topics, leading to appropriate competence and problem-solving capacity and preparing students for the start of their professional career. The basic scientific skills imparted during the 6-year curriculum provide graduates with a solid educational foundation to continue their education based on the latest scientific developments, follow-up on the scientific literature in their respective tracks, critically assess scientific articles and adopt new findings and techniques to augment their extant professional qualifications. Graduates are aware of their responsibility towards patients, clients and society and are familiar with the legal framework of regulations governing their professional activities. They recognise their affiliation to the veterinary profession and commit themselves to being the public face of veterinary medicine through their professional attitude. They are aware of the limitations of their knowledge and proficiency and have gained sufficient insight into the structure of the veterinary health system to take appropriate action. Finally, they are conscious of the interactions between humans, animals and the environment and the associated systemic effects, and they are well prepared to stand up for the well-being of animals.

The curriculum design is based on the following principles:

- Competence-based learning outcomes acquired at curriculum and course level
- Teaching, learning, and assessment methods are constructively aligned to learning outcomes
- When appropriate and feasible, real-life situations are simulated for training practical, social and scientific skills throughout the entire programme
- An interdisciplinary approach to teaching: subjects integrated horizontally and vertically, from both non-clinical and clinical disciplines

- Student-centred learning: well-considered and well-aligned mix of online and on-campus education
- Cluster (fifth year) and graduation tracks (sixth year) provide advanced competence training

Resources and management of the curriculum

In addition to all the facilities on campus and the VTH, the following partners are being integrated into curriculum delivery: dispensary 'Foundation Prins Laurent' (see 4.3 and 5.1), IAFF, Sciensano, DGZ Vlaanderen, Poulpharm, FASFC, Antimicrobial Consumption and Resistance in Animals (AMCRA), Autonomous University of Barcelona (Collaborative Online International Learning (COIL) pigs), University of Bern (COIL bovines).

Additional resources include the university libraries, university platforms (mainly the Ufora online learning platform), numerous learning spaces and electronic resources such as the virtual clinic, learning paths, lecture recordings, knowledge clips, and a wide range of online cases.

Faculty staff is responsible for delivering and documenting the courses. The curriculum manager is responsible for monitoring the balance between on campus and online courses and for ensuring that the study load during each semester is in accordance with the ECTS credits. The university governing bodies only get involved in curriculum administration in the event of formal or strategic problems.

Graduation tracks

The (5) graduation tracks were implemented in the veterinary curriculum of Ghent University in 2004 based on the evolution of the Flemish veterinary market. At that time, the split in tracks was quite radical, perhaps even too radical as the students of the research track had no clinical training. In 2009, at the request of the students, the SPC decided to include 9 weeks of clinical training in the research track. During the 2 reforms of 2016 and 2020, the SPC decided that all graduation tracks should have the same clinical training (in-house clinics and EPT). At the same time, the SPC also discussed whether the graduation tracks should be kept. Based on surveys on the veterinary market performed by the FVMG in 2009, 2012 and 2017 (appendix 3.1.1), the SPC decided that keeping the tracks was the most appropriate option for the Flemish region. During the graduation tracks, intensive hands-on clinical training and problem-based learning in small groups are of utmost importance. In the VTH, real and complex problems from everyday professional life are analysed. Furthermore, students are involved in seminars, work on and discuss scientific questions and make research-based decisions about further procedures.

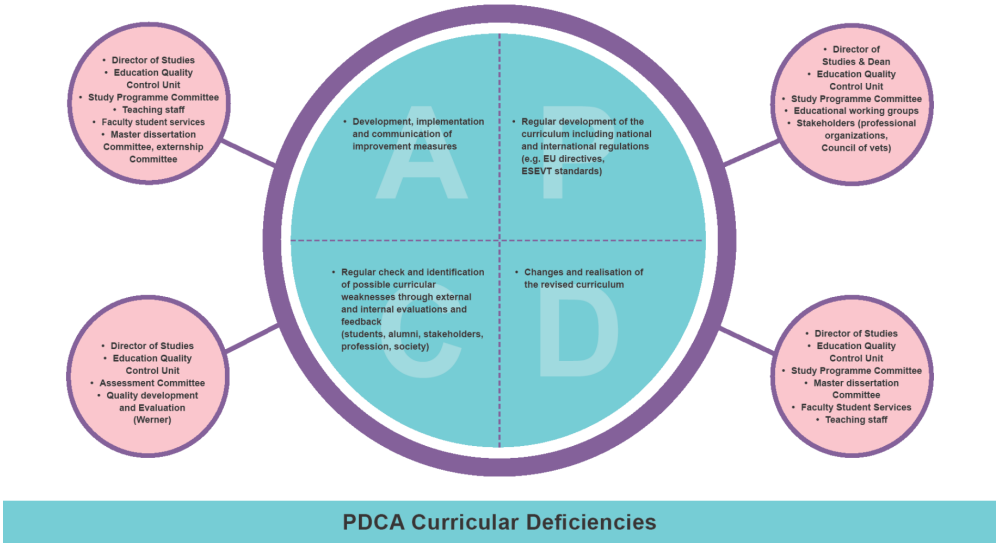
The course Master dissertation IV (not for the students of the graduation track 'Research' – see 10.1) comprises 3 parts. The first part consists in seminars organized weekly with case presentations prepared and given in group by students. The groups are defined according to a rotation scheme based on the scheduling in clinic. During these presentations, alongside the scientific knowledge, the organization, communication, and presentation skills of the students are evaluated. This educational method considers aspects of lifelong learning and students gain advanced competences in their chosen fields of expertise. The second part is a multiple-choice examination and consists of approximately 50 (integrated/multidisciplinary) questions, proportionally delivered by the various clinical disciplines, and possibly completed by questions with a paraclinical or preclinical (e.g., anatomy) background. The third part is an integrated clinical end examination in which approximately 4 (integrated/ multidisciplinary) cases must be solved and in which the day-1 competences are evaluated.

In the final year, the students take one of 5 graduation tracks of 60 ECTS credits. Within these tracks, at the exception of the 'Research' track, students must make an extra choice between 5 majors ('Wildlife Health in Context of Conservation', 'Clinic International', 'Clinic@Home', 'Veterinary Medicine in the Global South', 'Master of Science in Teaching') for 15 ECTS credits and have an elective for 3 ECTS credits. In case the number of students applying for a major

exceeds the number of places, a selection committee including the chair of the SPC, the chair of the Faculty Committee for Internationalisation, their policy officers and the lecturers-in-charge select the students based on a procedure approved by the SPC.
Instead of choosing a major , the students of the graduation track 'Research' have a fixed package (also corresponding to 15 ECTS-credits) of research-oriented course units that are helping them to develop their experimental research skills: 'Development of Veterinary Drugs/Vaccines (3 ECTS credits)', 'Cell Biology, Molecular Biology, Research Techniques and Biomedical Research' (5 ECTS credits), 'Scientific Reasoning and Communication' (3 ECTS credits), 'Laboratory Animal Science' (4 ECTS credits).
Students, lecturers, and the public can find information related to the curriculum in the Study Guide.

Legal constraints imposed on curriculum by national/regional legislations
As an autonomous university according to the 'Law regarding the universities in the Flemish Community' published in the Belgian Official Gazette on July 4,1991, Ghent University is completely independent to reform the veterinary curriculum. The procedure for curriculum reform is described in 3.4.

Curricular overlaps, redundancies, omissions, and lack of consistency, transversality and/or integration of the curriculum
The curriculum is, up to Semester 9, traditionally structured in intra- (e.g., veterinary public health, genetics, biochemistry, microbiology) or inter-disciplinary (e.g., study of vertebrates and general anatomy of domestic animals, housing of domestic animals and biosecurity, physiology, and pathophysiology, propaedeutics) course units. Semester 10 is subdivided in 3 clusters (see above). Each cluster is composed of 4 interdisciplinary course units, taught to the students as 4 successive blocks. For the clusters track 'Horse' and 'Production Animals', one of the 4 course units is a specifically designed module (blended package) of another animal species (companion animals or production animals for the cluster 'Horse'; companion animals or horse for the cluster 'Production animals'). Content and organisational planning, in terms of constructive alignment and implementing the evaluation and improvement measures of each course/year, is the responsibility of the Director of Studies and of the SPC, in which experts from the respective clinical and non-clinical disciplines are represented. Feedback regarding overlaps, redundancies and omissions from course evaluations, lecturers and students is discussed on and ongoing basis in the EQCU. If identified, the Chair of the SPC or the Director of Studies contacts the involved lecturer(s) to identify and to try to solve the problem. A more formal procedure is used to evaluate the coherence of the curriculum. Since 2014, every 3 years, the content of the courses is reviewed, discipline per discipline, under coordination of the SPC. A review was performed in 2014, 2017, not in 2020 (because of the reform of the curriculum) and the next review is planned in 2023. During this review process, a working group composed of the Director of Studies and the Chair of the SPC but also students (2 to 3) and colleagues with an interest in the discipline (e.g., the internists for the microbiology courses or the radiologists and surgeons for the anatomy courses) evaluates the courses of a specific discipline. The working group reports to the SPC, that discusses the results of the evaluations and decides which actions should be taken for each discipline. In addition, the (course-specific) learning outcomes must be defined every year for each course unit by the lecturer-in-charge and are reviewed by the SPC. The outcomes per course are linked to the study programme-specific learning outcomes and to the ESEVT day-one competences using a number code and a competency matrix. Another established QA instrument at Ghent University, the PDCA cycle ('the Education Monitors', see below), is also used here. It should be noted that all the lecturers at the FVMG have free access to the learning material of all the course units of the veterinary curriculum via the Ufora platform.



Double click to enlarge

Table 3.1.1. Curriculum hours in each academic year taken by each student (without the Majors of 15 ECTS credits for the graduation tracks 'Companion Animals', 'Horse' and 'Ruminants' and without the elective of 3 ECTS credits for all tracks)

	A	B	C	D	E	F	G	H
Year 1	345,5	19,25	121,25	85,0	24,0	0,0	0,0	595,0
Year 2	372,0	25,0	60,0	100,5	76,5	0,0	0,0	634,0
Year 3	411,0	40,0	73,0	87,0	29,0	0,0	90,0	730,0
Year 4	369,75	14,75	74,75	28,75	13,0	100,0	165,0	766,0
Year 5 (Sem1)	219,0	44,0	24,0	3,0	15,0	120,0	240,0	645,0
Years 5 (Sem 2) Companion animals	175,0	5,0	40,0	0,0	0,0	90,0	0,0	270,0
Years 5 (Sem 2) Horse	135,0	15,0	0,0	0,0	0,0	90,0	0,0	240,0
Years 5 (Sem 2) Production Animals	130,0	10,0	15,0	10,0	0,0	100,0	0,0	265,0
Year 6 Companion animals	0,0	20,0	40,0	0,0	0,0	510,0	690,0	1260,0
Year 6 Horse	0,0	20,0	40,0	0,0	0,0	510,0	690,0	1260,0
Year 6 Ruminants	0,0	20,0	40,0	0,0	0,0	510,0	690,0	1260,0
Year 6 Pig, Poultry and Rabbit	95,0	40,0	40,0	0,0	20,0	550,0	570,0	1315,0
Year 6 Research	105,0	105,0	35,0	50,0	0,0	510,0	670,0	1475,0

A: Lectures; B: seminars; C: supervised self-learning; D: laboratory and desk-based work; E: non-clinical animal work; F: clinical animal work; G: others (specify); H: total

An excel-file of the complete curriculum including all the course units for the truncus communis, cluster tracks, graduation tracks and electives is available as appendix 3.1.2. Based on this appendix that also include the course codes, the learning outcomes per course unit and be found in the Study Guide (see link above 3.1, graduation track) and is public information.
The alignment between the Day One Competences of the Study Programme in Veterinary Medicine of Ghent University and the ESEVT Day One Competences can be found as appendix 3.1.3.A. The competency matrix as appendix 3.1.3.B shows the alignment between the Day One Competences of the Study Programme in Veterinary Medicine of Ghent University and the individual course units.

Table 3.1.2.A Curriculum hours taken by each student

Subjects	A	B	C	D	E	F	G	H
Basic subjects								
Medical physics	50			15				**65**
Chemistry (inorganic and organic sections)	75			35				**110**
Animal biology, zoology, and cell biology	81		70	25	24			**200**
Feed plant biology and toxic plants	Incorporated in courses of (2) and (4)							

Biomedical statistics (1)	27.5		50	7.5				**85**
Specific veterinary subjects								
Basic Sciences								
Anatomy, histology, and embryology (Also in animal biology, zoology, and cell biology)	108.5	10	46.5	42	73			**280**
Physiology	125	16	1	22				**164**
Biochemistry	75			15				**90**
General and molecular genetics	45							**45**
Pharmacology, pharmacy, and pharmacotherapy	46.25	11.25	8.75	8.75				**75**
Pathology	80		30					**110**
Toxicology (2)	32.5	2.5						**35**
Parasitology	30			15				**45**
Microbiology	60			35				**95**
Immunology	45		10	25				**80**
Epidemiology (3)	40		10					**50**
Information literacy and data management	Incorporated in (1) and (8)							
Professional ethics and communication	Incorporated in (6) and (7)							
Animal health economics and practice management	Incorporated in (3) and (7)							
Animal ethology	30	11.25	21.25	2.5				**65**
Animal welfare	30	10						**40**
Animal nutrition (4)	40	10			10			**60**
Clinical Sciences								
Obstetrics, reproduction, and reproductive disorders	30							**30**
Diagnostic pathology	Incorporated in (6)							
Medicine	278		7	10				**295**
Surgery (5)	100							**100**
Anaesthesiology	Incorporated in (5) and others							
Clinical practical training common animal species (6)	20	11	22	3.5	53.5	200	90	**400**
Preventive medicine	Incorporated in courses under 'Medicine'							
Diagnostic imaging	28	4	13					**45**
Therapy in common animal species	Incorporated in courses under 'Medicine'							
Propaedeutics of common animal species	50		5					**55**
Animal Production								
Animal production, including breeding, husbandry, and economics	30							**30**
Herd health management	Incorporated in courses later in the curriculum							
Food Safety and Quality, Veterinary Public Health, and One Health Concept								
Veterinary legislation including official controls and regulatory veterinary services, forensic veterinary medicine, and certification (7)	49	21		3	5		37	**115**
Control of food, feed, and animal by-products	30	2	6	10	2			**50**
Zoonoses	Incorporated in infectious diseases courses under 'Medicine'							
Food hygiene and food microbiology	39.5	5	30.5	20				**95**
Food technology	42	8	5					**55**
Master Dissertation								
Master Dissertation I (8) & II		20	35				385	**440**

A: Lectures; B: seminars; C: supervised self-learning; D: laboratory and desk-based work; E: non-clinical animal work; F: clinical animal work; G: others (specify); H: total

Table 3.1.2.B Curriculum hours taken by the students of the cluster and the graduation track 'Companion Animals'

Subjects	A	B	C	D	E	F	G	H
Basic subjects + Specific veterinary subjects see 3.1.2.A								
Year 5, Semester 2								
Clinical Sciences								
Obstetrics, reproduction, and reproductive disorders	Incorporated in earlier courses and courses of 'clinical training'							
Diagnostic pathology								
Medicine	135	5						**140**
Surgery (1)	40							**40**
Anaesthesiology	Incorporated in (1) and (2)							
Clinical practical training in companion animals						90		**80**
Year 6								
Clinical Sciences								
Clinical practical training in companion animals (2)						510	270	**780**
Master Dissertation								
Master Dissertation III		20					220	**240**
Master Dissertation IV			40				200	**240**
One of the 5 Majors (Wildlife Health in Context of Conservation', 'Clinic International', 'Clinic@Home', 'Veterinary Medicine in the Global South', 'Master of Science in Teaching') for 15 ECTS credits (appendix 3.)								
One elective for 3 ECTS credits (appendix 3.)								

A: Lectures; B: seminars; C: supervised self-learning; D: laboratory and desk-based work; E: non-clinical animal work; F: clinical animal work; G: others (specify); H: total

Table 3.1.2.C Curriculum hours taken by the student of the cluster and the graduation track 'Horse'

Subjects	A	B	C	D	E	F	G	H
Basic subjects + Specific veterinary subject: see 3.1.2.A								
Year 5, Semester 2								
Clinical Sciences								
Obstetrics, reproduction, and reproductive disorders	Incorporated in earlier courses and courses of 'clinical training'							
Diagnostic pathology								
Medicine	90	15						**105**
Surgery (1)	45							**45**
Anaesthesiology	Incorporated in (1)							
Clinical practical training in horse						90		**90**
Medicine: other species (see appendix 3.)		30						**30**
Year 6								
Clinical Sciences								
Clinical practical training in horse						510	270	**780**
Master Dissertation								
Master Dissertation III		20					220	**240**
Master Dissertation IV			40				200	**240**
One of the 5 Majors (Wildlife Health in Context of Conservation', 'Clinic International', 'Clinic@Home', 'Veterinary Medicine in the Global South', 'Master of Science in Teaching') for 15 ECTS (appendix 3.)								
One elective for 3 ECTS credits (appendix 3.)								

A: Lectures; B: seminars; C: supervised self-learning; D: laboratory and desk-based work; E: non-clinical animal work; F: clinical animal work; G: others (specify); H: total

Table 3.1.2.D Curriculum hours taken by the students of the cluster 'Production Animals' and graduation track 'Ruminants'

Subjects	A	B	C	D	E	F	G	H
Basic subjects + Specific veterinary subject: see 3.1.2.A								
Year 5, Semester 2								
Clinical Sciences								
Obstetrics, reproduction, and reproductive disorders	Incorporated in earlier courses and courses of 'clinical training'							
Diagnostic pathology								
Medicine	20							**20**
Surgery	20							**20**
Anaesthesiology	Incorporated in (1)							
Clinical practical training in common animal species (1)						90		**90**
Medicine: other species (see appendix 3.)		30						**30**
Animal Production								
Animal production, including breeding, husbandry, and economics	Incorporated in herd health management							
Herd health management	90	10	15	10		10		**135**
Year 6								
Clinical Sciences								
Clinical practical training in ruminants						510	270	**780**
Master Dissertation								
Master dissertation III		20					220	**240**
Master dissertation IV			40				200	**240**
One of the 5 Majors (Wildlife Health in Context of Conservation', 'Clinic International', 'Clinic@Home', 'Veterinary Medicine in the Global South', 'Master of Science in Teaching') for 15 ECTS (appendix 3.)								
One elective for 3 ECTS credits (appendix 3.)								

A: Lectures; B: seminars; C: supervised self-learning; D: laboratory and desk-based work; E: non-clinical animal work; F: clinical animal work; G: others (specify); H: total

Table 3.1.2.E Curriculum hours taken by the students of the cluster 'Production Animals' and the graduation track 'Pig, Poultry and Rabbit'

Subjects	A	B	C	D	E	F	G	H
Basic subjects + Specific veterinary subject: see 3.1.2.A								
Year 5, Semester 2								
Cluster 'Production animals' (see 3.1.2.D)								
Year 6								
Animal Production								
Animal production, including breeding, husbandry, and economics	Incorporated in herd health management							
Herd health management	95	10		10	20	550	150	**835**
Master dissertation								
Master dissertation III		20					220	**240**
Master dissertation IV			40				200	**240**
One elective for 3 ECTS credits (appendix 3.)								

A: Lectures; B: seminars; C: supervised self-learning; D: laboratory and desk-based work; E: non-clinical animal work; F: clinical animal work; G: others (specify); H: total

Table 3.1.2.F Curriculum hours taken by the students of the graduation track 'Research'

Subjects	A	B	C	D	E	F	G	H
Basic subjects + Specific veterinary subject: see 3.1.2.A								
Year 5, Semester 2								

One of the 3 clusters (Companion animals, Horse, and Production animals) of year 5, semester 2.								
Year 6								
Clinical Sciences								
Clinical practical training in common animal species						510	270	**780**
Extra-courses								
Veterinary medicine development	30	15						**45**
Cellular Biological and Molecular Techniques for Biomedical Research	30			50				**80**
Laboratory Animal Science	30	10						**40**
Scientific reasoning and communication	15		35					**50**
Master dissertation								
Master dissertation III		80					400	**480**
One elective for 3 ECTS credits (appendix 3.)								

A: Lectures; B: seminars; C: supervised self-learning; D: laboratory and desk-based work; E: non-clinical animal work; F: clinical animal work; G: others (specify); H: total

A detailed description of the curriculum hours taken by the students in the different graduation tracks with all course units, including the electives can be found as appendix 3.1.4.

Table 3.1.3. Electives Veterinary Study Programme (list including the course codes available in appendix 3.1.4).

Electives Veterinary Study Programme	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**
Electives other species for the clusters 'Companion Animals', 'Horse', 'Production Animals' (fifth year, semester 2)								
Companion Animal Medicine, with Clinical Training: Blended Package	30							**30**
Ruminant Medicine, with Clinical Training: Blended Package		10	20					**30**
Equine Medicine, with Clinical Training: Blended Package	30							**30**
Majors for the graduation tracks 'Companion Animals', 'Horse', 'Ruminants' (final year)								
Major 1: Clinic @ Home (1 out of these according to								
Intra Muros Clinical Training in Companion Animals						450		**450**
Intra Muros Clinical Training: Horse						450		**450**
Intra Muros Clinical Training: Ruminants						450		**450**
Major 2: Clinic International								
Clinic International						450		**450**
Major 3: Wildlife Health in Context of Conservation								
Diseases of Wildlife in a One Health Perspective	10		20					**30**
Pathology of Wildlife Animals	3			2		60		**65**
Conservation of Wildlife Animals, with Externship	5			20			40	**65**
Wildlife: Care & Rehabilitation, with Externship	15			5	5		80	**105**
Major 4: Veterinary Medicine in the Global South								
Infectious Diseases in the Global South	25	20						**45**
Animal Production in the Global South	20			10				**30**
Policy making in the Global South	15	20						**35**
Externship in the Global South							120	**120**
Major 5: Master in Educational Sciences *(Courses of pedagogical sciences provided by the respective faculty for 15 ECTS credits)*								
General Electives for all graduation tracks (final year)								
Animal Welfare, Law, and Ethics	12	12						**24**
Practice Management and entrepreneurship	4,5	3	7,5					**15**
Tropical Veterinary Medicine	40			25				**65**

Externship Research				10			120	**130**
In-depth Externship		10					120	**130**
Clinic: Diseases of Horses						90		
Porcine Herd Health Medicine	20					40	30	**90**
Ambulatory Clinic and Herd Health Management of Ruminants						90		**90**

A: Lectures; B: seminars; C: supervised self-learning; D: laboratory and desk-based work; E: non-clinical animal work; F: clinical animal work; G: others (specify); H: total

Table 3.1.4. Practical rotations under academic staff supervision (excluding RPT)

Types	List of practical rotations (Disciplines/Species)	Duration	Year of programme
Intra-mural clinics (VTH)	See Appendix 3.1.5	24 days 26 days 22-30 days 17 weeks (CA, Equines) 12 weeks (Ruminants) 2 weeks (PPR) 11 weeks (CA, Equines) 8 weeks (Ruminants)	4 5 6 6 6 6 6 (Major) 6 (Major)
Ambulatory clinics Herd Health Management	See Appendix 3.1.5	5 weeks (Ruminants) 16 weeks (PPR) 3 weeks (Ruminants)	6 6 6 (Major)
FSQ & VPH		2 weeks	5

CA = Companion animals; PPR = Pig, Poultry and Rabbit; FSQ = Food Safety and Quality; VPH = Veterinary Public Health.
The students of the graduation track 'Research' must choose between the clinic Companion animals, Horse, or Ruminants for their 17 weeks clinical rotation.

A list of the practical rotations in the VTH for fourth-, fifth- and sixth-year students is provided as appendix 3.1.5.

Core clinical exercises / practical trainings / seminars prior to the start of the clinical Rotations

Imparting clinical knowledge, skills and competences is considered throughout the entire curriculum with the skills lab playing a key role in the practical training of students (from semester 3 till semester 9). In the skills lab, theoretical and hands-on training using mannequins and simulators is facilitated by tutors, peer tutors and self-learning instructions including blended learning with online learning paths.

- The first integrated practical trainings are those on anatomy (semesters 1 to 4) and physiology (semesters 3 and 4).
- Clinical training starts with animal handling and care in the skills lab (course units: Clinical and Communication Skills I (dog, cat, horse) in semesters 3 & 4 and Clinical and Communication Skills II (cow, pig) in semesters 5 & 6). After completing an online learning path and practical session using simulators and models, students practice animal handling during guided skills labs with live animals (dog 1 hour, horse 1 hour, pig 3.5 hours, cow 10.5 hours). Students are encouraged to independently practice animal handling with live animals. In addition, in the skills lab, in semester 3 to 6, students practice lab techniques, injections, surgical preparation and suturing in the skills lab. In semesters 5 & 6, they train the basic physical examination and palpation of the dog, horse, and cow (using live animals and models) and in semesters 7 & 8, the students perform advanced clinical examinations of companion animals and large domestic animals (e.g., reproduction, neurology, orthopaedics, ophthalmology, …) using models and simulators. In semesters 7 to 9 in the skills lab, the students receive training in bandaging, anaesthesia, simple surgical procedures, medical imaging, and reproduction. All clinical skills learned in the previous skills lab courses still need to be mastered and can be practiced voluntarily.

- Communication skills, as an important part of the clinical training, are taught and practised in semesters 3 & 4 (basic concepts of communication: active listening, providing information, empathy, exploration), semesters 5 & 6 (structure of a veterinary consultation and communication in an uncomplicated veterinary consultation) and semesters 7, 8 & 9 (communication during more complex consultations or with difficult clients) using theoretical lectures, video assignments, peer roleplay and roleplay with actors.
- Professional ethics training is provided during the compulsory course on Animal Behaviour and Animal Welfare in semester 5.
- In semester 6, in the course unit 'General Propaedeutics', the lectures are supplemented with a first introduction to the VTH by 'a virtual clinic' available on the Ufora platform. Then, in semesters 7 & 8, the fourth-year students start with the clinical rotations, mainly hospitalisation, anaesthesia, emergency, and pathology.

Core clinical rotations and emergency services

From the fourth year of studies onwards, undergraduate students have clinical rotations at the VTH ensuring adequate exposure to the different species and clinical disciplines. The clinical rotations are organized over the entire year including the holiday periods. Students of the fourth and fifth year are exempt of clinical rotations during the exam periods (end of December till first week of February and end of May till first week of July).

Fourth year (course 'General Clinical Training I' – further in this document 'Clinic I')

In the clinical course 'Clinic I' students have 24 days of clinical rotations: 23 during a normal weekday (4 hours) and 3 in a weekend or on a holiday (8 hours - hospitalised patients and emergencies). The following disciplines are included in the rotations:

- Companion animals: 8 rotations including anaesthesia, internal medicine, care of the hospitalized patients and first line clinical practice at the city of Ghent dispensary
- Horse: 8 rotations including anaesthesia, orthopaedics, internal medicine, medical imaging, care of the hospitalized patients in surgery and internal medicine
- Production animals: 5 rotations including internal medicine and care of the hospitalised patients, reproduction and obstetrics and bovine herd health medicine
- Pathology: 5 rotations in all species except exotics and poultry

Fourth-year students learn a lot by observing the management of clinical cases by last year students and clinicians. They are also actively involved in performing clinical examinations, recording clinical data (e.g., anaesthesia rotations), the handling and correct restraint of patients, feeding and administration of oral medication under direct supervision (all hospitalisation rotations), intra-muscular and subcutaneous injections (large animal hospitalisation rotations), removing bandages, helping to perform dissections and attain experience in macroscopic pathology.

Fifth year (course 'General Clinical Training II' – further in this document 'Clinic II' and 'Clinical Training III: Companion Animals Medicine' or 'Clinical Training III: Horse Medicine' or 'Clinical Training III: Production Animal Medicine' - further in this document 'Clinic III')

Fifth-year students have 26 days of rotations in the clinical course 'Clinic II' (semester 9) and 22 days of rotations in the clinical course 'Clinic III' (semester 10). The rotations of 'Clinic III' are focussed on companion animals, horse or production animals depending on the student's cluster choice. Except for the companion animals' clinic, all rotations in the fifth year are during normal weekdays (4 hours). Fifth-year students are progressively more involved in all aspects of the clinical work. In addition to the activities of the fourth year they also take an anamnesis, perform a clinical examination, draw up a differential diagnosis and a further diagnostic plan, feed dogs/cats through a tube, place intramuscular and subcutaneous injections (all species), perform blood collection, manage intravenous catheters, administer peroral medication independently, administer aerosols, ...

Common track ('Clinic II', semester 9):

- 12 companion animals' rotation days including anaesthesia, cardiology, dermatology, internal medicine, medical imaging, neurology, orthopaedic surgery and physiotherapy, soft tissue surgery, exotics, and hospitalized patients care
- 7 horse rotation days including surgery, hospitalized patients care in surgery and internal medicine, orthopaedics, internal medicine, and obstetrics
- 4 ruminants' rotations including internal medicine, obstetrics, and hospitalized patients care
- 3 pathology rotations

Companion animals cluster ('Clinic III', semester 10): 22 rotations including anaesthesia, dermatology, cardiology, internal medicine, medical imaging, neurology, nutrition, orthopaedic surgery and physiotherapy, soft tissue surgery, care of the hospitalized patients, emergency service, exotic animals (medicine and pathology).

Horse cluster ('Clinic III', semester 10): 22 rotations including anaesthesia, dentistry, orthopaedics, care of the hospitalized patients on surgery and internal medicine, medical imaging, internal medicine, obstetrics, nutrition, and pathology.

Production animal cluster ('Clinic III', semester 10): 22 rotations including surgery, internal medicine, care of the hospitalized patients on surgery and internal medicine, obstetrics and reproduction, nutrition, and bovine and porcine health management.

Sixth (final) year - clinical training for students of the graduation tracks 'Companion Animals', 'Horse', 'Ruminants' and 'Research': courses 'Clinical Training IV: Companion Animals Medicine' or 'Clinical Training IV: Horse Medicine' or 'Clinical Training IV: Production Animal Medicine' - further in this document 'Clinic IV'

In their final year, all students have 17 weeks of clinical rotation (30 hours per week). Within the chosen track, all clinical specialties mentioned above are included and for the 'Companion Animals' track additional rotations in behaviour, endocrinology, reproduction, stomatology are also included. In all courses, emergency service is an integral part of the clinical rotations. Students choosing the major 'Clinic@Home' have an additional 11 weeks of clinics.

In their final year, students are part of the clinical team at every stage from the medical history, via clinical examinations and results of further investigations up to treatment, including surgical procedures and postoperative treatment. In addition, they are responsible for monitoring and treating intensive-care patients and monitoring births. Discussion of specific cases and clinical reasoning about case-specific backgrounds are highly valued in the clinic. Students are requested to be partially responsible for hospitalized patients.

The hands-on experience they get includes several procedures such as administration of medication, placing intravenous catheters, wound care and bandage placement, rectal examination or assisting in surgery. Herd health farm visits and performing caesarean sections are an integral part in the 'Ruminant's' track. Lameness examinations, full radiographic examinations and stallion castrations are an integral part of the 'Horse' track. Cat castration and spays are part of the rotation at the small animal shelter and Ghent city dispensary.

The students from the graduation track 'Research' must make a choice between the 3 course units on Clinical training for their 17 weeks clinical rotations.

Sixth (final) year - clinical training for the students of the graduation track 'Pig, Poultry and Rabbit': courses 'Herd Health Medicine and Epidemiology of Pigs, Infectious Diseases and Pathology' and 'Herd Health Medicine, Epidemiology and Pathology of Poultry and Rabbits, with externship'

The animal species pig, poultry and rabbit receive less attention during classes in the first 5 years of the curriculum. Therefore, some courses for these animal species are included in the graduation track 'Pig, Poultry and Rabbit' in the sixth year. In the course 'Herd Health Medicine and

Epidemiology of Pigs, Infectious Diseases and Pathology' students have 50 hours of lectures and 415 hours of clinical training. This training includes farm visits (in groups of 1 or 2 students) and practical training e.g., semen analyses, examining slaughterhouse material (e.g., sow reproductive tracts), performing and interpreting necropsies, presenting and discussing case reports and farm data, excursions to companies, and exercises via internet classes. Farm visits include regular visits to farms participating in herd health programmes, visits to problematical farms and visits to farms participating in field trials. In the course 'Herd Health Medicine, Epidemiology and Pathology of Poultry and Rabbits, with Externship', the students have 25 hours of lectures and 165 hours of clinical training in these animal species. This training includes practical exercises consisting of farm visits, workshops, clinical examinations, necropsies, and case reports.

Slaughterhouses and in premises for the production, processing, distribution/sale or consumption of food of animal origin

The course unit Veterinary Public Health V: Externship and practical training brings fifth-year students in contact with the professional field:

- All students from the fifth year join an officer (inspector) from the FASFC for 2 days (1 student per officer), in at least 2 different sectors (primary production, transformation, distribution or border control). Depending on the planning of the day, this may include sampling, processing complaints, inspection of a slaughterhouse or a control of a restaurant. The students are prepared for this training by following an online training including exercises/cases and a knowledge test. Since 2022, because of the covid period, only a 1-day visit is allowed by FASFC. As an alternative a practicum is organized on campus, whereby students receive a 'photo' visit/tour of different food producing companies including photos taken during a control visit of an FASFC officer. The students are requested to complete the check lists. This is a supervised practicum with 20 students divided over 4 groups of 5 students. Feedback sessions are organized on campus on a weekly basis with all students that followed FASFC officers. This session allows students to exchange experiences as they follow different officers and visit different sectors. The feedback sessions are organized in groups of maximum 12 students.
- A ham producing company is visited by all students of the fifth year, in groups of 10 students. The students receive an introduction from the company and are further accompanied by an assistant from Ghent University during the visit of the premises.
- All students from the fifth year also visit at least 2 different slaughterhouses (pigs, poultry, cattle). The students are accompanied by meat inspectors, in groups of 5 (or 10) students per inspector. The visit includes a recap of the entire process with a focus on the tasks of the veterinarian in the slaughterhouse (animal welfare, ante mortem and post-mortem inspection, hygiene, administration, …). In preparation of these visits, students need to study the online post-mortem tool. This is an online tool in which - for different animal species (e.g., cattle, poultry, pigs, …) - well characterised photos of post-mortem lesions are shown, including information on the diagnosis, description of the lesion, aetiology, differential diagnosis, occurrence/impact, related legislation, and the inspection decision. This tool is also studied in the fourth year, as well as an online learning path on legislation, in addition to the courses. The online tool includes an obligatory self-test.

The time spent by the students on this extra-mural practical is approximately 37 hours.

Selection procedures of the Electives by the students

The strategy of the FVMG is to provide a cohesive framework for the students' future profession. Electives are an important part of this strategy as students can individually choose their preferred electives. Since electives can be done at any accredited university, there are no capacity problems, and a selection procedure is not needed.

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.

The study programme (= curriculum) meets the objectives

At Ghent University, the terms 'study programme competences' or 'study programme-specific learning outcomes' are used interchangeably. In the present self-evaluation report, the term 'study programme-specific learning outcomes' will be used. These learning outcomes are an operationalisation of the study programme's vision/mission, strategic choices, profile, and characterisation. The learning outcomes identify observable and measurable knowledge, skills, and attitudes that students must obtain by the end of the study programme. In addition, learning outcomes are also formulated at the level of individual course units and are called course-specific learning outcomes.

To ensure the educational aims are met, the SPC of the FVMG has defined study programme-specific learning outcomes for the general part of the curriculum based on the university's competences and the EAEVE SOPs. In addition, course-specific learning outcomes have been defined for every course unit. To achieve its educational aims, the SPC has defined continuous review and improvement of study programme-specific and course-specific learning outcomes based on constant feedback from internal and external stakeholders, as well as assessment results (see 1.6).

Study programme-specific learning outcomes usually remain stable for a long time. A review (and adjustment) of these outcomes has been performed in 2015 and 2020 associated to a reform of the curriculum, considering new developments in the veterinary field. The course-specific learning outcomes are reviewed every year by the lecturer-in-charge of the course and all learning outcomes are yearly scrutinized by the SPC.

Academic environment stimulating learning

The veterinary curriculum is competence-based and student-centred. The study programme-specific learning outcomes are relevant to the requirements of daily professional life. This results in broad, interdisciplinary teaching content using methods like problem-based learning, small-group teaching in interdisciplinary seminars or networked learning. Early clinical experience in combination with research-led processing of clinical cases and presentations promotes scientific discourse and lifelong learning. The continuing professional development of lecturers and the good mentoring relationship between lecturers and students ensure mutual interaction and feedback.

Self-learning and lifelong learning

Independent content development and problem-solving is supported in the various teaching and learning formats. Organisational integration of the students in daily routine work with scheduled time for self-learning enables and promotes problem-based discussion of topics or patient cases. The necessary technical infrastructure such as access to the patient record (archiving) system / Animal Hospital Information System, e-learning, and library promotes research-led self-learning and lifelong learning. Instruments to assess personal learning progress such as online tests, self-

assessment and personal feedback contribute significantly to the motivation and success of self-learning. Compulsory personal development courses, such as ethics, communication, and business management, support the development of personal responsibility, self-reflection, and feedback. During the courses, along the curriculum, lecturers stimulate the importance of lifelong learning, mainly in the clinical courses. Additionally, the educational method used in the graduation tracks (see 3.1) stimulates lifelong learning. Finally, all students get the opportunity to register for all courses of the 'Academy of Veterinary Medicine' (see 10.3).

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.

Educational aims and strategy
The educational objectives are set in accordance with EU Directives 2005/36 and 2013/55 and university requirements. Based on the veterinary education competence-based model, common course-specific learning outcomes are defined for each course. The teaching and learning methods of the associated courses are constructively aligned to the learning outcomes. Examination formats and questions are aligned with the learning outcomes (see 8.3). The learning outcomes support the lecturers in focusing the course on outcome-based content, avoiding redundancies, and showing the students what is to be achieved. The horizontal networking necessary to achieve the learning outcomes necessitates interdisciplinary involvement in the courses. To ensure that all lecturers coordinate precisely, the SPC organizes an evaluation of the course content every 3 years, a process in which all the teachers are strongly involved. Comprehensive evaluation of the teaching ensures that the aims of the curriculum are achieved and that the training objectives and qualification profile can continuously be adapted to changing social requirements and to increased graduate employability.
Evaluation is performed at the level of (1) the individual course via student evaluations every 1 to 3 years and course content evaluation by working groups every 3 years, (2) the curriculum based on a competency matrix, examinations, and student monitoring, (3) the study programme by recent graduates yearly, as well as the regular involvement of stakeholders such as veterinarians, in the educational committees and on specific occasions.

The ESEVT Day One Competences
Every 2 years (when new ESEVT SOPs comes out), the course-specific learning outcomes per course are compared to the ESEVT Day One Competences and to the Ghent University's competences model to assure that all these competences are covered. Thus, passing the compulsory examinations proves that the student has the required knowledge and skills. Additionally, the competency matrix and yearly surveys of graduates make it possible to check whether the day-one competences have been achieved.

Description of how and by whom the learning outcomes are decided, communicated to staff, students and stakeholders, assessed and revised
The SPC is responsible for deciding on the teaching objectives in cooperation with the EQCU. Decisions are based on the results of the course evaluations, competency matrix, examination results and the graduate survey. These results are discussed in the EQCU, which analyses and

discusses them, identifies weaknesses and strengths, and makes recommendations. These recommendations are subsequently discussed in the SPC, which is responsible for a regular update of the study programme-specific learning outcomes. Minor changes, e.g., due to new legislation, in the learning outcomes can be performed annually. An in-depth review of the learning outcomes has been performed in 2015 and 2020 as part of the curriculum reform. The activities and decisions of the SPC are reported to the Faculty Council and subsequently to staff, students, and stakeholders. In addition, the EQCU decides on measures to improve the continuing professional development of lecturers and the Director of Studies (chair of the EQCU) discusses measures about organisation, infrastructure and personnel resources that could help to improve teaching, with the Dean. This process ensures that the results of evaluation can directly result into an improvement of the curriculum.

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/assessments outcomes
-) perform on-going 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.

Changes to the curriculum are autonomously regulated by Ghent University (see 3.1) according to the following procedure in 4 steps: (1) changes to the curriculum are proposed by the Director of Studies and the chair of the SPC based on regular internal and external evaluations (e.g. course evaluations, competence check, graduate survey), oral or written feedback from lecturers and students, feedback from educational working groups and committees, as well as feedback from the professional organisations (Council of Vets, …); (2) the SPC discusses the proposal and has to approve the changes; (3) the Faculty Council has to approve the changes; (4) a complete dossier, including the proposed changes and the transitional measures has to be submitted to the Programme Committee from Ghent University, which has to approve the proposal. After approval by the Programme Committee, the reform can be implemented. Currently the university evaluates the process for curriculum reform trying to improve the balance between administration and flexibility, allowing the study programmes to adapt quickly to the societal evolutions.
The SPC is composed of 14 voting members: one chairperson (preferably a full professor), one representative from each department (7 professors), one representative of the assistant academic staff and 5 students (at least one third of the SPC must be students). In addition, there are 16 members without voting rights: 6 staff members of the Faculty Education Services (FES), the Dean, the chair of the Faculty Committee for Internationalization, the chair of the Faculty Committee for Scientific Research, one representative of the University Antwerp, one representative of the Flemish Veterinary Council and 5 representatives of the professional bodies. In the event of discussions on a reform of the curriculum, more representatives of the professional bodies are invited.
Changes in the curriculum are communicated via various channels: (1) public: newsletter via website; (2) faculty staff: newsletter via website, SPC, Faculty Council; (3) students: newsletter via website, SPC and Faculty Council, information meetings with students organized by the FES;

(4) Stakeholders: information meetings with the Flemish veterinary Council and the professional bodies, publication in the Flemish Veterinary Journal (reforms of 2004 and 2016).

Standard 3.5: External Practical Training (EPT) is compulsory training activities organized 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.

In the third year, an Orientation externship (3 ECTS credits) of 3 weeks is provided. As the name suggests, this externship aim to introduce the student to different professional fields of veterinary medicine (1 week for each domain, at the student's choice).
In the fifth year, students have one week externship as part of the course unit Veterinary Public Health V (3 ECTS credits) (see 3.1).
In the sixth (final) year, the students have a participating externship during which the student applies the knowledge and skills acquired at the FVMG in the work field. For the graduation tracks 'Companion animals', 'Horse', 'Ruminants' and 'Research', the duration is 8 weeks (9 ECTS credits). The graduation externship for the graduation track 'Pig, Poultry and Rabbit' is 5 weeks (5 ECTS credits). In the sixth year, students from the graduation tracks 'Companion animals', 'Horse' and 'Ruminants' have supplementary externships when they choose the majors Wildlife Health in Context of Conservation (4 weeks) or Veterinary Medicine in the Global South (4 weeks) (4 to 8 ECTS credits). These are specific externships related to one of the majors. The major 'Clinic International' allows the student to participate to the Erasmus programme, corresponding to an experience in a foreign academic institution for a period of 9 to 13 weeks.
Finally, in the sixth year, the students of all the graduation tracks can take either a 'Research externship' or an 'In-depth externship', both with a duration of 4 weeks, as an elective (4 ECTS credits). Students with an affinity for research choose the research externship and those who want to further develop their skills in any animal species opt for the in-depth externship. The graduation externships in the final year are aimed to translate the theoretical knowledge and clinical training acquired at the FVMG into a hands-on experience in the veterinary field. For each graduation track, the SPC has set up a list of skills, that are not routinely performed at the VTH and are more likely to be performed during the externship such as e.g., euthanasia, castration, or vaccination.

Table 3.5.1. Curriculum days of External Practical Training (EPT) for each student

Fields of Practice	Minimum duration	Year of programme
Pre-clinical (all students)	15	3
Clinical (all students)	40	6
FSQ &VPH	10	5
Others: elective	20	6

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 standardized 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.

For each EPT a training agreement is drawn up. This is a legally binding contract between the EPT provider, Ghent University, and the trainee to state their respective rights and duties, including insurance matters. This contract has been generated by the software for registration of externships,

VESTA, covering the entire externship flow. Standardized evaluation of the student by the EPT provider is performed online by VESTA. The EPT providers can provide feedback to the faculty by contacting the faculty's EPT coordinator or a member of the Externship Committee. Also, during the annual networking event for all interested mentors, there are a lot of opportunities to discuss the EPT programme. The Externship Committee, directed by Prof. Dr. Jimmy Saunders, is responsible for the overall supervision of the EPT, including liaison with EPT providers. The committee is composed of 15 members, including professors, student representatives, the EPT officer, the Internationalization policy officer and 3 practitioners.

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.

For the progression and growth within the EPT, the responsibility lies largely with the student themselves. Before each EPT, students must inform themselves about the course-specific learning outcomes. They also need to formulate their individual learning goals. During the intake with the EPT provider, students must discuss with the mentor in what concrete way these learning objectives can be achieved during the EPT. A short report of this intake is being uploaded in VESTA and must be approved by the EPT provider. During the EPT, students need to ask regularly for feedback and a final evaluation interview. They can also fill out a (mid-term) self-evaluation. During the EPT, students complete their logbook online via VESTA. At the end, the EPT provider must approve the logbook. In their final report, students reflect on the externship period, primarily in the light of the students' future professional activities. The evaluation of the work placement is a mandatory step in the externship flow in VESTA. In addition, students also can complain officially and/or anonymously about issues occurring during the EPT. The first point of contact is the EPT coordinator. A flowchart for the externships is added in appendix 3.7.

Comments on Area 3

- Despite considerable progress, thanks to the 2 recent reforms of the curriculum, the curriculum in the bachelor years is still traditional and mainly based on (theoretical) knowledge.
- Students in veterinary medicine are allowed to do their master's dissertation on an educational topic in the field of veterinary medicine, allowing them to get a dispensation for the master dissertation if they register to a (2-year) 'Master in Educational Sciences' after their veterinary studies.
- The shortcoming in practical skills' training, a comment from the practitioner on the veterinary curriculum, has largely been met with the 'clinical & communicative skills' learning pathway, together with the 2020 reform of the clinics where the clinical training already starts in the fourth year. The effects of these changes will be closely monitored by the EQCU.
- Due to the heavy administrative procedures, a reform of the curriculum is a lengthy process. DOWA proposes to introduce elective course unit(s) in the curriculum allowing to answer societal changes more quickly.

Suggestions for improvement in Area 3

- During the past reform of the curriculum the clinical and communicative skills have been addressed very well. In the forthcoming reform more attention should be paid to other soft skills such as resilience, time management, mental strength, or entrepreneurship.

- In addition to the evaluation of the work placement, it is necessary to periodically ask the EPT providers about the quality of the externships, the competences of the student-trainees, the final level of students, professional competence, and employability.

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 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.

The FVMG is in Merelbeke, a small town in the suburbs of Ghent. It covers a total surface of 8,5 hectares and includes a main campus 'Merelbeke' (7,82 hectares) on the south-side of the E40 highway and a smaller campus 'Heide' (0,68 hectares) on the northside of the E40. A bridge over the highway connects both campuses. The FVMG is easily accessible by car and has a large car parking lot. It can also easily be reached by bike (8 km from Ghent city centre) and there is a bus stop at the entrance of the campus.
The map (see appendix 14 for all maps) below shows the campus 'Merelbeke' which includes:

- A 4-story laboratory building (D1) with adjacent housing facilities for laboratory animals (D2) and the veterinary research building (D13) at the south side of the campus.
- The buildings for morphology and pathology (D5) and exotics/non-conventional small animals' clinic plus bacteriology/mycology (D9) at the west side.
- The buildings for small and large animals' clinics at the north side, with offices and laboratories in the front, and stables/riding hall/examination hall in the back (D4).
- The restaurant (D15), the building for the faculty central administration, which also includes the library and a house for the housekeeper (D6) and the skills lab building (D7) are located at the entrance of the campus.
- The central pond on the campus serves as a buffer basin for rain and a basin for wastewater treatment.

Campus 'Heide' houses the Department of Veterinary and Biosciences (DI07) and has facilities for the housing of faculty owned horses. On the same premises the veterinary student organization has a facility ("de Peerdestal") which is used for all kinds of student activities including a faculty club for students and faculty members.
The FVMG also has a teaching farm for ruminants (Bio-centrum Agrivet) and participates in the pig facility of IAFF (see 5.2). Both are in Melle at 5,5 km from campus 'Merelbeke'.
In the first year of the veterinary curriculum different teaching locations in the centre of Ghent (8 km from the main campus) are used.
The buildings of the FVMG are owned by Ghent University that is primarily responsible for maintaining and upgrading the buildings. Each year 30 to 50 million euro is used to realize building and renovation plans throughout the university. In July 2022, the large and ambitious building plan 'UGent Verbeeldt 2050' was launched and aims at reorganising and clustering the more than 20 campus locations in 3 major clusters. Campus 'Merelbeke' is part of the 'south cluster' and will remain at its present location. In the period from now till 2050, the buildings at the campus 'Heide' will be broken down and a new facility will be built at campus 'Merelbeke' to integrate the Department of Veterinary and Biosciences (campus 'Heide') over time. In the meantime, standard renovations are foreseen according to an annual building and renovation schedule as agreed by the Board of Governors.

The FVMG complies with EU and national legal regulations. The facilities operate in compliance with occupational health and safety regulations (Federal Public Service Employment, Labour and Social Dialogue). All working equipment complies with current European legislation and the equipment is subject to the required periodic inspections by an External Service for Technical Inspections, an independent inspection body recognized by the government (Ghent University framework agreement). The Internal Service for Prevention and Protection at Work (Safety Department, Department of Occupational Health, the department of psycho-social well-being and the Radiation Protection Service) together with the Environmental Office of the university a control of all workplaces every 2 years. The results of these analyses are discussed with the departmental heads and the dean. All necessary adaptations are performed to ensure a safe working space.
The laboratories and animal facilities meet the legal biosafety / biosecurity requirements and operate under supervision and with authorization of the Department of Environment and Spatial Development of the Flemish government. Internal audits are periodically performed by the biosafety coordinator.
Adherence to the applicable regulations is the responsibility of the rector and the hierarchical line. At the FVMG, several committees, representing all parties involved, are in place to communicate (interaction in both directions) and ensure adherence to applicable regulations: e.g., Faculty Council, Faculty Building Committee, Ethical Review Committee, (Bio)safety Committee – Subcommittee Biosafety in laboratories of contained use and Subcommittee Biosecurity in clinics, Sustainability Committee).

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.

Lecturing
Several lecture halls are available in different buildings at the FVMG. With the current number of students, the size of the lecture halls could be considered borderline or insufficient. However, as

all classical lessons of the veterinary curriculum are streamed and recorded allowing students to follow lessons at home, what many students do, the size of the lecture halls is sufficient.

Hall	Max	Lab. Build.	A	B	D	Small. Anim.	Heide	Ambul.
Building	D5	D1	D4	D4	D4	D4	Heide	D4
No places	270	138	161	161	86	30	50	25
M^2	280	180	170	170	101	60	95	44

Additionally, large lecture halls in Ghent city centre are used for lectures to first year students as these are the largest groups.

Hall	BT-A	BT-5	Dun 2	C-E1	Led 1
Building	Boekentoren	Boekentoren	Dunant	Coupure	Ledeganck
No places	474	605	613	413	627

All auditoria are equipped with furniture, beamer, recording systems, capture agents, webcam, headsets, tele class and/or chalkboard. Rooms can be booked in a central booking system, named TimeEdit.

Group work

Shared meeting rooms in the different departments and laboratories are used for both staff and student meetings.

Group session rooms	Laptop room	DI10	Anatomy	Library
Building	D1	D4	D5	D6
M^2	52	72	90	286

The faculty library, located in the building of the dean's office, currently has a capacity of 30 students. By mid-2023, this library will be transformed into a multifunctional room (global capacity of 40 students) that will be used for different purposes such as e.g., study, group work, interactive seminars, blended learning, and hybrid conferences, ...

There is no specific 'computer room' with desktop computers for students because the university follows a "bring your own device" (BYOD) policy and focusses on maximum availability of Wi-Fi (Eduroam). The savings in not providing desktop computers, and the maintenance thereof, are used to further expand Wi-Fi coverage and to purchase subscriptions to scientific software as well as scientific journals and reference works in the form of e-books.

Practical work

- For the teaching of anatomy, a demonstration theatre (53m²) with a capacity of 80 students and a cadaver dissection room (175m²) with 20 dissection tables are used (D5). Both rooms are equipped with multimedia tools, including recording and live, large screen projection of dissections. A room with student lockers (2x80) is available for storing personal material, which is not allowed in the dissection rooms. Dry specimen practical trainings of anatomy are given in the museum of morphology (232m²) in a set-up of 4 work islands each offering place to 12 students.
- At D5 a 224m² microscopy room equipped with 100 microscopes is available for the histological practical exercises (both morphology and pathology). Close to this room there is also a museum of pathology where students can consult preserved pathological specimens.
- The diagnostic laboratory practical exercise room (121m²) of the Laboratory building (D1) is used for training of students (wet lab practical exercises on diagnostic techniques for parasitic diseases). This laboratory unit contains standard laboratory equipment, including stereomicroscopes, microscopes (with immersion lenses) and an immunofluorescence microscope with Leica live imaging system. Written SOPs for each commonly used

procedure are available, as well as background information for diagnosis on a wide range of parasites, such as books, manuals, retrievable specimen archives and an electronic database (photos).
- On the third floor of D1, a laboratory room for practical exercises (278m²) (e.g., Bacteriology and Mycology, Virology) is present.
- In the clinic building (D4) there is one practical exercise room for small animals (73m²) and 2 for large animals (247m² for surgery, dentistry, and orthopaedic practical exercises and 50m² for reproduction practical exercises)

Skill labs

Building D7 is exclusively used for the skills lab. It consists of a large room for practical training sessions (220m²), 2 separate sections used for voluntary practical training sessions (97m²) and separate rooms for storage. The skills lab is equipped with all necessary facilities for practicing surgical preparation (scrub), microscopy, anaesthesia, … It also has a wide range of commercial high-fidelity models such as an equine rectal examination simulator, limbs for canine venepuncture, a canine resuscitation model, an equine limb and small animal models for X-ray positioning, models for urinary catheterization, … In addition, the skills lab team also developed and created many low-fidelity models which are used for teaching suturing, injections, obstetrics, intubation, … The skills lab team is an active member of the online 'Veterinary Clinical Skills and Simulation community' and has presented several home-made models at online meetings of this community. A beamer and smartboard are available for projecting practical guidelines or videos. The room can also be used for animal handling and clinical examination labs with live dogs. In addition to the physical models and simulators, e-learning and blended learning is an essential part of the preclinical skills training, using online learning paths with multimedia and exercises (e.g., auscultation of murmurs). Practical sessions in the skills lab are part of the course 'Clinical and communication skills' which was introduced in the curriculum in 2016 and is spread over 4 years of training (see 3.1). Therefore, the skills lab is used by approximately 1000 students every year.

Study and self-learning

The restaurant (480m²) has 250 study places which can be used by students on weekdays from 7.30am till 12am and from 2pm till 9.30pm In addition, the anatomy museum (232 m²) is open daily from 8 a.m. till 6 p.m. and is freely accessible. Students can study the collection, work together on group tasks or study individually at the 40 seats available. Students also have access to the physical library rooms of all other 9 faculty libraries of Ghent University spread across the city of Ghent.

Thanks to a joint project with the city of Ghent, Ghent university offers its students an extensive range of bookable study places. This is in line with the university's vision of the 'library', in which more emphasis is put on making the largest possible collection available digitally 24/7 and less on its own physical space with desktop computers.

Catering

In 2017 a brand-new restaurant and central meeting place was built at the entrance of the campus. This modern and spacious building accommodates 250 places (480 m²) for staff and students. Cold and warm meals are served daily from 11.30 till 14.00, except during the weekends and on university holidays. There is a large patio where staff and students can picnic in a very pleasant environment. The entire building is energy neutral.

Locker rooms

Every master student has a locker for storing the equipment needed for the clinics and practical exercises. There are 480 lockers in the middle of the campus, below auditorium A and B, and 300 more locker rooms at the clinics of companion animals, surgery, and obstetrics (all in the D4 building).

Accommodation for on call students
In total there are 12 bedrooms (each ca. 14m²) distributed over the clinical departments for students who are on duty. Each room is equipped for 2 people to sleep and has a shower facility. Sanitation facilities are ample and shared with personnel. Each department has a kitchen/leisure room where the students can cook and eat during their duties. Each kitchen is equipped with a microwave, cooking facilities, a fridge, freezer, table, and a couch.

Leisure
On campus 'Heide' the veterinary student organization (VDK) has a facility ("de Peerdestal") which is used for all kinds of student activities including a faculty club for students and faculty members.

Staff offices and research laboratories
The standard equipment of staff offices includes a desk, an office chair and adequate storage space. The Internal Service for Prevention and Protection at Work advises staff on the ergonomic design of office equipment. Laboratory equipment depends on planned use and is described in more detail in appendix 4.2.

Standard 4.3: The livestock facilities, animal housing, core clinical teaching facilities and equipment used by the VEE for teaching purpose 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 biocontainment
-) be designed to enhance learning.

Sufficient space is provided to assure that all animals included in teaching and research are adequately accommodated, in compliance with all national regulations. Animal caretakers and responsible academic staff ensure compliance, members from the Faculty Ethical Review Committee are available as internal experts and external audits are performed on a regular basis.

Healthy animals
Healthy animals for teaching purposes are the property of the large animal departments of the FVMG or Bio-centrum Agrivet or IAFF.

- Horses: 5 healthy horses for clinical demonstrations and blood donation are housed in individual boxes (16m²) in combination with as many periods on the pastures at the campus 'Merelbeke' as possible (1,6 hectares) (mainly in summer). 10 healthy horses are kept in a group stable (200m²) with a 30 are outdoor arena in the winter. In the summer they are kept in a 3-hectare pasture adjacent to campus 'Heide'.
- Companion animals: There are facilities for housing a maximum of 70 dogs (mostly Beagle) and 20 cats. On average, about 35 dogs and 15 cats are housed to assure adequate comfort and wellbeing to the animals. The total indoor surface for dogs is 127m² and their total outdoor surface is 314 m². Dogs are housed in groups of 2 or 3 (only dogs that get along are housed together) in kennels (7m²) with an indoor part with a heated floor (and daylight inside) as well as outdoor access. Cats are housed in large cages (with all necessary cage enrichment) over a total indoor surface of 63m². They also have an outdoor arena of 10m². Cats that get along with each other are housed in groups.
- Ruminants: 2 large bulls are kept in individual boxes (16m²) during the winter and as much as possible on pasture during the summer. There is one goat and one sheep for clinical demonstrations. Both are kept together in a 14m² stable and go outside as much as possible.

In addition, a limited number of calves (±12) are purchased yearly for surgery practical exercises. These animals are kept in 2 16m² boxes for a limited period (3-5 days) and are euthanized before the practical sessions.
The Bio-centrum Agrivet has a robot dairy farm with 68 lactating cows and a stable for associated young stock (78), sheds for goats and sheep, 20 hectares of pasture and 50 hectares of fields for field trials of arable farming and forage harvesting. All university faculties can use the educational facilities of Biocentrum Agrivet. The FVMG uses this facility the most for the practical training of students and research (see 5.2).

- Pigs: the FVMG has a collaboration agreement with the pig facility of IAFF (a new facility owned by IAFF and Ghent University with strict biosecurity rules) also located in Melle (at 4 km from the faculty). The pig campus (3,7 hectares) has room for 105 sows, 3 times 180 piglets and more than 700 finishers. In another (older) pig farm, solely owned by IAFF, the FVMG acts as the legal veterinary service and organizes herd health visits with students.

Research animals
The housing of laboratory animals depends on their species (laboratory rodents, large animals, small animals, poultry) and the research purpose (e.g., infection experiment). Therefore, rooms, cages, and boxes and, if necessary, isolation rooms or isolators are used. More details on the research facilities can be found in appendix 4.2.

Hospitalized animals
- For **small animals**, the Intensive Care Unit (ICU) (70m²) has 5 large cages for dogs (1 to 1,8m²) and 6 smaller cages for dogs or cats (0,35m²). There are 2 large recovery rooms (each 48m²) with in total 2 large cages or dogs (1,3-1,7m²), 5 medium cages for dogs (0,8-1m²) and 12 small cages for dogs or cats (0,5m²). The dog hospitalization area (140m²) includes 3 kennels with large cages over a total usable surface area of 5m². the cat hospitalization area (49m²) has 10 cages of 0,4m² and 3 of 0,7m². Isolation facilities are not included (see standard 4.6). Several of the small animal cages are modular. All the rooms with the dog and cat cages are equipped with tables and all material needed for animal care.
- For **exotics/non-conventional** small animals there are 4 separate rooms (16m² each) allowing the hospitalization of 20 to 30 animals per room (depending on their type and size). Rooms have a different temperature regulation according to the needs of the hospitalized patients. These rooms are equipped with tables and all the material needed for animal care. On average 50 patients are hospitalized daily.
- For **large animals,** the FVMG has 125 individual boxes for horses (without the isolation facilities: see standard 4.6) and 64 individual boxes for cattle, small ruminants and/or Camelidae, over a total surface area of 6130m². The details of the large animal clinic are shown in the table below. In the large animal internal medicine department there is one padded box for recumbent or neurological patients. In about 50% of the horse boxes a winch is available for sling support of the animals when needed. All stables are temperature regulated. In the large animal surgery and internal medicine clinics there are respectively 2 and 4 horse boxes with video surveillance. In the reproduction and obstetrics clinics nearly all horse boxes have video surveillance.

Number of large animal hospitalization stables / wards per clinic:

Clinic	Species	Number of stables / wards	Size of individual stable / ward
Reproduction and Obstetrics	Horses	25 normal boxes 2 boxes for mare and foal	16m² 24m²
	Cattle / small ruminants	16 standing places 8 boxes (can also be used for small ruminants)	3m² 7m²

	Calves / small ruminants	6 boxes (for small ruminants)	2,4 m²
Internal medicine large animals	Calves / small ruminants	10 mobile calf hutches 7 individual boxes	1,4m² 2,5m²
	Cattle / Camelidae	1 quarantine room	46m²
	Horses	44 individual boxes 2 boxes for mare and foal 2 boxes for mare with foal separated	16m² 24m² 24m²
Surgery large animals	Horses	49 individual boxes 2 boxes for mare and foal	16m² 24m²
	Cattle / Camelidae /swine	8 medium to large individual boxes 8 small boxes	7 to 16m² 2m²

Equipment used for clinical services

The premises of FVMG have state-of-the-art equipment to enable research-based and innovative treatment, prevention, and diagnostic services. The FVMG does not only offer excellent diagnostic capabilities and a plethora of treatment options but also ensures that students receive high-quality, practice-based, hands-on education. The clinics actively shape their services through a high level of innovation and specialization, benefiting the continuing education of undergraduates and graduates.

Clinical activities

- The **small animal clinic** has the following premises:
  - In the small animal department, there is a total of 23 consultation and treatment rooms (total surface of 500m²) for emergencies, surgery, internal medicine, neurology, cardiology, ophthalmology, dentistry, chemotherapy, blood donation and a farewell room. All consultation and treatment rooms are equipped with treatment tables, washing facilities, computers and all basic equipment for clinical consultations related to the different disciplines. For cardiology this includes ultrasound with doppler, electrocardiogram (ECG) and cardiac rhythm management devices, Holter patient monitoring equipment and a defibrillator. For neurology this includes equipment for electrophysiologic examinations and for magnetic stimulation. For ophthalmology this includes direct and indirect ophthalmoscopes, Tono pen, split lamp, ERG, and ultrasound.
  - There are 5 additional consultation rooms (ca. 106m²) for orthopaedic examinations, wet and dry physical rehabilitation, nutritional advice, and behavioural examination that are situated in the neighbouring department which also provides the medical imaging services. The physical rehabilitation room is equipped with a water treadmill, laser, TENS, and ultrasound. A pressure plate is available for small animal orthopaedic examination.
  - The consultation rooms for small animal reproduction and semen collection are also part of the small animal clinic but are in the department of reproduction and obstetrics. They are equipped with ultrasonography and a 5-person microscope.
  - There is a scintigraphy unit (ca. 300m²) that provides thyroid therapy with I-131 for hyperthyroid cats on a large scale. It is in a separate part of the building and is not accessible for students for safety reasons.
  - The small animal surgical unit has a usable surface of 322m² for preparation and surgery rooms. There are separate surgical rooms for general dog surgery, general cat surgery, neurosurgery, orthopaedic surgery, and arthroscopy. This surgical unit is strictly separated from the consultation rooms and access is only allowed after changing clothes and footwear. The small animal surgical equipment includes several anaesthetic machines, mechanical ventilators and multi-parameter monitors, endoscopic towers (for laparoscopy

and thoracoscopy), an arthroscopy tower, all cutting and sealing devices for open and endoscopic surgery, a C-arm, a surgical microscope, and a full range of instruments for soft tissue, neuro- and orthopaedic surgery. One surgical room for dental and contaminated procedures is located outside that complex and is equipped with a dental unit, including ultrasonic scaler and polisher high-speed handpiece, dental digital radiograph, and a full range of instruments for periodontal exams and open and closed extractions. The room is also equipped with an endoscopy tower and a full range of flexible and rigid scopes.

- The **medical imaging clinic** is located centrally between the small and large animal department and offers services to both clinics but also to the clinic for exotics/non-conventional small animals. Its premises include 189m² of rooms for small animal and large animal ultrasonography and radiography equipped with up-to-date ultrasonography machines and radiographic equipment (roof suspension for equines) and several rooms for interpretation and discussion of the digital images by staff and students. There is a brand new 85m² room with a high-tech CT unit, the fastest CT of Europe, used for both small and large animals (standing and recumbent) and a 33m² shielded room for both small and large animal MRI (recumbent).
- The **large animal clinic** is divided into different clinical departments, but the premises are close to each other and are connected by a large corridor. Both horses (majority), large and small ruminants and occasionally a pig are treated in the large animal clinic. Although there is no strict separation between these species, most examination and treatment rooms are either for horses or for ruminants.

- The large animal orthopaedic clinic has a large indoor lameness examination hall (486m²) which is equipped with a lameness locator and a pressure plate dynamically calibrated by a force plate. There is an adjacent soft ground riding hall (680m²) which is also used for overground endoscopic examinations by the internal medicine department. Next to the examination and riding hall there is a fully equipped farriery (98m²).
- The large animal surgery clinic has a large examination hall (247m²) and 3 smaller consultation rooms (each 40m²) which are used respectively for small standing interventions, dentistry, and ophthalmology. All basic dental diagnostic instruments are available including oral endoscope with digital image capturing system and large screen output. There is also a wide range of instruments that allow professional treatment of any dental (related) pathology. Ophthalmic equipment includes a direct and indirect ophthalmoscope and ultrasonography. The large animal surgery has one room to prepare the animals for surgery (84m²) and 3 surgery rooms: one for standing surgeries with stocks (70m²) and 2 for surgeries under general anaesthesia (one for general surgeries (93m²), the other for procedures that require a high degree of asepsis (67m²). There are 3 padded recovery boxes (18m²) with an elevated corridor to perform assisted recoveries in a safe way. The surgical unit has 2 large equine surgery tables and several mobile smaller surgery tables for calves, foals of small ruminants. Besides, the rooms are equipped with all devices and instrumentation needed for basic and more complex surgeries: large anaesthetic machines, mechanical ventilators, multi-parameter monitors, an arthroscopy and laparoscopy tower, all cutting and sealing devices, drills, saws and a full 3.5, 4.5 and 5.5 AO osteosynthesis set, cryosurgery equipment, hydrosurgical wound debridement, an endoscopy tower, a diode laser, invasive repulsion instruments and transbuccal screw extraction instruments.
- The large animal internal medicine clinic has 4 small (40m²) and 1 large (357m²) consultation room. The latter one has a separate part for bovine consultations (equipped with 3 stocks, ultrasonography, and endoscopy). The equipment for equine examinations includes 4 ultrasound machines, 3 standard endoscopes and 1 overground endoscopy system, electromyography, magnetic motor evoked potential equipment, a percutaneous electro neuro simulation apparatus, a plasmapheresis apparatus and basic and highly

specialized equipment for equine cardiology (ECG, Televex, Biphasic defibrillation apparatus, 3D electro-anatomical mapping system, cardiac ablation system, ...)

- The large animal obstetrics and reproduction clinic has 4 consultation rooms (total 255 m²) that are equipped with 3 stocks for horses and 3 for cattle. There are 4 ultrasonography machines (connected to large screens for the students) and all necessary equipment for semen collection and analysis and to perform ovum pick-up (OPU), in vitro fertilisation (IVF) and intracytoplasmic sperm injection (ICSI).
- Large animal ambulatory clinic: see 4.7

- The **clinic for exotics and non-conventional small animals** is located in a separate building at the FVMG. There are 3 clinical examination rooms (total 63 m²), areas for hospitalisation, intensive care, isolation, and good nursing. Intensive care units in the form of incubators with heat control as well as oxygen delivery system are available. Consideration to biosecurity and control of pathogen spread between patients is addressed. One surgery room (69m²) with 2 surgery tables is available but for complex surgeries patients can be transferred to the small animal clinic. All necessary anaesthetic, monitoring and critical care equipment (including syringe and infusion pumps) are available and routinely used. A full range of general and special instrumentation for diagnostic and surgical procedures is available, including endoscopy and ultrasonography. For cytology evaluation, a 5-person microscope is used for student teaching.

Diagnostic services including necropsy

The clinical training is supported by **diagnostic laboratories** in 4 ways. First, there are state- of-the-art central laboratories within the faculty premises (outside the clinic buildings). Second, within the clinics smaller diagnostic laboratories adjusted to the needs of the specific clinical department are available. Third, several point-of care tests are used patient-side by the students. Fourth, the clinics make use of the diagnostic services provided by private laboratories depending on the needs of the department.

The central laboratories are available for bacteriology, parasitology, virology, immunology, genetics, biochemistry, toxicology, and histopathology for all species. They cover a wide variety of tests including PCR, antibody ELISA, antigen ELISA, mass spectrometry, MALDI-TOF, nano sequencing, flowcytometry, staining including immunohistochemistry, etc.

The smaller laboratories within the clinics cover different diagnostic tests. Both in the small, large, and exotic animals' clinic standard blood examination (haematology and biochemistry (dry chemistry methods)), blood gas and electrolyte analysis are available. Other tests covered in these laboratories are bacterial culture (including antibiogram), parasitological tests, cytology, rapid osmotic fragility testing of red blood cells, crossmatching, and examination of urine, faeces, and semen. They are routinely used by staff members and students during the daily clinical work and night and weekend shifts to obtain quick essential clinical diagnoses.

Next to the laboratories several point of care tests are available in different clinics. Examples are blood-gas and electrolyte analysis, blood typing, glucose-meters, ketone-meters, lactate-meters, California mastitis test, tests for failure of transfer of passive immunity, serological test for infectious diseases (e.g., feline immunodeficiency virus, feline leukaemia virus, parvovirus, angiostrongyliasis, SNAP 4Dx). They are routinely used by staff members and students during the daily clinical work and night and weekend shifts to obtain quick essential clinical diagnoses.

Private labs are used for a variety of analyses that are not available in-house, but also standard blood examination or infectious disease diagnostic tests.

Students can take samples and fill out the submission forms. They receive the test reports and interpret them with the teaching staff. In the small clinic laboratories, they can perform diagnostic tests under guidance. Several of the point of care tests are done and interpreted independently by the students.

A laboratory for histopathological analysis is available preparing slides for microscopic viewing by performing state-of-the art processing and staining of tissue samples. An additional laboratory for immunohistochemical staining enables the detection of various antigens (such as cellular markers, tumour markers, infectious agents).
Necropsies are performed daily, except on weekends and official holidays. The pathology building (D5) has a reception area, a weighing area for large animals, a large autopsy room (374m²), 2 cold rooms (37 and 38m²), a mortuary for dogs and cats (27m²) and a freezer room (3m²). For the necropsy of large animals, electric pulleys allow easy transport of the cadavers from the cooling room to the large animal necropsy tables. Specially designed necropsy tables are available for the other animals. Morphologic/gross pathology of exotic/non-conventional small animals is carried out in a specific part of the pathology necropsy room. Systems for accurately weighing the animals in the range of 1 g up to 1000 kg are available. There is a separate facility available for sawing cadaver specimens (heads) by trained personnel wearing positive pressure masks and adequate protective equipment. Necropsy of small animals presumably infected with a zoonotic agent, is performed in a fume hood with HEPA-filtration on the outlet. Two dressing rooms (each 29m²) are available for students and personnel and have boots, disposable gloves, and disposable protective clothing available. A strict protocol for biosecurity and safeguarding occupational health is adhered to.
Owners of domestic animals are given the opportunity to cremate their animals. All necessary arrangements are made to facilitate this, possibly performing cosmetic necropsy, for which a specific protocol is available. Specific protocols are additionally in vigor for insurance-related necropsies, whereby an elaborate photoshoot coverage is included.
The most important macroscopic pathological findings are demonstrated daily between 11am and 2pm at display windows along the autopsy room. All students across various educational years are given the opportunity to get acquainted with the interesting pathologies encountered that day.

Others
The Dispensary 'Prins Laurent' provides first line veterinary care to companion animals owned by people with financial issues who cannot afford to see a private practitioner. (see 5.1) It is a 180m² building located in the city centre of Ghent. It consists of a small waiting room and a reception, 3 consultation and examination rooms, a surgical facility, and a hospitalization area. All rooms are equipped with all basic material to perform first line consultations and routine surgeries like spaying. Consultations and routine surgical procedures are scheduled in the mornings and expose the students to first line cases, mainly dogs and cats but occasionally also exotics or companion birds. Besides the first line experience, students and staff learn how to deal with this particular group of clients professionally and emotionally and hence the initiative has been recognized as Community Service Learning.
In the animal shelter of the city of Ghent, veterinary master students can voluntarily participate in a monthly cat castration initiative. Prior to adoption, all cats need to be neutered. These procedures are grouped once a month and the students perform these procedures under supervision of the head veterinarian of the shelter, after a live training session.

Premises used for the practical teaching of FSQ & VPH
The FVMG does not have its own slaughterhouse. Instead, all students from the fifth year join an officer (inspector) from the FASFC for 1-2 days in at least 2 different sectors (primary, transformation, distribution, or border control), as described in 3.1.
All students from the fifth-year visit at least 2 different slaughterhouses (Van Landschoot (pigs), Porc Meat (pigs), De Coster (pigs), Moerman (poultry), Nollens (poultry), Artislach (poultry), Hemelaer (cattle), Moerbeko (cattle)) and a ham producing company (Ganda/Corma). The students are accompanied by the meat inspector during their visit, in groups of 5 (or 10) students/inspector as described in 3.1.

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 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.

The VTH is open throughout the year, 5 days a week for standard consultations and treatments from 8am till 5pm and has a 24/7 emergency service for small animals, large animals, and exotics. Both referral and non-referral cases are admitted. In the small and large animal clinics students participate 24/7 in the examination and treatment of the patients and in the care for the hospitalized animals. In the clinic for exotics and non-conventional small animals, students are not present from 5pm till 8am, but they are involved in the treatment of the hospitalized animals the next day. Most of the exotic patients presented at the emergency clinic are subsequently hospitalized. These are mostly reptiles since owners have difficulties to administer the daily drugs.
The ambulatory clinic consists of regular practice for large animals with major emphasis on cattle and some small ruminants. The clinic is fully available (on call service) for farmers in the vicinity of the campus. General consultations consist of examining sick animals (young and adult animals), dystocia, trimming of lame cows, …
Besides the typical ambulatory work, the clinic has a specific clientele that is incorporated in regulatory herd health control. These herds are visited on a regulatory basis to perform mostly 'fertility work' like palpating cows for pregnancy diagnosis, not seen in heat, puerperal controls, specific problems like abnormal vaginal discharge, etc. At these herds (depending on herd to herd) other tasks like dehorning of the calves, preventive trimming of claws, … may also be done. Specialized consultations are done in the frame of second line visits on so-called 'problem herds. These visits are done all over Flanders. The work done on these herds depends on the problem. Mostly, problems are fertility related, but can also be udder health problems, young stock, lameness or any other problem like insufficient yield or abnormal milk composition or problems with infectious diseases like respiratory problems on beef herds.

The service portfolio of the VTH and ambulatory practice includes:

Species/clinic	Services
Small animals	Soft tissue surgery, orthopaedic surgery, dentistry, ophthalmology, physiotherapy, general internal medicine, dermatology, cardiology, neurology, endocrinology, oncology and radio oncology, medical imaging (X-ray, Ultrasound, CT, and MRI), anaesthesiology, intensive care, reproduction and obstetrics, emergency service, nutritional and behavioural advice
Exotics and non-conventional small animals	Soft tissue surgery, orthopaedic surgery, dentistry, ophthalmology, general internal medicine, dermatology, cardiology, neurology, endocrinology, oncology, medical imaging (X-ray, Ultrasound, CT, MRI, and endoscopy), anaesthesiology, reproduction and obstetrics, intensive care, emergency service, nutritional, husbandry and behavioural advice, entry control and management advice private & zoological collections
Equine	Soft tissue surgery, orthopaedic surgery, dentistry, ophthalmology, physiotherapy, gait analysis, regenerative medicine, farriery, general internal medicine, dermatology, cardiology, neurology, oncology, medical imaging (X-ray, Ultrasound, CT, and MRI), anaesthesiology, intensive care, reproduction and obstetrics, emergency service, nutritional advice

Ruminants and camelids	Soft tissue surgery, orthopaedic surgery, dentistry, ophthalmology, general internal medicine, medical imaging (X-ray, Ultrasound, CT, and MRI), anaesthesiology, intensive care, reproduction and obstetrics, emergency service, herd health management focusing on general & calf health, fertility, podology & housing
Swine	Herd health management, advice on diagnostics, treatment, and prophylaxis

Active hands-on training of the students starts in the skills lab on models in the second year of study and is continued in the clinics from the fourth year of study onwards for all students in the courses 'Clinics 1 till 4'. Clinics 1, 2 and 3 guarantee exposure of all students to all animal species and allow a gradual increase in hands-on training. Clinic 4 is species specific but is organized throughout the year including the evenings, nights, weekends, and holidays, which guarantees exposure to a broad range of cases in all different disciplines. Students are continuously encouraged to actively participate in the management of clinical cases and their degree of hands-on practice on patients gradually increases as they build up more knowledge and experience. This is also true for the ambulatory clinic which focusses on final year students of the ruminant track (see 4.7). Hands-on experience with ruminants and pigs is acquired by all students at the Bio-centrum Agrivet and IAFF in earlier study years.

Statement that the VEE meets the national Practice Standards

Veterinary practice in Belgium is regulated by the national Veterinary Council (= Belgian Veterinary Statutory Body). Veterinarians performing veterinary acts in practice therefore need to be registered on one of the lists held by one of the 2 regional Veterinary Councils and are thus obliged to comply with the national veterinary standards, including continuous education, as issued through the national Veterinary Code of Conduct. The Code of Conduct includes rules that veterinary practices need to comply with to act as either "veterinary centre" or "veterinary clinic", the latter implying the highest standards are followed. The VTH has been accepted to work as "veterinary clinic" as its facilities, equipment and staff comply with the specific regulations.

In terms of safety measures, all relevant areas meet the legal safety standards. Inspections are carried out at regular intervals by the relevant external authorities (e.g., fire brigade, Labour Inspectorate). All facilities, including laboratories, dissecting and autopsy halls, are equipped with relevant safety information, escape routes and emergency exit signs, in compliance with general hygiene rules. In addition, hand washing, hand, and disinfection facilities, showering facilities, first aid kits, emergency eye washing stations and fire extinguishers are standard.

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.

Students who are on clinics have access to the facilities as described above if this complies with their clinical rotation and if the prescribed biosecurity regulations are respected. As mentioned in standard 5.4 students also have (restricted) access to the electronic patient database for consultation of all necessary patient information.

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.

In total the FVMG has 17 isolations rooms. 6 for dogs and cats (30m^2 room with cages of 0.5 to 1.5m^2), 1 for exotics and non-conventional small animals (13m^2 with individual housing per

animal in function of needs) and 10 for horses (each between 20 m^2 and 33m^2). Each of these isolation stables / wards are fully isolated from other animals (separated air volume) and is identified by a specific identification sign.

The biosecurity rules to be followed when entering these stables / nursing these animals are (on top of the regular biosecurity measures):

- Cover clothing with Personal Protective Equipment (PPE).
- In the case of large-animal hospital change footwear, wear overshoes or use disinfection bath/ mat.
- Use patient specific materials e.g., stethoscope, thermometer, brooms, shovels, etc.
- After discharge, clean housing and disinfect according to cleaning and disinfection protocol.
- Clean and disinfect all used material and equipment.

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

Field veterinary medicine and herd health for livestock is extensively taught in the ambulatory clinic. Every day, 2 cars are available for the regulatory work in a large animal practice with a major emphasis on cattle (both dairy as well as beef), some small ruminants and occasionally pigs (approximately 20 visits per year). The practice is fully available 365/365 – 7/7 - 24/24. The department has accommodation foreseen for the final year students on duty during the night and in the weekend. Cars turn out with 1 veterinary and 2 or 3 veterinary students (option Ruminants). In the ambulatory clinic, students learn to examine an animal to come to a (differential) diagnosis and treatment. In the beginning of the academic year, the students mainly learn by discussing with the practitioner on duty, watching the veterinary actions being performed and critically discussing it with the practitioner on duty. Gradually, students can do the actions themselves and herewith practice their day 1 veterinary skills.
During the herd health visits, the veterinarian on duty discusses milk yield and composition, nutrition, young stock, udder health, claw health and possible welfare problems with the students. Therefore, they use data made available via the software system present at the farm or by discussing the Dairy Herd Improvement data available on the herd. Most of the clinical work during the herd health visits concentrates on fertility work: pregnancy checks, palpating cows not seen in heat, puerperal cows, repeat breeders and cows with specific problems like cows with abnormal vaginal discharge. Depending on the herd, tasks like claw trimming, taking milk samples for udder health control, dehorning young calves, examining cows suffering from clinical disease or insufficient milk yield are also done. In all these tasks the students fully and actively collaborate and train their practical skills.
Herd health visits to pig farms are performed by staff from the porcine health management unit of the faculty, a guest professor and 2 assistants. During these visits, attention is paid to assessing reproduction and production data, health problems, nutrition, housing, and the overall management of the farm. Possible interventions include pregnancy detection using ultrasound, euthanasia, taking blood or other samples for diagnostic purposes, backfat measurements and smoke tests to assess ventilation.
The ambulatory clinic has 5 vehicles that are daily on the road: 2 vehicles are used for the veterinarians who are on duty in the ambulatory clinic, 2 are on the road for herd health visits and eventually a fifth is on the road for claw trimming or for a visit to a problem herd (2nd line

veterinary advice). The 2 vehicles that are on the road for daily veterinary work are equipped with all material necessary for the work on duty. They are also provided with the drugs that should be available for regular practice and have a refrigerator to keep the drugs on the required temperature. The practice and its material (including the vehicles and how they are equipped), are Good Veterinary Practice certified.

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.

The FVMG possesses an animal transport van which is used for transport of patients (horses, large and small ruminants, …), teaching animals as well as transport of teaching material or dead animals. It is equipped with camera surveillance in the loading space. All collaborators that are allowed to drive the van have obtained a specific license for animal transport.
The Department of Morphology has a trailer and a license for transport of small animal cadavers and animal organs to the anatomy dissection room and to several other departments.
All hazardous substances, including infectious substances, biological products, and genetically modified micro-organisms, are transported in accordance with welfare, environmental and transport regulations (e.g. International Air Transport Association, European Agreement concerning the International Carriage of Dangerous Goods by Road). These goods must be properly packaged and labelled and accompanied with the necessary documents.
As transport of students is concerned, students organize their transport by themselves either by bike, car, or public transport. Within the ambulatory clinic the students join the veterinarian on call in one of the cars of the ambulatory clinic (see 4.7).

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.

A Faculty Manual for (bio)safety/biosecurity, environment and health is available in a SharePoint library, in which current information is available in the following domains: 1) Biosecurity clinics; 2) Biosafety (contained use) laboratories; 3) Health and Safety; and 4) Environment. The information is further divided by type of document (SOP, handbook, information sheet, ...), and by entities and departments to which the information is applicable. The library is available to all faculty employees, with exception of sensitive data for which for the sake of biosecurity and data protection, the access to the content (e.g., laboratory biosafety manuals, specific information, authorizations) is limited to users of specific laboratories. The management of the SharePoint library is done by the (Bio)safety committee – Subcommittee biosafety in laboratories of contained use and Subcommittee biosecurity in clinics. Members of all involved faculty departments, services, and laboratories, as well as central university services (Safety Department, Department of Occupational Health, the Environmental Office, according to agenda) are represented in this committee. The committee also advises on courses on (bio)safety and biosecurity for students and employees, and information for visitors. Courses are provided on the online Ufora platform and information on a dedicated webpage.
For students, the Ufora course ‘Biosecurity - FVMG’ provides information on: Introduction to Biosecurity and Risk Classification, General and hand hygiene, Clothing and footwear, and Cleaning and disinfection.

Students should pass this course (built-in test) at the start of the first masters before they enter the animal clinics. Besides, students already receive this information in the 2nd bachelor in the course 'Housing and biosecurity' as well.

For every person (employees, master students, trainees, visitors, ...) working in the contained use facilities, the Ufora course 'Biosafety - FVMG' provides information on

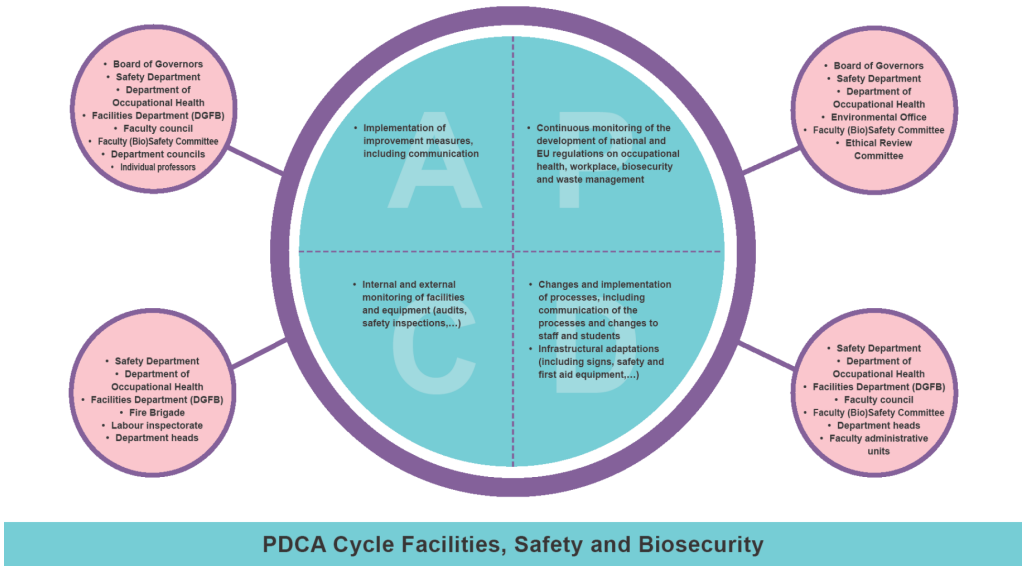
- Biosafety at the FMV – General introduction (including the university's Environmental health and safety guidelines)
- Biosafety – Basic elements applicable to all biosafety levels: including information on standard microbiological practices, PPE, aerosols in the lab, ventilated cabinets, centrifuges, pipetting, safe handling of sharps, autoclave, decontamination – clean-up of accidental spill, transport of biological material)
- Waste
- Laboratories L2 general
- Laboratory specific information (including laboratory biosafety manual)

Every person who will work in the laboratory has to successfully (pass the built-in test, sign for acceptance and agreement of 1) Ghent University's Environmental health and safety guidelines, 2) the laboratory biosafety manual, 3) Confidentiality and assignment of rights) complete the training and have specific permission of the head of the laboratory before start. In addition, it is important that the user also receives practical training and guidance in the lab.
Visitors are informed of all applicable biosecurity measures via information boards and QR codes that refer to the Biosecurity webpage for visitors to the animal clinics.

The university Environmental Office handles waste management and management of contracts with waste collectors and processors. The university has a contract with the national rendering service, Rendac for the disposal of carcasses. All biological materials of animal origin and carcasses after necropsy are considered as risk materials and are disposed following a standard procedure. Specially designed containers have been purchased from Rendac to dispose of all cadavers and other biological materials of animal origin. The containers are placed in a separate cooling room until collected at least twice a week using specially designed lorries by Rendac.
Ghent University complies with the existing legislation concerning the excreta (manure) of animals (Vlarem II, Manure Action Plan).

- Relatively large quantities of manure are produced in the large animal clinics. A strict separation of the manure of the different animals (horses, ruminants, and pigs) must be respected. Consequently, manure from the large animal patients and the experimental units is selectively stored.
- Manure from horses and cattle (mixed with straw, several hundred tons a year) is collected using specially designed transportation chains from the stables towards 4 dung hills. The manure is removed from the FVMG by a specialized company, which is involved in the mushroom industry. Manure containing excreta mixed with sawdust is stored into 2 separated dung hills. A specialized waste disposal company collects this manure to produce compost.
- Manure of pigs is removed from the FVMG using the services of the experimental farm.

- Excreta from small animal patients and urine from all animals are drained towards the central water purification unit of the FVMG. This water purification unit respects the guidelines of Vlarem II and is submitted to regular control by the Flemish government.
- All effluents coming from the L2/L3 laboratories and A2/A3 animal facilities in the VRB and the A2 animal facilities in the D1 building are decontaminated by thermal treatment in a fully automated effluent decontamination system which is located in the basement of the VRB. The wastewater is then sent to the central water purification unit.
- Biologically contaminated waste from experimental infections in animals is autoclaved before removal and/or removed as high-risk medical waste.
- Domestic waste (conventional 'house' waste, paper, clean non-medical glass) and low risk waste (special plastic blue bag) are collected separately and removed by specialized companies. The cost of removal of this kind of waste is carried by Ghent University. All biological materials and their recipients, most chemicals and their recipients and plastics, which have been in contact with biological material and chemicals are collected and stored for incineration. Waste coming from A3/L3 containment and certain infectious materials such as bacterial cultures are first autoclaved. The biological and chemical waste is selectively collected in containers. There are separate containers for several types of waste.
- The central collecting point for the removal of high-risk biological and chemical waste (2 special temperature-controlled containers) is supervised by a staff member of the Dean's office (collection day on Tuesday). This waste is also collected by specialized companies. The university assures the financial impact of the removal. All public waste containers in laboratories, clinics and offices are clearly labelled to obtain a good separation of the different waste streams.
- The faculty Sustainability committee has worked out a waste poster depicting all publicly accessible waste collection sites at the FVMG.



PDCA Cycle Facilities, Safety and Biosecurity

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Comments on Area 4

The major challenge for the FVMG for the coming years is the renovation of the buildings. Several of them are outdated and have poor insulation and energy efficiency. Some facilities for experimental animals do not comply with the present international standards anymore. The FVMG is financially dependent on Ghent University for the renovation of the infrastructure and financial means are limited. Ghent University infrastructural strategic plan includes the unification of all departments at campus 'Merelbeke' but does not foresee a thorough renovation of the other

buildings. This is however essential to keep high standards both for research and for clinical service and education. A first small step in this is the thorough renovation of the small animal hospitalization unit which is foreseen in 2024 but the cycle of renovation is too slow. In the future, co-investment in infrastructure might be necessary to speed this up.

Suggestions for improvement in Area 4

- Adaptation of the premises for the new educational challenges including blended and interactive learning and hybrid working places.
- A reorganization of the premises for examination and hospitalization of the animals should be considered. This should include a full separation of experimental and teaching animals on the one hand and clinical patients on the other hand. For the clinical patients, a better physical separation of horses and ruminants is also desirable.

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.

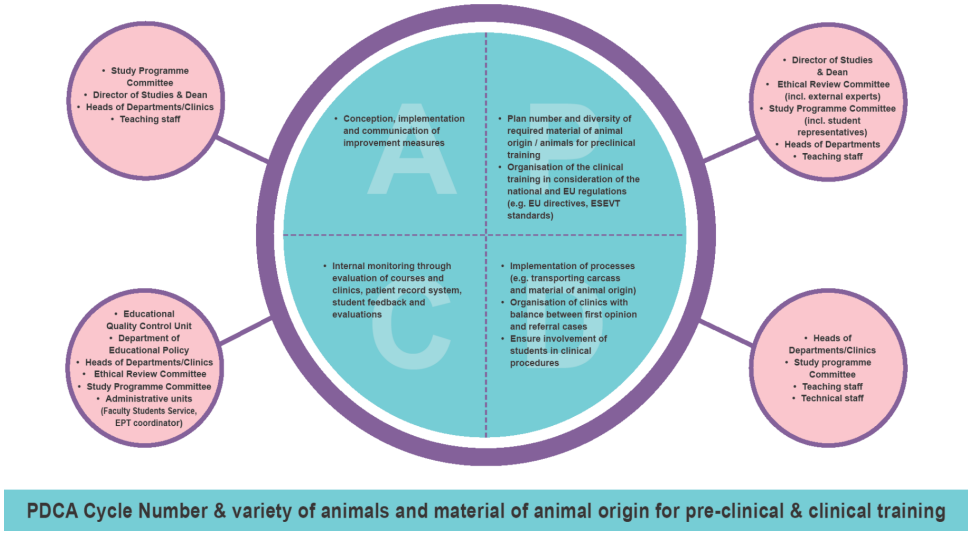
Global strategy about the use of animals and material of animal origin.
The FVMG aims to limit the number of live animals for veterinary education if proper alternatives such as models are available. The number of live animals is kept as low as possible for the sake of animal welfare (3R principle). However, the FVMG believes that for many aspects of veterinary education, e.g., animal handling, the use of real animals is essential. Similarly, the FVMV believes that for clinical training, exposure of students to a high and varied caseload at the VTH is important. For anatomical education, the FVMG adheres strongly to hands-on experience by the students on real live cadavers and slaughterhouse preparations. Fortunately, the FVMG can call on numerous suppliers (slaughterhouses and meat processing plants) who have cadavers and cadaver parts as end products. In addition, much use is made of visual material collected over the years in the format of demonstrations and made available online for the students. Museum specimens (skeletons, plastinated organs, organ models, vascular corrosion casts) and numerous videos (both home-made and from other VEEs) are used in the anatomical education. When animals are no longer used for research or teaching, the lab that owns them can decide that they are suitable for rehoming. As a rule, the FVMG does not rehome farm animals, but exceptions are possible on a case-by-case basis. The decision for rehoming of research animals is made by the Adoption Committee, a sub-committee from the Faculty Ethical Review Committee. Prior to entering their clinical training, students have already completed half of the skills lab learning pathway, fully in line with the policy 'not the first time on a live animal'. When owners present their animals at the veterinary teaching hospital, they know that they enter an education facility and that the animals will be examined and sometimes treated by students, under the supervision of clinicians. To maximise patient contact, every patient is examined each time by another group of students in the different disciplines.

Strategy to ensure that each student receives the relevant core clinical training
The clinical training is composed of 4 large clinical rotations organized in course units. It starts with Clinic I (fourth year, semesters 7 & 8), followed by Clinic II (fifth year, semester 9), Clinic III (fifth year, semester 10) and Clinic IV (sixth year, semesters 11 & 12). Clinic IV is the largest

clinical rotation taking up 17 weeks in the sixth year. During Clinic I and II, all students come to the VTH where they are exposed to the most common domesticated animal species. In Clinic I, in addition to getting acquainted with the functioning of the clinic, students also learn the basic operations and nursing procedures. In Clinic II, students are involved in the clinical examination and treatment of animals presented. In Clinic III, clinical rotations are specific for the 3 clusters; 'Companion Animals', 'Horse' and 'Production Animals' (see also Area 3). Clinic IV is specific for the graduation track the student has chosen. The FVMG ensures that, despite the present substantial number of students, they all receive sufficient clinical training. This is achieved by having patients being examined by as many students as reasonably possible. Hospitalized patients are examined every day by a new group of students and when animals on consultation are examined in by different disciplines this is also done by a new group of students. In the small animals VTH, 85% of the patients are referral cases. For first opinion cases in companion animals, the FVMG can appeal to a dispensary for small animals that was opened in Ghent in 2012 (see 4.3). This project is a joint venture between the city of Ghent (building), the FVMG (staff, equipment obtained by a teaching innovation project, and overall organization) and the Prince Laurent Foundation(Financial support). The dispensary provides first-line veterinary services to companion animals from people with a low income. Small groups of fourth-year students (Clinic I) and last-year students from the companion animals track (Clinic IV) are present every day in the dispensary. For the equines, almost 25% of the patients are first line cases which is sufficient for the teaching of students thanks to the high case load. First opinion cases in production animals medicine are mostly seen during the ambulatory clinic. Herd health management in livestock, pigs and poultry are taught and practised during the various herd visits (see. Table 5.1.7)

Procedures to ensure welfare of animals used for educational and research activities

All educational and research activities involving healthy live animals must be reviewed by the Ethical Review Committee, which sets conditions to limit the discomfort and stress on the animals as much as possible. The Ethical Review Committee of the Faculties of Veterinary Medicine and Bio-Engineering consists of 21 internal members (including some students) and 10 external members. The committee is mandated to review applications for educational activities and research projects involving animal experiments. This entails reading the applications, asking questions to the teachers or researchers, and deciding on whether to give approval for the animal experiment. Any laboratory that conducts animal testing on vertebrate animals that may involve pain or discomfort must be recognized by the Government and must set up an Ethical Review Committee. One of the tasks of the Ethical Review Committee is the evaluation of the planned and performed tests. To this end, it has the necessary expertise in the field of ethics, alternatives to animal testing, animal health, animal welfare, research methods, experimental design, and statistical analysis. Information on the Ethical Review Committee, animal experimentation and legislation hereof are published online. Animal welfare in the slaughterhouses is assured by the continuous presence of an animal welfare officer, supervised by the veterinarian responsible for animal welfare (from the Flemish Government). Students are trained on animal welfare during transport and in slaughterhouses in the course Veterinary Public Health I and during the training sessions in the slaughterhouses (Veterinary Public Health V) this topic is tackled as well.



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Cadavers and material of animal origin for training in anatomy

For anatomy, large animal material (e.g., limbs or heads of horses) is used from the pathology department or is obtained from slaughterhouses. Dogs and cats mainly come from several animal shelters. Agreements have been made with animal shelters and the Public Waste Agency (OVAM) in the region of Flanders that the FVMG can dispose of cadavers for educational purposes before being transported to Rendac a rendering company specialized in the production of sustainable natural ingredients from edible and inedible organic residual materials. However, more, animal shelters have implemented a 'no kill' policy that makes it increasingly difficult to obtain cadavers. Every year, small ruminants (licensed animal trader), 2 or 3 horses (licensed animal trader), poultry (licensed animal trader) and rabbits (IAFF) are euthanised for practical training. For the euthanasia of animals, strict protocols are followed, which have been drawn up in collaboration with the Ethical Review Committee. The euthanised animals are used as completely as possible. Mice and rats are obtained from the animalarium of the Human University Hospital. Every student must perform anatomical dissections in all domestic animals, irrespective from the graduation track the students will choose later in the curriculum. The organic waste material of animal origin from both anatomy and pathology education is collected daily by Rendac with which the FVMG has a permanent user agreement. Skeleton models are produced within the FVMG. A collaboration agreement with the human University Hospital is negotiated to make plastinated specimens from animal organs, which was also done in the past by the FVMG itself but was stopped for safety reasons. Material of animal origin for anatomical education and the pathology laboratory is stored in freezers. The FVMG has an anatomical museum with many specimens that are also used for anatomical and teratological education.

Table 5.1.1. Cadavers and material of animal origin used in practical anatomical training

Species	2021-2022	2020-2021	2019-2020	Mean
Cattle - Slaughterhouse material only: lower limbs - Female & male genital tracts, including pregnant uteri & foetuses	 160 144	 160 162	 160 162	 160 156
Small ruminants	40	40	40	40
Pigs: Slaughterhouse material only: - hearts & lungs - uteri including pregnant	 144 144	 144 150	 144 150	 144 148
Companion animals				

- cats - dogs	110 30	110 32	110 24	110 29
Equine Slaughterhouse material: - heads - front limb - hind limb Cadaveric parts from pathology: - hind limb - front limb - heads	2 48 48 48 84 84 8	2 48 48 48 48 48 8	2 48 48 48 48 48 8	2 48 48 48 60 60 8
Poultry & rabbits - rabbits - chicken	 80 80	 0 80	 10 80	 30 80
Aquatic animals	0	0	0	0
Exotic pets	0	0	0	0
Others (specify) - mice - rats	 50 6	 50 6	 50 6	 50 6

Healthy live animals used for pre-clinical training

For practical trainings on palpation, faculty-owned animals (dogs, cows, horses) are used. Each practicum on animal handling (dog, cat, cattle, pig, horse) is preceded by an online learning path (blended learning) with video material and a practicum with models (mannequins) for the animal species horse/dog/cat. The basic principle used for the practical trainings is: 'never on a live animal for the first time'. Practical palpation (incl. general clinical examination) is also preceded by an online learning path with video material.

From the 137 cattle mentioned in table 5.1.2, 2 bovines are used for the palpation practicum in groups of 7 students per animal. A herd of 135 bovines is present at the teaching farm 'Bio-centrum Agrivet' and is used to teach cattle handling (10 students and an academic staff member during 3 half days). A small ruminant (sheep, goat and/or llama) is housed in the internal medicine clinic and is used for the practicum on handling. The pigs are located at the pig campus (IAFF, see also standard 5.2) and are a group of 105 sows, 3 times 180 piglets and more than 700 finishers. The pig campus is visited in groups of 10 students and a supervisor during half a day. The dogs are used for practicum handling in groups of 5 students per animal and for the practicum on palpation in groups of 7 students per animal. Until the academic year 2021-2022, screened social faculty-owned dogs were used. Since the academic year 2022-2023, screened social dogs of students and staff are used for these practical sessions. Until the academic year 2019-2020, screened social faculty-owned cats were used. In the last 2 academic years, students used their own cats in online supervised practical trainings in groups of max. 5 students per cat. The horses are used for practical training of handling in groups of 5 students per animal and palpation in groups of 7 students per animal. Other practical training with live animals is organised in the physiology courses and in the clinical and communication skills courses using role-playing (the format is a video assignment in the third year). In these practical trainings, students simulate a consultation where the owner, the veterinarian and the animal are present. The veterinarian asks an owner about the animal and the entire conversation is recorded.

Table 5.1.2. Healthy live animals used for pre-clinical training (animal handling, physiology, animal production, propaedeutics, ...)

Species	2021-2022	2020-2021	2019-2020	Mean
Cattle	137	137	137	137
Small ruminants	1	1	1	1

Pigs	700	700	700	700
Companion animals - dogs - cats	 4 -	 6 -	 6 8	 8 2.6
Equine	6	6	6	6

Patient material for student education in the VTH

To maximize patient contact, hospitalized patients are examined every day by a different group of students with whom anamnesis and therapy are discussed. During these daily rounds drugs are also administered or other treatment is given by students. This also applies to patients who come for consultation at the clinic. Therefore, the numbers in the table above are those for the total amount of visits an animal makes to the clinic. Every time the animal visits the clinic, a new group of students examines the animal as if it is a first visit.

The clinic for exotic and non-conventional small animals as well as the necropsy room for those species are visited by all students for one day only. Students from the graduation track 'Companion Animals' have the exotics clinic in their clinical rotations. The students from the graduation track 'Pig, Poultry and Rabbit' spend 2 weeks in the necropsy room for exotic and non-conventional small animals.

The clinic for exotics and non-conventional small animals features a 24/7 emergency service. Although students are not present from 5pm till 8am, they are involved in the treatment of the hospitalised animals the next day. Most of the exotic patients presented at the emergency clinic are subsequently hospitalised. In the exotics clinic, on average 50 patients are hospitalised daily. These are mostly reptiles since owners have difficulties to daily administer the drugs they need.

Table 5.1.3. Number of patients* seen intra-murally (in the VTH)

Species	2021-2022	2020-2021	2019-2020	Mean
Cattle	797	794	726	772
Small ruminants	336	328	245	303
Pigs	24	41	20	28
Companion animals	13361	14591	9782	12578
Equine	5831	6096	5648	5858
Poultry & rabbits	-	-	-	-
Exotic pets - Rabbit, rodent, other non-conventional small mammals: - Reptile, amphibian: - Companion birds, backyard poultry: - Fish:	 829 1010 365 15	 792 1184 456 12	 622 992 378 6	 748 1062 400 11
Others (specify): Alpacas, Camelids	2 119	4 90	3 56	3 88

** Each patient must be officially recorded in the electronic patient record system of the VEE and must be individually examined/treated by at least 1 student under the supervision of at least 1 member of staff. Each live animal affected by one specific clinical episode is counted as 1 single patient, even if it has been examined/treated by several departments/units/clinics.*

Patient material for student education in the ambulatory clinics

The number for cattle is an estimation based on the patient records and the accounting programme. A full-featured patient programme for both educational purposes and accounting calculations is under development. The ambulatory clinic carries out about 10 visits every day. There are also specific visits for herd health management (see table 5.1.7), visits for stable vaccination and visits for stable blood sampling. In addition, there are approximately 20 visits per year (first opinion cases) by the clinic of internal medicine to veal calf farms to solve problems with e.g., respiratory

disease, diarrhoea, umbilical infection, … In the academic year '19-'20, the dispensary (Companion animals) was closed for 1,5 months due to Covid, which explains the lower number of patients (table 5.1.4).

Table 5.1.4. Number of patients* seen extra-murally (in the ambulatory clinics)

Species	2021-2022	2020-2021	2019-2020	Mean
Cattle	3600	3600	3600	3600
Small ruminants	100	100	100	100
Pigs	20	20	20	20
Companion animals Dispensary	1199	1202	961	1120
Equine	20	20	20	20
Poultry & rabbit				
- Industrial poultry	221	147	204	191
- Flocks	34	22	42	33

** Each patient must be officially recorded and must be individually examined/treated by at least 1 student under the supervision of at least 1 member of staff. Each live animal affected by one specific clinical episode is counted as 1 single patient.*

Table 5.1.5. Percentage (%) of first opinion patients used for clinical training (both in VTH and ambulatory clinics, i.e., tables 5.1.3 & 5.1.4)

Species	2021-2022	2020-2021	2019-2020	Mean
Cattle	85%	85%	85%	85%
Small ruminants	45%	45%	45%	45%
Pigs	90%	90%	90%	90%
Companion animals	15%	15%	15%	15%
Equine	25%	25%	25%	25%
Poultry & Rabbits	95%	95%	95%	95%
Exotic pets				
- Rabbit, rodent, other non-conventional small mammals	57%	52%	58%	56%
- Reptile, amphibian	71%	55%	55%	60%
- Companion birds, backyard poultry	45%	51%	54%	50%
- Fish	67%	67%	67%	67%

Cadavers and material of animal origin for training in pathology

The students have the opportunity of performing necropsies on many animals from diverse species. Large animals (cattle, equine) and exotic pets are mainly provided by the clinics of the FVMG while companion animals are coming from the clinics but also from outside the FVMG. Aquatic animals, 'others' and wildlife are coming from outside the FVMG.

Table 5.1.6. Cadavers used in necropsy

Species	2021-2022	2020-2021	2019-2020	Mean
Cattle	256	214	262	244
Small ruminants	94	73	99	88
Pigs	24	16	18	19
Companion animals	584	686	1107	792
Equine	671	570	490	577
Poultry & rabbits				
- Backyard poultry	130	105	122	119
- Industrial poultry	397	281	393	357
- Rabbits	92	98	74	88
Aquatic animals				
- Dolphin	1	1		1
- Seal	8	5	10	5
- Fish	12	14	1	9

Exotic pets - Reptiles-amphibian - Companion birds (passeriform, psittaciform, columbiform): - Nonconventional small animals	 32 221 31	 14 127 31	 8 159 35	 18 169 32
Others (alpaca, deer, giraffe, buffalo, sea lion, donkey, antelope, muntjac, zebra, elephant, rhino, okapi, wallaby, oryx, bison, monkey, koala) Wildlife	20 133	49 98	31 99	33 110

Herds/Flocks/Units for training in animal production and herd health management

About 425 herd health management visits to cattle farms are performed annually. In addition, there are approximately 150 herd visits per year for hoof care of cattle. Finally, there are about 15 herd visits to dairy farms for udder health and problem herd visits (referrals).

In the last 3 years, a small goat farm and since 2021 a large goat farm (1000 goats) has also been visited for herd health management.

The visits to pig farms are performed by staff from the porcine health management unit of the faculty, a guest professor and 2 practice assistants.

Table 5.1.7. Number of visits in herds/flocks/units for training in Animal Production and Herd Health Management

Species	2021-2022	2020-2021	2019-2020	Mean
Cattle	620	590	560	590
Small ruminants	2	1	1	1
Pigs	560	560	500	540
Poultry Flocks	202	146	233	194
Rabbits Herd	1	3	2	2
Aquatic animals	1	1	1	1

Slaughterhouses visits and related premises for training in FSQ

The company Ganda/Corma, 14 km from the faculty, grants permission to organize visits to their company every week.

For the Veterinary Public Health and Food Safety programme, the FVMG collaborates with the FASFC. Visits are organized in consultation with their headquarters, during which the students are divided over the 5 provincial local departments. The FASFC ensures that one supervisor is available per student and distributes the students across all sectors. Students can do an externship in the primary sector, transformation sector, distribution sector or in the border checkpoints (Zeebrugge, Zaventem Airport or Port of Antwerp). Two preparatory lessons are taught by the head of the Local Control Unit of East-Flanders.

Table 5.1.8. Number of visits in slaughterhouses and related premises for training in FSQ

Species	2021-2022	2020-2021	2019-2020	Mean
Ruminant slaughterhouses	0	20	28	16
Pig slaughterhouses	76	12	28	39
Poultry slaughterhouses - Layer slaughterhouse	38 1	10 1	28 1	25 1
Related premises * - Meat processing plant - Egg processing plant - Egg packing station	 54 1 1	 0 1 1	 27 1 1	 27 1 1
Others (specify) - FAVV	 570	 0	 312	 294

- Rabbit slaughterhouse	1	1	1	1

** Premises for the production, processing, distribution, or consumption of food of animal origin*

Description of how and by whom the number and variety of animals and material of animal origin for pre-clinical and clinical training, and the clinical services provided by the VEE are decided, communicated to staff, students and stakeholders, implemented, assessed, and revised

Depending on the number of students, the practical training of anatomy is repeated several times, each time with fresh material. This also applies to the pre-clinical training in the skills lab. The number and the way in which animal material is obtained for anatomical education is controlled by the Ethical Review Committee during regular exchanges with the lecturer-in-charge. The pathology lab works according to the rules of good laboratory practice and by the SPC and EQCU. Requests for necropsies come from the various clinical departments, practice veterinarians, direct requests from owners (insurance issues) and from research institutions (lab animals). The veterinary clinics and laboratories provide veterinary care for all pets, ranging from farm animals (cattle), equines, companion animals (dog and cat) to non-conventional companion animals. Veterinary services are announced to the public online. For the clinical rotations, the group size of students following a clinical examination, or a treatment varies depending on the number of students in each clinic. The clinics are responsible for sufficient patient material for clinical training to comply with the EAEVE guidelines.

Standard 5.2: In addition to the training provided in the VEE, experience can include practical training at external sites, provided this training is organized under direct academic supervision and following the same standards as those applied in the VEE. Description of the organization and management of the external sites (teaching farms, ...) and the involvement of students in their running (e.g., births, milking, feeding, ...)

Bio-centrum Agrivet (see also 4.3)

The animals (ruminants and pigs) are housed and cared for by trained staff. All Ghent University faculties can use the educational facilities of Bio-centrum Agrivet. The FVMG uses this facility for student training and research which is mainly fundamental and physiological research, feed trials and other practical research, and for students' master's dissertations.

Third-year students visit Agrivet for the course unit 'Clinical & Communicative Skills II'. In the fourth year, the students get an overview of the practical work that the local veterinarians can do on a dairy herd both for the ambulatory as well as for the herd health control (part of 'Clinic I'). Students are demonstrated in groups of approximately 20 students how to measure heart girth of young animals to follow their growth, how to perform body condition scoring in adult animals, which animals to select for examination of the reproductive tract, how to perform clinical examination in the context of udder health (California Mastitis Test).

In the final year of the graduation track 'Ruminants', students spend 1 week of externship (day and night) at Agrivet. During that week, they actively participate in the daily activities at the farm: heat detection both in the young stock as well as in the lactating animals, clinical follow-up of all animals, ration calculation of the different groups of animals (young stock, lactating and dry cows), feeding of the animals (including milk feeding of the calves), interpretation of the data obtained via the voluntary milking system, detection of cows with udder health problems. Students are furthermore contributing to claw trimming activities, management of parturition of the cows and management of the neonatal calves. Students keep a logbook of their activities during that week and have a daily task to perform (e.g., ration calculation, interpretation of fertility data, interpretation of udder health data). Once a week, usually on Wednesday, a veterinarian joins the students who are on the herd to train specific activities like rectal palpation of the reproductive tract, clinical examination of potentially ill cows or taking samples for udder health monitoring.

Finally, students are asked to give a short presentation for their peers about some (specific) activities they have performed during their week at Agrivet.

Institute for Agricultural, Fisheries and Food Research (IAFF)

The IAFF is an independent scientific research centre of the Flemish government. It has been commissioned by the government to contribute making the agriculture, fisheries, and agri-food sector more sustainable, initially in Flanders, but by extension also in Belgium, Europe, and the rest of the world. The FVMG has a participation in its pig facilities for educational purposes (a new facility owned by IAFF and Ghent University with strict biosecurity rules). In another older pig farm, solely owned by IAFF, the faculty also acts as the legal veterinary service to the company and in that capacity, herd health visits are also made with students. The pig herd at IAFF is visited every 3 weeks with the students from the pig, poultry, and rabbit track in the framework of regular herd health control visits. Every visit starts with a pregnancy check of sows that are 4 weeks inseminated (± 20 sows) and sows that are 7 weeks in gestation (± 18 sows). Afterwards, all the stables of the farm are visited (farrowing unit, 2 stables with nursery unit, 2 stables with fattening unit, quarantine unit and experimental minipigs stable). During this farm visit, attention is paid to health and housing of the animals. Potential problems are discussed with the farmer and the students. Animals that can no longer be treated are euthanized. Clinical trials are often run at this farm, which are discussed with the students. Every week, third-year students come to the pig Campus. They first receive a tour and afterwards help with activities such as MHYo/PCV2 vaccination of the piglets or washing the sows (before they are moved to the farrowing pen) depending on the week they visit. In the fifth year, the pig campus is visited by students of the cluster 'Production Animals'. This visit starts with the implementation of good biosecurity measures (hygiene lock with shower, farm-specific clothing, and boots). The general working of a pig farm is explained and shown. The students get the opportunity to visit all the stables in this pig farm. In the insemination and gestation unit, reproduction of sows is discussed with the students. Students get the opportunity to perform a pregnancy diagnosis by means of ultrasound in sows in different stages of gestation. In the other units (farrowing, nursery, fattening), the management practices are discussed. The students get to perform the body condition scoring of sows with a backfat measurement device. In the nursery and fattening unit, the stable climate is discussed, with a demonstration of a smoke test to verify the ventilation in the pig stables. Finally, the pig campus is visited every 3 weeks with the final year students from the pig, poultry, and rabbit track in the framework of regular herd health control visits. Every visit starts with a pregnancy check of sows that are 4 weeks inseminated (± 17 sows) and sows that are 7 weeks in gestation (± 16 sows). Afterwards, all the stables of the farm are visited (farrowing unit, nursery unit, and fattening unit). During this farm visit, attention is paid to the health and housing of the animals and potential problems are discussed with the farmer and the students.

Finally, fifth and final year students visit the dairy farm of IAFF every 2 weeks. The dairy herd (160 dairy cows and ±150 young stock) is visited in the frame of regular herd health control visits. Quite specific in this herd is that there are often clinical trials running which need special attention. These trials are discussed with the students, who are at the same time informed about recent studies.

Delivering sheep

Final year students are a full week at one of 3 sheep herds (one in Belgium, one in The Netherlands and one in France) with 500 to 2000 lambings to actively participate in the daily activities of the herd. This externship takes place during the lambing season. Students are especially active in lambing ewes and the neonatal care of the lambs, including feeding of the animals and general health control (including any clinical examinations and treatments). Students are also involved in deworming and possible vaccination schemes at the sheep herds.

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. Description of how and by who the nursing care skills are implemented and taught to undergraduate students

Nursing skills are taught in the skills lab on models and mannequins from the second year on. Subsequently, the students learn hands-on nursing skills in the fourth year (Clinic I) and in the fifth year (Clinic II and III), mainly in the hospitalisation clinics.

Group sizes

Group size for practical sessions during preclinical skills training:

- 20-25 students per group, working in pairs for peer feedback, for practical training sessions with models and simulators (with 1-2 teachers per group), always preceded by an online learning path.
- Approximately 5 students per group for animal handling practical sessions with live animals (horse, dog) with 1 teacher and 1 animal per group.
- Approximately 7-8 students per group for palpation/clinical examination practical training sessions with live animals (horse, cow, dog) with 1 teacher and 1 animal per group.

The student occupation of the VTH during the day is as follows:

- In the companion animal clinic, 81 students are present daily (10 fourth-year students, 33 fifth-year students and 38 final year students) divided over the 16 different clinical rotations.
- The equine clinic is attended by 60 students daily (13 fourth-year students, 24 fifth-year students and 23 final year students) divided over 7 clinical rotations.
- In the production animal clinic, 46 students are daily present (6 fourth-year students, 10 fifth-year students and 30 final year students) divided over the 7 clinical rotations.
- In the pathology clinic, 27 students perform necropsies daily (7 fourth-year students, 10 fifth-year students and 10 final year students).
- In the exotic animal clinic, the daily group size is on average 5 final year students and 4 fifth-year students. These students attend the clinic from 8 a.m. to 10 a.m. and from 10 a.m. to 12 a.m. they perform necropsies.

Evening and day duties in the weekend and during holidays:

- Approximately 14 students on small animal services (4 fourth-year, 4 fifth-year and 6 sixth-year) and 24 on large animal services.
- Night duties are only performed by final year students in the respective tracks (4 small animal, 8 equine, 9 bovine (clinic and ambulatory clinic combined)).

Outside the teaching hospital the student occupation is:

- For the farm visits for Herd Health Management, 1 student of the fifth year is in the car together with 2 students of the final year (graduation track ‘Ruminants’).
- In the ambulatory practice, a maximum of 3 final year students is present in 1 car.
- In the dispensary 7 students are daily present (4 fourth-year and 3 sixth-year students).

Hands-on involvement of students in clinical procedures in the different species

All skills (e.g., suturing, injections, rectal palpation, blood sampling, …) are first practised on models and mannequins in the skills lab in the third year prior to the start of the clinical training in the fourth year. Subsequently, during the 4 major clinic rotations (Clinic I till IV), students are gradually familiarized with all clinical procedures on live animals (patients). From Clinic I to Clinic IV, students are progressing in training, making a gradual switch from ‘observation’ and ‘basic animal handling skills’ in the fourth year to mastering more examination and treatment skills themselves in the fifth and final year. A specific list of hands-on clinical procedures that are less

commonly performed in the VTH, such as vaccination or euthanasia, has been set up by the Externship Committee. This list is communicated to students and EPT providers and students are encouraged to perform these procedures during their EPT in the final year (1 month till '22- '23, 2 months from '23- '24 on) (see chapter 3.5).

Procedures used to allow all students to spend extended periods in discussion, thinking and reading to deepen their understanding of the clinical case and its management

During the clinical rotations, starting in year 4, the students gradually deepen their knowledge and skills on clinical thinking. In Clinic I they act as observer assisting to the consultations and listening to the case discussions. In Clinic II (all species) and III (companion animals or equines or production animals), the students progressively take a more active role during the patient clinical examination but also during the discussions with the seniors on the diagnostic procedures and on the management of the patient. Finally, in Clinic IV (graduation track), the student takes a more leading role during the consultation and the discussions during the clinical activities.

In addition, students that are on hospitalization rotation participate every morning to the rounds under the supervision of a veterinarian during which all hospitalized patients are discussed and subject to a clinical examination. Final year students start with a summary and update of the case, which can be followed by a brief discussion or questions from the other students.

In the course 'Master dissertation IV', the students must prepare and present a clinical case demonstrating their understanding of the case while being challenged by the jury and the public/students (see Area 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. Description of the patient record system, its completion, its availability to staff and students and how it is used to efficiently support the teaching, research, and service programmes of the VEE

The patient record system at the FVMG is an (in-house) custom developed database application. The application used for the small animal clinic (redesigned in 2022) and the one used for the large animal clinic (designed in 2020) have separate data files but are very similar in structure and have an intuitive way of working. Both applications are designed to allow accurate recording of patient data for clinical follow-up and for research, easy communication with owners and colleagues from other departments and a complete financial administration linked to the central university financial department. Data is safely stored on a central server at the Ghent University data centre which is equipped with a permanent back-up system. Each examination and surgery room has a computer with direct access to the patient record system. Except for the sheets used by the students to take an anamnesis or record their own clinical findings, those to record anaesthesia parameters, and those at the boxes of the hospitalized patients, all data are immediately digitally recorded in the computer programme.

Each staff member who is given access to the computer system (clinical staff, interns and residents) can access the agenda and the patient files after logging in with their university account and password. All clinical data (written data but also lab reports and medical images) from the different departments can be viewed by all staff members. When patients are referred from one clinical department to another for an exam or treatment this is done by a simple electronic demand. Access to filling in or changing clinical or financial data is restricted to the staff of the departments where patients are being examined or treated. There are only a few power users who have access to more delicate functions of the patient recording system such as price adaptations or deletion of exams or recorded data. Staff members can access the patient record system from their laptops which allows them to do patient administration from elsewhere.

All students have access to the patient record system at the computers in the veterinary teaching hospital, also after login with their personal university account and password. Students can view the agenda and all patient data but – except for the anamnesis and basic physical examinations in the small animal application - they cannot change anything in the computer programme, neither in the data or the financial administration. For the large animal application, when students are asked by a staff member to enter the anamnesis or results of a clinical exam into the computer, this is done under the direct control and login of the staff member who supervises the student. Students can access all clinical data of the patient to work on clinical cases or their master's dissertation. They need to do this on the computers present at the clinic.
In the ambulatory clinic, the practicing veterinarian writes down the basic information of each patient (anamnesis, results of clinical examination, possible diagnosis, and treatments) or herd health visit (basic information about the examinations done) on an individual information sheet. This sheet always remains available for the students for follow-up of the patients/herd health history. Presently, this clinic is collaborating with the central IT services to digitalize all the patient records, which will facilitate the follow-up of the patients by the students.
At the Poultry, Exotic Companion Animals, Wildlife and Experimental Animals clinic, FUGA, a web based medical veterinary application, is used for the recording of client and patient data. Individual records can be stored and retrieved. For each client and patient, a record is created. A patient file minimally includes the following sections: anamnesis, clinical exam, differential diagnosis, diagnosis, therapy, follow-up, and prognosis. Separate sections are available to include e.g., anaesthesia and surgical reports whenever this is appropriate. In addition, specific templates (e.g., to document findings of the dental inspection in rabbits and rodents) are used. Results of additional examinations are stored in the appropriate section in the patient file (e.g., imaging reports, results blood exam, molecular testing, microbiological examinations, histopathology results, etc.). Interfaces can be created with external laboratories. Students can access the programme at any moment when they are present at the clinic. The patient file is completed by the student(s) that was primarily appointed to the patient. All files are revised by the primary veterinarian that is assigned to a patient. Filling in and maintaining the patient files is part of the student evaluation process (completeness, use of scientific language, …). The patient records system has an elaborate search tool to easily retrieve patient data. The latter is of fundamental importance as a considerable number of the master's theses involving non-conventional pets (case reports, case studies, case series, retrospective studies, …) are supervised at the division. The students are allowed to explore the patient record system to find and retrieve any data that are relevant to the topic of their thesis.

Comments on Area 5

- In the academic year '22 - '23, there are no more practical trainings with cats due to shortage of test cats and staff. Practical training with dogs continues using the students' own dogs (and possibly dogs of the assistants). This will no longer be considered as an animal experiment by the Ethical Review Committee. However, a strict selection protocol is used to ensure that only suitable dogs participate in these labs and that the well-being of the dog and the safety of the students are guaranteed.
- Finding slaughterhouses for student education is more complicated, even though the FVMG still has access at this moment. Online tools provide valuable alternatives to compensate or, at this moment, complement the visits.

Suggestions for improvement in Area 5

- Although considerable progress has been made to improve the patient record system, the FVMG should still enhance the integration of all clinical departments (e.g., also exotics) and the supporting non-diagnostic disciplines (pathology, parasitology, …) into one standardized patient

record system. This standardization would certainly be advantageous for the students as they will get faster familiar with the patient record system.

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.

Learning resources

The era where students walked between the racks in a physical library in search of books, master's dissertations or magazines seems to be over. Today's library user wants content to be accessible whenever and wherever. They mainly browse the library on their own device, while Wi-Fi is provided all over the university campuses. In 2010 the Ghent University Board of Governors decided to move away from the classical library system with physical books and lending policy, and instead provide a very wide range of online content of handbooks and reference works that can be accessed by anyone with a Ghent University account at any place at any time. This decision reduced the physical library space as will be further described in 6.2.

The University library consists of a central unit located in the city centre of Ghent; supplemented with 10 faculty libraries, including the library of the FVMG. The central library is responsible for opening the complete collection of Ghent University via the central catalogue. Furthermore, it provides technical support, storage, security, etc. The faculty libraries can also determine which content is offered relevant to the study programmes they provide. Every paper item in the catalogue has a scan-request button to scan chapters or complete documents for free.

Prior to the start of educational activities for each course unit, each lecturer needs to determine the subject matter for the evaluation in appropriate learning materials. The type of learning materials is the responsibility of the lecturer and may include a syllabus or books mainly provided online on the Ufora platform as e-material or any other material the lecturer considers appropriate for the students such as certain software. The enumeration of the learning materials (specifying the exact or estimated price) and the additional costs involved in the course unit (e.g., laboratory materials, study visits, …) must be described in the 'Course specifications' document available for each course unit in the Study Guide on the Ghent University website. The learning materials may be in a language different from Dutch.

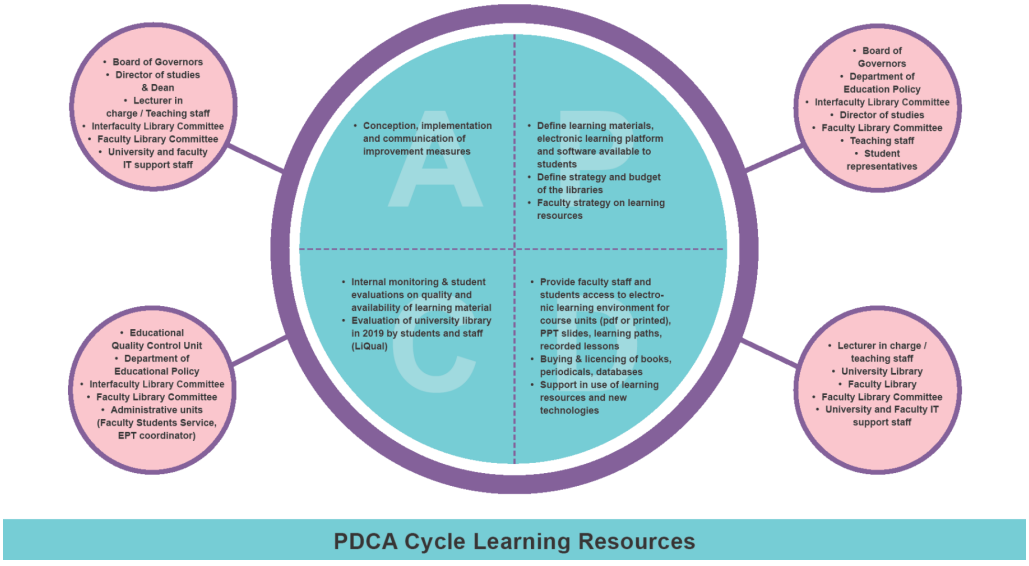
In the first year, all students receive training (within the course Statistics: Analytics) on how to consult the online library content, look up articles, print a paper version, …. This training is repeated in the fourth year within the course Master dissertation I: Statistics and Experimental Design. Academic staff can use the online '(Re)search tips' where all the information about the use of the online library is explained. As mentioned above, everyone with a Ghent University account has access to the catalogue. When someone registers, they can submit a scan request for an article.

The physical library space at the FVMG is accessible to everyone and will, after the redesign to a multi-functional room in 2023 (see 4.2) still have a small number (3) of fixed desktop computers from which access to the entire catalogue is possible. Finally, there is also a librarian who can offer help on site if someone encounters problems during a bibliographical search (see also 6.2). All students have free access to the electronic learning environment Ufora on which the lecturers put the learning materials for each course unit.

Description of how and by whom the learning resources provided by the VEE are decided, communicated to staff, students and stakeholders, implemented, assessed, and revised

At university level, the Interfaculty Library Committee is the advisory body for the university Board of Governors on all aspects of library policy at Ghent University. The FVMG librarian is a member of this committee. The quality of services delivered by the libraries at Ghent University was assessed in 2019 using a web-based survey tool, called LibQUAL. The results of this survey (appendix 6.1) were used in the development of the Ghent University strategic plan for the libraries. At faculty level, each faculty appoints its own faculty library committee with the following main tasks: (1) provide advice to the faculty librarian about the general profile of the services; (2) provide advice on the development of collections (it is possible for a member of the academic staff of the faculty to suggest/request the purchase of a particular book or magazine); (3) prepare the budget for the faculty library services so this can be discussed and decided by the Faculty Council; (4) draw up a plan for library services at faculty level; (5) evaluate the quality of library services. The faculty library committee of the FVMG consists of 5 members. An academic staff member is assigned as chair. The librarian acts as the secretary. The committee is made up of a member of the administrative staff, a member of the junior academic staff and a student.

As mentioned above, the learning resources for course units are the responsibility of the lecturers.



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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).

Staff and qualifications

The FVMG employs one full-time librarian (master level) as described above who is present and available during office hours.

Opening hours and days

In addition to the library's content that is available online to students, staff, and stakeholders on a 24/7 basis, the opening hours of the physical library are between 9 a.m. and 4 p.m. during the

academic year. Due to the collaboration with the faculty's student organization, extended opening hours can be provided from 8 a.m. till 8 p.m. during the official study and examination periods.
The faculty library, located in the building of the dean's office, currently has a capacity of 30 students. By mid-2023, this library will be completely reorganized. We will continue to reduce the number of books and magazines on paper (due to their online availability 24/7) in favour of 2 multifunctional rooms that can be used for different purposes: study room to work in groups, seminar room, … After the transformation, there will still be a capacity of 40 students, except when the multifunctional rooms are in use (capacity is then reduced to 10 students).

Annual budget
The annual budget of Ghent University Library is approximately € 2,000,000 of which 5.4% is allocated to the FVMG (or just under € 90,000). This budget is spent on access to databases, subscriptions to magazines (almost completely digital) and (to a lesser extent) purchases of eBooks. In addition, the faculty itself spends € 5,000 annually on the purchase of eBooks.

Facilities
Thanks to a joint project with the city of Ghent, the university offers its students an extensive range of bookable study places. This is in line with the university's completely new vision on the 'library', in which much more emphasis is placed on making the largest possible collection available digitally 24/7 and much less emphasis is put on its own physical space with desktop computers, etc.

Equipment
Regarding the number of desktop computers that are made available to students, it has already been mentioned that it has been the university's policy and choice to focus on maximum availability of Wi-Fi everywhere. Ghent University has already invested a lot in Wi-Fi access and coverage (and will continue to do so) and provides access to the network on the principle of 'bring your own device' (BYOD) (see 4.1). The Information Communication Technology Department of the university provides information for students on technical requirements and financing possibilities. The university also provides all students with free use of Office 365 and a lot of additional software.

Software available for bibliographical search
As mentioned above, the central library is used to open the entire catalogue of which the FVMG collection is a part. The book collection can be consulted and borrowed free of charge.
Since 2010, the focus has been on the digital library. Handbooks and reference works are offered digitally as much as possible.
For each paper item in the catalogue, it is possible to have certain chapters or complete documents scanned via a 'scan button' free of charge.
The catalogue also grants access to the database. Therefore, Ghent University developed a tool (SFX) to establish a connection between the databases and the electronic subscriptions. The tool has become an international standard.

Subsidiary libraries
Due to the current library policy, the various department libraries have become almost redundant. The policy of Ghent University's library is that E-content is available to anyone with a Ghent University account. Researchers and students of our faculty therefore also have access to the collection of, for example, medicine, pharmacy, and bio-engineering.
The central library provides a Resource Management System to monitor how much each e-title is used. 40 out of the 100 most used e-books at Ghent University, are related to veterinary science, which indicates a very intensive use.

IT facilities and e-learning platform
Learning how to use the online library resources has already been mentioned above. In addition to the library, Ghent University works with an electronic learning environment for students, Ufora, for all study programmes within all faculties. Ufora is a 'Blackboard ®' based learning platform that offers teachers a broad range of opportunities to make interactive learning possible, for example by using video and the creation of personal learning paths.

Accessibility to electronic learning resources
As mentioned above, Ghent University has switched to the principle of Wi-Fi throughout the entire university area and the "BYOD" principle instead of providing many desktop computers for students. The savings in not providing desktop computers, and the maintenance thereof can thus also be used to further expand Wi-Fi coverage and to purchase subscriptions to scientific journals and reference works in the form of e-books.

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.

The central catalogue contains 2,204,300 book titles, 200,991 journals, 151,000 master's theses, 400,954 PhDs, etc. The collection of the FVMG is also part of this catalogue and contains over 9,200 titles that can be consulted and borrowed free of charge.
The responsibility for the faculty skills lab lies with the teachers who organize the 'Clinical & Communication Skills' learning track. This learning track starts in the second year and ends in the fifth year. The skills lab and the associated learning pathway are discussed in more detail in standards 3.1, 4.2 and 8.1.

Comments on Area 6
In 2022 Ghent University has established a strategic plan (appendix 6.3) for the university libraries, including a definition of the 'new' role of the librarian.

Suggestions for improvement in Area 6
Further financial investments are needed to expand and replace the available simulators and models in the skills lab. This includes the introduction of augmented/virtual reality trainers and the development of more immersive real-life simulations. Due to the difficult financial perspectives for Ghent University until 2028, budget for the necessary equipment is also sought through donations and sponsoring by companies.

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.

Online: one of the most essential information channels for prospective students is Ghent University's website available in Dutch and, less extensively, in English. Admission requirements

and procedures can be found here for national and international students. On the home page, interested parties can click through to the Study Guide where they can discover an extensive overview of all study programmes. The bachelor study programme for veterinary medicine gives an overview of the content of the programme, the target audience, the structure of the programme and the opportunities on the professional market. Information about the quality of the study programme and student testimonials complete the general information about the training. A brochure about the study programme can also be downloaded or ordered on this page. Prospective students can find all courses and course sheets displayed per year. The course sheets can be consulted and are also available in English. The same applies to the master's degree study programme. Once a student is enrolled, the website provides information about every aspect of studying at Ghent University.

Paper: every year all secondary schools of Flanders receive an information package from Ghent University which they make available to their students. Only students who subsequently register at Ghent University will receive direct communication.

Study Information Days (SID-ins): every year, the Flemish Ministry of Education organizes a SID-in in the 5 Flemish provinces. All Flemish higher education institutions (colleges and universities) present their courses for final-year secondary education students. Ghent University participates in all 5 of these events and the FVMG is represented with its own information desk.

The Faculty Information Day takes place every year. The registration can be done at the provincial SID-ins or online. The event is an ideal opportunity for students to get to know the FVMG, its infrastructure, teachers and students and the study programme in an interactive way, via information sessions, an information fair, and demonstrations.

Faculty 'Open Days': every few years, the faculty organizes an 'open day' event for the public. Anyone who would like to know more about the functioning of the faculty and the veterinary clinic is welcome at this event.

International students can also register for the study programme, provided they have a reasonable level of Dutch as stated in the admission requirements. As the study programme has been attracting many students from the Netherlands for decades, Ghent University has created a special website for them.

Measures related to study progress: to prevent prolongation of study duration, measures have been taken at university level to monitor study progress. In summary, it means that if the student makes insufficient study progress, the student will be subject to a 'binding condition', which can, if repeated, lead to the compulsory termination of the study (detailed under 7.5).

University of Antwerp: even though there is no formal collaboration with the University of Antwerp, students who have completed their bachelor's degree programme in Antwerp will continue their master's degree at Ghent University. Because students have the right by law to continue their studies at Ghent University without transitional measures, both faculties decided years ago that it was useful to include a representative of the other university in the SPC.

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.

Table 7.2.1. Number of new veterinary students admitted by the VEE

Type of students	2021-2022	2020-2021	2019-2020	Mean
Standard students	Bachelor: 416 Master: 105	Bachelor: 322 Master: 75	Bachelor: 300 Master: 95	Bachelor: 346 Master: 92
Full fee students	0	0	0	0
Total	**521**	**397**	**395**	**438**

Table 7.2.2. Number of veterinary undergraduate students registered at the VEE

Year of programme	2021-2022	2020-2021	2019-2020	Mean
Bachelor	1027	935	935	966
Master	874	867	826	855
Total	**1901**	**1802**	**1761**	**1821**

Table 7.2.3. Number of veterinary students graduating annually

Type of students	2021-2022	2020-2021	2019-2020	Mean
Standard students (only master)	235	232	259	242
Full fee students	1	0	0	0.33
Total	**236**	**232**	**259**	**242.33**

Table 7.2.4. Average duration of veterinary studies

Duration	% Of the students who graduated on AY 2021-2022
+ 0 (6 years)	72.4
+ 1 year (7 years)	20.4
+ 2 years or more (8 years)	7.2

Table 7.2.5. Number of postgraduate students registered at the VEE

Programmes	2021-2022	2020-2021	2019-2020	Mean
Interns	26	21	20	22
Residents	42	44	36	41
PhD students	284	279	256	273
Others	6	0	0	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.

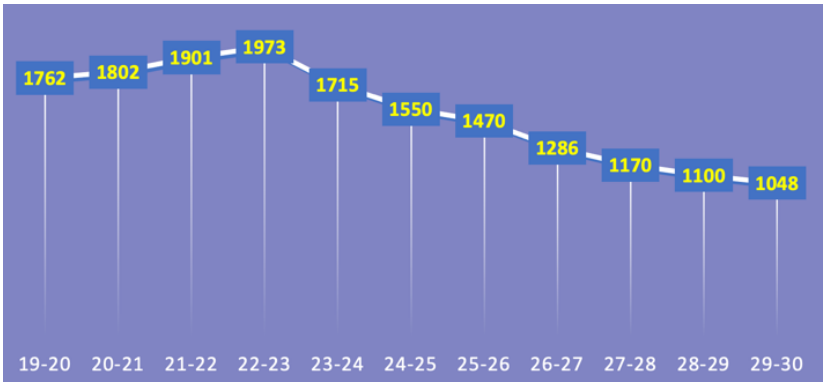
Selection criteria

Up to and including the academic year '22-'23, anyone who has a secondary education diploma can start. However, from the academic year '23- '24 onwards, a binding admission test for entrance of the veterinary study programme will be implemented.

Non-binding benchmark test (from '17- '18 till '21- '22): starting in '17- '18, a mandatory benchmark test has been provided by the Flemish Government for several study programmes, including veterinary medicine. The Veterinary Medicine benchmark test is an orientation test, intended to help students to make the transition from secondary to academic education. With this test the student can check whether they have sufficient academic potential and the necessary mathematical and scientific skills to start the Veterinary Medicine programme. Participation in the benchmark test is compulsory, but not binding.

Entrance examination (from '23- '24 on): for decades, the FVMG has been requesting some form of student intake restriction due to the limited capacity of its infrastructure, staff, and case load. For a long time, this question remained politically impossible. A few years ago, the need to restrict student intake was once again brought to the attention of the Flemish Ministry of Education by the Director of Education of Ghent University, with support of the Rector. The Ministry of

Education of Flanders became aware of the large number of failures among higher education students in general and the subsequent slow study progress and the understanding that veterinary training is expensive for society. The perspective of a loss of the EAEVE accreditation because of insufficient training capacity for the (too) high number of students was an additional powerful argument for considering an entrance examination. The faculty's aspiration and needs were finally met. A binding entrance examination for students who want to start the veterinary medicine study programme will be a fact from the academic year '23- '24 onwards. The formal decision was reached by the Flemish Government and the Council of States on June 7th, 2022, and finally by the Flemish Parliament. The entrance examination for veterinary medicine has been put in an official Decree, which makes it definitive and permanent.
The format of the entrance examination will be like the entrance examination of human medicine and dentistry, both existing for 25 years in Flanders. It will be composed of 2 parts: (1) knowledge and insight in sciences and (2) generic competences. A successful candidate will have to pass both parts of the examination and to be ranked in the 240 best candidates to be admitted to the veterinary studies. As a result, a maximum number of 240 students will enter the veterinary study programme every academic year. The selected students will be free to register at Ghent University or at the University of Antwerp. Consequently, the number of undergraduate students will quickly decrease in the next years to reach a plateau, corresponding to a reduction of 45%, from '29- '30 on. Simultaneously, the ESEVT indicators about the number of students versus staff members will strongly improve.



Expected evolution of the number of undergraduate students due to the entrance examination
(Based on a registration of 160 students at Ghent University and 80 students at the University of Antwerp for the bachelor - if all students register at Ghent University, then the final number would be 1368 students).

Ghent University developed the **SIMON-tool**, a study selection tool that estimates the success rate of prospect students for a specific study programme. The goal is to help them to find out which study programmes matches their interests and competences and make a conscious choice. SIMON answers 2 questions: which study programme match my interests, and do I have sufficient competences to follow this study programme? Students receives a feedback report after completing the test.

Policy for disabled and ill students
All information channels about the study programme clearly state that to become a veterinarian one must feature all senses and normal physical abilities. Students who are unexpectedly confronted with illness or other drastic changes in their student life, can apply for a 'special status for students' (see 7.4). The entire university, including all the auditoria and the buildings of the FVMG, are accessible for wheelchairs. Further measures can be determined on a case-by-case basis if necessary.

Composition and training of the selection committee
The non-binding benchmark test was developed by a committee of academic staff from both Ghent University and the University of Antwerp, with previous experience in drawing up the benchmark test. Because there were no admission interviews for incoming students up till now, no selection committee was needed.
The entrance examination will be organized by the Agency for Education, Adult Education, Qualifications and Study Grants of the Flemish government. The examination will be set up by the Human Medicine-Dentistry-Veterinary Medicine Committee. This is an extension of the already existing Human Medicine-Dentistry Committee with addition of 2 experts in veterinary medicine. This will allow the veterinary medicine to take advantage of the wide experience gained over the years by the experts of this committee. The new committee will then be composed of 21 members who have been selected for their expertise in the different topics of the examination and/or in medicine/dentistry/veterinary medicine and have been formally appointed by the Flemish Minister of Education.

Appeal process
As everyone who wants to study veterinary medicine is currently admitted, no appeal procedure is necessary. Further appeal procedures are described under 7.6.

Advertisement of the criteria and transparency of the procedures
The modalities of the entrance examination are published online by the Flemish Ministry of Education. The FVMG will provide information to the candidate-students during the information sessions for future students (see 7.1).

Description of how the VEE adapts the number of admitted students to the available educational resources and the biosecurity and welfare requirements
Now the FVMG has no impact/influence on the number of admitted students. Consequently, the only way to deal with the large number of students in the bachelor years is to repeat the number of practical exercises frequently in order to provide the same educational quality to every student. In the master years, when clinical training starts, the VTH tries to have each patient examined by as many students as reasonably possible and whenever the patient must be transferred to another service for specific examinations or treatments.
In the Decree that fixes the entrance examination a possibility to yearly adapt the number of students admitted to the veterinary studies based on the training capacity is foreseen.

Prospective number of new students admitted by for the next 3 academic years
From the academic year '23- '24 onwards, 240 students will be admitted to the veterinary studies in Flanders. Based on the distribution of the students in Flanders since years, this would mean 160 new students at Ghent University and 80 students at the University of Antwerp, most of which will join Ghent University 3 years later.

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.

As stated in 7.3, all advertisements related to the study programme indicate that to become a veterinarian one must be in possession of all senses and normal physical abilities.
For students who find themselves in a situation which could disrupt the course of a normal study at a certain moment, Ghent University offers the possibility to acquire a 'Special Status'. Depending on the grounds on which the special status is granted, one or more facilities may be

granted. Article 25 of the Education & Examination Code (EEC) currently provides 7 categories of 'Special Status'. In addition to a status for functional disabilities, this status can also be requested for approved top-level sports activities, professional artistry, holding office, exceptional social or personal circumstances, student entrepreneurship, or being a foreign-language speaker. The conditions, application procedure and the facilities that may be available are further clarified in article 25 of the EEC and can also be found on the university website.
Appropriate measures are tailored on a case-by-case basis to the specific needs of the student concerned. The Student Counselling Service of the FVMG plays a key role in working out appropriate and feasible measures in consultation with the student. For students with e.g., dyslexia, more examination time or a larger copy of the examination questions' form can be provided. Reading software is also available and, if necessary, a writing help can be provided. It is even possible to move examination dates to another day within the scheduled examination period or, in exceptional cases, even before or beyond the scheduled examination period.

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.

Progression criteria and procedures for all students
The study progression requirements are described in the EEC of Ghent University. The basis of progression is the yearly curriculum of the student. Every academic year is composed of a number of course units that together form the curriculum of the student (amounting to standard 60 ECTS credits), also called a deliberation set. The curriculum is an integral part of the contract concluded between the university board and the student. The curriculum is awarded and approved by the faculty's Curriculum Committee per academic year. Students are expected to take note of the determined curriculum.
The student's curriculum may be established based on the standard learning track of 60 ECTS credits per academic year (model development) as specified in the Study Guide or as a personalized learning track (individualized programme), as far as the Curriculum Committee agrees to this. When compiling the curriculum, deviations from the standard 60 ECTS credits may be allowed. The number of credits taken up is regulated by the faculty regulation on personalized learning tracks.
If students pass all course units of a deliberation set, i.e., if they have obtained at least 10 out 20 (or have passed cf. article 56 §1 of the EEC), they are declared as having passed the deliberation set concerned by the Examination Board-per-deliberation-set. Students who have not passed all the course units of their actual curriculum (deliberation set) are required to take up all remaining course units of that curriculum the next year, which can be supplemented with ECTS credits from course units depending on the acquired study yield.
To enforce smooth study progress, several study progress measures have been taken at government, university, and faculty level. The government tries to guarantee study progress by granting every beginning student a 'learning account' of 140 ECTS credits, with which the student should be able to successfully complete a study programme. The number of credits taken up by the student per academic year is deducted from the learning account at the start of the academic year. When the student passes a course unit in the relevant academic year, the credits for this course are added back to his learning account. The credits of the course units for which the student has not passed within the academic year are definitively deducted from the learning account. When a

student no longer has credits in their learning account, the student may no longer register for a study programme within higher education.
Ghent University has built in a number of measures in its EEC that oblige a student to achieve a certain study progress. These measures can range from imposing a 'binding condition' regarding the choice of curriculum by the student (limiting the number of credits), to 'refusal to enrol for contracts to obtain a diploma'.
At faculty level, the 'Personalised-Learning-Track-rules' are determined yearly by the SPC. According to these rules, students can compose a curriculum that does not conform to the general rules, considering the already existing university rules.

Remediation and support for students who do not perform adequately
Ghent University and the FVMG are strongly committed to study support, guidance and -in a broader context- to the general well-being of students. The university provides an extensive range of study counselling and advice for students. This includes matters related to study skills as well as mental health issues. Study advisors from the university's Study Advice Department assist students with substantive questions about study programmes and with questions about the feasibility of a study programme. Students who are confronted with study problems and/or personal/psychological problems during their studies can contact the student psychologists of the Study Advice Department for a personal meeting or group training. Students can contact the language advisors for support with academic writing and speaking Dutch and English. Finally, the staff of the 'student & disability' team provides specific guidance and support for students with a disability. Together with the student and in consultation with the faculty, they will look for reasonable adjustments to make studying more feasible.
At faculty level, the study counsellors and study track counsellors of the Student Counselling Service take initiatives to make studying smoother and more efficient. Students will receive tutoring in a range of study skills, advice on study progress, advice on the feasibility of an individualized trajectory, etc.
Students can find a lot of information on both university and faculty websites concerning counselling and advice on an individual basis as well as during group sessions. Various course units offer tools on the electronic learning platform UFORA that students can use to test their personal knowledge. In addition, regular feedback moments, both official and unofficial, are planned in the context of permanent evaluation (mainly in clinical subjects), whereby students are informed by a teacher of their progress.

Advertisement to students and transparency of these criteria/procedures
Every new student is informed during the 'starters day', the first day of its academic career, about the course of the curriculum, the requirements to pass, the EEC and the study support initiatives that they can rely on. All this information is also available on the website for future consultation. The Faculty Student Administration and Student Counselling Services are the primary source of information for students with education-related questions, be it about their administrative status or when they need help in e.g., composing their curriculum. The Student Counselling Service regularly organizes information sessions about the curriculum, moments of choice in the curriculum, clinical training, traineeships etc. At any moment in time students can obtain transcripts or print them themselves via the administrative website of the student administration.

Rate and main causes of attrition
Because of the absence of an entrance examination till now, many students fail or leave the studies in the first 2 years. Once students reach the third year/bachelor, attrition is the exception and the main cause of attrition is that after obtaining their bachelor's degree, students switch to a Master in Educational Sciences in preparation for subsequently entering secondary education as a teacher

(2 to 5 students/year). After the entrance examination, an attrition/drop-off rate of 10% is expected based on the numbers in human medicine and dentistry.

Description of how and by whom the admission procedures, the admission criteria, the number of admitted students and the services to students are decided, communicated to staff, students and stakeholders, implemented, assessed, and revised
Not applicable at this moment as there are no admission requirements.
As soon as the entrance examination will be introduced, the SPC will closely monitor the effect on the number of students and, if necessary, make proposals for adjustments. Any changes will be announced through the various communication channels and the External Stakeholder Advisory Committee shall be informed.

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.

A student will be refused if the records show that a subsequent enrolment in higher education will not result in a positive outcome, and that regardless of the contract type and regardless of previously imposed - whether fulfilled or not - binding conditions.
A student who, after 3 years of enrolment, has earned credits for less than 1/3 of the credits taken during those enrolments, is presumed not to have a positive outcome for a new enrolment, and will be refused. The student will then not be able to enrol for any contract type or programme at Ghent University. When binding conditions are imposed or an enrolment is refused, students are notified through their transcript of records. The new legislation of the Flemish government (May 2022) stipulates that students who have not acquired all credits from their first bachelor year can no longer enrol their third year in higher education.

Appeal processes
Students who are of the opinion that an adverse decision of any kind concerning themselves has been affected by a violation of law, may appeal to the Institutional Appeals Committee. The provisions and full procedure are explained in more detail in part V article 81 of the EEC.
However, before filing for an appeal, in the event of disputes with lecturers, students and PhD students can turn to the faculty ombudspersons (one for the bachelors, one for the masters and one for the PhD students) for most reports or complaints. If no satisfactory result is obtained for the student, they can contact the institutional ombudsman service for an interview or further mediation. When and how one can call on the ombudspersons is described in part IV articles 79 and 80 of the EEC.

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).

After having received all relevant information about the study programme (in the ways described in 7.1), the prospective student registers online. The further administrative progress of the student is monitored by the Faculty Student Services that can be contacted online, by e-mail and physically for all administrative questions about their studies. Students can print all kind of certificates

relating registration, health insurance, public transport, …, via the website or they can contact the Faculty Student Services. As already mentioned in 7.5, students can contact the faculty Student Counselling Service or the university Study Advice Department for study-related problems, such as mentoring and tutoring. For the first year of registration, the student's curriculum is automatically compiled based on all course units of the first bachelor year for a total of 60 ECTS credits.
A specific medical service for students is available at the city centre of Ghent and is run by general practitioners well-acquainted with the medical needs of students. Ghent University features a fully equipped sports centre with 3 large and 2 small halls for indoor activities, a 25-meter swimming pool, an instruction pool and 2 saunas. Special attention is devoted to sports for disabled students. The university also offers individual supporting services and counselling for students who are actively involved in top-class sports. Ghent University has a wide range of student restaurants, all situated nearby the different faculties. They serve quality dishes at a fair price. The Bike Embassy Ghent gives students and staff members the opportunity to rent a bike for a few months or a year. Most university campuses offer students and staff bike stands or even (secured) sheds. The university offers access to several bike repair shops where new parts can be bought at a very reasonable price. Ghent University has a job database in order to help students find a suitable student job. Ghent University also offers its own childcare for students and staff. The University features a lot of student associations of which the 'Vlaams Diergeneeskundige Kring' (VDK) is most relevant. Their aim is to unite veterinary medicine students, to defend their interests, and organize social events. The association is still growing and thriving and has about 1,000 members every year. Finally, Ghent University also provides a student career hub and Infinitum, the global network of thousands of Ghent University alumni.

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.

All lecturers of the FVMG are traditionally easily approachable for students, be it directly or by e-mail. Problems that cannot be discussed immediately with the lecturer involved can be discussed via the ombudspersons. Day-to-day problems can be discussed with the Faculty Student Service or the Student Counselling Service. The Dean, the Director of Studies, and the chair of the SPC are easily approachable for students as well. Students are well represented in almost all councils and committees of the FVMG. Usually, the suggestions of the students or potential problems are first addressed in the EQCU. Either the issue will be resolved within this committee, or it will be referred to the SPC or to the Faculty Council for further discussion. Student representatives in councils and committees of the FVMG are united in the so-called Veterinary Student Council, which in turn is a member of the central Ghent Student Council. that represents and defends (the interests of) the students within the Board of Governors and supports the eleven faculty student councils. The subjects addressed by the Ghent Student Council are diverse ranging from educational matters (EEC, special statutes, study measures ...) to social affairs (homes, student restaurants, …).

Comments on Area 7
- The FVMG is pleased that a compulsory entrance examination will be implemented from the academic year '23- '24 onwards. The consequences of this examination on the student population will be closely monitored by the Director of Studies supported by Faculty Student Services.
- The campus of Merelbeke is located outside the city of Ghent. Professors, staff members and students are all active at this unique, ideal location to create a strong community feeling with a high degree of mutual interaction.

Suggestions for improvement in Area 7

- Although 3 ombudspersons have been appointed at faculty level, the students still perceive this as only meant for complaints on curriculum, courses, and examinations. Students are not sufficiently aware of where to go in case of unrespectful or inappropriate behaviour of academic staff and colleague students and what can/will be the result of this notification or complaint. This lack of clear information for students has not only been experienced at our faculty but also at other faculties. It is therefore essential that this is solved at university level and that the information is clearly communicated to students at faculty level. The first steps of this process have been taken in collaboration with the university.

Standard 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.

General student's assessment strategy

The structure of the study programme is built according to the principle of constructive alignment. Assessment at the different levels with assessment methods adapted to the levels shows the gradual development towards entry level competence. As explained below, the assessment methods used are in accordance with the degree of knowledge, ability and skills expected from the student at a particular point in their training. The student assessment policy of the FVMG is based on the assessment strategy/policy of Ghent University (appendix 8.1 - EEC, part III, articles 48 et seq.). It is cyclical in nature and consists of 3 phases: pursuing, measuring, and guaranteeing. In each of these phases, in addition to the teacher as the most important actor, several bodies and committees are involved (as explained in 8.3). The basis for the assessment policy of the FVMG is built around the university 17 assessment principles.

The Study Guide provides for every course unit a course sheet with all elements that are part of the unit, including the evaluation methods, the evaluation moments, the calculation of the examination marks and the terms and conditions to pass the unit of study. The lecturer-in-charge indicates in the course sheet the course-specific learning outcomes that are aspired within the course unit. For every learning outcome, the contribution to the competences of the study programme must be determined to ensure that every general learning outcome is taught and tested in at least 2 units of study. This is checked by use of the competency matrix (see 3.1 and 3.4). The balance between difficult and easy questions, between theoretical, comprehension and applied questions and the distribution over the different topics within the course unit is monitored by the lecturer-in-charge using an assessment matrix. This matrix must be made available to the Assessment Committee (AC) for random quality check (see also 8.4). An important assessment principle that is strongly emphasized by the SPC among teachers is the 'four-eyes principle', whereby the examination questions and answer keys that will be used are reviewed by a colleague. The use of the 'four-eyes principle' is also checked by the AC on a cyclic basis.

In preparation of the summative assessment, practice tests for various courses are made available for students on the electronic learning platform UFORA. Ghent university strongly invests in the promotion of 'active learning'. Since 2022, an 'activo' (= an education specialist from the central administration made available to, among other things, expand active learning within the faculties) help teachers in developing these online tests, transform their course unit into more active learning and develop learning pathways. Even though many teachers were rapidly convinced of the added value of this form of digital support for their course unit, the FVMG aims to soon be able to offer

such online support for as many course units as possible. All the assessment methods used in the different course units are described in the EEC under section II: 'glossary of evaluation methods'.

Assessing theoretical knowledge

The evaluation methods used for assessing theoretical knowledge vary from written examination with open questions or multiple-choice questions to oral examinations (whether using the 'standard setting method') to open book examinations or assignments. Understanding of theoretical knowledge is also evaluated using open book examinations. Online tests with integrated images and videos are used and offer the opportunity to formulate questions that probe for more practical insight. Additionally, the use of those online tests allows for more objective corrections and scoring. The teachers are encouraged to work in this way and guidance is offered on request.

Several courses require students to draft a report that will be assessed and will be part of the final score (e.g., animal ethology & ethics, orientation externship, bacteriology & mycology, immunology, …). Report writing is combined with oral presentations whether supported by a PowerPoint presentation (animal behaviour & animal welfare, …). Creating and submitting practical exercises or tasks requested via Ufora (e.g., completing a learning path) are an ideal way of assessment to check whether students understand the theory (e.g., epidemiology, applied pharmacology, clinical training, …). Microteaching is used as an independent learning situation in which students present a specific topic which they have prepared individually or in small groups, to their fellow students. These types of sessions are aimed at the active processing of specific contents, while equally focusing on practising presentation and teaching skills. In multiple courses these sessions are an integral part of the student's assessment (embryology, teratology, …).

Assessing pre-clinical practical skills

Preclinical skills are evaluated using skill tests, simulations, and examination practical trainings. Dissecting skills are trained from the first year, second semester, and evaluated from the second year onwards, first formatively (students train during their practical training and prepare a "practical documentary" in which they must dissect a specific anatomical region / mechanism - free choice from a shortlist provided) and compile it in an online slideshow or clip, to which they receive feedback. As a part of the full examination, dissecting skills are also summative evaluated during an individual dissection task.

Pre-clinical practical skills are assessed formatively during practical sessions in the skills lab and summative in an OSCE (Objective Structured Clinical Examination) format (courses 'Clinical and communication skills I, II, III and IV' from the second till the fourth year of study). The examination design features different stations (with 5 minutes allocated to each) covering the following skills: animal handling, lab techniques, clinical examination, injections, surgical skills, catheters and perfusion, bandaging, anaesthesia, medical imaging, reproduction, communication skills. The students are prepared for this examination using the OSCE checklists during practice in the skills lab in pairs, with peer feedback as well as feedback by the instructor. The content of the stations and checklists are developed in collaboration with clinical experts who are co-teachers of the course and teach the theoretical clinical classes and perform clinical rotations. Virtual clinical exercises make part of the assessment in propaedeutics, parasitic diseases and zoonoses. Also, in e.g., Physiology and Biochemistry courses, assessment of practical skills is part of the overall assessment of the student. Observation and discussing of several microscopic tissue sections and diseased organs (histology, histo-pathology, and pathology, ...) are also part of the assessment of the student's knowledge and understanding.

Permanent evaluation and active cooperation are assessed during multiple practical trainings (medical imaging, cell biology, histology, bacteriology & mycology…). Also, in e.g., Physiology and Biochemistry courses, assessment of practical skills is part of the overall assessment of the student. Observation and discussing of several microscopic tissue sections and diseased organs (histology, histo-pathology, and pathology, ...) are also part of the assessment of the student's

knowledge and understanding. Permanent evaluation and active cooperation are assessed during multiple practical trainings (medical imaging, cell biology, histology, bacteriology & mycology…).

Assessing clinical practical skills
In preparation of the clinical rotations of the students in their fourth and fifth year, several learning paths are available on the electronic learning platform Ufora. The students go through the respective learning path that concludes with a self-test where a minimum score of 80% is required to be sufficiently prepared for the clinical rotation. In the final year, clinical practical skills are assessed by behavioural evaluation on the work floor (permanent evaluation), skills testing, peer assessment and logbooks (portfolio) (for skills and knowledge). At the end of each clinical rotation week the final year students fill in a self-evaluation report which is discussed with the clinician or is evaluated online by the clinician. Students are assessed on their theoretical knowledge, practical skills and their active involvement in the clinical procedures, their attitude, mutual collaboration, and the respect for the biosafety principles within the clinic. Periodical feedback with the responsible veterinarian of the relevant clinic plays a key role towards the development of the skills of the student up to a professional level. In respect to QA, this clinical assessment system (which is a sort of permanent evaluation) is evaluated every 3 years and is adapted if necessary. Weekly presentation of case studies is also used for assessment of clinical skills in the framework of the last part (integral clinical examination) of the master's dissertation (see 3.1).

Assessing soft skills
Communication and teamwork are practised very early in the study programme through microteaching and peer-tutoring (Biochemistry courses, second year) and by giving group assignments (Animal behaviour & welfare, third year). Additionally, communication and teamwork are essential components of the orientation externship in the third year.
In the learning pathway of 'Clinical & Communication skills' the latter are assessed by:
- Video assignment with peer feedback and self-reflection (second year).
- Video assignment (conversation with an animal owner) with self-reflection and detailed feedback by the course instructor (third year).
- Communication skills station as part of the OSCE, with evaluation of information gathering (anamnesis) (fourth year) and providing information (fifth year). Communication skills are also practised and assessed in the weekly presentation of case studies in the framework of 'Master Dissertation IV'.

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.

Processes for ensuring the advertising and transparency of the assessment criteria/procedures
During the teaching process, the lecturer should provide sample exam questions to the students so that they get a better idea of what is expected of them on the examination. This is checked during the student surveys. Over the past decade, the FVMG has strived to provide students with lesson and exam schedules in a timely manner. The FVMG was a pioneer in making class and exam schedules available to students early and even before the start of the academic year and/or the start of the examination periods. All class and exam schedules are available for students in the TimeEdit tool.

Processes for awarding grades, including explicit requirements for barrier assessments
The description of the processes for awarding grades are clearly stipulated in the EEC, Part III sections I, III and IV. Grades are awarded at 3 levels: the unit of study, the deliberation set and the entire study programme. Course units are assessed using the assessment methods described in the course sheet. The final grade of the course unit is calculated according to what is stated in the topic 'calculation of the examination mark' of the course sheet. If students pass all course units of a deliberation set, i.e., if they have obtained at least 10 out of 20 (or have passed cf. EEC, article 56 §1), they are declared as having passed the deliberation set. Exceptions to this are described in the EEC (Art. 67). To pass a study programme, students need to meet certain cumulative conditions described in article 71 of the EEC. Students who successfully pass a bachelor or a master programme, are awarded a grade of merit by the Examination Board per study programme. The grade of merit obtained by the student for a study programme is expressed as follows: cum fructu (at least 500 out of 1000 points); cum laude (at least 675 out of 1000 points), magna cum laude (at least 750 out of 1000 points) or finally summa cum laude (at least 825 out of 1000 points). Specific deliberation criteria whereby minimal deficits are allowed exist specifically for the first bachelor year (EEC art. 67 §2 .2 & 3) and for the completion of the diploma (EEC art. 71 §2).

Processes for providing to students a feedback post-assessment and a guidance for requested improvement
The organisation of feedback sessions post-examination is compulsory for every lecturer/course unit. The modalities are described in the EEC, article 60. Besides the official post-examination feedback sessions, many lecturers provide interim feedback (formal and informal) e.g., after submitting a paper, after completing a task or at the end of a week/period of clinical training. To help lecturers, organize their feedback sessions, the basic teachers' training contains a section 'How do I organize feedback after assessment?'. Ghent University organizes refresher courses specifically around the topic of giving feedback post-assessment. Finally, teachers can find a lot of information online with Assessment principles, including all primary information about the operationalization of education and QA. This site is updated weekly. Each faculty has a Student Counselling Service. In addition to supervising students regarding study choice, exemptions, diversity projects, etc., the Student Counselling Service also has the task of advising students in their studies and their study trajectory, also after an assessment/examination period. Students with specific study-related problems (procrastination, fear of failure) or personal problems are referred to the central student psychologists for individual guidance or guidance through group training. QA of the feedback process is also monitored via the student surveys.

Appeal processes against assessment outcomes
Students can file an appeal at 3 levels. Students may file an appeal against the examination mark of a course unit awarded to them personally, against the decision by the Examination Board per deliberation set and finally against the decision by the Examination Board per study programme with the Institutional Appeals Committee as specified in EEC article 81. On every written exam result, be it for the subject, the deliberation package or a study programme, a specific explanation is given of where, when, and how the student can file for an appeal. If a student is not satisfied with the decision of the Institutional Appeals Committee concerning decisions in study progress (not on material errors), he can still appeal to the Council for Disputes, an educational administrative court for higher education.

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.

Description of how and by who the students' assessment strategy is decided, communicated to staff, students and stakeholders, implemented, assessed, and revised

Assessment outcomes are reviewed on several levels: the lecturer-in-charge (eventually using of the evaluation-reflection-tool), the Examination Boards, the EQCU (which in turn reports to the SPC), the SPC itself and the AC.

The lecturer-in-charge is responsible for the final mark of the student's assessment for the course unit. Where applicable, they collect the partial results of the co-lecturers and converts them to one result for each student. Lecturers-in-charge will be able to evaluate the overall approach of the course unit using the 'evaluation-reflection tool' (made available in UGI) and see how different ways of working and testing were used with a view to the future. The 'evaluation-reflection tool' (appendix 8.3) is intended as a reflection tool for both lecturers and SPCs, EQCU and the AC. The tool originated from the beginning of the Covid-19 pandemic and enables lecturers to reflect on the examination results for their subjects (after the grades have been announced) and compare them with grades from previous years.

Shortly after every examination period, the Director of Studies, as chair of the EQCU, takes an in depth look at all pass rates. In case of large deviation from the expectations, they will contact the lecturer-in-charge to ask for an explanation or to rectify any mistakes made. The Director of Studies will then try to provide advice to prevent this in the future and pass on its findings to the SPC. The Director of Studies reports to the SPC that also discuss the examination results (pass rates, exam scores…) and recommend actions if considered necessary.

The types of examination boards, their composition and authority are clearly described in the EEC under Part III, Sections II, III & IV in Articles 61 to 74. There are 2 types of examination boards: one for every deliberation set (study year) and one for every study programme. Examination boards deliberate at least 3 times per academic year: after the first (February) and second (July) term examination periods and after the resit examination period (September). It is compulsory for members of the Examination Board to participate in deliberations. The decisions of the Examination Board are recorded in a report.

The composition of the Examination Board per deliberation set is determined by the Faculty Council, on the assumption that the lecturers-in-charge of the mandatory course units concerned shall always be members of the Examination Boards per deliberation set. The chair and the secretary of the Examination Board per deliberation set are the same as those of the Examination Board per study programme. The Examination Board is entitled to deliberate individual students for material errors or when deemed necessary.

Finally, the faculty features an AC. This committee is chaired by a member of the academic staff and is composed of the chair of the SPC, the Director of Studies, 3 teachers and 2 students. The task of the AC is to keep a close eye on the assessment strategy of the study programme. It checks whether there is sufficient variation in the use of assessment methods, whether these are also correctly described in the course sheets and the calculation of the examination mark. It can propose changes to the general assessment policy of the FVMG or changes to specific assessment methods (clinical training, externships, master's dissertation, …). To do so, the AC monitors the actual examinations in a cyclical way together with the student surveys of the units of study. The AC meets 5 times during an academic year. Every time shortly after an examination period and an additional 2 times. During the last 2 academic years, due to the Covid-19 pandemic, meetings of the AC were less frequent.

Link between learning outcomes and assessment design

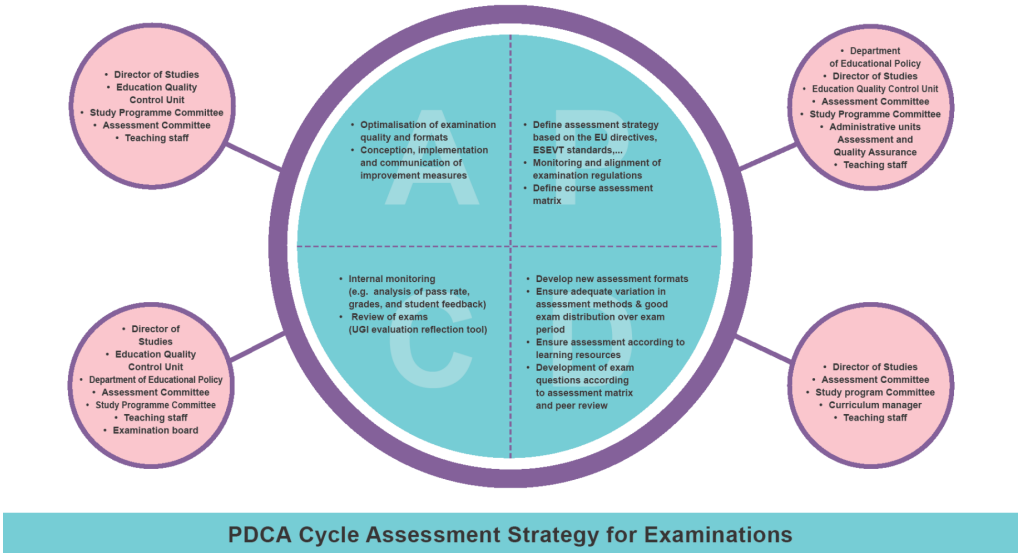
Monitoring the alignment between evaluations and study programme-specific learning outcomes is one of the basic activities of the AC to assess QA. For this, the AC checks whether the evaluation

methods optimally match the (course-specific) learning outcomes of the course unit and thus contribute to the assessment of the study programme-specific learning outcomes. In addition, the AC checks whether the evaluation methods are in line with the assessment policy of Ghent University and the vision of the FVMG. Finally, the AC monitors if the evaluation is well structured throughout the curriculum. This is in line with the assessment principle 3 "Throughout the degree programme, all training competences are pursued and tested in several course units" and principle 4 "The choice of suitable evaluation methods is crucial". The in 8.2 mentioned competency matrix is the basic tool used to do this.

The questions asked by the AC for this quality control are:

- Is each programme competency tested throughout the programme in at least 2 course units?
- Is every programme competency sufficiently covered by the total learning outcomes of the various course units?
- Are the evaluation methods appropriate for the intended programme competency?
- Are the evaluation methods sufficiently varied to validly test the intended programme competencies?

Every academic year, from March till the first of June, all the course sheets must be updated for the next academic year. Lecturers-in-charge as well as co-lecturers must update the contents, update the learning outcomes (and the intended teaching and evaluation methods), and link them to the study programme-specific learning outcomes. When all the course sheets are updated, a competency matrix can be drawn for the study programme and the AC can close the PDCA-cycle by checking if all programme competences are covered through the study programme. The second part in closing the PDCA cycle consists of the random cyclical check of the assessment matrices (or equivalent) and the answer keys of the different course units by the AC. Student surveys always contain questions about the assessment procedure (did the subject content correspond to what was asked on the exam, were sample questions provided, …) and are therefore thoroughly consulted in addition to the foregoing.



PDCA Cycle Assessment Strategy for Examinations

Double click to enlarge

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.

System to certify student achievement of learning outcomes

The SPC sets the study programme-specific learning outcomes. It determines the study programme that is composed of different course units. Each of these course units has some clearly described course-specific learning outcomes that must be taught using didactic methods and evaluated by assessment methods both described in the course sheet. The Examination Board at the different levels determines whether the student has passed the course, the deliberation set or the entire curriculum.

It is the task of the AC to certify that the assessment of each course unit covers the (course-specific) learning outcomes of that course unit and to check if the study programme competences are covered by at least 2 courses of the curriculum. Every 5 years a complete cycle of controls is organized (the last time in 2015). Due to the Covid-19 pandemic this control has been pushed to the background. After the introduction of the new curriculum in ’21-‘22 it has been resumed at the end of the spring of '22 when the assessment matrices (or equivalent) and answer keys have been requested from the lecturer-in-charge and have been evaluated by the AC.

Multiple choice (MC) assessment methods are becoming more popular with as main reason the lack of subjectivity. In addition, the processing is a lot simpler and less labour-intensive for the lecturer. MC questionnaires can be drawn up digitally via Curios and Ufora. The digital processing includes an embedded quality protocol so that the lecturer immediately gets an idea of the quality of the questions. The lecturer can immediately discern whether it was a difficult or an easy question, whether the questions test the entire course content and thus the course-specific learning outcomes, …. The MC tests must be completed online by the students.

Strategy to encourage students to take an active part in the learning process

A new learning platform (Ufora) was introduced at Ghent University in 2018 to replace the older Minerva platform. This platform ensures that the lecturers can provide online learning paths, short knowledge clips and exercises with videos, images, and feedback. The introduction of active learning in a study programme is not something that can happen quickly (see also 8.1). Possibilities must be explored, lecturers must be informed, course units must be transformed so as not to uncontrollably increase the study load through the introduction of active learning. In other words, the introduction and implementation of active learning requires preparation and time.

For the past 3 years, the focus has been on introducing active learning within the curriculum. Several initiatives were started and are still in execution at the faculty to promote active learning. The courses of Anatomy and the learning pathway ‘Clinical & Communication skills’ have already completely switched to blended learning, whereby students are obliged to actively organize their learning process. Active learning has also been introduced in the clinical training (starting in the first master year) where students must go through a learning pathway that focuses on basic knowledge and a few basic skills and in which students also learn practical information about how things work in the different clinics.

A working group (OO-team) was established with the task of introducing and further developing active learning within the curriculum. One activo is involved to see how the programme is currently structured and which course unit is best suited to undergo a transformation to more active learning. From July 2022 onwards this 50% FTE activo has been dedicated to the development of active learning and learning paths. The various committees involved should ensure that the study load does not become too heavy. Various courses are organized by Ghent University for lecturers who want to focus more on ‘active learning’ within their education.

The Honour’s Programme for excellent students at the FVMG was founded years ago by one of the former deans, Prof. Dr. De Brabander. It is designed for top-students enrolling on a voluntary base to an additional programme equivalent of 15-20 study credits. After an intensive preparatory summer course, guided by educational experts together with a promotor, these students work on a project to design and implement educational innovation to improve specific practical skills, increase the learning effect or make a practicum more efficient. In addition, starting from the

academic year '22- '23, a "light" version of this programme is open to students who are willing to participate in peer-tutoring during practical training. After a short educational training, these so-called 'student-assistants' support lower grade students by participating in the same practical training and help them to get the maximum out of the content offered. They are a welcome addition to the standard support offered by teaching staff because more primary students can be helped and because they form a low-threshold source of information for primary students, increasing their involvement and active participation. No additional credits are awarded to these students, but a badge of merit is attached to their diploma supplements.

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.

The study programme competences cover all the EAEVE's day-one competences (see appendix 3.1.3). The logbook of clinical competences, hands-on training and clinical procedures to be acquired by the students in the skills lab, the teaching farms and the clinics is provided in appendix 8.5. They are categorized per year of study (from the second till the final year) and per species.
As mentioned in 8.1, the assessment of these clinical competences is performed in different ways. In the skills lab, all students complete a full program of supervised practical training sessions from the second till the fifth year. The formative assessment during these training sessions ensures that all students have performed the full list of hands-on techniques as mentioned under 'skills lab' in the logbook.
In the clinics, students from the fourth- and fifth-year should complete short learning paths with knowledge-clip and should pass the self-tests successfully before the start of their clinical rotation days (see 8.1). These are part of the formative evaluation and ensure that the students are well prepared before entering the clinics. During the clinics, these students receive continuous feedback of their performance and at the end of each year there is a summative evaluation of their clinical knowledge, based on the learning paths. A systematic check of the acquired clinical competences as mentioned in the logbook is currently not feasible due to the number of students and their day-rotations in the fourth and fifth year. Nevertheless, the clinical competences or hands-on skills that might not have been acquired in those years will emerge during first weeks of clinical training in their final year, at which point they can be remedied. In their final year, students are continuously questioned in clinics about the cases they are co- examining and treating. At the end of the week, the student indicates on a self-reflection document the clinical cases they have seen and the practical/clinical procedures they have performed on these cases. In addition, a self-evaluation on their knowledge, practical skills, attitude, collaboration, and respect for the biosafety principles in the clinic is filled out by the student. This document is provided to the responsible clinician who check and confirms the students has performed the clinical procedures reported in the document and performs either an online assessment of the student (with possibility of feedback afterwards) or an oral feedback and discussion on the self-evaluation. Special attention is paid to the clinical procedures (anamnesis, clinical examination, blood and urine sampling, surgical techniques, …) which the student has performed during the clinical rotation week and the progression he/she has made. These forms are uploaded in an electronic database (Ufora). Next to the clinics, many of the clinical competences or hands-on training from the logbook are performed by the final year students during supervised practical exercises organized (on cadavers or healthy animal) in small groups. This includes performing perineural anaesthesia, joint taps, ophthalmic examination, suturing, enterotomy, hoof trimming, castration/sterilisation,…. Logs are kept assuring that all

students follow these trainings. During the externships, students are required to keep a logbook in which they must state in a detailed manner which patients (anamnesis, diagnosis, treatment, ...) they have seen. These logs are reviewed by the lecturer-in-charge of the externship and form the basis of the student's assessment for this course unit. The integrated clinical examination is presently the final test to check whether the student masters the day-one competences.

Comments on Area 8

- From the academic year '23-'24, students who did not pass all the course units of the first bachelor within a period of 2 years will not be allowed to register anymore in the same study programme at Ghent University.
- It is being examined whether it is possible to link an electronic logbook to the student during the development of the software application for the organisation of the clinics (SATYR). This is currently still under development.

Suggestions for improvement in Area 8

- Feedback after evaluation was sometimes given too late and not individually enough. These points for improvement were given as feedback to the AC and have resulted in more structured feedback on the clinical rotations of the final year students which will continuously be monitored. A more systematic and integrated evaluation of the clinical competences that the students have reached can be added to this evaluation.

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, 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.

The FVMG has sufficient and highly qualified staff to fulfil its current teaching and research activities, also fulfilling the 2/3 guideline for teaching by qualified veterinarians. The FVMG aligns its recruitment strategy with its teaching needs through its HR plan requested by Ghent University. Additionally, during the preparation of the annual plan, the Heads of department and the Faculty Board discuss the long-term (10 years) evolution of the faculty staff and future teaching and research needs of the FVMG.
When selecting academic staff, candidates are extensively screened for their competences and experience in teaching and for their qualifications in the veterinary field. By doing so, the FVMG can guarantee that all requested competences for the veterinary curriculum are covered. Ghent University and the FVMG have a wide range of support services for their teaching staff (as described in Standard 9.2) to ensure a high quality of teaching skills and good assessment practices. Since 2018, all newly appointed professors must follow a pedagogic learning path. The FVMG developed its own pedagogic learning path for all other new staff that will participate in student teaching. Additionally, all staff members are strongly encouraged to keep on learning teaching methods during their entire career at Ghent University.
From academic year '22- '23 onwards, all the faculty staff (and students) will be required to follow an online or on campus training course on biosafety. For personnel working in laboratories the faculty guidelines stipulate that only persons who have received training and are fully informed

about the biological risks of the laboratory, are allowed to start working in the lab. They must know and act according to the University Health and Safety guidelines, the laboratory biosafety manual and respect confidentiality. In addition, employees who work in laboratories and/or clinics are instructed by their supervisors on safety, biosafety and hygiene when hired and afterwards on a regular basis.
Ghent University considers internal quality control of educational activities to be crucial to optimize academic education. Ghent University expects all its academic, administrative, and technical staff, as well as its students to be actively involved in the processes that are aimed at internal quality care. All staff members are also actively involved in the yearly checks made by the safety department.

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 of off-campus contracted teachers.

Table 9.2.1 Academic staff of the veterinary programme

Type of contract	2021-2022	2021-2020	2020-2019	Mean
Permanent				
ZAP*	59,30	59,36	60,20	59,62
Heads of clinic	10,80	12,00	12,00	11,60
Clinical staff	30,90	31,64	28,10	30,21
Educational staff	10,35	10,25	12,30	10,97
Temporary				
AAP**	58,95	56,25	60,25	58,48
Interns	20,80	16,80	16,00	17,86
Residents	33,60	35,20	28,80	32,53
PhD students	27,45	26,55	23,45	25,82
Total	**252,15**	**248,05**	**241,10**	**247,10**

All staff included in this table has received a training to teach and to assess undergraduate students. All figures above mention fulltime equivalents, only considering the percentual involvement in academy (e.g., 5 to 20% for most PhD students)
* ZAP: independent academic staff: full professors, associate professors, and lecturers
**AAP: assistant academic staff: assistants, teaching assistants, post-doctoral assistants

Table 9.2.2 Percentage of veterinarians in academic staff

Type of contract	2021-2022
Permanent	85%
Temporary	89%

Table 9.2.3 Support staff of the veterinary programme (fulltime equivalents)

Type of contract	2021-2022	2021-2020	2020-2019	Mean
Permanent	159.45	159.80	152.30	157.17
Temporary	4.00	5.50	7.10	5.53
Total	**163.45**	**165.30**	**159.40**	**162.72**

Table 9.2.4 Research staff of the VEE (fulltime equivalents)

Type of contract	2021-2022	2021-2020	2020-2019	Mean
Permanent	30.80	30.60	34.20	31.87
Temporary	291.32	293.83	281.40	288.85

Total	**322.12**	**324.43**	**315.60**	**320.72**

Table 9.2.5 Prospected number of FTE academic and support staff of the veterinary programme for the next 3 academic years

Type of contract	2022-2023	2023-2024	2024-2025
Academic staff	255	255	253
Support staff	164	164	162

Selection and recruitment of independent academic staff: full professors, associate professors, and lecturers

The general objective of Ghent University is to have an open, diverse, transparent, and merit-based recruitment policy for selecting professors. The focal point of the FVMG is recruiting talented people with skills that match our long-term strategic choices.

All job offers have a specific job description with clear information on the tasks, what is expected from the candidates as well as what the FVMG can offer them. It also contains all the necessary information on the course of the entire selection process. Job offers are widely distributed by publishing them on the Ghent University website and on Euraxess, Academic positions and ResearchGate. In addition, the recruiting faculty department is obliged to disseminate the announcement through several professional and discipline-related channels.

The selection committee consists of internal professors, external experts as well as representatives from the assistant academic staff, the support staff and 3 students (mainly for evaluation of teaching skills). The basic requirement for professor positions is a minimum experience of 2 years at postdoctoral level. After a first selection made on the file, the remaining candidates are invited for an interview. The interview starts with a presentation given by the candidates on their vision on research (including project funding), on teaching in their respective field and on their achievements in community services. After the presentation, the members of the selection committee have the necessary time to question the candidate. Till now, the candidates were not asked to give a public lecture, but this will become mandatory soon. Research and education are both equally important as selection criteria and leadership and people management are necessary skills. After ranking the candidates by the selection committee, the proposal to award the position to the highest ranked candidate is submitted to the Faculty Council and the Executive Council of Ghent University for approval.

Finally, onboarding is an essential part of the talent-based recruitment policy and contributes to an open, positive, and appealing work-environment and a better integration of new staff members both nationally and internationally. The FVMG has set up a mentoring project for newly appointed professors.

Selection and recruitment of assistant academic staff: assistants, teaching assistants and post-doctoral assistants

The recruitment of assistant academic staff is the responsibility of each faculty department if it fits the faculty's HR policy plan. The department is responsible for drawing up a job offer and for organizing the selection itself. The job offers and the final selection of a candidate is first submitted to the Committee of Assistant Academic Staff. The faculty HR policy officer provides administrative support for publication and recruitment. The basic requirement for assistant academic staff is a master level university degree.

Training to teach and assess students (including continuing education)

Ghent University offers newly appointed professors a wide range of support services for teaching, research, well-being, and leadership. Several of these training courses are mandatory. The required courses must be taken within a period of 3 years after appointment (except for the Educational Learning track, for which the period is 2 years after appointment).

Ghent university also provides an extensive package of training courses and support to all its teaching staff ranging from teaching training, designing education, the use of digital teaching tools and guiding and assessing students. All teachers at Ghent University can fall back on a full webpage with teaching tips and a support team who offers bespoke advice and offers best practices on various teaching activities.
In addition, the FVMG also has a wide range of support services for her teaching staff such as specific hands-on courses, a faculty team which supports them with setting up digital teaching formats and an education activo who works closely with the lecturers to find out which teaching methods are best suited for their lessons.

Selection, recruitment, and training of the support staff
Recruitment of support staff is mainly a responsibility of the faculty departments if it fits within the HR policy plan. The department defines the job description together with the Ghent University HR-department who delegates an HR expert who will assist the faculty department throughout the entire selection process. The HR department ensures the wide publication of the vacancy announcement and does a first screening of the candidates based on the defined requirements/competences. A limited number (3 to 6) of candidates is then invited for a selection interview. The department, together with the HR expert, selects and ranks the candidates. The decision to award the position to the highest ranked candidate is taken by the Faculty Council and the Executive Council of Ghent University.
Upon recruitment, the department and the supervisor ensure that each new employee receives a comprehensive welcome. A godfather/godmother is appointed for each employee to provide practical guidance. The department will also ensure that the necessary training courses can be followed (SAP financial programme, Ghent University training courses on knowledge or welfare, forklift truck training, ...). Throughout their career, employees are also encouraged to continue their training, for example through Ghent University's online training platform (UTOP).

Formal rules governing outside work, including consultation and private practice, by staff working at the VEE
Professional activities or other unpaid or remunerated activities that a member of the academic staff carries out in addition to the university assignment must be reported. This is stipulated in the Ghent University's regulations on additional occupations which follow the regulations of the Codex Higher Education of the Flemish Government.
The decision whether to approve these additional activities lies with the faculties. A cumulation limit has been set for the academic staff with at least a half-time assignment. When added together, the extra activity and total appointment percentage may not exceed 120%. Furthermore, the FVMG assesses whether the extra activity of a staff member is compatible and not competing with the activity at the FVMG. No such regulation exists for support staff. They do not need to report whether they perform additional activities or not. Within working hours, a support staff member may not cumulate paid or unpaid activities without permission unless they are inherent to his position. There are no restrictions for performing activities outside working hours. Nevertheless, the deontological rules of Ghent University always apply, and all employees should report activities that might result in a conflict of interest with Ghent University.

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 specialization 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 on their role. The must have reasonable opportunities and resources for participation in scholarly activities.

Independent academic staff: Full professors, Associate professors, and Lecturers
Full professors, associate professors and lecturers are hired and employed based on statutory and national frameworks.
The career model for professors includes clearly defined job profiles per framework (lecturers, associate professors, and full professors). These profiles contain a non-exhaustive list of qualitatively defined result areas, responsibilities, and roles per framework (research, teaching and service) that can be referenced when evaluating professors. These should be understood cumulatively, meaning that a professor in the higher job level masters the expected skills and competencies of the lower job levels. It is the task of the HR committee of each professor to ensure that these skills and competences are met and that there is an appropriate time allocation between the different assignments. An HR committee is appointed to each member of the academic staff and includes peers with a focus on research and teaching, a representative of the faculty management team and an HR expert from Ghent University.

Assistant academic staff: assistants, teaching assistants and post-doctoral assistants
Regarding the assisting academic staff, Ghent University offers temporary (assistant, teaching assistant, post-doctoral assistant) and fixed (educational supervisor, head of clinic) positions. For these categories, the distribution between research time and teaching time is determined. Assistants have a temporary appointment of 2 years which can be renewed twice, subject to a favourable evaluation. They must devote at least 50% of their time to research in preparation for a PhD. The teaching assistants have a temporary contract of a maximum of 30% for one to 5 years that can be renewed indefinitely. They can spend 100% of their time supporting teaching. Post-doctoral assistants have a temporary appointment of 3 years that can be renewed once. They can maximally spend 30% of their time to support teaching. Educational supervisors have a fixed position and are full-time involved in the clinical teaching of students. 'Head of clinic' positions are fixed positions for clinical staff to run the clinical departments and provide clinical education to students. The heads of clinics are also involved in clinical research to a certain degree.

Standard 9.4: The VEE must provide evidence that it utilizes a well-defined, comprehensive, and publicized 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 recognize 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.

Professional growth and development
All staff members are encouraged to develop their skills and knowledge throughout their careers. Ghent University offers various courses and continuing education programmes through the online GUTDP platform ranging from Information Communication Technology and tools, research, people management and leadership, collaboration and communication, well-being, work organization and project management and education. Via GUTDP, each supervisor can map out a training path together with the employee.
Furthermore, Ghent University also offers specific modules for lecturers and PhD students through the Doctoral Schools, for researchers through Tech Transfer and language training for staff and for international incoming staff.

Appraisal and promotion procedures

Independent academic staff: Full professors, Associate professors, and Lecturers

In 2018, Ghent University developed a new career model for all independent academic staff members. In this model, the interest of the individual and the interest of the institution (as a whole) are optimally aligned and reinforce each other. The goal is to stimulate professors to develop and use the talents and qualities that Ghent University as an institution needs for excellent education, research, and institutional and societal engagement. This career policy is based on mutual trust rather than control and encourages collaboration between academic staff. In this context, promotion is not determined by competition between professors on who performs the best, but those who function and perform as required will also be promoted. With this framework, the university wants to ensure a positive, stimulating working atmosphere and install a culture of feedback in the long term. The future career and promotion policy for professors explicitly aims to provide more space for the talents of individual employees and to streamline them with the university's purpose. Each professor has an HR committee (see above) and at the beginning of a career cycle, each professor drafts a text with the objectives for the next 5 (8 years for full professors) in terms of teaching, research, service, and people management. The HR committee coaches the academic staff, performs intermediate evaluations, and adjusts the plan with objectives in case of unexpected circumstances. At the end of each 5-year cycle a self-evaluation report is drawn up and the HR committee makes a full evaluation of the individual involved.

Assistant academic staff: assistants, teaching assistants and post-doctoral assistants

Assistant academic staff are evaluated at each renewal of their term (annual, biennial or triennial depending on their contract). For this purpose, each employee prepares an activity report that is submitted to the department chair and the AAP committee for approval. At the start of a new academic year, they are expected to write down a job description that will be submitted to the Department Chair for approval and must be approved by the Faculty Council.

Support staff

A new career policy based on trust was also developed for support staff and is based on a combination of regular feedback moments together with a minimum number of formal evaluations (after a 6-month trial period following admission, 3 years after admission and from then every 5 years). Formal evaluations include evaluation of the performance and the results achieved according to the job description and the job profile, and an appraisal of how the staff member functions within its group. The regular feedback moments can include a conversation of what is going well, which difficulties they face and how things can run more smoothly. It can also be a moment of reflection. Feedback moments can be initiated either by the staff member or the leading academic staff.

Mentoring and supporting procedures

To ensure the psychosocial well-being of all staff members, Ghent University established 4 projects: leadership, workable work, motivation, and respective behaviour. In case of problems students and staff members can always turn to colleagues, their supervisor, trustees within the faculty or trustees at university level (Trustpunt) and an external organization ensuring health and safety in the workspace (IDEWE). Trustpunt is a central service of Ghent University providing a sympathetic ear, professional advice, and training sessions for all staff members.

The FVMG has set up a mentoring project for newly appointed professors and each newly starting assistant academic staff and support staff gets a designated godfather or godmother. From 2023, a PhD community will be started providing additional support to the researchers. After the Covid-19 pandemic, where remote working was mandatory for specific periods of time, Ghent University opted to install, whenever possible, a structural combination of working in the office and remote as a new, sustainable form of work organization with careful consideration of a good balance and

focus on well-being, resilience, reconnection, and teamwork. The FVMG established a welfare committee which defined different topics for the coming years to focus on: community feeling, workload and organization, communication en psychosocial well-being.

Their implication in the decision-making processes

Next to the dean, the department chairs and the members of the Faculty Management Board, each staff category as well as students are represented in the Faculty Council. They are elected every 4 years (2 years for students and assistant academic staff). The day before each Faculty Council meeting the dean provides open consultation moments for staff representatives to discuss the topics listed on the Faculty Council or other relevant concerns they may have. The faculty ensures a broad-based representation of the different staff categories and of the students in relevant committees and councils and ensures gender balance. For specific committees, such as the Study Programme Committee or the Externship Committee, the FVMG also invites external experts. The FVMG is also represented in various committees of Ghent University. Both Ghent University and the FVMG ensure an open and clear communication of new policies and decisions through the Faculty Council reports, faculty newsletters, department meetings and staff meetings.

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

Till 2020, individual evaluations of each teacher/lecturer were performed by the students. In 2020, Ghent University decided to stop these individual evaluations and to implement the course feedback by students instead. For the course feedback, a questionnaire is used which is drawn up by the director of DOWA, on the advice of the Educational Council. At the suggestion of the EQCU and in joint consultation with the students, this questionnaire may be complemented with other items to be queried, after the approval of the Faculty Council. The Department of Educational Policy is responsible for the coordination of the course feedback by students. The EQCU ensures that all course units of any given study programme or any lecturer are frequently surveyed. All course units and the lecturers-in-charge and co-lecturers that are mentioned in the course file are surveyed once every 3 years. Every year, the EQCU selects the course units that are included in the course feedback for that year. The questionnaires are handed out to all students who have taken the course unit concerned once all stages of the education-learning process have been completed. In principle, this also includes the examinations. After being processed, the results per course unit are sent to the Director of Studies of the faculty concerned. The results, together with the answers to the open questions, are provided to the relevant lecturer. The lecturer is invited to analyse the results and evaluate if and in which areas there is room for improvement or adjustment. Within a set period, the lecturer can formulate a short response to the committee which deals with the course evaluations. The results per course unit (together with possible comments) are discussed in the EQCU, that examines for which course units follow-up is considered necessary.
Only if follow-up is necessary the committee produces an action plan:
(1) If the response of the staff member already contains a proposal for an action plan that is clear enough and sufficient in the opinion of the committee, the professorial staff member will be supported to carry out these actions. This step can be done via e-mail or in a meeting with the professorial staff member in question, as per the preference of the committee. The professorial staff member involved can always request a meeting.
(2) If there is no response from the staff member or the response and/or the proposal for an action plan is not clear enough and/or is not sufficient in the opinion of the committee, a meeting is planned with the professorial staff member and with the chair of the SPC and/or the Director of Studies and/or the Dean to discuss an action plan and make clear agreements for follow-up. If desired, students can also be involved.

The committee always acts from a development perspective and sets out to reach agreements in consensus with the professorial staff member in question. In both cases set out above, the professorial staff member is also informed that the course unit will be included in the list again the following year to be presented to the students.

Description of how and by whom the strategy for allocating, recruiting, promoting, supporting, and assessing academic and support staff is decided, communicated to staff, students and stakeholders, implemented, assessed, and revised.
Based on the university allocation model (see chapter 2) the FVMG is granted a number of staff resources each year and is asked to set up an HR policy plan. After consultation of the different department councils and staff representatives, the faculty management board proposes an HR policy plan. It is based on the available resources and the goals set in the strategic plan. The HR policy plan is further discussed and approved at the Faculty Council and gets a final approval of the university Board of Governors. Depending on the staff category the university, the FVMG or the faculty departments is/are responsible for recruiting, promoting, supporting, and assessing staff (see 9.2).

PDCA Cycle Strategy for allocating, recruiting, promoting, supporting and assessing academic and support staff

Double click to enlarge

Comments on Area 9

- Ghent University recently set up a merit badge system to award student engagement for the university/faculty during their studies. In consequence, there are currently 4 ways by which students can be awarded at Ghent University: (1) recognition in curriculum e.g., credits or exemption (2) certificate in Honours programme (3) financially as job students and, (4) merit badge system.

Suggestions for improvement in Area 9

- An important challenge for the FVMG will be the recruitment and retention of veterinary specialists for the VTH, certainly in disciplines such as medical imaging, surgery, and anaesthesia (mainly small animals). The reason is the rise of the corporate associations in veterinary medicine that can offer better financial conditions. To maintain high standards in veterinary education it is important to keep on attracting these teachers. The faculty and university should make more efforts to offer attractive career perspectives for these staff members. One of the options that will be explored by the FVMG are partial professorships.

- The financial perspectives for Ghent University until 2028 are not positive and if a reduction in funds for academic and support staff would be necessary, the FVMG will need to adapt its organization to ensure that enough support can still be given to student education. This can include more internal mobility for support staff and hiring staff on other resources than those provided by Ghent University.

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

Research and teaching staff at the FVMG is performing top research and is giving their courses in a research-based way to initiate the scientific thinking of the veterinary medicine students. The strong research output of the staff members resulted in high positions in international rankings. In the Shanghai Global Ranking of Academic Subjects, the FVMG has been number one in the world for 6 years in a row from 2017 till 2022 and in the CWUR subject ranking, it is also number one. In addition, it has a top 20 position in the QS World University Ranking and in the Times Higher Education World University Ranking. To finance their research, staff is successful in obtaining grants at grants at university level (BOF (Special Research fund), IOF (Industrial Research Fund), at regional/Flemish level (FWO Flanders, Flanders Innovation & Entrepreneurship), at national level (Federal Public Service Contractual Research, Belgian Science Policy), at European level (Horizon 2020, Horizon Europe, ERANET) and at international level (Winn & Morris foundation, Bill Gates Foundation). Furthermore, their research is also performed in collaboration with the industry and the funds generated from the clinics are also partially used to fund research activities. During teaching, the professors are stimulated to give up-to-date information from their own research. This includes activating the students to search for literature, to do observations, to forward hypotheses and inspiring them to do research themselves. In the study programme of veterinary medicine, the students can develop both clinical and pre-/paraclinical research skills. In this context, a strong learning pathway 'Research' was developed throughout the study programme during the last programme reform in 2020 (see 10.2).
A complete list of major funded research programmes can be found in appendix 10.1. In 2023 a total of 133 research projects are listed for a total of € 46 million. In addition to this, 98 personal mandates were funded by external funding of which 88 PhD students (4-year scholarships) and 11 postdoctoral researchers (3-year scholarships). The research projects funded for fundamental research was approximately € 22.6 million. Applied research project amounted to approximately € 23.6 million.

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.

Several intra-curriculum and extra-curriculum research programmes exist to give the students the possibility to get acquainted with the different research groups of the FVMG and to become an academic thinker and scientific researcher.

Intra-curriculum research
During the bachelor years all students must follow a learning pathway 'Research' which will help them to do their own research in the master years as part of their master's dissertation.

Learning pathway 'Research'

Year	Competence-based learning outcomes of the research pathway
First year	Understand the fundamentals of biomedical statistics. Be able to search for information on a certain topic in literature.
Second year	Understand the methodology to answer some scientific questions, interpretation of research design, both methodological as experimental.
Third year	Be able to select techniques/approaches/methodologies for certain research questions and to reflect on the obtained results.
Fourth year	Be able to search in the literature and collect clinical data to make a scientific question and learn how to make protocols in a statistical way. Several course units work on the development of collecting data and designing a research question based on scientific literature or clinical data.
Fifth year	Be able to resume literature data that are important for identifying research gaps and for formulating the aims.
Sixth year	Execute his/her own research, interpret the results in an independent, critical manner, write everything down and discuss the results in a written and oral way in the context of what is known in literature.

At the end of the bachelor years, the student should (1) be able to search for scientific information in literature and analyse the information on its value, both in Dutch and English; (2) be creative in doing own observations and be able to critically interpret the value of the observations; (3) be able to select the optimal methods for morphological, pathological, microbiological and (bio)chemical studies and to interpret the results; (4) have insights in the boundaries of the present knowledge in veterinary medicine and be aware of scientific integrity. In the bachelor years, the students have obtained all the skills to do their own research.
At the end of the master, the student should be able to (1) critically collect, analyse and synthetize data found in literature and clinical studies; (2) set up a research question based on literature and clinical data; (3) design, execute and adapt his/her own experimental or literature research; (4) be able to select the proper research methodology and technology, (5) make a report on his/her own experimental data and to critically analyse them and (6) have insights in scientific integrity.
In the master years, the learning pathway 'Research' is entirely devoted to the master's dissertation. The master's dissertation is divided into 4 parts, of which 3 parts correspond to 22 ECTS credits (6 for Master dissertation I, 8 for Master dissertation II and 8 for Master dissertation III) are purely research-oriented and extend over the 3 master years, and one part (Master dissertation IV) corresponding to 8 ECTS credits is rather clinically oriented (see description of part IV in 3.1). For students of the graduation track 'Research', there is no Master dissertation IV and the master's dissertation is fully research-oriented, meaning that Master dissertation III weighs for 16 ECTS credits.
Master dissertation I (fourth year) uses 'guided self-study' as teaching modality. The course is offered as a 'Mass Open Online Course' (MOOC) in which students must go through a series of videos that explain both the theory and the practice. In between the videos, students take up quizzes so that they have full understanding of the content explained up to the point before they embark on a new video. Students must make all the quizzes and obtain at least 90% for each quiz. The quizzes can be redone as many times as needed. Students receive feedback for the wrong answers and can improve their performance based on that and extra study. In addition, during the fourth year, the students are appointed to a team (a discipline), with which they will perform their research. The students must meet and exchange ideas on topics for their research with the assigned team and must provide a short (max. 2 pages) written summary of the conclusion of the discussions.
In Master dissertation II (fifth year), the student is assigned definitive promoters (at least 2: one main promoter and one associated promoter) that offer support on the dissertation. In the first semester, a definitive research topic and title for the dissertation must be defined and provided to the master's dissertation secretariat. Then, the student commences his/her own research, guided

by the promoters. As intermediate report in this process, at the end of Master dissertation II, the student hands in a written literature overview also containing the research questions and goals for the own research. Depending on the topic, most students already start their research during the fifth year. In the framework of permanent evaluation, the promoters evaluate the commitment and attitude of the student and their communicative capabilities within and towards the scientific team. The written literature review is also evaluated by the promoters as part of the final evaluation of this course. Both parts (attitude report and written literature review) count for 50% of the final score.
In Master dissertation III (sixth year), the student completes the research and compiles it in a written report, defined as a publishable study, that is also presented and defended in front of a jury. The final evaluation of the Master dissertation III consists of 3 parts/marks, each counting for one third of the final score: (1) in the framework of permanent evaluation, the promoters evaluate the commitment and attitude of the student, (2) the written dissertation is evaluated by the promoters (joint evaluation) and one member of the jury, (3) the entire jury (3 members) evaluates the oral presentation and defence of the dissertation by the student at the end of the exam period. For students of the graduation track 'Research', the research project, the oral defence, and in-depth discussion on their master's dissertation are at a higher level, in accordance with the higher number of ECTS credits. During their master's dissertation studies, these students are introduced to clinicians/scientists working in different pre- and paraclinical laboratories and clinical departments, which gives them the opportunity to think about their future career and to orient themselves in a certain direction.
In addition, the last year students can follow a research externship of 4 weeks as an elective (see 3.5). Besides the courses that are offered at the FVMG, students are allowed to follow courses at other faculties as an elective to deepen their potential in research.

Table 10.2.1. List of the successfully defended master's dissertations

Successfully defended master's dissertations in the different graduation tracks	2019-2020	2020-2021	2021-2022
Horse	63	65	62
Ruminants	49	46	40
Companion animals	115	106	107
Pig, poultry, and rabbit	9	7	7
Research	7	9	12
Total	**243**	**233**	**228**

Extra-curriculum research (free basis)

- Quetelet colleges (2-year programme for students of the second and third year). During these colleges (40 colleges over a 2-year period) international experts are invited and discuss with the participating students a broad range of topics on science, culture, and society. These colleges are meant for excellent, motivated, and creative students and help them in defining questions and sharpen their observation power.
- Honours programme - 'Breaking Frontiers': Researchers at Ghent University present topics with a short abstract on their research. Top students are personally invited to select a topic and to orally defend their application. Once selected, the students work on their topic in the research group of the promoter during free/spare moments and holidays over a period of one year. At the end, the students draft a paper and make a scientific poster that they must present and defend. Besides the experimental work, they must follow some lectures and do self-study (literature search).
- Free laboratory trainings: some students are taking the initiative to do a free laboratory training under guidance of PhD students to get acquainted with the work of a PhD student. For this, they just contact a professor and discuss what they want to do.

- Information moments: students are regularly informed on the possibilities to do postgraduate studies (internships, residencies, PhD). This is done by professors with experience in the field.

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.

The FVMG strives to provide the entire academic staff with multiple options for the continuing education, internally (e.g., journal clubs, seminars) and externally (international conferences, workshops). Senior teaching staff train undergraduate and postgraduate students and support the latter's clinical development through internship or residency programmes. Postgraduates are also involved in undergraduate teaching where appropriate. Training of the undergraduate students in the clinics is an integral part of the different **postgraduate intern and residency training** programmes at the FVMG. The FVMG strives to ensure sufficient and transparent distribution of patient cases and that trainees at all levels (students, interns, and residents) gain sufficient practical clinical experience at different degrees of complexity and in a team-based, collaborative manner. This is possible due to the high number of cases treated at the VTH: both undergraduate and postgraduate students can be confronted with cases of varying complexity and the potential for conflict over cases and patients is kept to a minimum. However, because of the still growing number of undergraduate students, mainly in companion animals, the number of patients per student comes under pressure, sometimes leading to tension in the clinics. At the start of their training period interns and residents need to follow a learning path on how to guide and evaluate students in a clinical/practical environment. This includes all aspects of clinical training such as constructive alignment, respectful behaviour in normal and stressful circumstances and student feedback. Both interns and residents explain on a day-to-day basis the management of clinical cases to the students, teach them how to perform the basic handling skills and participate to the practical exercises for the undergraduate students. Moreover, the interns who take care of the out of hours duties are the first point of contact for the undergraduate students in the management of hospitalized and emergency cases. This out of hours contact time also allows for an intensive one-on-one interaction between intern and undergraduate students. Residents, interns and undergraduate students are all actively engaged in the management of clinical patients, but they learn skills on a different level and thus do not actively interfere with each other.

Table 10.3.1.a. Number of interns and residents registered at postgraduate clinical training

Training	19-20	20-21	21-22	Mean
Interns				
Companion animals	9	11	11	10.3
Equine	6	8	8	7.3
Production animals	4	3	4	2.6
Total	**19**	**21**	**22**	**20.6**
Residents				
ECAR (Animal Reproduction)	3	3	2	2.6
ECBHM (Bovine Health Management)	6	5	6	5.6
ECEIM (Equine Internal Medicine)	2	2	2	2
ECPHM (Porcine Health Management)	1	1	1	1
ECVAA (Anaesthesia & Analgesia)	2	2	2	2
ECVCN (Comparative Nutrition)	3	2	3	2.6
ECVD (Dermatology)	1	1	2	1.6
ECVDI (Diagnostic Imaging)	10	10	10	10

ECVECC (Emergency and Critical Care)	0	0	1	0.3
ECVIM - Companion animals Internal Medicine	4	4	4	4
ECVIM - Companion animals Cardiology	1	1	1	1
ECVN (Neurology)	4	4	2	3.3
ECVP (Pathology)	3	3	3	3
ECVPH (Public Health)	3	3	3	3
ECVS (Small Animal Surgery)	3	4	4	3.6
ECVS (Equine Surgery)	2	2	2	2
ECVSMR (Sports Medicine & Rehabilitation)	2	5	5	3
ECZM (Herpetology)	1	1	1	1
ECZM (Wildlife Population Health)	0	0	1	0.3
ECZM (Small Mammal)	0	0	1	0.3
EVDC (Equine Dentistry)	1	1	2	1.6
Total	**52**	**54**	**58**	**54.6**

As mentioned in 10.1, the FVMG is performing top-research providing lots of opportunities to postgraduate students to perform **postgraduate research training (mainly PhDs),** which has resulted in 108 successfully defended PhDs in the last 3 academic years.

Table 10.3.2. Number of students registered at postgraduate research training

Degrees	2019-2020	2020-2021	2021-2022	Mean
PhD:	256	279	284	273
Total	**256**	**279**	**284**	**273**

The FVMG provides a **postgraduate programme** (Poultry Sciences) that started in the academic year 2021-2022.

Table 10.3.3. Number of students registered at other postgraduate programmes in the VEE but not related to either clinical or research work (including any external/distance learning courses)

Programmes	2019-2020	2020-2021	2021-2022	Mean
Postgraduate in Poultry Sciences	-	-	6	6
Total	**-**	**-**	**6**	**6**

When designing the education programmes of the **continuing education courses**, relevant themes that relate to challenges that veterinarians face when running their practice are selected. The programmes are created by lecturers who are mostly clinicians that have extensive practical experience in the discipline themselves, and work in close relation with practitioners. Moreover, trainees' suggestions for new courses are encouraged. The focus is on practice-based and visionary courses, which are continually evaluated and updated. The programmes of the Academy cover the latest developments in the most important clinical disciplines in small and large animals, food safety, practice management and legislation, entrepreneurship, physiotherapy, …. All courses are awarded with credits that are recognized by the Council of Veterinarians. The Academy of Veterinary Medicine is submitted to the same QA rules as the undergraduate programmes and benefits from the QA culture and administrative and technical support of Ghent University allowing the Academy to provide the same high-quality standards as regular study courses. Students can register for all courses of the Academy for free while veterinarians get the opportunity to register for a free course the first 2 years after graduation and additionally get a discount of 50% for registration for courses during the first 3 year after graduation.

Table 10.3.4. Number of attendees to continuing education courses provided by the VEE

Courses	2019-2020	2020-2021	2021-2022	Mean
Ruminants	572	597	707	625

Horse	263	317	162	247
Pig	106	198	157	153
Management	259	194	184	212
Small animals	859	735	772	788
Public Health	353	739	285	459
Veterinary assistants	116	49	89	84
Animal physiotherapy	36	38	68	47
Total	**2,564**	**2,867**	**2,424**	**2,618**

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.

Education-based on research is one of the 6 strategic Educational objectives of Ghent University. Therefore, it is integrated in the Education monitors, and it is submitted to a PDCA cycle with regular check in the curriculum feedback and course unit feedback (see 1.4). In addition, during the review of the content of the courses, performed every 3 years, the topic is addressed in the discussion with the lecturers (see 3.1). Finally, besides compulsory courses, students are also encouraged to take part in symposia, summer schools and workshops (see 10.2).
The FVMG **research** strategy and focus are defined in close collaboration and interaction between the Board of Governors, the Educational Council, the Faculty Council, the Faculty Scientific Research Committee, and the senior scientific staff. The Faculty Scientific Research Committee is responsible for the structural alignment of PhD programmes. A PhD thesis should have a minimum quality, as defined by the Doctorate Committee, a subcommittee of the Faculty Scientific Research Committee. The quality of the **internship and residency** training is assured by the Committee for Interns and Residents who perform a yearly questionnaire among interns and residents on the perceived quality of their training. The FVMG offers its own internship training course with a limited number of training places according to the needs of the clinic. Residency programmes are implemented according to the respective guidelines and statutes of the relevant EBVS College. In Addition, the Committee for Interns and Residents gives particular attention to the results of the residents from the FVMG at the board examinations.
At the end of every **postgraduate seminar**, the attendees are asked to evaluate the speakers and the topics. This allows to keep a high quality of courses over the years.

Cycle Research, continuing and postgraduate education programmes

Double click to enlarge

Comments on Area 10

- Substantial and diverse numbers of specialisations and continuing education opportunities are provided by the FVMG.

Suggestions for improvement in Area 10

- With Covid there has been an important switch of the continuous education courses (organised by the Academy) form physical to online. As a result, the group of participants coming to the FVMG to attend the courses 'live' became quite small thus decreasing the community feeling of the participants and their informal contacts with the instructors. Initiatives are presently taken to get the participants together on the campus again, one of them being the renovation of the library to a 'knowledge centre' that provides a beautiful environment for these courses.
- Although many efforts have already been made, improvement in the relation between students, interns, residents, and staff is a continuous point of attention. The reduced number of students, thanks to the entrance examination, will clearly help to decrease the tension in the clinics.

ESEVT Indicators

See excel-file in appendix 11.

Comments on Indicators

- The entrance examination, resulting in a significant reduction of the number of students (see 7.3), will greatly improve the indicators.
- The FVMG has only one indicator with a negative "balance n° of equine patients seen extra-murally / n° of students graduating annually". However, this is compensated by the strongly positive balance of the indicator "n° of equine patients seen intra-murally / n° of students graduating annually" showing the exceptional high number of equine patients seen intra-murally for training of the students and that includes 25% of first line cases.

Suggestions for improvement on Indicators

- None.

Glossary

Abbreviation	Meaning
AC	Assessment Committee
AMCRA	Antimicrobial Consumption and Resistance in Animals
BOF	(Ghent University) Special Research Funds
COIL	Collaborative Online International Learning
CSC	Chinese Government Scholarship
CT	Computed Tomography
DOC	Day-One Competences
DOWA	Department of Educational Policy
EAEVE	European Association of Establishments for Veterinary Education
EBVS	European Board of Veterinary Specialisation
EEC	Education and Examination Code
ECTS	European Credit System
EPT	External Practical Training
EQB	Education Quality Board
EQCU	Education Quality Control Unit
ESEVT	European System of Evaluation of Veterinary Training

ESG	European Standards and guidelines
EU	European Union
FAO	Food and Agriculture Organisation
FASFC	Federal Agency for the Safety of the Food Chain
FES	Faculty Education Services
FSQ	Food Safety & Quality
FVMG	Faculty of Veterinary Medicine Ghent
FWO	Research Foundation - Flanders
HEC	Higher Education Commission
HR	Human Resources
IAFF	Flemish Research Institute for Agriculture, Fishery and Food
IWT	Agency for Innovation by Science and Technology
MRI	Magnetic Resonance Imaging
OSCE	Objective Structured Clinical Examination
PDCA	Plan-Do-Check-Act
PhD	Doctor of Philosophy
PPE	Personal Protective Equipment
SOP	Standard Operating Procedures
SPC	Study Programme Committee
SWOT	Strengths - Weaknesses - Opportunities - Threats
UGI	Ghent University's Integrated Business Intelligence System
VEE	Veterinary Education Establishment
VPH	Veterinary Public Health
VRB	Veterinary Research Building
VTH	Veterinary teaching hospital

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