AMERICAN VETERINARY MEDICAL ASSOCIATION

CANADIAN VETERINARY MEDICAL ASSOCIATION

COUNCIL ON EDUCATION

ACCREDITATION SELF-STUDY REPORT 2015

ONTARIO VETERINARY COLLEGE

UNIVERSITY OF GUELPH

SITE VISIT: OCTOBER 18 TO 22, 2015

GLOSSARY

AHL – Animal Health Laboratory:
The Animal Health Laboratory unit of the University of Guelph Laboratory Services Division complements the regulatory and analytical testing carried out by the Division. The AHL is a full-service, fully computerized veterinary diagnostic lab with an extensive cadre of laboratorians with post-graduate training and specialty board certification. The AHL provides a single source of laboratory services in the field of animal health, encompassing both food-producing and companion animals

CFI – Canada Foundation for Innovation:
The Canada Foundation for Innovation is an independent corporation created by the Government of Canada to fund research infrastructure. The CFI's mandate is to strengthen the capacity of Canadian universities, colleges, research hospitals, and non-profit research institutions to carry out world-class research and technology development that benefits Canadians.

CIHR - Canadian Institutes for Health Research:
As the major federal agency responsible for funding health research in Canada, the Canadian Institutes for Health Research supports more than 10,000 researchers and staff each year. Together they are challenging the frontiers of science in order to increase our knowledge and understanding of health sciences and ultimately, to improve the health of Canadians.

CPHAZ – Centre for Public Health and Zoonoses:
This University of Guelph centre coordinates existing public health research and promotes new collaborative research activities designed to enhance our capacity to solve problems and implement solutions in public health at the human-animal-environmental interface, and to expand the pool of educated personnel able to address the public health needs of society. CPHAZ was initiated by OVC, and its Director reports to the OVC Dean.

CVMA – The Canadian Veterinary Medical Association:
The Canadian Veterinary Medical Association is the national and international voice for Canada's veterinarians, providing leadership and advocacy for veterinary medicine.

CVO – College of Veterinarians of Ontario:
The College of Veterinarians of Ontario regulates the practice of veterinary medicine in Ontario to protect the public interest. The CVO licenses veterinarians, inspects and accredits veterinary facilities, and investigates complaints against veterinarians.

CVSA – Central Veterinary Students Association:
The Central Veterinary Students Association is the student government in the College.

DVSc – Doctor of Veterinary Science:
The DVSc program provides rigorous advanced academic preparation in both discipline specialty training and research and is a unique post-professional doctoral level degree. The DVSc differs from PhD training by emphasizing the development of both research and applied skills in various areas of clinical specialization. The DVSc is an interdepartmental program with participation from all four academic departments in the Ontario Veterinary College. In this document we refer to DVSc/Residents to highlight the clinical nature of this graduate program.

ICCI – Institute for Comparative Cancer Investigation:
The Institute for Comparative Cancer Investigation is a University of Guelph centre dedicated to providing comprehensive cancer care for companion animals (within the Mona Campbell Centre for Animal Cancer) and performing translational biomedical research for the benefit of all species, including humans. ICCI was initiated by OVC and the Co-Directors report to the OVC Dean.

MPH – Masters of Public Health:
This program offers graduate students didactic and experiential training in public health practice, including epidemiology, infectious disease, outbreak response, applied research, and the ability to transform science into policy. It is located within OVC with core OVC faculty.

MTCU – Ministry of Training, Colleges and Universities:
In Ontario, the Ministry of Training, Colleges and Universities is responsible for the administration of laws and regulations relating to post-secondary education and skills training. MTCU provides base funding for universities.

NSERC - Natural Sciences and Engineering Research Council:
NSERC is the national organization for making strategic investments in Canada's capability in science and technology. NSERC supports both basic university research through discovery grants, and project research through partnerships among universities, governments and the private sector, as well as the advanced training of highly qualified personnel.

OMAFRA – Ontario Ministry of Agriculture Food and Rural Affairs:
The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) is an Ontario government ministry responsible for the food, agriculture and rural sectors of Ontario. Through the OMAFRA-University of Guelph partnership, the ministry provides funding for relevant research and for the Veterinary Clinical Education Program (VCEP) at OVC.

OMAFRA VCEP – Veterinary Clinical Education Program:
The Veterinary Clinical Education Program (VCEP) Agreement provides annual base funding to the Ontario Veterinary College from OMAFRA to help the college prepare veterinary graduates who have a high level of clinical learning and experience in veterinary medicine, with a particular emphasis on OMAFRA's mandates (animal agriculture, emergency preparedness, food security, and animal-related public health).

OVC HSC – Ontario Veterinary College Health Sciences Centre:
The OVC Health Sciences Centre includes the Companion Animal Hospital, the Large Animal Hospital, Field Services (Ruminant, Swine, and Poultry), the Hill's Pet Nutrition Primary Healthcare Centre, the Equine Sports Medicine and Reproduction Centre, and the Mona Campbell Centre for Animal Cancer.

OVC ITS – Ontario Veterinary College Information Technology Services:
The OVC Information Technology Services unit consists of a team of individuals focused on the delivery and support of technology within the college; including desktop support, learning technology, videography, and the OVC-HSC's information system. OVC ITS partners with Computing and Communications Services (the central University of Guelph information technology department) on many of its efforts, while also seeking innovative, external solutions to the college's unique technology needs.

OVC Pet Trust Fund:
Pet Trust honours the relationship between pets and their people and veterinary care givers. This is done by raising funds and supporting learning, healthcare, and research at OVC. The Fund provides over $400,000/year in research and equipment funds and also supports graduate student stipends, hospital personnel, and renovated and new infrastructure initiatives.

OVC SLAH – OVC Smith Lane Animal Hospital:
The OVC Smith Lane Animal Hospital is the college's companion animal primary care practice and learning centre and is located in the Hill's Pet Nutrition Primary Healthcare Centre.

OVMA – Ontario Veterinary Medical Association:
The Ontario Veterinary Medical Association is the professional association representing veterinarians across Ontario. The OVMA is committed to advancing and promoting excellence in veterinary medicine, the betterment of animal health and contributing to the protection of human health.

PHAC – Public Health Agency of Canada:
The mission of the Public Health Agency of Canada is to promote and protect the health of Canadians through leadership, partnership, innovation and action in public health. Its vision is: *Healthy Canadians and communities in a healthier world.*

Phase:
In the DVM program, a Phase is the academic year from September to April. There are four Phases in the program. Between the end of Phase 3 and the beginning of Phase 4, students complete a required 8-week Externship in a practice.

Residents:
The OVC HSC has a few residents, who are training to be clinical specialists but are not enrolled in a graduate program. The majority of trainees are in a graduate program (See DVSc).

SLRP – Summer Leadership and Research Program:
The SLRP offers BSc, DVM and other summer student researchers at OVC a stimulating research environment from May to August.

SNOMED – Systematized Nomenclature of Medicine:
The Systematized Nomenclature of Medicine (SNOMED) is a systematic, computer-processable collection of medical terms, in human and veterinary medicine, to provide codes, terms, synonyms and definitions which cover anatomy, diseases, findings, procedures, microorganisms, substances, etc. It is the classification system used within Stringsoft™.

Stringsoft:
Stringsoft™ is the electronic medical record system within all areas of the OVC Health Sciences Centre except the OVC Smith Lane Animal Hospital where Cornerstone™ is used.

TUGS – Tri Universities Group:
This is a group of libraries, which includes the University of Guelph, the University of Waterloo and Wilfrid Laurier University that share resources.

VEP – Veterinary Experience Program:
A voluntary program for Phase 1 and 2 students offered in association with the OVC Alumni Association. The program is designed to provide DVM students with the opportunity to spend a day 'on the job' with a practicing veterinarian on a one-to-one basis and gain more hands-on animal experience.

Veterinarians:
When the term is used with a capital "V", it refers to those individuals in the OVC Health Sciences Centre and the University of Guelph Animal Health Laboratory who function as veterinarians and provide a range of clinical and professional services. They are members of the University of Guelph Faculty Association (UGFA) union, but are not classified as faculty

TABLE OF CONTENTS

OBJECTIVES

STATE THE MAJOR GOALS AND OBJECTIVES OF THE COLLEGE AND COMMENT ON HOW THEY ARE BEING MET.

Founded in 1862, the Ontario Veterinary College (OVC) is the oldest veterinary college in Canada and the United States and was a founding College of the University of Guelph in 1964. The OVC is the only veterinary college in Ontario and is located within a highly regarded, comprehensive university, in the most populous region of Canada, and in close proximity to numerous medical and agricultural research facilities. Our alumni span the globe, working in universities, private practices, industry, government, and other agencies and organizations. The College as a whole is directed towards improving health – the health of animals, humans, and the environment, and is concerned with many animal species, including agricultural animals, companion animals, and wildlife. The broad methods used to achieve this goal are threefold – learning, research and healthcare. OVC builds on interdisciplinary approaches to make scientific discoveries that align with the University of Guelph in its mission of 'Changing Lives, Improving Life'. *Our goals are to*:

MAXIMIZE LEARNING

We ensure that all our graduates have the skills, knowledge, and attitudes they need to succeed in the face of increasing demands for comparative scientific expertise and unique approaches to solving problems confronting Ontario, Canada and the world.

TRANSLATE BIOMEDICAL DISCOVERIES INTO IMPROVED HEALTH

We capitalize on animal-human health links through the translation of fundamental research into biomedical applications. Our expertise, partnerships, location and facilities enable us to integrate and apply scientific discoveries benefiting many species, including our own.

BE A DEFINING VOICE FOR VETERINARY HEALTH SCIENCES IN PUBLIC HEALTH AND ANIMAL POPULATION HEALTH

OVC and the veterinary profession are in the forefront of many of the critical health and economic issues facing modern society, such as emerging and chronic diseases, zoonoses and pandemics, food security, and global development.

IMPROVE HEALTH AND WELL-BEING OF ANIMALS, PEOPLE AND THE ENVIRONMENT

We improve healthcare for animals and service delivery for animal owners and referring veterinarians. OVC is committed to discovering new diagnostic procedures and treatments for animals and preserving and enhancing the bond between people and their animals. Through an ecosystems approach to global health, OVC is collaborating with other professions and disciplines to find solutions to complex health problems.

In order to meet these four major goals, OVC continually reviews and improves the DVM curriculum. We have grown the graduate program and created new learning opportunities such as the Masters of Biomedical Sciences and the Masters of Public Health degrees. In the planning stages are a Public Health focus within the Epidemiology PhD program and a PhD in Animal Welfare, which is a joint program between OVC and the Ontario Agricultural College. OVC has created university-wide institutes such as the Centre for Public Health and Zoonoses and the Institute for Comparative Cancer Investigation, and Health Research Networks, such as the Poultry Health Research Network and the Dairy Health Research Network.

We have constructed new facilities, including the Large Animal Isolation Unit, Pathobiology-Animal Health Laboratory Building, Hill's Pet Nutrition Primary Healthcare Centre, Mona Campbell Centre for Animal Cancer, Large Animal Clinical Skills Building, and Equine Sports Medicine and Reproduction Centre. New facilities are planned for Companion Animal Surgery and Anesthesia and for Enhanced Clinical Learning.

DESCRIBE METHODS AND/OR TOOLS USED TO MEASURE OUTCOMES OF THE TOTAL PROGRAM OF INSTRUCTION, RESEARCH, AND SERVICE.

INSTRUCTION

Oversight of the DVM program is through the Associate Dean, Academic's office and the DVM curriculum is monitored by the Associate Dean, Academic and the Curriculum Committee. The success of our veterinary students is measured using a combination of academic performance and student satisfaction with their learning environment. Clinical competency is tracked through evaluations of student performance in the fourth year rotations and by Objective Standardized Clinical Examinations (OSCE). The overall success of the program of instruction is evaluated using the NAVLE pass rate, Phase and overall averages, individual course grades, and the Graduate and Employer Survey results. Oversight of the undergraduate BSc (Biomedical Science) degree is coordinated by the Associate Dean, Academic, with the Chair of Biomedical Sciences and counterparts in the College of Biological Sciences.

Oversight of graduate students is by departmental faculty graduate coordinators for MBS, MSc and PhD programs and the Associate Dean, Research and Innovation, who also provides oversight for the DVSc degree program. The DVSc program provides rigorous advanced academic preparation in both discipline specialty training and research, and includes thesis level research. Interns are monitored by faculty in the appropriate department and the program is overseen by the Associate Dean, Clinical Program.

The success of faculty in teaching, research and service is evaluated every year for non-tenured faculty and biannually for tenured faculty by the department tenure and promotion committee and the college tenure and promotion committee based on Department Tenure and Promotion Guidelines voted on by each department and approved by the Dean and Provost. Faculty use a standardized electronic curriculum vitae (eCV) to report their productivity and activities. Teaching outcomes are monitored through student and peer teaching evaluations, intra and extramural teaching awards, and publications and presentations related to continuing education.

RESEARCH

The performance of faculty in research is assessed by considering the type and number of research applications and extramural research funds received, particularly from Canada's Tri-Council research granting agencies (the Natural Sciences and Engineering Research Council, the Canadian Institutes of Health Research, and the Social Sciences and Humanities Research Council) and the Ontario Ministry of Agriculture, Food and Rural Affairs. In addition, intramural grants are also considered, including grants from OVC Pet Trust and Equine Guelph. Outcomes are measured based on: publications in peer-reviewed journals; abstracts and presentations at scientific meetings; patent submissions and successes; number of graduate students mentored and completed; editorship of scholarly journals; receipt of national and international research awards; induction into scholarly academies and societies; and service on national grant review study sections and review boards. The specifics for each department are detailed in their respective department guidelines for promotion and tenure.

CLINICAL SERVICE

Hospital revenue, caseload, number of new patients seen, and number of complaints are tracked by the OVC Health Sciences Centre. Surveys of clients and referring veterinarians are periodically carried out to evaluate service delivery issues.

LIST THE MAJOR STRENGTHS AND WEAKNESSES OF THE COLLEGE.

STRENGTHS

INTERNATIONAL REPUTATION: In April, 2015, the Ontario Veterinary College was ranked fourth in the world in an international survey of 50 veterinary colleges by Quacquarelli Symonds (QS). The results are based on academic reputation, employer reputation and research impact. A strong outreach, communications and marketing program has helped publicize the quality of our programs

LOCATION: The Ontario Veterinary College is located in the most populous province in Canada, in a growing region with more than seven million people and three major medical schools within a two-hour drive, and some of the richest agricultural land in the province within a 30-minute drive. The College is fortunate to be part of a University that is consistently rated as one of the top comprehensive universities in Canada and which recognizes the importance of the OVC to the University's reputation and success.

ECONOMIC IMPACT: In an economic impact study conducted by Deloitte, Inc. in 2014, OVC was determined to contribute $125 million directly to the local economy and, through its research, faculty and graduates, support industries that generate an estimated $20 billion annually in Ontario. The OVC graduates almost one-third of Canadian-educated veterinarians and the majority of these veterinarians stay in Ontario and work in and/or own private businesses that produce an economic impact of approximately $1.3 billion for the province.

PARTNERSHIPS: We have close relationships with other colleges and departments on campus, with many research and educational collaborations. The College has strong partnerships with external organizations, such as the Dairy Farmers of Ontario and the Ontario Veterinary Medical Association, and with the equine (through Equine Guelph), dairy, poultry, and swine industries. In addition, the OVC leads several university centres with strong links to external organizations. As examples, the University of Guelph Centre for Public Health and Zoonoses collaborates with: the Canadian Food Inspection Agency; Public Health Agency of Canada and its Laboratory for Foodborne Infectious Disease; Public Health Ontario; and local public health officials. The University of Guelph Institute for Comparative Cancer Investigation is the only Canadian member of the National Institutes of Health Comparative Oncology Trials Consortium.

OVC also benefits from a fruitful partnership with the Animal Health Laboratory (AHL), which is the provincial diagnostic laboratory and part of the University of Guelph. OVC shares a modern research and diagnostic facility with the AHL and collaborates on various initiatives and activities related to teaching, research and diagnostic service.

DONORS AND SUPPORTERS: Our donors provide significant support for OVC DVM and graduate students, faculty positions, research and facilities. The OVC Pet Trust Fund connects OVC to dedicated pet owners who support OVC's goal to provide cutting-edge programs and facilities and improve healthcare through research. Donations from industry have provided funds for faculty in clinical nutrition, swine epidemiology, poultry epidemiology, dairy health management, communication, and emerging technology and bond-centered healthcare.

FACULTY AND STAFF: Faculty members are committed to providing quality teaching and have received a number of university and province-wide teaching awards. Faculty development is supported in part through a generous research study leave program. Almost all faculty take advantage of this opportunity, which provides up to one year's sabbatical leave with full salary every six years. The College has been able to hire exceptional new faculty, who are continuing the tradition of excellence in teaching, research, and healthcare. We are also proud of our highly trained and competent staff members in all areas of the College, many of whom have specialized training and/or certification.

DVM STUDENTS AND ALUMNI: We have an outstanding DVM applicant pool from Ontario and internationally, a very low attrition rate for our student veterinarians, and almost 100% employment after graduation. DVM tuition at OVC is one of the lowest in North America and there is a strong scholarship and bursary program (>$2 million annually) to help students with their expenses. Our alumni support our students by serving as mentors and Externship sponsors, providing summer employment, and referring patients to the OVC Health Sciences Centre.

PLANNING: The OVC Integrated Plan, which is part of the University's overall integrated planning process, provides a roadmap for OVC initiatives. The planning process is collaborative across all areas of the College and is the framework used to make informed and considered choices, helping us to take advantage of opportunities and manage challenges. As a result of our Integrated Plans and associated proposals, the College has received significant Priority Investment Funds from the university, which have funded additional faculty positions and initial operating costs for the Centre for Public Health and Zoonoses (CPHAZ), including an expansion of the public health graduate program, and the Institute for Comparative Cancer Investigation (ICCI). Likewise, the Poultry and Dairy Health Research Networks, the Equine Sports Medicine and Reproduction Centre, and the Minimally Invasive Procedures Program grew out of the Integrated Plan, as did the comprehensive curricular review and primary healthcare program. In addition, the Integrated Plan has helped researchers make a strong case for funding requests to the federal government which have resulted in infrastructure improvements for CPHAZ, ICCI and regenerative medicine research laboratories.

CURRICULUM: The innovative OVC curriculum is vertically and horizontally integrated, incorporating sophisticated communication training in all four years of the program and providing streaming into Companion Animal, Equine, Food Animal, or Rural Community paths in Phase 4. There are intensive and extensive opportunities for our students to gain primary care and practice management expertise through farm visits in the Field Service rotations (ruminant and swine), in the equine primary care rotations, and in the Hill's Pet Nutrition Primary Healthcare Centre. Learning objectives and outcome assessment are fundamental throughout the DVM curriculum and provide a feedback loop for continuous improvement. The strength of the DVM curriculum is augmented by strong research and graduate programs.

EXPERIENTIAL LEARNING OPPORTUNITIES: Our DVM students have a wealth of curricular and extra-curricular experiences from which to learn. Mentoring and clinical experience programs begin in Phase 1 and provide guidance to students about career opportunities in clinical settings, academia, government service, and industry. Each student is required to participate in a mandatory and evaluated eight-week Phase 4 Externship course in the summer after successful completion of Phase 3 of the program. In this course, students have defined learning objectives, provide written reports on their experiences and gain hands-on knowledge and skills. Patients in the OVC Health Sciences Centre span the spectrum from primary to tertiary care, providing a rich learning environment. Faculty teaching in the Phase 4 food animal stream engage students in weekly inspections at the Ontario Livestock Exchange (OLEX) sales barn, helping them learn about disease detection and animal health and welfare inspection. The elective Summer Leadership and Research Program (SLRP; May – August) helps DVM (Phases 1 and 2) and BSc students complete a research project with faculty advisors. It opens up new avenues for students aiming for a research career

and sparks further investigation by those who may not have considered research career in academia, industry or government.

BACHELOR OF SCIENCE PROGRAM: The BSc (Bio-Medical Science) degree program is a collaborative program between OVC and the College of Biological Sciences. It very competitive and attracts high-quality undergraduate students to the University of Guelph. OVC faculty members teach some of the large classes within this and other BSc programs, such as physiology, epidemiology, and principles of disease and many of the advanced level courses, such as comparative anatomy and parasitology. The majority of the BSc (Bio-Medical Science) students carry out their fourth-year research projects at OVC. These Bachelor's degree programs provide an excellent pool of potential graduate and DVM students and help those students who enter other health professions learn about the contributions of veterinary medicine to One Health. The success of OVC's participation in the BSc program is a considerable strength; however, the additional and growing teaching demands placed upon our faculty necessitate careful management of effort and resources.

RESEARCH AND GRADUATE PROGRAMS: Areas of strength in research include food animal health management, public health, infectious diseases, reproductive and developmental biology, applied clinical science (including communications and animal welfare), cardiovascular biology and cancer biology. Faculty receive significant provincial, national, and international grants for operating funds and career research awards, including three current Canada Research Chairs within the OVC faculty. The OVC graduate program, with over 250 domestic and international graduate students (averaging 2.2 graduate students/faculty) is one of the largest and most robust in all North American veterinary schools. The MPH program has over 300 applicants for 25 positions, a unique four-month practicum, and 100% job placement or pursuit of further education of graduates.

WEAKNESSES

FACILITIES: Although the companion animal surgery and anesthesia facilities meet the standards for accreditation of veterinary hospitals by the College of Veterinarians of Ontario, the spaces are crowded with poor traffic flow and limited ability to expand teaching opportunities and treatment options. Furthermore, additional learning space is needed to replace classrooms that will be lost when new surgery and anesthesia facilities are built, and also to provide flexible areas for increased access to psychomotor and clinical skills models and simulations, standardized clients for our communication program, and small group learning.

FINANCES: Ongoing inflationary pressures and fairly static provincial operating grants have eroded operating and equipment budgets. Provincial appropriations, which include the base budget that funds the College's teaching and research programs, comprise less than half of the College's total revenue. We are now reliant on other sources of funding for more than half of our revenues. In addition, the lower exchange rate for the Canadian dollar makes faculty recruitment from the US more difficult and increases costs of travel and other expenses paid in US dollars.

LOSS OF FACULTY AND STAFF POSITIONS: Although, overall, our faculty numbers have remained fairly stable during the last 10 years because OVC has proactively sought out creative funding opportunities and strategically recruited into emerging areas of veterinary medicine, static provincial funding and ongoing budget reallocation towards incumbent salaries and benefits and other expenses have necessitated elimination of some positions when incumbents retire and/or leave. The decline in faculty numbers can result in faculty having to assume greater teaching responsibilities, which sometimes occurs at the expense of research activities, including the training of highly qualified personnel. In addition to these issues, the clinical program must continue to cover many different disciplines and maintain a caseload in an

increasingly competitive environment. The College has attempted to adapt to the loss of base-funded positions by the use of part-time instructors (sessionals), innovative changes in teaching methods, prioritization of clinical services to be maintained, and increased fund-raising. Reduction of administrative staff positions is being managed through the development of a Shared Administrative Services model and through use of technology. Although the College is making budget cuts as required, there is very limited ability to manage further reductions.

RECOMMENDATIONS

The OVC has many opportunities, even with the challenges we face, and is well situated for the future. The University has new leadership in a number of positions (President and Vice-Chancellor, Provost and Vice-President (Academic), Vice-President (External) and Vice-President (Research), as well as three new deans. It is important that the OVC work closely with University leaders at all levels as the University undertakes a major strategic planning process this fall. Even as the ongoing budget imbalance between government allocations and increasing expenses is addressed, OVC must be prepared to take advantage of novel opportunities for collaboration and resources.

The DVM program is the major health professional program at the University of Guelph and has unique and expensive requirements (e.g., a faculty: student ratio that is much lower than for BSc and BA students and extensive hands-on animal experiences for students) in order to provide the clinical knowledge and skills necessary for career success as a veterinarian. In order to justify these exceptional costs, the OVC needs to continue to communicate the exceptional value the College brings to the University and to the Province.

The OVC needs to continue to build close relationships with the agricultural and animal health industries and with our public health and human healthcare partners. Demonstrating how OVC's strengths can be leveraged to help them accomplish their own objectives will make us valued collaborators.

The Board of Governors of the University of Guelph has approved the OVC Master Plan, which was completed in May 2015. The two top priorities identified in the Master Plan are: 1) new companion animal surgery and anesthesia facilities within renovated space in the OVC Health Sciences Centre; and 2) new space for enhanced clinical learning, which would be in a new addition to the Lifetime Learning Centre. The estimated cost of the two projects is $33M.

A proposal is under review by the Ontario government for $23M in support of these infrastructure improvements, with the remaining $10M to be raised by OVC through donations (as of July 1, 2015, $5.5M is in hand or pledged). In August 2015, the University of Guelph ranked this project its highest priority in the list of capital projects submitted to the Ministry of Training Colleges and Universities for funding support.

The President and administration of the University of Guelph recognize the critical importance of these infrastructure improvements for OVC and the University. The President will recommend to the University of Guelph Board of Governors that the University proceed with these projects.

STANDARD 1. ORGANIZATION

In 2012, the Ontario Veterinary College celebrated its 150th anniversary. Many significant events and activities allowed members of the College and wider community a glimpse into the College's history and accomplishments. The anniversary served as a platform through which we were able to share our voice in defining new directions for veterinary medicine in Ontario, Canada, and beyond.

12.1.1 PROVIDE A COLLEGE MISSION STATEMENT FOR THE UNDERGRADUATE, DVM, OR EQUIVALENT, PROGRAM. THE COLLEGE MISSION STATEMENT MUST ADDRESS:

- The overall teaching, research, and service commitment;
- The commitment to undergraduate education;
- The commitment to provide instruction and clinical opportunities for students in a wide variety of domestic species, including food animal, equine, and companion animal; and
- The commitment to excellence in program delivery.

Our vision and mission are clear.

- *Our Vision:* A world leader, integrating the health of animals, people and the environment through innovation, excellence and societal relevance.
- *Our Mission:* Educate veterinarians and scientists, create new knowledge and provide expert services to improve the health and well-being of animals, people and the environment.
- *Our Motto:* Opus Veterinum Civibus ('The Craft of the Veterinarian is for the Good of the Nation')

12.1.2 IDENTIFY THE BODY THAT ACCREDITS THE UNIVERSITY AND THE CURRENT STATUS OF ACCREDITATION.

In Canada, a statute of the Provincial legislature is required to establish a university. This statute confers the right to grant degrees and to regulate the course of studies. The University of Guelph was established in 1964. Before that time, OVC was a part of the University of Toronto. The University is a member of the Council of Ontario Universities (COU) that includes the various universities of Ontario. COU's function is to represent the collective interests of its member institutions and its mandate is to provide leadership on issues facing publicly-funded universities, to participate actively in the development of relevant public policy, to communicate the contribution of higher education in the province of Ontario, and to foster co-operation and understanding among the universities, related interest groups, the provincial government, and the general public.

The Ontario Universities Council on Quality Assurance (in short, the Quality Council) is the provincial body responsible for assuring the quality of all programs leading to degrees and graduate diplomas in the province, including undergraduate and graduate programs, and for overseeing the regular audit of each university's quality assurance processes. Each institution (including the University of Guelph) has developed its own Institutional Quality Assurance Process (IQAP). Under this process, all graduate programs (e.g. MSc, MPH, MBS, PhD, DVSc) are evaluated within their home department on an eight-year cycle. The DVM degree is considered an undergraduate degree in Canada and the documents generated for the AVMA/CVMA COE accreditation process are shared with the university as part of the

DVM IQAP review. We are working with University of Guelph leaders to have the DVM degree recognized as a professional program distinct from both undergraduate and graduate programs.

12.1.3. PROVIDE A FLOW CHART INDICATING THE POSITION OF THE COLLEGE OF VETERINARY MEDICINE IN THE UNIVERSITY STRUCTURE AND SHOW LINES OF AUTHORITY AND RESPONSIBILITY, AND GIVE THE NAMES AND TITLES OF PRINCIPLE UNIVERSITY ADMINISTRATIVE OFFICERS RELATED TO THE COLLEGE.

Please refer to Appendix 1.1 & 1.2: University of Guelph: Organizational Chart and List of Administrators.

12.1.4. PROVIDE A FLOW CHART OF THE ORGANIZATIONAL DESIGN OF THE COLLEGE LISTING NAMES, TITLES (DEANS, ASSOCIATE/ASSISTANT DEANS, DIRECTORS, DEPARTMENT HEADS, ETC.), ACADEMIC CREDENTIALS, AND ASSIGNMENTS OF THE COLLEGE ADMINISTRATORS.

Please refer to Appendix 1.3 & 1.4: Ontario Veterinary College Organizational Chart and List of Administrators.

The Dean is a veterinarian as are the Associate Dean (Academic) and Associate Dean (Clinical Program) who are responsible for the professional, ethical, and academic affairs of the OVC Health Sciences Centre.

12.1.5 DESCRIBE THE ROLE OF FACULTY, STAFF, AND STUDENTS IN THE GOVERNANCE OF THE COLLEGE AND LIST THE MAJOR COMMITTEES OF THE COLLEGE, AND THEIR APPOINTMENT AUTHORITY.

A broad range of services that support the college's core teaching, research, and service are administered under the direction of the Dean. The Dean is supported and counseled by the Dean's Management Team, Dean's Council, Dean's Advisory Committee (three faculty per department) and the major college committees. Frequent community meetings are held in order to share information and consult on issues that affect the College. Academic matters for the DVM degree are managed through the DVM Program Committee and its subcommittees (Academic Review, Admissions, Awards, and Curriculum) as mandated by the University Senate. The DVM Program Committee comprises OVC faculty, student representatives from each Phase, and faculty from other colleges.

12.1.6 IF THE COLLEGE PLANS TO CHANGE ITS CURRENT ORGANIZATION, PROVIDE A SUMMARY OF THOSE PLANS.

In May 2015, the college implemented a Shared Administrative Services (SAS) organizational structure after an extensive period of review and consultation. The SAS consists of five teams that meet the objective of improved effectiveness and job satisfaction/training while allowing the college to reduce the administrative services budget. Equally important, the design meets OVC's operational needs. As the SAS model continues to evolve, a consultative process is examining how the OVC Health Sciences Centre can be integrated into the overall design. Shared Administrative Services comprises: 1) Graduate Program Services; 2) Academic and Research Support; 3) Financial Services; 4) Departmental Services; and 5) Human Resource Services. All of the teams serve Chairs, faculty, staff, and students to deliver needed information and services

STANDARD 2. FINANCES

12.2.1. COMPLETE TABLES A AND B FOR THE PAST FIVE YEARS AND ANALYZE THE TRENDS FOR EACH CATEGORY.

Please refer to: Appendix 2.1 - Table A; and Appendix 2.2 - Table B.

The University of Guelph receives operating grants from two Ministries in the province of Ontario: the Ministry of Training, Colleges and Universities (MTCU) for teaching, academic support, student services and college administration and the Ontario Ministry of Agriculture Food and Rural Affairs (OMAFRA) directed at research programs related to their mandate. The University allocates funding from these grants to all seven colleges within the university based on a formula-driven allocation process.

These two Ministries provide additional annual budget allocations to OVC that are unique in the University based on the higher cost of veterinary clinical education and the significance of both animal health and production and public health to the province: 1) the MTCU Special Grant ($6.5M, of which $5.525M remains in OVC and $975k is transferred to the University for facility infrastructure support); and 2) the OMAFRA Veterinary Clinical Education Program (VCEP) funding ($5.2M).

Since 2008/2009, the amount of base allocation from MTCU and OMAFRA to the university has been stable. During this time period, the cost of salary, benefits and post-employment pension costs have increased by 8 - 10% annually based on collective agreements with faculty and staff employee unions. The University allocates annual funding increases to the colleges to cover these increased expenses for MTCU- and OMAFRA-funded employees. In order to have sufficient central funds to continue to pay for these increased personnel costs, the University implemented two multi-year budget reduction plans (MYP1 and MYP2), which allocated budget cuts to each college.

As of the end of Fiscal Year 2014-2015 (April 30, 2015), OVC had reduced its expenses by $984,000 and will reduce an additional $2,506,000 by the end of FY 2016-2017 for a total of $3,490,000. At the same time, personnel salaries and benefits per employee continue to increase. Thus the net result for the OVC budget is a fairly constant allocation of funding from the university, but with a reduced number of provincially funded employees, who benefit from higher compensation.

INSTRUCTION

Expenditures in this category include salaries and benefits for faculty, administrative and technical staff, operating support, and equipment costs in the four academic departments: Pathobiology, Clinical Studies, Biomedical Sciences and Population Medicine. Even though salary and benefits have increased each year, the overall instruction costs have increased by only 1% from $21,132,269 in 2010-11 to $21,307,573 in 2014-15, because of cost stabilization resulting from the MYP1 and MYP2 plans.

ACADEMIC SUPPORT

Expenditures include salaries and benefits for College-level administrative and technical staff, and operating costs in the Dean's Office and in other College services and support areas such as Advancement, Communications, and Information Technology Services. This category also includes professional development allowances for faculty and professional staff and funds for minor capital,

equipment replacement and special projects. Academic support expenditures decreased by 16% from $4,791,843 in 2010-11 to $4,024,910 in 2014-15.

STUDENT SERVICES

The College provides a number of services to support DVM students in partnership with the University of Guelph. OVC Student Services is one of the areas where expenditures have increased because of the College's strategic imperative to sustain quality in these activities (by 39% from $332,275 in 2010-11 to $461,552 in 2014-15). The college places significant value on continuous improvement of its recruitment and admissions procedures, leadership development, peer helper and mentoring programs, and personal and career counseling.

TEACHING HOSPITAL

The OVC Teaching Hospital became the OVC Health Sciences Centre (OVC HSC) in 2010. The OVC HSC is funded through allocations from MTCU funding and through client revenue. Expenses include salary and benefits for; 128.5 FTE established staff and approximately 50 FTE temporary staff; client and teaching animal care; surgical and medical supplies; pharmaceuticals; diagnostic services; and operating and equipment costs. Included in these costs are expenses relating to teaching students in clinical skills-related laboratories (e.g., animal handling, sample collection and surgical skills). Overall expenses increased by 2% from $17,376,491 in 2010-11 to $17,753,871 in 2014-15.

SALES AND SERVICE – OTHER

This category includes the expenses for the OVC Smith Lane Animal Hospital in the Hill's Pet Nutrition Primary Healthcare Centre, which opened in 2010. These expenses include salary costs for 2.0 FTE Veterinarians and 6.5 FTE staff positions. Between 2010-11 and 2014-15, these expenses increased by 9% from $851,459 to $926,873 as the clinic ramped up its services to accommodate an increasing client base. These expenses are partially offset by revenue.

NON-SPONSORED STUDENT AID

Another area of growth support has been in non-sponsored student aid expenditures, increasing from $975,096 in 2010-11 by 85% to $1,806,484 in 2014-15. Of note, the College has been more successful with graduate students attracting national and provincial awards (NSERC, SSHRC, and Ontario Graduate Fellowships). Bursary support (based on financial need) has increased 250% from $417,000 in 2010-11 to $1,023,000 in 2014-15.

SPONSORED STUDENT AID

Expenses in this category relate to provincially funded stipends for graduate students. Stipends ranged from $14,000 at the Masters level to $32,500 for a DVSc student, with faculty often supplementing the stipend from other sources. The total amount of sponsored student aid has remained fairly constant ($2,006,700 in 2010-11 compared to $2,014,821 in 2014-15).

SPONSORED RESEARCH

The expenses in this category include those for all projects supported by the University's OMAFRA research contract and other granting agencies, contracts and industry partners. Between 2010-11 and 2014-15, research expenditures decreased by 26% from $13,480,561 to $9,952,709. The College, similar to other institutions in Canada, has experienced a trend in reduced opportunity and/or increased competition for available research funding at the national level.

OTHER SPONSORED ACTIVITY

This category includes expenses for the College's research and service centres relating to infrastructure activities. These include the University of Guelph's Centre for Public Health and Zoonoses, Institute for Comparative Cancer Investigation, Equine Guelph, the OVC Pet Trust Fund, and OVC Information Technology Services. In addition, it includes the OVC Dean's Office Special projects funding, which includes funding from a five-year OMAFRA Growing Forward VCEP in 2010/2011, which funded the new Large Animal Clinical Skills building, personnel and other activities, and for capital planning and building renovations projects. Annual expenses in this category ranged from $6,359,691 in 2010/2011 to $4,615,481 in 2014/2015. Expenditures in this category fluctuate relative to the size and cost of special projects and government funding.

12.2.2. COMMENT ON THE STRENGTHS AND WEAKNESSES IN REVENUES OVER THE PAST FIVE YEARS.

STRENGTHS

OVC continues to maintain the unique funding agreements MTCU Special Grant and OMAFRA-VCEP with the province of Ontario. The University successfully renegotiated the OMAFRA-VCEP agreement of $5.2M annually to OVC for clinical training until 2018. The MTCU Special Grant of $6.5M continues annually.

Hospital client revenue is relatively stable after a one-year downturn in 2012-13. The past two years have shown a surplus, which has been reinvested into the OVC HSC. The OVC HSC has implemented fee increases and is providing some new services, which have expanded the client base. The OVC Smith Lane Animal Hospital began operations in 2010/2011. Revenue continues to grow each year with an increasing client base.

The College maintains a significant reserve (approximately $5M), which includes MTCU operating grant funding held in departmental contingency accounts and faculty research trust fund accounts.

OVC has the most successful record of sourcing and securing donations on the University of Guelph campus (>$55M of the $200M Better Planet Project university campaign). These funds have supported infrastructure improvements (e.g., Mona Campbell Centre for Animal Cancer), endowed faculty chairs (e.g., Royal Canin Chair in Canine and Feline Clinical Nutrition), term-limited Chairs (IDEXX Chair in Emerging Technology and Bond-Centred Animal Healthcare), and endowed graduate stipends and DVM scholarships.

WEAKNESSES

Salary and benefits inflation in the face of static provincial funding leads to a reduction in operating funds and the number of provincially funded personnel.

The revenue from large animal clients in the OVC HSC continues to decrease (from $2.7M in 2004/2005 to less than $1.3M in 2014/2015).

12.2.3. PROVIDE A COMPREHENSIVE TREND ANALYSIS OF REVENUE SOURCES THAT HAVE SUPPORTED THE PROFESSIONAL TEACHING PROGRAM OVER THE PAST FIVE YEARS (GRAPHS OR OTHER VISUAL PRESENTATIONS WOULD BE HELPFUL).

Please refer to: Appendix 2.3 - Visual representations of revenue sources. Funding sources which directly fund the professional teaching program are: State Appropriations, Tuition and Fees, Health Sciences Centre Client Revenue and Other. Over the past five years: Health Sciences Centre revenue has grown by 3%; State Appropriations by 3%; International Tuition and Fees by 197%; and Services of Educational Activity – Other by 272%.

12.2.4. DESCRIBE HOW REVENUES OVER THE PAST FIVE YEARS HAVE IMPACTED THE COLLEGE'S ABILITY TO PROVIDE A CONTEMPORARY PROFESSIONAL TEACHING PROGRAM AND ANCILLARY SUPPORT SERVICES.

Salary and benefits inflation and the consequent multi-year plans (MYP1; $3.27M) and MYP2; $3.9M) have resulted in a return of $7.173M from the OVC budget to the university to fund the inflation since 2009/2010. During this time period, careful attention has been paid to filling open faculty and staff positions that are critical to maintaining a quality DVM program. As well, OVC has attracted industry funding and donors to create new faculty positions through partnership agreements and endowments.

The College tracks teaching effort for faculty and staff through a university teaching verification process. The College leadership addresses the gaps between teaching effort required and resources available as they occur.

12.2.5. COMPARE THE PERCENTAGE OF HOSPITAL INCOME TO TOTAL HOSPITAL OPERATIONAL COSTS.

Please refer to Appendix 2.4 – Hospital Operational Costs Compared to Income.

12.2.6. DESCRIBE ANTICIPATED TRENDS IN FUTURE REVENUES AND EXPENDITURES.

REVENUE

In the next three years, OVC will finalize our MYP2 budget reduction target of $2.916M (years 2 and 3 of the $3.9M). The new university administration is developing a plan to balance salary inflation with provincial funding and doesn't anticipate continued multiyear budget adjustment plans.

The OMAFRA-VCEP agreement of $5.2M/year will be up for renewal in 2018. The College will increase the likelihood of a successful new agreement by continuing to demonstrate that the outcomes from the

current agreement have added value or achieved objectives. OVC will communicate our emphasis on a well-defined framework, which supports the province's mission to create opportunities for training highly qualified personnel in public and animal health professions.

Revenue from the OVC Health Sciences Centre should show a gradual increase once the plan for facilities and new technologies has been operationalized and service models have been modified and implemented. Revenue from the Primary Healthcare Centre will also stabilize and approximate expenses over the next five years with the Centre reaching its target client base.

The College will continue to grow its investment in endowments, while at the same time managing the commitments in order to reduce risk from the impact of fluctuating interest rates and endowment distributions.

EXPENSES

Salary and benefits costs for faculty and staff will increase annually as negotiated in the collective agreement process and will continue to be a challenge for the university to fund. The new university administration is developing a plan to manage these costs.

Supply-side inflation will affect operating and utilities costs.

The lower Canadian dollar/US dollar exchange rate increases the amount of any expenses paid in US dollars (e.g., AAVMC dues, AVMA accreditation costs, specialty college dues, US travel, etc.)

Technology acquisition and replacement costs will increase as the OVC implements solutions to improve service delivery and effectiveness. At the same time, increased efficiencies may help offset reduction in personnel resources. This will be of particular note in the OVC Health Sciences Centre.

Increased accountability at many levels increases the time and costs for collecting, managing and reporting data in many different formats.

STANDARD 3. PHYSICAL FACILITIES AND EQUIPMENT

12.3.1. PROVIDE A BRIEF DESCRIPTION OF THE MAJOR FUNCTIONS OF, OR ACTIVITIES THAT TAKE PLACE IN THE FACILITIES USED BY THE COLLEGE IN FULFILLING ITS MISSION.

The Ontario Veterinary College consists primarily of interconnected buildings built in stages over the past 93 years. The facilities are used to meet the undergraduate, DVM and graduate teaching, service, and research needs of the College's programs. The Ontario Veterinary College Campus Map shows the locations of buildings mentioned below. All facilities within the OVC campus are within walking distance of each other.

- The Main Building (opened in 1922, with additions in 1949 and 1976 and extensive renovations to laboratories in 2004), houses the College's administrative offices, the OVC Learning Commons (study space and offices of OVC Pet Trust), and the Department of Biomedical Sciences, including the anatomy and physiology teaching labs. The departmental space includes research laboratories, and administrative, faculty, technician, and graduate student offices. The front entrance of this building was recently restored to highlight its architectural details.
- The Lifetime Learning Centre (built in the 1990's) is contiguous with the Main Building and contains a cafeteria, two small and one large lecture theatre, and conference rooms. Plans are in process to build an addition to this building to provide new space for large and small group learning spaces, medical communications labs, and learning space for enhanced clinical skills.
- The Ontario Veterinary College Health Sciences Centre (OVC HSC) complex is a one- to two-story structure accommodating the Large Animal Hospital, Companion Animal Hospital, Mona Campbell Animal Cancer Centre, and hospital support services. It also includes conference rooms and DVM and graduate student spaces, Originally built in 1958, it has undergone renovations and additions over the years, including expansion of the Large Animal Hospital in the 1980's, an addition for magnetic resonance imaging in 2004 and, within the past seven years, renovation of space for a newly designed central imaging complex, intensive and intermediate care units, and the Mona Campbell Centre for Animal Cancer. In January 2015, renovation of the Companion Animal Hospital reception area and the addition of five examination rooms was completed. In March 2015, the Large Animal Hospital reception renovation project was completed.
- The second story of the OVC HSC accommodates the Department of Clinical Studies. This includes administrative space, faculty offices, graduate student offices, and research laboratories. Other Clinical Studies faculty have offices on the second floor of the Stewart Building.
- The Surgical Teaching Laboratory Building is a component of the OVC HSC complex and provides for separate temporary holding of animals used for teaching clinical skills and for the use of inanimate models and cadavers. It is also used for continuing education and some research activities.
- The Stewart Building is part of the OVC HSC complex. It accommodates elements of the Large Animal Hospital on the first floor, and components of the Departments of Population Medicine and Clinical Studies on the second floor. The main Clinical Theriogenology facilities and the Ruminant Field Service facilities are also located on the first floor of the Stewart building.
- The Comparative Clinical Research Facility is a multipurpose facility that includes a surgery facility, separate large and companion animal anesthetic induction and surgery suites, diagnostic imaging suite, animal housing and restraint areas, post-mortem facilities, several laboratory spaces and a gait analysis area. The large animal facilities are currently used solely for research.

The companion animal anesthetic induction and surgery areas are used for research and for teaching.

- The Population Medicine Building, houses some Population Medicine faculty offices including those for public health, analytic epidemiology, and poultry health management, the team of technicians, post-doctoral fellows, faculty and laboratory space for the Swine Health Research Network, the Swine Health Management facilities, graduate student offices, and laboratories for theriogenology and for dairy health management. It also houses the Shared Administrative Services Graduate Services team.
- The Hill's Pet Nutrition Primary Healthcare Centre opened in 2010. The Centre is a free-standing building in which experiential learning opportunities are provided to DVM students in all four years of the program in a companion animal primary care practice (the OVC Smith Lane Animal Hospital). It also includes the OVC Fitness and Rehabilitation Service (FAR), and a multi-purpose room for OVC and community activities.
- The Pathobiology/Animal Health Laboratory Building (opened in 2010) houses the Department of Pathobiology and the University of Guelph Animal Health Laboratory (AHL). This facility contains a large post-mortem suite and adjacent anatomic pathology teaching area as well as teaching spaces for large and small groups and research laboratories.
- The Equine Sports Medicine and Reproduction Centre is equipped to manage performance and reproductive problems in horses and includes an indoor arena. Equine Guelph is located in the same building and is a University of Guelph centre that supports the equine industry and provides research funding for faculty research projects. It is dedicated to improving the health and well-being of horses.
- The Large Animal Isolation Unit provides isolation facilities for large animal patients with suspected and confirmed infectious diseases, as well as support spaces.
- The Large Animal Clinical Skills building provides space for DVM students to learn animal handling skills as well as diagnostic and treatment techniques.

During the 2009 accreditation site visit, OVC presented plans for complete redevelopment of the OVC campus, including new Companion and Large Animal Hospitals. This was prepared at the request of the Ontario government as part of a public-private-partnership (alternative finance procurement) process. However, the project did not proceed.

Instead, over the past seven years, key components of the OVC Health Sciences Centre have been renovated and updated. As a result, OVC decided that the original plans for separate large and companion animal hospitals no longer meet our instructional and operational needs. Working closely with the University's Department of Physical Resources and external architectural consultants a new infrastructure masterplan was initiated in December 2014 to determine future directions (please see Section 12.3.6).

12.3.2. PROVIDE AN AREA MAP THAT INDICATES THE PRINCIPAL FACILITIES OF THE COLLEGE AND DESCRIBE DISTANCE AND TRAVEL TIME TO OFF-CAMPUS FACILITIES.

Please see the location of the OVC on the University of Guelph Campus.

There are no off-campus facilities directly associated with the core curriculum. Students do participate in field service work in agreement with local practitioners and with livestock owners and facilities supported by Research Station Operations, a division of the Ontario Ministry of Agriculture, Food and Rural Affairs. Research stations are located within 25 km of the OVC. These include the recently opened

Livestock Research and Innovation Centre – Dairy Facility in Elora. Other livestock facilities include the Elora Beef Research Centre, the Arkell Research Station (swine, poultry, and horses), the Alma Aquaculture Research Station, and the Ponsonby Sheep Research Facility. In addition, the OVC also has been given a 300 acre farm that is 30 minutes south of the campus. This land is currently being leased for farming and is not part of OVC programming, but it offers opportunities for the future.

12.3.3. DESCRIBE THE COLLEGE'S SAFETY PLAN AND FACILITIES MANAGEMENT PLAN INCLUDING MECHANISMS DOCUMENTING COMPLIANCE.

OVERVIEW

The University of Guelph is committed to providing a safe and healthy workplace and is guided by the Occupational Health and Safety Act, and prescribed regulations. These standards are complemented by other pieces of legislation. In some cases, University Safety Policies and departmental procedures for risk management and due diligence exceed these guidelines. Each College unit has its own safety committee, which must adhere to University-wide policies related to ensuring a safe working environment. These safety committees are composed of representatives from faculty, staff and students. Items of relevance are brought to these local committees to be addressed and referred to the University of Guelph central health and safety committee as required.

All new employees must receive a Safety Orientation training session prior to the commencement of work. Under the Occupational Health and Safety (OHS) Act, safety training is clearly designated as the responsibility of the employer. Safety orientation training consists of generic training applicable to all employees and workplace-specific training which focuses on the hazards and control measures in a particular job. Environmental Health and Safety (EHS) provides safety orientation and refresher seminars on a variety of topics. Supervisors are responsible for delivering "workplace-specific" safety training which is pertinent to the department and builds on the introductory training EHS provides, demonstrating application in their workplace. Workplace-specific training includes training for the safe use of hazardous materials (workplace-specific WHMIS), use of specialized equipment, departmental procedures and use of required personal protective equipment. All such training must be documented in writing and the records kept in the department.

FIRE SAFETY PLANS: Fire Safety Plans have been developed and implemented for all University of Guelph facilities, including OVC. These plans are updated annually and reviewed periodically by local fire officials.

INFECTION CONTROL AND BIOSECURITY: At OVC, a formal infection control program is in place and is coordinated by Dr. Scott Weese, Department of Pathobiology who is the Chief of Infection Control. The goal of infection control in the college is to limit the impact of potentially infectious pathogens through education about general and specific biosecurity practices, e.g. hand hygiene, personal protective clothing, and appropriate interactions with hospitalized animals. Some general considerations communicated to students are: to assume every animal they encounter is carrying something that can infect them and that they can spread to other patients; assume that they are carrying something that can infect patients; and realize that every animal-human and animal-animal contact inherently carries some risk of infection transmission, but the likelihood can be kept very low with basic infection control procedures.

INJURY/INCIDENT REPORTING: The University has a well-documented procedure in place for the reporting of any injuries or incidents. Generally, these reports are conveyed via each individual department or unit directly to the University of Guelph's Office of Environmental Health and Safety within 24 hours of occurrence.

PERSONAL SAFETY: The Safe Walk program is a student-run volunteer organization that provides safe and reliable walking escorts for people on campus at night. The program is available seven days a week from 7:30 p.m. to 2:30 a.m. Emergency call stations are located throughout the campus (including OVC) with notification directly to University of Guelph Campus Police. Campus police also provide regular patrols, and emergency response, and are available for late hour escorts.

RABIES IMMUNIZATION: All DVM students, faculty and staff who are in contact with animals are required to maintain a protective rabies antibody status, as indicated by a titre greater than 0.5 IU/mL, throughout their academic program. Titre clinics are offered annually to all DVM students, faculty and staff who are in contact with animals, and anyone with a non-protective rabies titre is offered a booster dose of the rabies vaccine followed in four weeks by a repeat titre.

RADIATION SAFETY: The OVC, in conjunction with the University of Guelph's Department of Environmental Health and Safety ensures compliance with all university, provincial and federal regulations regarding radiation safety. The Radiation Safety Program operates under the direction of Environmental Health and Safety and has been established in accordance with Canadian Nuclear Safety Commission (CNSC). Compliance is strictly monitored at both the local and University level. Patients are only restrained manually when it is medically indicated. In the Companion Animal Hospital it is extremely rare that any personnel are in the x-ray suite during an x-ray exposure. In the large animal x-ray suite it is necessary to have personnel in the room to prevent injury. Standard practice is to have all animal handlers and x-ray plate holders as far away from the x-ray beam as possible.

SAFETY EQUIPMENT: First aid, emergency showers, and eye wash stations are located in accordance with legislative guidelines and University policy. Appropriate safety orientations are conducted for all faculty, staff, and students in all areas of the OVC and these include discussion about the location and use of safety equipment.

SAFETY TRAINING: Safety training is an integral part of the safety network, and the University is committed to training and motivating employees and students for safety performance and to sustaining and updating their safety knowledge. Employees are expected to be familiar with prescribed safety requirements and institutional policies pertaining to their jobs, to report safety hazards or contraventions to their supervisors, and to support employee and management initiatives for improving workplace health and safety conditions. Failure to abide by these legislative standards or by applicable University policies, standards or programs, may result in disciplinary action up to and including dismissal. Students, visitors and contractors of the University are also expected to comply with all relevant legislation and University policies.

WASTE MANAGEMENT: Non-hazardous waste management is handled in accordance with guidelines established by Physical Resources. Hazardous waste management is a service provided by Environmental Health and Safety. The OVC HSC manages the collection and disposal of biomedical wastes and sharps.

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS): This system is a legislated program that is applicable to all University of Guelph employees and students who work in

areas where hazardous materials are used. The purpose of the legislation is to ensure that everyone in a workplace is provided with information needed to identify hazardous materials and to take the appropriate precautions when working with these materials. This is accomplished through the use of warning labels, Material Safety Data Sheets, and training on how to use the information provided.

12.3.4. Describe the adequacy of (pertains to all facilities used by the college whether on-campus or off-campus):

12.3.4.A. Safety measures in all areas of the college, including posted protocols in high-risk areas

Please refer to: Section 12.3.3.

12.3.4.B. Classrooms, laboratories and other instructional environments and related equipment

In general, throughout the college, classrooms, laboratories and other instructional environments and related equipment are appropriate to meet current needs. Small meeting rooms are located throughout the entire OVC campus and, although during peak times booking these rooms can present challenges, requests can usually be accommodated. Relocation of the Department of Clinical Studies faculty out of the main OVC HSC space, coupled with other renovations, has increased areas in the OVC HSC for rounds and small group teaching.

Classrooms and teaching laboratories are scheduled and administered through the Office of the Dean in conjunction with individual departments. The College has four large centrally managed classrooms (1800, 1434, 1438 and 1714) that accommodate the full DVM class. Room 1800 is located in the Pathobiology/Animal Health Laboratory Building, room 1714 in the Lifetime Learning Centre (LLC), and rooms 1434 and 1438 in the OVC Health Sciences Centre. Smaller lecture rooms are available in the LLC (two) and Pathobiology/Animal Health Laboratory Building (two).

12.3.4.C. Teaching hospital(s), pharmacy, diagnostic imaging, diagnostic support services, isolation facilities, intensive/critical care, necropsy, and related equipment

OVC HEALTH SCIENCES CENTRE: Over the past several years we have undertaken improvements to the majority of our hospital facilities including renovations to the Companion Animal and Large Animal Hospital reception areas, construction of additional companion animal examination rooms, and renovations and expansion of intensive care and intermediate care units, and diagnostic imaging. New construction and major rebuilds include the Mona Campbell Centre for Animal Care, the Hill's Pet Nutrition Primary Healthcare Centre, the Large Animal Clinical Skills building, renovations to the dairy barn to house teaching horses, the Equine Sports Medicine and Reproduction Centre, and the Pathobiology/Animal Health Laboratory building.

DIAGNOSTIC IMAGING: Our Diagnostic Imaging department is completely digital and equipped with: a Magnetic Resonance Imaging (MRI) unit; Computed Tomography (CT); digital radiography; ultrasound equipment; and scintigraphy. All images are stored and available through a Picture Archiving and Communications system (PACs). The service is staffed by three faculty radiologists and is supported by a complement of diagnostic imaging staff. Diagnostic imaging in the OVC Smith Lane Animal Hospital is by

digital radiography and ultrasound and images are stored in the Cornerstone electronic medical record system.

DIAGNOSTIC SUPPORT SERVICES: For many diagnostic support services, the OVC HSC contracts with the University of Guelph Animal Health Laboratory (AHL) for a full range of laboratory analysis and reports. The AHL is located within the Pathobiology/AHL Building on-site near the OVC HSC. Samples can be sent from several areas of the HSC to the AHL by pneumatic tube. The Clinical Pathology laboratory is shared between the Department of Pathobiology and the AHL, and is managed by the AHL. Clinical microbiology and molecular biology services are also provided by the AHL. Some samples are submitted to reference laboratories when appropriate. These facilities are all adequate for our needs. Some in-house laboratory equipment is used, especially in the OVC Smith Lane Animal Hospital which also submits samples to the AHL and an IDEXX reference laboratory.

INTENSIVE AND INTERMEDIATE CARE UNITS: The intensive care unit was renovated and expanded to include an intermediate care ward in 2010. The unit is staffed by qualified technicians around-the-clock seven days a week and supported by two critical care faculty and two to three residents. The unit is equipped with an in-house laboratory for stat analysis and an ultrasound machine for Focused Assessment with Sonography for Trauma/Triage/Trending (FAST) examinations, continuous blood pressure and electrocardiographic monitoring, a defibrillator, oxygen cages, mechanical ventilation, and renal dialysis equipment.

ISOLATION FACILITIES: The Large Animal Isolation Unit (LAIU) opened in 2009. The facility accommodates up to twelve animals in a safe and secure environment. The Companion Animal Isolation Unit (SAIU) within the OVC Companion Animal Hospital was upgraded in 2008 and can be used to isolate dogs, cats, birds, and other small pets. The OVC Smith Lane Animal Hospital also contains an isolation suite.

POSTMORTEM FACILITIES: Postmortem facilities are shared with, and managed by, the AHL. In the Pathobiology/AHL building, there are two 'Enhanced Level 2' postmortem areas. Services in anatomic pathology, including biopsy services, are provided to the OVC HSC by Pathobiology faculty. The facilities were new in 2010 and are modern and functional. Disposal of hazardous infectious carcasses and tissues is by an in-house alkaline digester, or by sending non-hazardous material for rendering or incineration off-site.

PHARMACY: The OVC HSC Pharmacy is managed by a licensed Pharmacist and staffed by Certified Pharmacy Technicians. It utilizes best practices in inventory management and drug dispensing. An OmniCell distribution system is used for after-hour service to ensure that product control and correct billing are maintained. Protocols are also in place to ensure narcotics are appropriately controlled through the OmniCell units. All injectable cytotoxic medications are stored separately from other medications in a sterile preparation room and these medications are prepared in a biosafety cabinet by staff wearing appropriate protective equipment.

21.3.4.D. FACILITIES FOR MAINTENANCE OF TEACHING AND RESEARCH ANIMALS

CENTRALLY ADMINISTERED SPACE: The Dairy Barn (one of the original barns on the university campus) has been renovated into a modern teaching space that houses teaching cattle, sheep and horses during the academic year. This allows consolidation of space for large animals that are used for teaching into one facility for efficient care and effective teaching. The adjacent Large Animal Clinical Skills Building is designed to facilitate laboratories using these animals in a safe and efficient manner.

Teaching and research large animals are also housed in facilities owned and operated by the University of Guelph including the Central Animal Facility adjacent to OVC (dogs, cats, rodents) and at the Arkell Research Station (swine, poultry and equine) , Elora Beef Research Centre, Elora Dairy Research and Innovation Centre, Ponsonby Sheep and General Research Facilities. The majority of food animal research is conducted at the University Research Stations and on commercial farms. The Large Animal Research Isolation Unit is a university facility that is designed for housing animals up to pony size for infectious disease research in a Level 2 biocontainment (BSL2) area.

All animal facilities must conform to the University's Animal Utilization Protocol (AUP) process. All species of teaching and research animals are cared for either by OVC HSC personnel or the university's Central Animal Facilities employees in compliance with the Canadian Council on Animal Care and Animal Care Committee Rules and Regulations and Canadian Farm Animal Care Standards.

12.3.4.E. RESEARCH FACILITIES AND EQUIPMENT

BIOMEDICAL SCIENCES: Each investigator in Biomedical Sciences has an average of 400 sq. ft. of fully equipped lab space, as well as access to shared core lab facilities containing major space equipment (freezers, ultracentrifuges, etc.) and shared resources and facilities. The research laboratories in the Main Building and annex provide research space that houses the majority of the department's principal research programs. On the third floor of the Main Building most of the lab space is organized into a single large laboratory that is shared by five investigators with complementary research interests. Rooms extending off the common core laboratory house all the main facilities and research resources used by the investigators and students in the laboratory (e.g. tissue culture areas, confocal and other digital imaging microscopes, specific RNA, cloning and in vitro fertilization laboratories). On the third floor of this building, as well as in the laboratories on the first and second floors, investigators who do not have the same level of integration in their research programs have more conventional lab space, with individual labs arranged along common corridors. Core facilities are available to these investigators in shared lab space close to the investigators' main research laboratories.

POPULATION MEDICINE: The Department of Population Medicine, through a Canada Foundation for Innovation (CFI) Program, built a high performance-computing laboratory to support research in epidemiology and disease surveillance related to human and animal health. This facility houses computers for undergraduate, DVM, graduate and post-doctoral fellows. In addition, the laboratory has remote access to a high-performance computing cluster (HPCC) in the Animal Science building which is managed by staff from the Department of Computing and Information Science. Other research related to theriogenology of multiple species is conducted in the Theriogenology Laboratory located in the Stewart building. The Population Medicine Building houses laboratories for processing blood and fecal samples from the field. There are two other laboratories with microscopes, slide staining, plate readers, centrifuges, and with equipment for running microplate ELISAs. Additionally, there are two behavior video laboratories, and other spaces for survey administration, data entry, and secure data storage. In addition, faculty in communication, animal welfare, and primary healthcare education use the Hill's Pet Nutrition Primary Healthcare Centre as a learning laboratory for research in their respective areas.

The Centre for Public Health and Zoonoses laboratory consists of 10,000 square feet of wet and dry laboratory space, containing a series of molecular biology, conventional microbiology and computer rooms. The laboratory contains a wide range of research tools for infectious disease studies, including systems for DNA and RNA extraction, molecular typing tools, next generation sequencing, cell culture, anaerobic culture and antimicrobial susceptibility testing. There is also extensive freezer capacity for saving tissue, serum and culture samples that can be used for research on zoonotic pathogens.

CLINICAL STUDIES: The Department of Clinical Studies conducts biomedical and clinical research on the biology and diseases of companion and large animals. The facilities accessible to clinical faculty for research are a shared laboratory space comprised of a microbiology (Level 2) and a molecular biology lab; a lab dedicated to the study of hemostasis, and space for data and sample storage (tissue banking). Research on clinical skills such as minimally invasive surgery (i.e. laparoscopic surgery) is a rapid emerging field, therefore a psychomotor skills testing lab has been created for training and clinical/didactic research studies. Clinical investigations and research of naturally-occurring diseases are strongly supported by the department in order to improve our understanding of disease conditions affecting animals and thereby reduce suffering and improve quality of life.

PATHOBIOLOGY: Research laboratory space in the Pathobiology/AHL Building is currently adequate in size. In this space there are up to four principal investigators in each laboratory to maximize efficiency of use of space and management of the laboratories, including interactions that enhance communication, safety and use of technicians. The laboratories were designed for ease of movement between, and for more efficient sharing of, common facilities.

12.3.4.F. ADMINISTRATIVE AND FACULTY OFFICES

CENTRALLY ADMINISTERED SPACE: College administrative offices, including the Office of the Dean, offices of three of the four Associate Deans, the Chief Financial Officer, Chief Administrative Officer and their support staff, and Advancement, Communications, and Alumni Affairs are located in the OVC Main Building. The clustering of these offices in one central location facilitates interactions among this group.

SHARED ADMINISTRATIVE SERVICES: OVC's Shared Administrative Services comprises: 1) Graduate Program Services; 2) Academic and Research Support; 3) Financial Services; 4) Departmental Services; and 5) Human Resource Services. All of the teams serve Chairs, faculty, staff, and students to deliver needed information and services.

OVC HEALTH SCIENCES CENTRE: Offices for the administration, technical support personnel, DVScs/residents, interns and Veterinarians are primarily located in the main area of the OVC HSC. (At the University of Guelph, the term Veterinarian (with a capital "V") refers to those individuals in the OVC HSC and Animal Health Laboratory who provide a range of clinical and professional services to the College and who are members of the University of Guelph Faculty Association (UGFA), but are not faculty members.).

BIOMEDICAL SCIENCES: Administrative offices for the Chair and Assistant to the Chair and Faculty are located on the second floor of the OVC Main Building. Graduate students all have their own desk space located in various areas throughout the department. Each faculty member is provided with an individual office (approximately 100-120 sq. ft.) located close to the investigator's research laboratory.

POPULATION MEDICINE: The Department of Population Medicine is located in three buildings. The Chair's office, main office and reception area, faculty offices and graduate student space are located on the upper floor of the Stewart Building. The Population Medicine Building has faculty offices, an administrative office and reception area, graduate student space, and a number of laboratories (e.g. sample processing laboratories and behaviour laboratory). The public health related faculty and graduate students have offices near the CPHAZ laboratory suite.

CLINICAL STUDIES: The department's administration and technical support, and most faculty offices are located primarily on the second floor adjacent to the Companion Animal Hospital (with some faculty

in the Stewart building). Faculty members have individual offices, while graduate students share offices.

PATHOBIOLOGY: The administration, technical support, and faculty offices are located in the Pathobiology/AHL building. Faculty members have individual offices and graduate students share offices, computers and printers.

12.3.4.G. SERVICE AREAS FOR STUDENTS (FOR EXAMPLE, LOUNGES, CAFETERIA, ETC.)

The Lifetime Learning Centre is a multipurpose educational and amenities facility. The cafeteria in this building serves a wide range of meal and snack options throughout the day. Due to its large dining area, the Lifetime Learning Centre acts as the primary student lounge as well. Many meetings, both social and professional, among students, faculty, and staff take place in this area. OVC students also have access to all the amenities of the University within a 10-minute walk. These include the McLaughlin Library and Learning Commons, and a wide range of coffee shops, food courts, lounge areas, and athletic and health services facilities.

12.3.4.H. BUILDING INFRASTRUCTURE (FOR EXAMPLE, AIR HANDLING, VENTED HOODS, ETC.).

The OVC Campus includes a number of buildings of various ages and construction types and each houses a variety of different uses. The adequacy of each building for its current use varies from state-of-the-art to adequate. Building infrastructure maintenance, including electrical, plumbing, gas, vacuum, heating, air conditioning and ventilation, fume hoods, and fire protection systems is the responsibility of the University's Physical Resources Department.

12.3.5. FOR SAFETY AND EDUCATIONAL PURPOSES, PROTOCOLS MUST BE POSTED IN THE ISOLATION FACILITIES AND THE FACILITIES MUST BE USED FOR INSTRUCTION IN ISOLATION PROCEDURES (BIOCONTAINMENT).

OVC HEALTH SCIENCES CENTRE: Isolation protocols are amended as new facilities come on-line. The Large Animal Isolation Unit enables the HSC to completely separate infectious or potentially infectious cases from the rest of the Hospital population. Isolation protocols developed by the Infection Control Officer have been developed and are posted for this facility, the OVC Companion Animal Hospital Isolation facility and the Smith Lane Animal Hospital isolation facility.

RESEARCH AND TEACHING LABORATORIES: Appropriate standard operating procedures are posted in each laboratory. In addition, in any areas where potential hazardous materials are to be used (e.g. isotopes, hazardous or corrosive chemicals), specific standard operating procedures are posted. Laboratories are inspected and licensed as required under law and regular inspections are carried out to ensure that proper safety procedures are followed (e.g. isotope labs are routinely swabbed to detect contamination; air quality and formaldehyde levels are monitored in laboratories used for tissue fixation and preparation of anatomy specimens). There is a biocontainment system in place for laboratories that handle field samples. Laboratory WHIMS sheets are maintained in laboratories where chemicals are being used. Eye wash stations are placed strategically in laboratories.

12.3.6 DESCRIBE CURRENT PLANS FOR IMPROVEMENT

A significant portion of the OVC campus has been renovated and/or newly built in the past several years. In January 2015, the University engaged external architects to update and complete a new OVC Master Plan for infrastructure. In May 2015, the OVC Master Plan was approved by the Board of Governors of the University of Guelph. The top two priorities in the plan are: 1) new companion animal surgery and anesthesia facilities within renovated space in the OVC Health Sciences Centre; and 2) new space for enhanced clinical learning, which will be in a new addition to the Lifetime Learning Centre. Architects have been hired to complete the construction drawings for the companion animal surgery and anesthesia facilities.

The estimated total cost of these two priority projects is $33M. A proposal is under review by the Ontario government requesting $23M in support of these infrastructure improvements, with the remaining $10M to be raised through donations (as of July 1, 2015, $5.5M is in hand or pledged). The President and administration of the University of Guelph recognize the critical importance of these infrastructure improvements for OVC and the University. In August 2015, the University submitted a prioritized list of requested capital projects to the Ontario government (the Ministry of Training, Colleges and Universities). After a review of requests from throughout the University, the OVC infrastructure request was ranked as the highest priority for the University. The President will recommend to the University of Guelph Board of Governors that the University proceed with these projects.

STANDARD 4. CLINICAL RESOURCES

12.4.1 COMPLETE TABLES A, B, AND C FOR THE PAST FIVE YEARS AND ANALYZE TRENDS FOR EACH SPECIES (CATEGORY).

Please refer to: Appendix 4.1 - Table A: Teaching Hospital; Appendix 4.2 - Table B: Ambulatory/Field Service Program; and Appendix 4.3 - Table C: Herd/Flock Health Program.

Although there are year-to-year fluctuations in caseload, overall we have a stable caseload for companion animals and a decrease in food animal and equine patient accessions. The addition of the Hill's Pet Nutrition Primary Healthcare Centre has resulted in an increase in companion animal caseload, specifically in the area of primary care. Students in all streams, including food animal, equine and rural community, have required rotations in this program and thus learn primary care principles and procedures. Our equine caseload has been mostly affected by competition from a number of equine specialty hospitals in close proximity to Guelph and a decline in the number of race horses in the province. Our current in-clinic large animal caseload, Field Service patients, and other external learning opportunities are sufficient to meet curricular needs for the 25% of students who choose the Food Animal, Equine or Rural Community streams in final year

In July, 2014 the OVC Ruminant Field Service (RFS) began conducting the live animal inspections at the Ontario Livestock Exchange (OLEX) in St. Jacobs (36 km from OVC) on behalf of the Ontario Ministry of Agriculture and Food's Livestock Community Sales Program. RFS takes students in either the Food Animal or Mixed Stream to OLEX on Thursdays for the entire day to inspect animals at the sale. Full physical exams are done on a number of segregated animals, and students learn specifically about the environment of a sales yard, the OMAFRA livestock inspection system, CFIA transport regulations, and humane euthanasia among many other learning outcomes. Many clinical cases have been observed over the past year through this experience including abomasal displacement and volvulus, a variety of lameness problems, severe clinical mastitis, lumpy jaw, lymphosarcoma, etc.

Focused equine and bovine learning opportunities have been developed through collaboration with farms, with teaching laboratory clinical rotations, and use of donated patients. We also continue to offer the Equine Primary Care rotation in which OVC faculty and private practitioners collaborate to provide students with experience in first opinion care. These cases do not appear in the patient numbers reported because they are not OVC clients.

In response to our 2014 Interim Report, the College was asked to provide evidence (including data on case experience provided through collaborating units) that there is sufficient large animal caseload to: 1) provide adequate training in autopsy and anatomic pathology; and 2) meet its clinical learning outcomes for large animal species. We have allocated a specific budget for supporting donated large animals, which are euthanized and provide material to supplement our anatomic pathology rotations. In the past year, 48 animals were donated to the hospital (23 horses, 22 cattle, and 3 sheep) for student learning opportunities. Protocols for using these animals have been approved by the University's Animal Care Committee and owners are aware the animals will be euthanized.

In addition, for the past academic year, we have received funding from an external grant and have discounted the hospital fee to encourage clients to bring in stallions for subsidized castrations. This

program provides every student on the large animal surgery rotation the opportunity to castrate at least one horse. Due to the success of this program this funding has been renewed for another year.

12.4.2 DESCRIBE AND ANALYZE THE ADEQUACY OF NORMAL AND CLINICALLY DISEASED ANIMALS (HOSPITALIZED, OUT-PATIENT, FIELD SERVICE/AMBULATORY AND PRODUCTION MEDICINE) AND HOW THEY ARE USED FOR THE DVM TEACHING PROGRAM.

Students gain experience with normal animals of numerous species (including dogs, cats, birds, rabbits, mice, horses, pigs, sheep, and cows) throughout the first three years of the program in their Clinical Medicine, Anatomy, and Health Management courses. These animals are either our resident OVC or University teaching animals. In the large animal area, students see a variety of primary care individual animal and herd-level cases through our Ruminant and Swine Field Service Clinics. These herds also generate a limited number of referral cases (mostly bovine) for the OVC Large Animal Hospital. Rotations in these services are core for students in the Rural and Food Animal Streams and are available as electives for students in the Companion Animal and Equine Streams. In addition, students in years one through three of the DVM program can sign up on a first-come basis to go on calls with Ruminant Field Service as time and truck space permits.

The OVC Companion and Large Animal Hospitals operate largely as specialty hospitals and see mostly referral cases across a range of services including: surgery (soft tissue and orthopedic); internal medicine; oncology; cardiology; neurology; ophthalmology; theriogenology; and critical care. There is also an in-house Avian and Exotic Service, which sees both primary and referral cases. Students can select this rotation on an elective basis. Although most of the referral case material is complex in nature, the faculty use these cases to teach a problem-based approach to veterinary medicine both during Phase 4 rotations and as case-based material as part of courses in Phases 1, 2, and 3.

The OVC Smith Lane Animal Hospital, within the Hill's Pet Nutrition Primary Healthcare Centre, provides students in each Phase of the program with learning opportunities in companion animal primary care preventive, medical, and surgical cases, including a three-week required rotation in Phase 4 for all students. As well, all final year students undertake an eight-week Externship course that must be in a primary care, mixed species private practice. This course greatly increases their experience with primary care entry-level case material. In addition, students in each of the final year streams have the opportunity to choose external rotations, which include time in primary care private practices according to their species of interest.

12.4.3 DESCRIBE UNIQUE CLINICAL EDUCATIONAL RESOURCES OR PROGRAMS THAT ENHANCE THE EDUCATIONAL MISSION.

VETERINARY EXPERIENCE PROGRAM: The Veterinary Experience Program (VEP) is a voluntary program for Phase 1 and 2 students offered in association with the OVC Alumni Association. It is managed by the OVC Manager, Student Affairs. This is a learner-centered program for self-motivated students established to provide crossover between academics and the world of work. The program is designed to provide DVM students with the opportunity to spend a day 'on the job' with a practicing veterinarian on a one-to-one basis and gain additional hands-on experience. VEP opportunities are catalogued in a web-based practice bank that identifies the type of practice, the location of the practice, and the best time to reach the practitioner.

OTHER OPPORTUNITIES: Students can participate in Large Animal and Pathology Rounds twice a week and Grand Rounds with current interns and residents in the OVC Health Sciences Centre also once a week. ICU rounds are offered daily, and students can sign up to participate in cardiology rounds for a week. The Cardiology Service and DVSc/residents provide weekly discussion on how to read electrocardiograms and they lead case discussions for first year students. Phase 1 and 2 students can accompany faculty and final year students for a half-day visiting farms serviced by OVC. In the Anesthesiology service, Phase 1 and 2 students can watch and learn as hospital staff anesthetize animals and perform surgery. Phase 1, 2, and 3 students each spend 15 hours/year in the OVC Smith Lane Animal Hospital participating in required experiential learning activities.

12.4.4 IF OFF-CAMPUS CLINICAL INSTRUCTION SITES ARE USED REGULARLY BY MULTIPLE STUDENTS, COMPLETE TABLE D AND DESCRIBE THE PLANNING, SUPERVISION, AND MONITORING OF STUDENTS; AND CONTRACTING ARRANGEMENTS FOR NON-INSTITUTIONAL BASED FACULTY.

No core teaching activities are delivered at non-institutional sites

12.4.5 DESCRIBE THE INVOLVEMENT AND RESPONSIBILITIES OF PROFESSIONAL STUDENTS IN THE HEALTHCARE MANAGEMENT OF PATIENTS (AND CLIENTS) IN CLINICAL PROGRAMS OF THE COLLEGE.

Final year DVM students during most rotations have direct involvement (with clinician supervision) in both client interactions and healthcare management of patients. Their involvement consists of physical examination, history taking from clients, client communication, in-hospital patient assessment, observation, and order administration. They may also develop orders and plans in patient care which are then approved by supervising clinicians. Upon patient discharge from the hospital, students are expected to draft a Discharge Statement that provides a description of what the animal was presented for, what diagnostic and therapeutic efforts were made, and what the appropriate treatment and expected outcome is. Cost of care is discussed in rounds in the specialty hospitals. In the companion animal primary care rotation students are involved in preparation of estimates and in discussing charges with clients.

Students are encouraged to remain in contact with clients following discharge from the hospital in an effort to maintain communication and monitor patient recovery. Students rotate through 'on call' with backup provided by interns, DVSc/residents, and faculty.

When Phase 4 students are in the OVC Smith Lane Animal Hospital, they are the primary clinician on the cases, explaining preventive care, including nutrition, developing plans and explaining them to owners. Students in earlier years are involved in similar roles and their level of responsibility increases from observational to more direct involvement as they progress through the program. Students are also involved in developing estimates and ensuring accurate billing.

12.4.6 DESCRIBE HOW SUBJECT-MATTER EXPERTS AND CLINICAL RESOURCES ARE INTEGRATED INTO CLINICAL INSTRUCTION.

The majority of our clinical instruction is overseen and delivered by faculty who are experts in their discipline area. We also involve Veterinarians (who are mostly board-certified clinicians) and graduate

students (mostly in the DVSc program) who normally deliver clinical service in the area of instruction. They teach as part of either client-based cases or in clinical medicine-related labs. OVC HSC clinical case material is utilized as a component of the delivery of Phase 2 and 3 Clinical Medicine laboratories for both large and companion animals. The majority of clinical faculty incorporate case material into their didactic teaching to engage students through contextual learning

12.4.7 DESCRIBE THE ADEQUACY OF THE MEDICAL RECORDS SYSTEM USED FOR THE HOSPITAL(S), INCLUDING FIELD SERVICE AND/OR AMBULATORY AND POPULATION MEDICINE. RECORDS MUST BE COMPREHENSIVE AND MAINTAINED IN AN EFFECTIVE RETRIEVAL SYSTEM TO EFFICIENTLY SUPPORT THE TEACHING, RESEARCH, AND SERVICE PROGRAMS OF THE COLLEGE.

In May 2011 a new Hospital Information Management System (Stringsoft) was implemented and we transitioned to a predominantly electronic medical record with all key components available electronically with some components available in hard copy. The Medical Records department of the OVC HSC uses SNOMED (Systematized Nomenclature of Medicine) to code medical records; all current cases are coded. This information is available for searching through Stringsoft. The OVC utilizes a problem-oriented medical record, with a unit numbering system for documenting clinical and administrative information for client owned animals; inpatients, outpatients, and field service animals. Hard copies of Farm Service medical records are maintained in Medical Records with the basic signalment stored in Stringsoft. The OVC SLAH uses Cornerstone as its electronic medical record system and Field Services utilize herd management software programs (i.e. Dairy Comp 305 and Pigchamp).

Off-site storage is utilized for older hard copy medical records dating back to admission year 1983. All of these records are indexed and coded, and are available for retrospective searches through Stringsoft and VMIMS (the previous HIS). Records prior to 1983 are available on microfilm.

12.4.8 DESCRIBE HOW THE COLLEGE HAS RESPONDED TO INCREASING/DECREASING CLINICAL RESOURCES.

The Companion Animal Hospital has seen a slight decline in case numbers. However, the OVC SLAH has seen a steady increase in caseload that has offset the decline noted in the specialty hospital, thus resulting in an overall steady caseload.

The majority of our Large Animal Hospital case load is comprised of horses that are referrals. Although the clinic has experienced a decline in case numbers over the last few years, mostly due to competition from geographically close private referral clinics, we still have sufficient material for clinical instruction (see previous description of equine primary care rotation and other learning opportunities).

Our Ruminant and Swine Field Service Clinics are active and currently have sufficient case material for undergraduate teaching. Both have felt the effect of the increasing urbanization of the Guelph area through the loss of local farm clients. This trend is expected to continue and we are undertaking discussions with practitioners as to how best to ensure adequate case material in the future. All of our students participate in the Veterinary Externship course, which places them in a primary care mixed-species private practice for an eight-week period as part of their final year.

12.4.9 DESCRIBE THE MEANS USED TO MAXIMIZE THE TEACHING VALUE OF EACH CASE ACROSS THE CURRICULUM.

Although almost all OVC HSC specialty hospital in-clinic cases are referrals and are at the tertiary care level, our faculty maximize the teaching value of this case material by using it to reinforce the principles of the 'Data, Assessment, Plans' approach to case management. Students are encouraged to follow the cases they are involved with through to discharge. All services conduct regular rounds sessions with their students to ensure the students are gaining an understanding of underlying medical and surgical principles. If the animal dies or is euthanized, our pathologists routinely conduct post-mortems (if owner permission is obtained) and students are expected to follow these cases through as well. We also hold twice-weekly post-mortem rounds that both clinicians and students can attend to learn about other cases that have been presented. The DAP methodology is also used with the primary care cases at the OVC Smith Lane Animal Hospital.

We routinely teach students in Phases 1-3 using OVC HSC case material through either inclusion in lecture and laboratory material or through students shadowing a clinical service. We use WebAims software to manage our growing digital library. This software allows storage and retrieval of anything digital (i.e. not limited to images) and has the capability of creating self-study learning modules for student use. Clinicians are actively using this software to manage clinical case material for its future teaching value.

STANDARD 5. INFORMATION RESOURCES

12.5.1 DESCRIBE AND COMMENT ON THE ADEQUACY OF INFORMATION RETRIEVAL AND LEARNING RESOURCES.

The McLaughlin Library, University of Guelph provides support for the OVC community (including the DVM Program). The Library's collection holds 1.85 million titles - including 410,000 books and more than 65,000 journals in electronic format. Specific support for the veterinary sciences and related areas (e.g., public health, medicine, microbiology and pathology, and animal science and zoology) includes 15,000 print books and more than 6,800 (see Appendix 5.1) electronic journals. The Library's collection development activities in support of the DVM program stresses the acquisition of materials in electronic format whenever possible to provide students with convenient and ready access.

The Library is a member of the Tri-University Group (TUG) of libraries which includes the University of Waterloo and Wilfrid Laurier University, providing access to a shared catalogue of over 7 million volumes. In addition, the Ridgetown campus, as part of the University's Ontario Agricultural College, has a small but specialized collection holding materials relevant to the study of veterinary medicine and animal science. University of Guelph students, faculty and staff can access the resources available from the libraries of our TUG partners and the agricultural college campus.

TUG's resources can be accessed through Primo – a tool that provides discovery and access to a wide range of print and electronic resources through a single search point, including books, journal articles, e-books, E-journals, and news articles. Materials not held by the University of Guelph Library or available from one of the partners listed above can be obtained using RACER, a Canadian-based interlibrary loan service which supports end-user searching and requesting of materials. All open-access journals can be accessed by any member of the University community through any web-browser (internet connectivity is a free resource for all members of the University community while on campus).

OVC faculty have taken advantage of web-based delivery of course support materials through the Library's electronic reserve operation. This service ensures copyright clearance, compliance with current accessibility standards (as required by the Accessibility for Ontarians with Disabilities Act), and integration with the Library's catalogue and the CourseLink CMS (Content Management System). The scholarly communications program includes open access scholarly journal publication services and support, author rights and copyright consultation services, digital collections development, and the University of Guelph and Agri-environmental Research Data Repositories.

12.5.2 BRIEFLY DESCRIBE THE AVAILABILITY OF LEARNING AND INFORMATION TECHNOLOGY RESOURCES SUPPORT FOR FACULTY AND STUDENTS, INCLUDING PERSONNEL AND THEIR QUALIFICATIONS.

The Learning Technologies Centre is the headquarters for OVC Information Technology Services (ITS). This area is open to staff, faculty and students for drop in support from the seven-member ITS team. The ITS team includes two desktop support technicians, one hospital information support specialist, two analysts, an educational technology specialist, and an information technology manager. The team has a combined experience in excess of 90 years providing technology support in higher education. Credentials and qualifications include undergraduate and graduate degrees, IT certifications, project management certifications, veterinary technician diploma and professional memberships in chartered IT institutes. A videographer is also located in the Learning Technologies Centre.

The OVC ITS department has a close relationship with the central IT department (Computing and Communications Services) which ensures efficiency and the appropriate strategic direction for its IT implementations. The University of Guelph Library also provides an IT Help Desk, open 08:30 am – 4:45 pm Monday to Thursday providing additional technical support to faculty, staff and students.

Faculty also have support through drop-in or formal sessions offered by OpenEd to learn about new teaching technologies (e.g. PEAR, iClickers, etc.). OVC faculty members' use of educational technology within OVC's teaching environment is extensive. There are 43 different teaching sites for OVC courses within the online learning site, CourseLink, which currently uses Desire2Learn as the base learning technology application. Learning resources support for faculty and students is provided by an Educational Technology support specialist, who is a team member of OVC Information Technology Services. This individual facilitates the use of CourseLink and other educational technologies (such as survey and evaluation tools) within OVC, and works closely with the University of Guelph's Teaching Support Services. Consultations are available for faculty and students in both a drop-in capacity and by appointment.

12.5.3 Describe the methods of access to library information resources for faculty and students when they are on and off campus.

The University of Guelph Library is located at the centre of the University campus and is open 111 hours per week (08:00 am – 02:00 am Mon-Thu, 08:00 am – 11:00 pm Fri, and 11:00 am – 11:00 pm Sat and Sun). It houses 93 percent of the open study space found on campus, and provides access to 200 public desktop computer stations and 20 laptops available for loan. The OVC Learning Commons provides additional study space and is open 84 hours per week (08:00 am – 10:00 pm Mon-Thu, 08:00 am – 6:00 pm Fri, 11:00 am – 8:00 pm Sat and Sun). It provides access to computer workstations and group learning rooms. All web-based resources are available at any time both on and off campus via secure login.

12.5.4 Describe the resources (training, support) available to students for improving their skills in accessing and evaluating information relevant to veterinary medicine for sources in any media.

Enhancement of students' information literacy is supported through a variety of mechanisms. Subject, course, and topic guides (web pages) are accessible through the Library's site as are instructional videos. Faculty who are interested in developing guides and/or videos for their courses may do so by contacting the Research Enterprise and Scholarly Communication Team. This Team will also deliver faculty requested classroom sessions designed to support a course's curriculum. Learning and writing support is also available for students through the Library's Learning and Curriculum Support Team.

In the Health Management II course, students are re-introduced to the library resources and science literature search engines that can be used to search the refereed veterinary literature. Further, they are instructed in the process of critical appraisal of the literature, with emphasis on clinical trials and observational studies, which make up the majority of the veterinary literature.

12.5.5 Describe current plans for improvement.

There are no current plans for improvement.

STANDARD 6. STUDENTS

12.6.1 COMPLETE TABLES A, B, C, AND D, AND ANALYZE TRENDS.

Please refer to: Appendix 6.1 - Table A: Veterinary Medical Program; Appendix 6.2 - Table B: Interns, Residents and Graduate Students; Appendix 6.3 - Table C: DVM Students; and Appendix 6.4 - Table D: Other Educational Programs.

VETERINARY MEDICAL PROGRAM: Enrolment at entry to the program is normally 105 Canadian students and 15 international students, with a potential total enrolment per class of 120. Since not all international seats were filled each year before the fall 2013 entry point, class sizes were less than 120 before then. Although there has been a small amount of relative attrition among students over the past five years, these students have generally returned to the year below them and thus absolute attrition is very small.

INTERNS AND RESIDENTS: The number of residents in the Doctor of Veterinary Science (DVSc) program has not changed considerably over the past five years. This is because OMAFRA VCEP and endowment funding for this program has remained stable during this period. There are very few residents who are not enrolled in a DVSc or other graduate program since the major source of graduate student stipends is via the DVSc program. These non DVSc residents support the clinical and teaching mandates in areas that have highly demanding clinical residency requirement that preclude concurrent graduate training. Intern numbers declined briefly in the past due to fiscal challenges but the return of the Health Sciences Centre to a sound financial situation has allowed those numbers to increase.

GRADUATE STUDENTS: Growth of the graduate program has been a goal of the OVC and the university. In fall semester 2009, there were 254 graduate students and in fall semester 2014 there were 299 (an 18% increase). The creation of the two-year MPH program within OVC has added 20-25 new graduate students per year. In addition, the OVC increased the number of stipends available for graduate students in order to increase the numbers.

12.6.2 PROVIDE A LISTING OF STUDENT SERVICES. THESE SERVICES MUST INCLUDE, BUT ARE NOT LIMITED TO, REGISTRATION, TESTING, MENTORING (ADVISING), COUNSELING, TUTORING, PEER ASSISTANCE, AND CLUBS AND ORGANIZATIONS.

ADVISING: The Office of the Associate Dean, Students (ADS) is responsible for admissions, awards, and student life in the college, including the oversight of student support services. The primary goals of the office are to optimize the learning environment for student veterinarians and to support their personal growth and development. As the Program Counsellor for the DVM program, the Associate Dean provides advising and referral services for students with academic and/or personal issues. They will advise faculty members if a student requires accommodation in a course, such as deferral of a test or exam, or extension of a deadline in compliance with the University's Guidelines and Procedure on Academic Accommodation. The ADS also liaises with Student Accessibility Services (SAS) to ensure that students receive appropriate accommodation as recommended by SAS. He is also the faculty advisor to the Central Veterinary Student Association, which is the College's student government. This link provides a structured interaction between the administration and students. The Dean and Associate Deans meet with the class co-presidents and the CVSA president 2-3 times per semester in order to discuss issues identified by either group.

CENTRAL VETERINARY STUDENTS ASSOCIATION: The CVSA is the student government of the College. Its members are either elected or are ex officio. Its mission is to serve OVC student veterinarians in a manner that encourages leadership, promotes excellence, and inspires a sense of community. It supports students through curricular, extracurricular, and community activities and, in doing so, fosters skills pertinent to their future profession. Their objectives are: education; excellence; achievement; innovation; integrity and professionalism; balance between animal, human and ecosystem health; animal welfare; leadership on a local, regional and global level; and solidarity and fellowship.

COUNSELLING: The University of Guelph provides: Individual Personal Counselling; Workshops and Therapy Groups; and Stress Management Programs. Additionally, through a contract with Student Counselling Services on the main campus, the OVC provides nine hours/week (two evenings and one afternoon) of on-site counselling for DVM students. Students can also access Student Counselling Services on the main campus between 8:15 am and 4:15 pm on weekdays. A walk-in service is provided during the week from 12:30 pm to 3:30 pm, Monday through Friday. A campus telephone support line operates from noon to 10 pm, Monday to Friday. Within the City of Guelph, there is a wide range of support organizations, some of which are subsidized depending on income.

FINANCIAL SUPPORT FOR STUDENTS: The College supports DVM students through a merit and needs-based financial awards system. As of April 30, 2015, endowed funds received from private donors, corporate sponsorship, and government matching programs provide to students approximately $1,128,000 in bursaries (based on financial need only) and $162,600 in scholarships and prizes (both categories based on academic achievement and/or community service) annually. Our domestic students are fortunate in having one of the lowest tuition and fee structures in North America ($10,009.20/year in fall 2014 for entering students). In a survey of the 2014 graduating class the mean debt reported was $55,133 at graduation.

LEARNING SUPPORT: The College works with a Learning Specialist in the main Library Learning Commons who supports DVM students in enhancing their learning skills, both one-on-one and in group sessions. Students with learning disabilities are supported through the university's Student Accessibility Services and are accommodated following the University's Guidelines and Procedures on Academic Accommodation.

LIAISON WITH FAMILIES AND FRIENDS: Our outreach program to family members and friends of student veterinarians includes the annual 'Professional Welcomes Ceremony' in September of Phase 1 where students receive greetings and gifts from our professional organizations (Canadian Veterinary Medical Association, Ontario Veterinary Medical Association, College of Veterinarians of Ontario, and the OVC Alumni Association), the 'Family and Friends Day' open house in February of Phase 1, where students' guests experience a 'day in the life' of a student veterinarian, the 'White Coat Ceremony' in March for Phase 3 students that marks their entry into the clinical year of the program, and the Convocation celebrations in June, which include the graduation itself, the Veterinarian's Oath Ceremony, and the Convocation Awards Ceremony. At all of these ceremonies, family members and friends gain a better understanding of the role of veterinary medicine, the College, and their students in how veterinarians serve society. The events also provide an opportunity for reconnection of families and friends with their student. In addition, families and friends can connect with OVC through several robust social media channels (@OntVetCollege).

MENTORING PROGRAM: Before the start of their first year, entering students are assigned to a Practice Group with nine of their classmates (explained in more detail in the Orientation section). Each group is assigned two second year veterinary students as mentors, who support the incoming students throughout their first year. Our students also network with alumni from a variety of career paths. In the

first and second year of the DVM program, students are asked what fields of veterinary medicine they are interested in and, based on this feedback, are assigned an Alumni Veterinary Mentor. This mentor is a veterinary alumnus/a who is working in the student's field of interest, can speak to the skills and preparation necessary for success, and provide job shadowing opportunities. At present we have 13 alumni mentors in various fields working with 71 students. As part of the Veterinary Experience Program, first and second year students gain hands-on experience in a variety of clinical settings. These placements and networking opportunities have resulted in both summer and post-graduation employment for some students. In addition, approximately 75 students work in research laboratories under faculty supervision, both during the school year, and in the summer when they can participate in the Summer Leadership and Research Program (explained more fully in Standard 10). The faculty supervisors also often serve in a mentoring role.

ORIENTATION: In mid-August an Orientation Handbook with key resources and information is placed on the OVC website by the Manager, Student Affairs and the link is emailed to the incoming first-year students. Other helpful resources for incoming students can be found on the OVC Orientation webpage. Immediately after Labour Day in September, entering students are welcomed to the College and the veterinary profession over four days, using activities that: support the students as they transition from their previous educational experience into OVC; encourage interpersonal connections within the class; and inform them about the academic environment, support resources, and profession that they have entered. Tours of OVC, the University of Guelph main campus, and the City of Guelph are provided.

STUDENT PRACTICE GROUPS: Students are placed in 12 groups of 10 each on day one. These groups have been constructed based on the information provided from an on-line background survey that the students complete near the end of August before they arrive at the College. The data are used to ensure that those students from particular backgrounds (e.g. a farm), or with particular animal (e.g. food animal), or academic experience (e.g. anatomy training) are dispersed as equitably as possible throughout the groups so that there should always be an 'expert' that the other students can turn to for assistance. The groups provide a supportive environment for students within the larger class and thus result in better academic and personal peer-to-peer support. Each group is also assigned two second-year DVM students known as 'Practice Group Guides' that: organize a social event the day before orientation begins so the incoming students can socialize; provide support and advice throughout the first year of the program; and meet with their group on a regular basis. The students also complete an on-line Myers-Briggs Type Assessment before arriving at OVC. Although the results of the MBTI are not used to construct the first-year groups, they are used in teaching about interpersonal interactions and teamwork.

OVC PEER HELPER PROGRAM: There are two Peer Helpers in each of the four years of the DVM program, with one additional Peer Helper devoted primarily to our international students. These students are chosen by interview from applicants early in the fall semester. The Peer Helpers are encouraged to attend relevant training opportunities provided by the University. They deal with all manner of student issues ranging from information requests to referral to appropriate resources in the College, University, or broader community. They also plan and mount student support programming for their student colleagues such as study skills sessions, textbook talks, transition talks early in the fall semester for incoming, second and third year students as well as 'what to expect' pre-exam talks for these classes. The Peer Helpers also facilitate study skills workshops where students from the year above assist students in addressing academic challenges. The international student Peer Helper assists non-Canadian students through their change in residence and helps orient them to their new home. The Peer Helpers are often approached by their classmates with feedback which is addressed at bi-weekly meetings with the Associate Dean, Students.

PRE-VETERINARY ADVISING: The College's Manager, Student Affairs consults with potential applicants to the DVM program in person, on the telephone, and by e-mail. She is also the advisor to the University of Guelph's Future Vets Club, which organizes a variety of events related to admissions and careers in veterinary medicine, and manages the club's Facebook group and an online forum where members ask questions. The Manager trains the University's liaison team to ensure that correct admissions information is communicated to interested high school and university students, and participates in the university's recruitment events, online chat sessions, and open houses to provide guidance to high school students and their families as well as current university students. To recruit international students the Manager works with the graduate studies liaison team and the Manager, International Admission and Recruitment, providing them with messaging and materials, and attends recruitment events in targeted markets. The Manager also maintains an active social media recruitment campaign and posts information on 50+ pre-vet Facebook pages and groups, particularly when US applicants are beginning to submit their applications to the Veterinary Medical College Application Service (VMCAS).

REGISTRATION: All student registrations are managed through the Office of the Registrar in the university.

WELLNESS PROGRAMS FOR STUDENTS: In Fall 2014 we created a new series of workshops called 'Wellness Wednesdays' to provide students with strategies to enhance their ability to bounce back from stress. Based on the eight domains of wellness (emotional, environmental, financial, intellectual, occupational, physical, social and spiritual), topics covered the spectrum from financial management, to sustainable living, to mental health strategies. Working with the campus Stress Management and High Performance Clinic, we also inform students about Relaxation & Stress Management Skills Training and Better Sleep programs for our students. Other topics covered in this series of stress-management programs include: Stop Worrying; Decreasing Headaches; and Stress Less for Tests.

SUPPORT OF STUDENT CLUBS AND ACTIVITIES: Each student club in the College is accredited through the University's student government, and all must have a faculty advisor. The student clubs in OVC include: the Integrative Medicine and Alternatives Club; Animal Welfare Club; International Veterinary Medicine Club; Lab Animal Medicine Club; Bovine Club; OVC Business Club; Equine Club; Swine Club; Pathology Club; Small Animal Club; Student Chapter of the Canadian Veterinary Medical Association; Student Chapter of the American College of Veterinary Internal Medicine; Student Chapter of the Veterinary Emergency and Critical Care Society; Zoo, Exotics, and Wildlife Club; Community Outreach Club; Student Chapter of the American Academy of Veterinary Nutrition; Student Chapter of the International Veterinary Academy of Pain Management; Student Chapter of the American Association of Veterinary Parasitologists; and Student Chapter of the Lesbian and Gay Veterinary Medical Association. Student clubs are promoted to the DVM student body at two Club Days held in September, and club executives are oriented by the Manager, Student Affairs on procedure and policy.

The College supports student activities through the provision of rooms for meetings, hosting of the groups' websites, and faculty support through mentoring as club advisors. The Manager, Student Affairs offers advice on event planning, sponsorship, and promotion, and resources related to event organization are placed on the student webpage (e.g. a Standard Operating Procedure on organizing a meeting, and sample sponsorship application materials). The OVC Alumni Advancement Manager provides guidance on requests for sponsorship, and the OVC Marketing Communications Officers may provide assistance with designing promotional materials. The university provides a wide range of athletic, cultural, health-related and recreational opportunities for all students.

The International Veterinary Medicine Club provides students opportunities to experience veterinary medicine outside of the Canadian context. Within that club, Global Vets is a program that offers second year student veterinarians a unique opportunity to investigate animal health care in developing countries during the summer. DVM students planning to travel can request to be in contact with OVC alumni at their destination and volunteer at their workplace. To assist them in fundraising for the travel costs for this program, the college has designated Global Vets as the recipient of the proceeds from the Discover Vet School lecture series held in March. The Manager, Student Affairs assists a team of students from the Global Vets program in organizing and promoting the program.

We have also developed a thriving industry representative program where industries and organizations that serve the veterinary profession employ a student to act as a liaison within the DVM student body. Approximately 30 students hold these positions annually. These representatives are overseen by the industry representative of the CVSA. This industry representative, a volunteer from the fourth year DVM class, and the Manager, Student Affairs organize Industry Day in early March, providing the OVC community an opportunity to network with representatives from the pharmaceutical (e.g. Merial, Zoetis, Bayer Animal Health) and nutrition (e.g. Hill's Pet Nutrition, Purina, Royal Canin) industries, as well as banks, insurance providers, OVMA, CVMA, equipment distributors, etc.

12.6.3 PROVIDE A SUMMARY OF COLLEGE ACTIVITIES IN SUPPORT OF PLACEMENT OF GRADUATES.

The OVC Manager, Student Affairs acts to recruit high quality and diverse applicants to the DVM program and establish links with professional, industry, and regulatory bodies in order to increase student awareness of long-term career opportunities. We initiated a Summer Leadership and Research Program (SLRP) for students in 2000. In 2014, 57 students participated (58% OVC DVM students, 39% University of Guelph BSc students, and 3% Brazilian DVM students participating in the university program, 'Science without Borders'). In addition to the research experience that the students gain as part of SLRP, students meet veterinarians who work in industry, government, research and academia, as well as with current graduate students who are DVMs, all of whom share their various experiences. Both the Alumni Mentoring Program and Veterinary Experience Program offer current DVM students the opportunity to network with veterinarians in these above mentioned fields as well.

The Manager, Student Affairs receives job postings which are then posted on our Employment, Research and Volunteering Opportunities website and on the campus online service, Recruit Guelph. Individual students and graduates are provided with career counselling if requested. In their third year, students take the course Art of Veterinary Medicine III. In this course they are provided with business management training and guidance on how to prepare a resume and cover letter, job interviewing skills, as well as aspects of successfully negotiating employment contracts. Similar services are offered by the university's Co-operative Education & Career Services, and links to resources are posted on the OVC student webpage.

12.6.4 PROVIDE ACADEMIC CATALOGUE(S) (OR AN ELECTRONIC ADDRESS FOR THIS RESOURCE) AND FRESHMAN/UPPER-CLASS ORIENTATION MATERIALS.

The DVM Curriculum is found in the University of Guelph Undergraduate Calendar. There is an annually updated Orientation website for the incoming DVM class. All information regarding fourth year activities, including the Phase 4 orientation material and Handbook, can be found on the Phase 4 website.

12.6.5 DESCRIBE THE SYSTEM USED ON AN ONGOING BASIS TO COLLECT STUDENT SUGGESTIONS, COMMENTS, AND COMPLAINTS RELATED TO THE STANDARDS FOR ACCREDITATION.

OVC students can provide suggestions, comments, and complaints related to the standards for accreditation through an email account accredit@ovc.uoguelph.ca. This mail box is monitored by the Chief Administrative Officer and any issues are dealt with as appropriate. In addition, periodic emails are sent to students soliciting feedback on the program. The level of activity in this email account has been very low. The only comments that have been received, and the College's response to them, were included in our 2013 Interim Report are appended here. The accreditation process has been discussed with our student government and with the CVSA and class presidents in meetings with the Dean and Associate Deans.

12.6.6 DESCRIBE CURRENT PLANS FOR IMPROVEMENT IN RESOURCES FOR STUDENTS.

As plans for refurbishment of existing, and construction of new space in the college unfold, we recognize the importance of providing space for student government and club use as well as a lounge or other areas for 'down time' out of the purely academic environment. In collaboration with Counselling Services on main campus, we continue to assess our students' requirements for personal counselling at times that work for their schedules and how best to address that need.

STANDARD 7. ADMISSIONS

12.7.1 STATE THE MINIMUM REQUIREMENTS FOR ADMISSION.

The Admission Committee is a sub-committee of the DVM Program Committee. It is chaired by the Associate Dean, Students and the voting members are: two faculty from each of the four OVC departments; the faculty advisor from the BSc (Animal Biology) program on campus; and a DVM student. The non-voting members are: the DVM Admissions Councillor from the Registrar's Office; the OVC Manager, Student Affairs; and the OVC Academic and Student Affairs Assistant, who provides support to the committee. Therefore, there is a majority of faculty members on the committee.

Complete information about the DVM admission process as provided to candidates can be found on the Future Students Webpage. There are currently 120 seats available each year in the DVM Program. They are divided into three cohorts – 100 Canadian undergraduate seats, five Canadian graduate seats, and 15 international seats. For all cohorts, the members of the Admissions Committee endeavor to select those applicants who, in their judgment, will best be able to successfully complete the veterinary medicine program and who exhibit the greatest ability to become competent, responsible veterinarians dedicated to a lifetime of productive public service and continued learning. In view of the need to efficiently and quickly learn large amounts of factual material and to solve problems, applicants must have demonstrated achievement in the comprehension of scientific material. Successful candidates must have integrity, reliability, maturity and determination as well as excellent communication and leadership skills, and the ability to effectively work with others. These skills are assessed by the candidates' referees and are also evaluated in the Multiple Mini Interview (please see below).

12.7.2 DESCRIBE THE STUDENT SELECTION PROCESS, INCLUDING MEASURES TO ENHANCE DIVERSITY.

All applicants must have completed a minimum of four full-time university semesters of ≥2.5 credits each (a one-semester University of Guelph course is generally worth 0.5 credit), including courses in the following subject areas: Biological Sciences - 1.5 credits (three semester courses, with recommended emphasis on Animal Biology; one of these three courses must be a Cell Biology); Genetics - 0.5 credit (one semester course); Biochemistry - 0.5 credit (one semester course); Statistics - 0.5 credit (one semester course); and Humanities or Social Sciences - 1.0 credit (two semester courses). Applicants must complete all of their prerequisite courses while registered in semesters of ≥2.5 credits, or the equivalent of 15 credit hours.

A) SELECTION OF CANDIDATES FOR THE 100 SEATS IN THE CANADIAN UNDERGRADUATE COHORT

1) ACADEMIC ACHIEVEMENT: Applicants are first ranked based on their application average from one to 'n', with 'n' being the total number of qualified applicants. The application average is calculated as follows: the cumulative average mark of the applicant's last two full-time (2.5 credits each) university semesters contributes 40% to the application average, and the average of the marks in the eight required pre-requisite courses described above contributes a further 40%. The cumulative MCAT numerical score (omitting the writing sample) contributes the final 20%. The average of the prerequisites and the average GPA of the last two full-time semesters must both be above 75% in order to be considered further. Since characteristics assessed by the MCAT are better measured through the

MMI and we have found that the MCAT is not a better predictor of our students' academic performance than is their GPA, we will no longer use the MCAT for the September 2016 entry point and beyond.

To increase accessibility, applicants can take their prerequisite courses part-time if they have a documented learning disability, or financial, medical, or other acceptable issues making full time study a hardship, and courses can be taken either on-line or in a traditional format. This allows those changing careers and mature students to complete the prerequisites they are missing while continuing to work or fulfill family commitments. Increased diversity of educational background is made possible by not having a science-based undergraduate program as a requirement. This allows students in other degree programs to access the DVM program by taking the prerequisite courses as electives. Applicants who have personal circumstances that they believe will affect their application are encouraged to submit a plan to the Admissions Committee describing how they will achieve the prerequisite requirements. Applicants can also submit an appeal if circumstances arise after courses are completed that prevent them from meeting any of the academic requirements. This process is delineated on our Academic Requirements webpage.

2) BACKGROUND INFORMATION FORM: Applicants complete a Background Information Form, in which they describe and quantify their previous academic programs, animal and veterinary experience, and extra-curricular activities. In addition, applicants write a short essay addressing why they wish to study veterinary medicine. This essay provides an indication of the candidate's depth of understanding of the veterinary profession, and gives them the opportunity to communicate their knowledge of potential career paths.

3) REFEREES' ASSESSMENTS: Confidential referee reports are required from three persons who are asked to give unbiased, informed, critical assessments of the applicant. Two of these referees must be veterinarians with whom the student has worked or volunteered. Preference is not given to veterinarians working in clinical settings in order to allow applicants with a variety of experiences (e.g. industry, academia, government) to apply. As part of this assessment the referees fill in a Reference Assessment Form that requires them to evaluate a variety of traits, including: leadership; ability to work with others; character and integrity; personal and social maturity; ability to analyze and solve problems; communication skills; and emotional intelligence.

Members of the Admission Committee assess the applicants' referee assessments, essay and experience to determine which candidates will be interviewed. Applicants with poor referee assessments, and/or demonstrated lack of understanding of the veterinary profession, substandard written communication skills as evaluated in their essay, or inconsistencies in their statement of experience (e.g. vastly different number of hours reported by the applicant and the veterinarian providing a reference), are flagged and brought to the entire Admission Committee for discussion. A decision on each flagged application is made by the committee and may result in denial of further consideration of an applicant.

4) INTERVIEWS: The top 200 qualified applicants as determined by academic average in the Canadian undergraduate cohort are offered interviews, which assess their communication skills, attitudes and attributes applicable to veterinary medicine. In 2010 we adopted the Multiple Mini Interview (MMI) format. The MMI is modelled after the Objective Structured Clinical Examination (OSCE) and consists of a series of short, timed, structured interview stations that provide multiple samples of a candidate's non-academic skills, including the ability to think on their feet, communicate opinions and ideas, critically appraise information, and demonstrate advanced understanding of issues facing the profession. The attributes assessed during the interviews were determined by a 2009 survey of the veterinary profession in Ontario. They responded that the most important attributes to interview for

should be: ethical reasoning; sound judgment; critical and creative thinking; and empathy. We also include a veterinary experience station. Communication skills are assessed at each station.

During the MMI, candidates rotate through a series of eight stations. At each station is a scenario that they must read prior to responding to the questions related to the scenario. Two interviewer assessors at each station evaluate the candidate based on standardized scoring rubrics. Each scenario has been constructed to assess either behaviour, empathy, judgment, critical and creative thinking, or personnel management skills. All stations assess communications skills. One station provides candidates the opportunity to talk about their veterinary experience, and assessors for this station are provided with the Background Information Form of each interviewee. The non-academic skills assessed by the MMI reflect the educational goals and objectives of OVC, as well as the skills identified by the veterinary profession in Ontario as being necessary for a successful career.

5) SELECTION PROCESS SUMMARY: Once the candidates have been interviewed, their interview score is combined with their academic average in the ratio of 35%:65%, respectively. An interview score of less than two standard deviations below the mean is considered a failure and will result in denial of admission to a student even though their academic performance may have placed them in the top 100 domestic applicants. Similarly, if any of the interviewers flagged the performance of a candidate in the interview, the issue will be discussed by the Admission Committee, and if considered serious enough, the candidate will not be offered admission.

B) SELECTION OF CANDIDATES FOR THE FIVE SEATS IN THE CANADIAN GRADUATE COHORT

In a separate cohort, applications are also considered from candidates who have successfully completed at least three full-time semesters in a graduate program. This cohort was established to encourage applications from individuals interested in both research and veterinary medicine. Selection for graduate cohort interviews is made based on academic achievement and evaluation of the Background Information Form and an Additional Information Form for Graduate Cohort Applicants, referee assessments, and four letters of reference - two from persons familiar with the applicant's performance as a graduate student and two from veterinarians with whom the applicant has worked or volunteered. The Additional Information Form for Graduate Cohort Applicants provides the graduate student applicants the opportunity to describe the relevance and impact of their research. Two members of the Admissions Committee independently review the candidate's complete application to assess their suitability for interview using a standardized assessment form. These assessments are reviewed by the full Admissions Committee and the top students are chosen to be interviewed. The number of candidates invited for interviews depends on the applicant pool. The interview incorporates two scenarios, the experience station of the Multiple Mini Interviews, and a section asking about the candidate's research, and is administered by two members of the Admissions Committee. A maximum of five students is normally selected from this cohort each year. The interview is the deciding factor in determining admission in this cohort.

C) SELECTION OF CANDIDATES FOR THE 15 SEATS IN THE INTERNATIONAL UNDERGRADUATE COHORT

The majority of these candidates apply through the Veterinary Medical Colleges Admission Service (VMCAS). The selection process in this cohort is similar to the Canadian undergraduate cohort. For this cohort the application average is calculated as follows - the cumulative average of the applicant's last two full-time university semesters contributes 50% to the application average, and the average of the marks in the eight prerequisite courses described above contributes a further 50%. A minimum GPA

score of 3.2 on a 4 point scale is necessary for further consideration. If the applicant has completed at least three semesters of a graduate degree they may also showcase their work in research by submitting the Additional Information Form for Graduate Cohort Applicants as described in section B above. Two members of the Admissions Committee review the experience, personal statement not on the assessment template, and references sections of each candidate's application to assess their suitability for interview. A standardized comprehensive form is used by both reviewers to score each applicant independently. If there are no concerns with the assessment, applicants are invited for an interview in order to determine if they are suitable for the program. The standardized interview incorporates two scenarios and the experience station of the Multiple Mini Interviews and is administered by two faculty members of the Admissions Committee. Candidates deemed suitable for the program are offered admission following the interview. To accommodate candidates that cannot travel to Guelph for the interview we offer to conduct interviews using Skype.

ACTION PLAN FOR DIVERSITY RECRUITMENT

Our long-term goal is to have a student population which accurately reflects the diversity of the Ontario population, which has a visible minority (including aboriginal) component of 28.3% (2011 Ontario Census [Statistics Canada] – latest data available). In 2013 and 2014 entering DVM students were asked to self-report their racialization and they reported an average of 19% and 20.5% visible minorities, respectively. Over the next five years, our goal is to reach a target of 25% of admitted DVM students being members of visible minority communities.

In order to achieve this goal, we: are working with the University of Guelph Aboriginal Resource Centre by providing them with DVM program recruitment literature and attending their recruitment events; and have created recruitment materials (e.g. the University of Guelph Admissions Handbook, the Recruitment website, a DVM recruitment flyer, PowerPoint presentations at recruitment events on and off campus) that reflect multiculturalism and profile current students who are racialized. These materials are distributed to BSc advisors or coordinators, student clubs and groups, and career counselors at key universities and to participants in OVC tours. We also promote the DVM program in student media at Ontario universities with large visible minority populations and in youth-oriented and ethnic media. We liaise with independent schools and community groups serving minority communities and with private and public schools in multicultural areas. Most importantly, students from all racial and ethnic backgrounds currently in the program are encouraged to participate as ambassadors to schools and student groups, serve as OVC campus tour guides, and be available to the media as appropriate.

The student DVM population remains overwhelmingly female with an average of 85% over the last ten years. This is partially a reflection of the feminization of the university undergraduate student population. To encourage males to consider veterinary medicine we encourage male DVM students and alumni to actively participate in our recruitment efforts, and serve as OVC tour guides and ambassadors who attend recruitment events (e.g. Ontario Universities Fair, Campus Days, Fall Preview Day, Science and Engineering Sunday). Male DVM students and alumni are featured in our promotional materials (e.g. the university's Admissions Handbook, the DVM one-pager, the OVC website, and OVC YouTube videos).

12.7.3. LIST FACTORS OTHER THAN ACADEMIC ACHIEVEMENT USED AS ADMISSION CRITERIA.

The factors other than academic achievement used as admission criteria are: three referee assessments for each candidate, two of which must be from veterinarians with whom the candidate has worked or

volunteered; information provided by the candidates on their Background Information Form, including animal experience, extracurricular activities, and honours and awards; and the Multiple Mini Interviews. For graduate cohort applicants there is also the Additional Information Form for Graduate Cohort Applicants where the candidates describe the purpose and impact of their research, and how their results were disseminated (e.g. abstracts, posters, talks, articles). The information on the forms is scored and used in ranking the applicants to determine if they will receive an interview.

12.7.4. TABLE A – APPLICANT AND ADMISSION DATA

Please refer to: Appendix 7.1 - Table A: Applicants and Admissions (2010-2011 to 2013-2014)

12.7.5. DESCRIBE CURRENT PLANS FOR ASSESSING THE SUCCESS OF THE SELECTION PROCESS TO MEET THE MISSION OF THE COLLEGE.

The OVC Admissions Committee meets monthly, reviews current issues related to the selection process, and makes modifications to reflect current best practices. Improvements in the process over the past five years have been: adopting the Multiple Mini Interview format; and restructuring of the DVM application and Background Information Form to clearly focus on candidates' experience and remove requirements for information not shown to be predictive of candidate success. Cognitive abilities are evaluated through academic records and MCAT scores; however, current literature and our own data indicate that the MCAT and academic performance provide the same information, and therefore OVC has removed the MCAT as a requirement for the 2016 entry point onwards. An Admission/Curriculum Working Group is assessing if current prerequisite courses are the best choices for preparation for the DVM program.

In the year following graduation, the class is sent a Post-Graduation Survey asking them to self-assess their level of preparedness for their first position. Their employers are also sent a survey to provide feedback on the graduates' skills and performance. As the class of 2014 was the first class to experience the MMI, we could now begin to incorporate the characteristics measured by the MMI into our post-graduation surveys to see if we can further assess the validity of the MMI. We have published in peer-reviewed journals describing the use of MMI in our admissions process ('What should we be selecting for? A systematic approach for determining which personal characteristics to assess for during admissions' and 'Validating MMI scores: are we measuring multiple attributes?'). In the second paper, analysis of data from the class of OVC 2015 showed that students':

- MMI communication skills score was significantly related to the personality trait of extraversion in admitted candidates;
- MMI communication skills and reasoning scores were significantly related to admitted candidates' scores for their ability to build a relationship with the simulated client in their Art of Veterinary Medicine (AVM) I Simulated Client interviews;
- MMI reasoning scores were significantly related to admitted candidates' scores for their ability to explain and plan in their AVM I Simulated Client interviews.

12.7.6. DESCRIBE YOUR POLICIES AND PROCEDURES FOR ADMITTING TRANSFER STUDENTS WHO WILL RECEIVE A DEGREE FROM YOUR INSTITUTION, AND STATE THE NUMBER OF TRANSFER STUDENTS ADMITTED PER YEAR FOR THE LAST FIVE YEARS.

We do not accept transfer students into the DVM program

STANDARD 8. FACULTY

12.8.1 COMPLETE TABLES A AND B, AND ASSESS THE STRENGTHS OF THE FACULTY AND SUPPORT STAFF IN FULFILLING THE COLLEGE MISSION.

Please refer to: Appendix 8.1 - Table A: Loss and Recruitment of Faculty; and Appendix 8.2 - Table B: Staff Support for Teaching and Research.

The OVC continues to seek innovative ways to secure new funding for additional faculty positions in order to ensure strategic growth and stability in delivery of our teaching and research mission. There are 114 funded faculty positions, including four faculty positions funded through donations and/or industry partnerships in key areas identified in our integrated plan including clinical nutrition, animal welfare, dairy health management, and emerging technology and bond-centred animal healthcare. We have been able to maintain faculty numbers to meet the learning outcomes for our DVM students and are consistently able to attract exceptionally well-qualified faculty to fill open positions – evidence of the respect afforded to the college.

Members of staff at OVC are highly trained, with many holding undergraduate and graduate degrees. As one of Canada's top comprehensive universities, the University of Guelph is a respected place to work, and as a result, many of our staff are long-term employees frequently spending the duration of their working life at the College. In the OVC Health Sciences Centre, the majority of staff hold appropriate certificates (e.g. Registered Veterinary Technicians). These staff members are valued members of the health care team and complement faculty expertise, thus ensuring excellent client and patient care.

12.8.2 STATE THE CURRENT NUMBER OF ACADEMIC FACULTY (HEAD COUNT) WHO POSSESS CREDENTIALS AS LISTED IN TABLES C AND D.

Please refer to: Appendix 8.3 - Table C: Non-Veterinarians; and Appendix 8.4 - Table D: Veterinarians.

12.8.3 ASSESS THE CHALLENGES FOR YOUR COLLEGE IN MAINTAINING FACULTY NUMBERS AND QUALITY.

During the period 2011 to 2015 the OVC lost 12 faculty and recruited 26 new faculty. The majority of the 12 faculty who left OVC did so as a result of voluntary retirement. The recruitment of new tenure track faculty to the college is not a significant challenge. Our applicant pools are higher than they were prior to the last accreditation site visit. The challenge in recruitment is in the area of temporary coverage due to faculty leaves in the clinical areas. The University of Guelph demonstrates the high value it places on continuing faculty development by being the only Canadian university that continues to offer a fully paid, year-long study/research leave to tenured faculty after every sixth year of service. In addition, the university supports a healthy work-life balance for its faculty through a parental leave policy (one year). As a result, when faculty in the clinical areas are absent for a sabbatical or parental leave their functionality must be replaced. Although challenging, we have been able to fill these time-limited positions with qualified applicants. As noted above, the University of Guelph has very competitive salary and benefits packages, which facilitates the recruitment process.

We are proud of our success in attracting highly qualified individuals and continue to work to foster a culture of respect based on the college's rich history, tradition and reputation. A mentorship program is in place in all of the academic departments where more senior faculty are partnered with early career faculty to help with the transition to academia.

Numerous training opportunities are offered to faculty through the Associate Dean, Academic's office in order to encourage learning enhancement and promote excellence in teaching. Faculty are guided as part of the biennial performance review process (annually for untenured faculty) to seek out ways to improve or enhance their teaching skills. Opportunities for leadership growth are extended to department Chairs, Assistant Chairs, Directors, and others who hold leadership roles in the college. We have implemented a strategy to encourage Directors of Centres to appoint Assistant Directors in order to foster leadership skills.

We continue to encourage attendance at grant writing workshops and have offered these workshops in house in order to increase research success. Communication bulletins highlighting research and teaching enhancement opportunities are distributed weekly and posted on the appropriate websites.

Our Integrated Plan continues to serve as an active road map for what we want to accomplish. Faculty were engaged in the Integrated Planning process. In addition, we have implemented a strategy to ensure committee membership is refreshed on a regular basis, thus providing more opportunities for faculty to be involved in decision-making and also allow for greater involvement of faculty in these service activities. We have created a shared folder so that minutes from Integrated Plan meetings are readily accessible to the community.

12.8.4 PROVIDE INFORMATION ON THE LOSS (WHAT DISCIPLINE/SPECIALTY) AND RECRUITMENT OF FACULTY (TABLE A).

Please refer to: Appendix 8.1 - Table A: Loss and Recruitment of Faculty.

12.8.5 PROVIDE A CONCISE SUMMARY OF PROMOTION AND TENURE POLICIES, AND THE POLICY TO ASSURE STABILITY FOR NON-TENURED, LONG-TERM FACULTY.

At the time of appointment at the University of Guelph, faculty are provided with the departmental criteria document related to tenure and promotion and performance assessment decisions. The Tenure and Promotion process is well defined in the Collective Agreement between the University and the University of Guelph Faculty Association. The exact nature of information considered relevant to the consideration for tenure or promotion, or for the purpose of performance review is articulated in each department's Tenure/Promotion Guidelines Document, developed and voted on by its faculty. These documents are consistent with the University's Collective Agreement. The criteria for review, tenure and promotion (including any amendments) are subject to approval by secret ballot by at least two-thirds of the faculty members of the relevant department. The final step in the process is approval by the Provost and Vice-President, Academic.

The conferring of tenure and promotion from Assistant (untenured) to Associate (tenured) Professor is a very important step in the relationship between the University and a faculty member. It is decided upon only after careful consideration and attention to due process and to the department's tenure/promotion guidelines. It recognizes academic competence and maturity, and significant scholarly achievement demonstrated by contributions to the academic functions of the University and to the

member's discipline within and outside of the University. Likewise, promotion to Professor recognizes long-term, established and outstanding scholarship. It is granted in recognition of academic competence, and maturity, and normally an established international reputation for achievement and expertise in the faculty member's field.

For tenure/promotion and promotion to professor, the faculty member's dossier and solicited reference letters provided by outside reviewers are reviewed by the department's Tenure/Promotion Committee, which makes a recommendation to the College Tenure/Promotion Committee. The College committee then makes a recommendation to the Provost. In addition, a performance review is conducted annually for all non-tenured faculty and biannually for all tenured faculty by the department and college committees.

12.8.6 Provide an estimate of the weight assigned to promotion/tenure and or compensation for teaching, research, service, or other scholarly activities.

In all departments at the University of Guelph, the weight (distribution of effort) assigned to teaching, research and service is clearly articulated and documented in the initial appointment letter and, on an annual basis, between the faculty member and Chair of their department. The Dean approves this distribution of effort. When duties or expectations change, the distribution of effort is adjusted accordingly with the agreement of the faculty member, Chair and the Dean. For the purpose of tenure and promotion and performance review, the faculty member's performance is evaluated on the basis of the approved distribution of effort and in accordance with the department guidelines for tenure and promotion.

12.8.7 Briefly describe faculty professional development opportunities available in the college/university.

STUDY/RESEARCH LEAVE: Study/Research Leave at the University of Guelph is considered an essential means of enabling faculty members to maintain and enhance their quality as scholars. Full-time tenured faculty members are eligible to apply for such paid leave at full salary. Study/Research leave is available for one semester after every three years of active employment, or for two semesters after every six years of active employment. By combining these two semesters with the annual faculty development semester, a faculty on study/research leave can focus on their scholarly activity for a full-year. To satisfy the purpose of the leave, scholarly objectives must be articulated before the leave is granted. Within 60 days of the conclusion of the leave the faculty member must provide a written report describing what has been accomplished in relation to the original proposal.

MENTORING: The University of Guelph is committed to excellence in teaching and learning, and to helping new faculty successfully navigate their first and subsequent years at Guelph, and so the university has instigated a New Faculty Program. Activities in the program include a faculty orientation session (usually offered every August), noon hour luncheon series, bulletins shared through a new faculty listserv, and other opportunities that allow faculty to develop and renew skills. Within the College, the Dean and Department Chairs serve as key resources and guides to new faculty. Early career faculty members are provided with a mentor, and periodically (as prescribed by the collective agreement) meet with the Department Chair and Dean to discuss their career progress in direct relationship to their department's tenure/promotion criteria document.

PROFESSIONAL DEVELOPMENT FUND: Faculty Members receive an annual allotment of Professional Development funds to support their participation in conferences, or to pay for registration fees, memberships, etc. For the fiscal year 2014-15, this allotment was $1900 for each faculty member. In addition, annual veterinary licensing fees for the College of Veterinarians of Ontario (~$1045) are paid by OVC for those members who require such a license to perform their duties.

12.8.8 DESCRIBE CURRENT PLANS OR MAJOR CHANGES IN PROGRAM DIRECTION THAT WOULD BE AFFECTED BY FACULTY RETIREMENTS, RECRUITMENT AND RETENTION.

A significant ongoing curriculum review has allowed the college to remain vigilant in ensuring the DVM program is delivered in a manner that ensures we are meeting all learning objectives. The DVM Program Review has identified a number of changes that are required for students to improve their proficiency in veterinary competencies, such as: the need for more psychomotor skill development, and improved curricular alignment. In addition to these changes, there is a requirement to improve the direct and indirect outcomes assessment instruments at the program level in order to facilitate evidence-driven curricular improvement and to meet the DVM Program accreditation needs. The college's comprehensive review of any vacant faculty positions before proceeding with the recruitment process allows us to diligently assess our strengths and areas for development and recruit accordingly.

Enhanced methods to track teaching activity and accurately determine the level of involvement of both faculty and staff in teaching activities assists greatly in allowing us to identify issues and challenges before they arise.

12.8.9. DESCRIBE MEASURES TAKEN TO ATTRACT AND RETAIN A DIVERSE FACULTY.

The University of Guelph is committed to ensuring that its internal policies, practices, and systems are free of barriers, emphasize the value of diversity, and promote full participation to ensure dignity, respect, and equal access for all employees. Through our processes and practices, the university works to eliminate barriers to employment for people who are usually underrepresented in Canada's workforce – Aboriginal people, people with disabilities, racialized persons, and women.

Consistent with human rights legislation, employment equity at the University recognizes the value and dignity of each individual and ensures everyone has genuine, open and unhindered access to employment opportunities, free from any barriers, systemic or otherwise. The University's established employment equity statement reflects this:

'The University of Guelph is committed to equity in its policies, practices, and programs, supports diversity in its teaching, learning and work environments, and ensures that applications from members of underrepresented groups are seriously considered under its employment equity policy. All qualified individuals who would contribute to the further diversification of our University community are encouraged to apply.'

The University is committed to a campus free of discrimination and harassment in work, study and residential life based on: disability; gender; sexual orientation; race; colour; ancestry; place of origin; ethnic origin; citizenship; creed (faith); age; marital status; family status; receipt of public assistance (in accommodation only); and same-sex partnership status. The Diversity and Human Rights Office is dedicated to the removal of all systemic barriers, discrimination and harassment and will engage in advocacy within the university community towards this end. Committed to creating a more accessible

workplace, the university has an employment accommodation fund to support the needs of employees with disabilities. The Employment Equity webpage provides more information on the university's employment equity policy. For details about accommodation, please visit Employment Accommodation.

12.8.10. Describe programs for on-campus delivery of curricular content by individuals not employed full time by the institution (other than occasional guest lecturers), including subjects taught. Estimate the percentage of core curricular content delivered in this way.

The majority of the curriculum is delivered by regular full time employees. We currently hire a board-certified dermatologist to deliver seven lectures in companion animal dermatology and a board-certified dentist to deliver four lectures in companion animal dentistry. This represents less than one percent of the total curriculum.

12.8.11. Describe the role of interns, residents, and graduate students in teaching and evaluating veterinary students.

Some of these post-graduate trainees interface with DVM students in years 1 -3 of the program as Graduate Teaching Assistants (GTAs). GTAs typically assist in the delivery of labs and provide grading assistance to faculty for exams (where the questions and marking key are set by faculty). In Phase 4 DVM students may interact with interns, residents and DVSc students on clinical rotations as part of on-going case management. When evaluating students, the faculty may seek intern, resident, and graduate student input on the performance of DVM students on a rotation with respect to case care and medical records.

STANDARD 9. CURRICULUM

12.9.1 STATE THE OVERALL OBJECTIVES OF THE CURRICULUM AND DESCRIBE HOW THOSE OBJECTIVES ARE INTEGRATED INTO INDIVIDUAL COURSES.

Please refer to the DVM Curriculum Overview document. The overall DVM learning objectives for the curriculum have been articulated for each Phase of the program. The learning outcomes for Phases One, Two, and Three, and for each course in the DVM Program have been mapped to our Phase-level objectives and further mapped to the competency domains of the DVM Program. Course-level learning objectives were developed by the faculty making sure that they are aligned with the learning objectives across the Phases and within each Phase between courses.

Phase 4 of the program is delivered in four areas of career emphasis called "streams" (Small Animal, Food Animal, Equine and Rural Community Practice). The students select their stream choice in the winter of third year. Each stream is comprised of common core rotations (anatomic and diagnostic pathology and small animal primary care), stream-specific core rotations, and elective opportunities (internal and external).

Learning objectives at all levels have been reviewed by the Curriculum Committee as part of our DVM Program Review and updated by the faculty in response to the committee's input. The Curriculum Committee annually reviews and approves requests for changes to courses or rotations.

12.9.2 DESCRIBE MAJOR CURRICULAR CHANGES THAT HAVE OCCURRED SINCE THE LAST ACCREDITATION.

Below is a list of the major curricular changes that have been implemented since the 2009 accreditation site visit:

2009

The Special Topics course in Phase 2 of the program was deleted. This course was a required 0.5 credit unit (pass/fail) where students selected from either a variety of in-house elective opportunities or external, self-identified electives. The intent was to allow students to explore aspects of the profession that may not be a traditional part of the curriculum. The reasons for removal of the course were two-fold: one was that the majority of students were taking electives perceived as core-material that was not being delivered within the curriculum (most notably Radiology and Anesthesiology and Fluids); secondly, removal of this course allowed us to reallocate some of our existing, and stretched, faculty resources. The Curriculum Committee reviewed and implemented changes to both the Radiology and Anesthesia components of the program and implemented changes and additional hours to resolve this gap.

2010

A core three-week rotation in the Hill's Pet Nutrition Primary Healthcare Centre was introduced for final year students. In addition, students in each of Phases 1 - 3 began required time commitments and completion of learning objectives at the PHC as part of their Clinical Medicine and Art of Veterinary

Medicine courses. The Equine Primary Care rotation was also introduced to focus on student practice of skills relevant to primary care and preventative health in equine practice.

The College changed the way we teach surgery to student veterinarians. Students no longer perform procedures using animals that are anesthetized, operated on and euthanized (i.e. terminal surgeries). We continue to use surgical skills models and cadavers, as well as continue to perform spays and neuters on shelter animals that will return to shelters for adoption as part of the surgery training.

2013

The Phase 1 Physiology and Biochemistry courses were integrated into a single course to improve the efficiency of delivery and reduce redundancy of content and allow for a more contextual case-based approach to learning.

2014

The Art of Veterinary Medicine I – III and Health Management I – III courses were sequenced and their learning outcome statements aligned across years 1 – 3 of the curriculum. In addition, the following improvements (listed by Phase) were implemented:

PHASE 1

- The first year Histology course content was reduced significantly to eliminate redundancies identified with other year one courses and focus the content on core learning outcomes identified by faculty.
- The Veterinary Genetics course was re-structured to include aspects of developmental biology.
- The Clinical Medicine I course was re-structured to better align the delivery with the stated learning outcomes, to adopt a case-based approach to learning, to improve the efficiency of live animal use, and allow for greater opportunities to teach comparative medicine across species.
- Expanded learning outcomes in nutrition and radiology in first year didactic courses linked experiential learning activities in the Hill's Primary Healthcare Centre with assignments that can only be completed in the Primary Healthcare Centre by using clinical material.

PHASE 2

- Introductory general pathology content was moved from Phase 2 into Phase 1 in the space created by reduction of histology content in order to provide more contextual content for the basic sciences and as part of the move to level the content load across years 1 – 3.

PHASE 3

- A re-structuring of the 3rd year Medicine and Surgery of the Dog and Cat course included core vaccinology and parasitology content.
- The Companion Animal clinical nutrition content was expanded in the 3rd year Health Management Companion Animal module.

PHASE 4

- The 4th year Rural Community Practice (formerly "mixed animal") stream was re-structured to increase the flexibility for students and align the rotations in the stream with the learning outcomes.
- The 4th year Food Animal Stream was also re-structured to align the rotations in it with the learning outcomes.
- A Small Animal Outreach elective was added, emphasizing student practice of spays and neuters as part of the rotation
- The "E-value" system was implemented for scheduling Phase 4 rotations.

12.9.3 DESCRIBE THE PROCESS USED FOR CURRICULUM ASSESSMENT (INCLUDING COURSE/INSTRUCTOR EVALUATION) AND THE PROCESS USED TO ASSESS CURRICULAR OVERLAPS, REDUNDANCIES, AND OMISSIONS.

An overview document of our curricular management can be found on the web. Over the last four years, the College has been engaged in a comprehensive review of the DVM curriculum with the assistance of a learning specialist. This process was accomplished through reviews of: all levels of learning objectives (Program, Phase and course); employer and graduate surveys; focus group reports (faculty, student and alumni); and faculty and student consultations. The Curriculum Committee has implemented an annual reporting and review process for all courses. This includes individual course reports from the course coordinators, with input from the course instructors, and the student reviews of each course.

Students in each year of the program also complete annual Phase Surveys. These surveys ask a series of common questions about each course within the respective Phase and a set of questions that relate to the Phase as a whole (e.g. redundancies, level of student preparedness). Course-specific questions are included at the discretion of the course coordinator. The students are also asked to self-assess their level of competency in meeting the stated learning outcomes for that year of the program. The results of the surveys are tabulated and provided to the respective course coordinators, Phase Leaders, and the Curriculum Committee.

Any issues that arise from these assessments are first discussed at the level of the individual course and dealt with as the coordinator sees fit. If an issue is significant, or a substantive change is deemed necessary by the coordinator, then it is taken first to the respective Phase Leader and then to the Curriculum Committee, as needed. In addition, the Phase Leaders meet with the course coordinators for their respective Phase to discuss any issues arising during the academic year. Each Phase Leader also meets once per semester with the student representatives for the courses within the Phase. Each course has a student representative who is the liaison between the class and the course coordinator.

Instructor evaluations by students are a mandated component of the University Tenure and Promotion process. These individual faculty reviews are confidential documents and are not used for curricular assessment by the Curriculum Committee, but do give student feedback for faculty to use to improve their teaching.

12.9.4 DESCRIBE THE STRENGTHS AND WEAKNESSES OF THE CURRICULUM AS A WHOLE.

STRENGTHS

- An engaged faculty committed to an evolutionary and continuous improvement of the curriculum.
- A curriculum that is built on a foundation of evidence-based veterinary medicine
- Students are introduced to animal handling, physical exams and selected other clinical skills in the first year of the program. These are then reinforced in each of the subsequent years of the program.
- A strong communications curriculum

WEAKNESSES

- Although hands-on animal experience is provided in all four years of the curriculum, students would like more opportunities for animal experience.
- On-going challenges with defining what is the "core" knowledge that must be presented in the curriculum.

12.9.5 DESCRIBE PRECEPTOR AND EXTERNSHIP PROGRAMS (INCLUDING THE EVALUATION PROCESS).

EXTERNSHIP COURSE

Our program has a formal course called the Veterinary Externship (VETM*4900). This is a core final year course that involves eight weeks in a private primary-care mixed species practice. This placement occurs between May and August following the completion of third year. The Externship placement is in an approved primary care practice (must involve one or more agricultural species) environment. Externs experience the everyday professional activities of the veterinarian and are tutored on a one-to-one basis by an experienced practitioner or his or her designate. The experience is integrated with periods of reflection and discussion. The extern is expected to create a "Continuing Learning Plan" based on cases seen, identify personal learning issues, and address these through additional reading and the practicing of techniques etc. as time and facilities permit. The extern is considered to be, and should perform as, a junior professional colleague during this Course.

The goals of the Externship Course are:

1. To give the students experiences in client relations, practice management and problem solving;
2. To facilitate the student's transition from the academic environment to the hands-on world of clinical veterinary practice;
3. To allow students to experience how veterinarians obtain the confidence and goodwill of clients;
4. To enable students to identify the legal, ethical and moral challenges associated with practice, and judge how they would respond in such situations;
5. To enable students to recognize the benefits of successful practice management and;
6. To enable students to track and assess their clinical skills development including medical data recording and scientific writing skills.

7. To focus on specific learning needs.
8. To identify useful resources to meet students' needs.

EXTERNAL ROTATIONS

Students choose their external electives based on their stream and the corresponding number of external elective weeks they have. As far as the experience they wish to acquire, a number of factors will drive their choice, including:

- Availability: some programs are only offered at certain times of year and may or may not be compatible with students' schedules, or they have limited enrolment;
- Economics: cost may affect students' abilities to travel to certain electives;
- Nature of content: This could be to enhance existing skills, where they have special interest, or in areas outside of the experience they will get at OVC, or that are unique.

Student performance on external electives is evaluated by the host practitioner on an Outstanding/ Pass/Fail basis using the External Rotation Supervisor's Evaluation of Student form.

12.9.6 CURRICULUM DIGEST

Please refer to: The 2015 Ontario Veterinary College Curriculum Digest; and Phase 4 Rotation Descriptions

12.9.7 DESCRIBE CURRENT PLANS FOR CURRICULAR REVISIONS.

Based on the DVM Program Review process the following curricular changes are occurring:

- All curricular changes are reviewed in the year following the change and then as part of the on-going annual curriculum review process.
- We are in the process of re-structuring and aligning our surgical and anesthesia skills training across all Phases of the curriculum, including greater use of inanimate models for psychomotor skills development.
- The Phase 2 and 3 Clinical Medicine courses are being re-structured to align with the changes that have been implemented in the Clinical Medicine I course.

12.9.8 PROVIDE A DESCRIPTION OF THE TESTING/GRADING SYSTEM (SCORING RANGE, PASS LEVELS, PASS/FAIL) AND THE PROCEDURES FOR UPHOLDING ACADEMIC STANDARDS.

The Ontario Veterinary College uses the grade standards used by at the University of Guelph, which are published in the Undergraduate Calendar. Selected University of Guelph courses use an alternate grading system: Outstanding Pass – OP; Pass – P; Fail – F. In the DVM program the courses graded in this manner are Surgical Exercises (VETM*4540 – Phase 3) and the Veterinary Externship (VETM*4900 – Phase 4).

All courses in the curriculum utilize both formative (i.e. relatively low stakes evaluations that provide feedback to both the learner and the instructor) and summative (i.e. high stakes tests of comprehensive knowledge) forms of assessment. Our courses are year-long (i.e. September to April) where the

formative assessments are delivered throughout the year and the summative assessments (final exams) are held in April. These final exams are comprehensive for all of the course content and range in weight from 60% – 75% of the final course grade.

In order for a student to progress to the next Phase of the DVM Program, all courses within the Phase must be successfully completed (i.e. passed with a minimum grade of 50%). Additionally, our Continuation of Study rules require a student to maintain a minimum program average of 60% in order to be allowed to progress to the next Phase. Any student who does not meet these requirements in discussed by the OVC Academic Review committee for a determination on what will be required of the student in order to remain in the program.

12.9.9 Describe the opportunities for students to learn how different cultural and other influences (e.g., ethnic origin, socio-economic background, religious beliefs, educational level, disabilities and other factors) can impact the provision of veterinary medical services.

As evidenced by the results of our diversity surveys, our student veterinarian population is ethnically and culturally diverse, which allows interactions that increase awareness and understanding. We have several student clubs, each with a faculty advisor, which allow our students to gain exposure to, and awareness of societal diversity:

- Student Chapter of the Lesbian and Gay Veterinary Medical Association
- International Veterinary Medicine Club
- Christian Fellowship Club
- Community Outreach Program
- Vets Without Borders

In Phase 2, the Art of Veterinary Medicine course contains curricular content where students learn the need to recognize cultural difficulties and sensitivities for managing a case and communicating appropriately with different clients. In the Phase 4 Companion Animal Primary Healthcare rotation faculty conduct communication reviews of student interactions with clients where cultural issues that arise during the appointments are reviewed and discussed.

12.9.10 Should the educational program of a college be disrupted for more than two weeks (for example, closure of a hospital due to an infectious disease, loss of core course or rotation, etc.), the college must report in writing to the COE the cause of the disruption and remedies to minimize or to provide an alternative educational opportunity for students in response to the disruption.

No disruptions in the DVM Program have occurred.

STANDARD 10. RESEARCH PROGRAMS

12.10.1 DESCRIBE UP TO FIVE PROGRAMS OF RESEARCH EMPHASIS AND EXCELLENCE THAT INTEGRATE WITH AND STRENGTHEN THE PROFESSIONAL PROGRAM.

The five programs of research emphasis and excellence at the OVC fall into three main areas:

A. *Individual Animal Health and Welfare* (disease mechanisms, diagnostic modalities and treatments for companion animals and horses);
B. *Public Health and Animal Population Health:* (production-limiting diseases, zoonoses and food safety); and
C. *Translational Biomedical Discovery* (practical applications of comparative biomedical research).

A. INDIVIDUAL ANIMAL HEALTH AND WELFARE

1) Research on Companion Animals and Equine Species

There are typically over 50 projects on companion animals ongoing simultaneously that are funded by the OVC Pet Trust (>$400,000/yr. funding). These projects range from basic to applied, representing virtually all of the specialty discipline areas. Notable research programs of strength include those in cancer, anesthesia, hemostasis, and minimally invasive procedures, as well as studies on antimicrobial resistance and the microbiomes of various companion animals. Pet Trust-funded projects are most often associated with DVSc projects, playing a pivotal role in research training of students in the DVSc program. DVSc graduates typically represent a major contingent of our new generation of clinician scientists and play an important role in training DVM students. In the summer, DVM students participate in hands-on research through the Summer Leadership and Research Program (please refer to Section 12.10.3.b) supported by summer research assistantships, either college-funded or federally-funded. Some examples of student research projects in companion animals in summer 2015 include:

- Transcriptional control of program death ligand 2 (PDL2) in cats;
- Evaluation of risk factors, prognostic indicators and outcome in dogs and cats with lung lobe torsion;
- In vitro evaluation of antibiotic polymericel – stability and effect on implant-associated biofilm; and
- Evaluation of microRNA in biopsy material from dogs with multi-centric lymphoma.

Equine research is funded mainly by Equine Guelph, a university centre that is dedicated to improving the health and well-being of horses which is supported and advised by various equine industry groups. The goal is to conduct research into the etiology, pathogenesis, diagnosis and treatment of diseases and developmental problems related to respiratory, musculoskeletal, cardiovascular, gastrointestinal, and reproductive systems of the horse due to infectious and non-infectious causes. Notable research areas of strength include respiratory disease focusing on pathogenesis and vaccinology of common respiratory pathogens and recurrent airway disease; cardiovascular disease investigating new treatment options for atrial fibrillation; ECG monitoring in racing Standardbred horses and the pathogenesis and clinical implications of arterial calcification in horses; and locomotion involving comparison of track surfaces on hoof strain and evaluation of cartilage and subchondral bone injury in race horses. These research programs are integral to providing state-of-the-art information and techniques to veterinary and

graduate students and residents through DVM, DVSc, MSc and PhD degree programs as well DVM students involved in summer research projects.

B. PUBLIC HEALTH AND ANIMAL POPULATION HEALTH

1. Program in Public Health

Research areas of strength in public health include: food safety research on pathogenesis and epidemiological factors related to enteric zoonotic disease caused by *E. coli, Salmonella sp., Yersinia sp., C. difficile,* and *Campylobacter sp.*; antimicrobial use in agriculture and veterinary and human medicine as a source of antimicrobial resistance; zoonotic disease modelling and prevention using an eco-system approach; and zoonotic diseases of wildlife. An important emerging area is prevention and control of companion animal zoonoses, including the role of pets in transmission of hospital-acquired and community infections.

Public Health research functions in a collaborative and multi-disciplinary environment involving scientists from the Public Health Agency of Canada (PHAC), Agriculture and Agrifood Canada (AAFC), the Canadian Research Institute for Food Safety (CRIFS), the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), the Ontario Agency for Health Protection and Promotion (OAHPP), and the provincial Animal Health Laboratory (AHL). This contributes to an unparalleled environment for DVM students, graduate students, postdoctoral fellows, research technicians, faculty, and visiting scientists allowing them to create networks and collaborations that will last throughout their careers. Providing exposure to scientists in multidisciplinary teams working in public health research results in more high quality students applying to graduate studies. Infrastructure for laboratory and field research in public health includes the Centre for Research in Food Safety, the new building housing the Department of Pathobiology and the AHL and the Centre for Public Health and Zoonoses laboratory.

2) Animal Population Health: Food Animal Health Management

Key areas of research emphasis in food animal health management include ruminant health management with projects on: management and treatment practices to prevent mastitis; methods for the early detection and treatment of health and production problems in periparturient cows; and neonatal dairy calf care and management, involving faculty from the Departments of Population Medicine and Pathobiology through participation in the Canadian Bovine Mastitis Research Network (NSERC Collaborative Network Program). Research on cattle welfare focuses on evaluation of management of pain associated with dehorning and lameness. Swine health management research projects focus on the epidemiology of spread, control, and eradication of Porcine Reproductive and Respiratory Syndrome, Porcine Circovirus Type II-associated diseases, *Actinobacillus pleuropneumonia*, swine influenza and *Taenia solium*. Additional projects investigate factors influencing variation in growth, productivity and carcass quality and on understanding and improving the welfare of sick pigs and of pigs during transport. The Poultry Health Research Network was established in 2012 with the main objective of creating a network of experts, consisting of poultry researchers and poultry health specialists, who address problems ranging from very basic biological processes, to environmental concerns and industrially relevant issues. It creates a cross-disciplinary network of research excellence in poultry health, integrating cutting edge research with high quality education for the next generation of poultry specialists and researchers. DVM students can obtain mentoring in food animal research programs through the fourth year dairy and swine electives; by participating in summer research projects; and throughout the year by participating in on-farm data collection on a volunteer basis.

C. TRANSLATIONAL BIOMEDICAL DISCOVERY

Translational biomedical discovery supports interdisciplinary and collaborative health using animals as translational models for human health and disease. The Institute consists of programs in Comparative Clinical Research (focusing mainly on cancer and cardiovascular biology research) and Comparative Reproductive Health and Biotechnology (specializing in fundamental and applied research in reproductive biology). Research projects in the Translational Biomedical Discovery area are funded by various agencies including: the Canadian Institutes for Health Research (CIHR); Natural Sciences and Engineering Research Council (NSERC); Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA); and the OVC Pet Trust Fund. The program provides clinical and translational research opportunities to veterinary students, graduate students, clinical residents and postdoctoral fellows by allowing them to be involved in hands-on research thereby serving to train the next generation of veterinary researchers.

1. Comparative Clinical Research

The goal of this program is to study spontaneous animal diseases and inherited disorders that have counterparts in humans, as well as induced disease states that approximate human disease (e.g. cancer, cardiomyopathy, epilepsy, respiratory disease, arthritis). Researchers at OVC capitalize on collaborations with researchers from human hospitals in Toronto, London and Hamilton, Ontario and industrial partners and their expertise in various fields including oncology, cardiology, imaging, minimally invasive techniques, anesthesiology, orthopedics, surgery, internal medicine, immunology, pathology, neurology, and critical care to understand fundamental disease processes in both animal and human patients and develop effective diagnostic modalities and therapies. Comparative clinical research is facilitated by a CFI-funded state-of-the-art surgical/diagnostic laboratory (Comparative Clinical Research Facility) and advanced imaging capacity (Magnetic Resonance Imaging, computed axial tomography and confocal microscopy).

The Institute for Comparative Cancer Investigation (ICCI), launched in 2007, is the first of its kind in Canada, combining our expertise in basic cancer biology and veterinary medicine to take an integrated approach to cancer studies that cannot be matched in a human health care environment. The Institute is dedicated to providing comprehensive cancer care for companion animals and supports collaborative research of more than 30 cancer investigators from at least a dozen departments across the university, including cancer biologists, veterinarians, chemists, mathematicians, computer scientists, toxicologists, and psychologists. A key component of this ground-breaking initiative has been the establishment of the Mona Campbell Centre for Animal Cancer in the OVC Health Sciences Centre.

The Cardiovascular Research Centre launched in 2015 combines our expertise in basic cardiovascular biology and veterinary medicine to provide an excellent multidisciplinary training environment to support and enhance clinical, basic, and translational cardiovascular studies. The Centre is dedicated to the diagnosis of cardiovascular disease, treatment, teaching and research. It provides comprehensive cardiovascular care for animals and supports collaborative research of our core group of cardiovascular investigators, graduate and undergraduate trainees, and dozens of collaborators, across the University of Guelph. The Centre will host a high profile Cardiovascular Research Day in 2016, which will promote the Centre across Canada, and help mentor and launch the careers of our students as the next generation of leading Canadian cardiovascular scientists and clinicians.

2. Comparative Reproductive Biology and Biotechnology

This globally recognized program involving 12 faculty in the departments of Biomedical Sciences, Population Medicine, and Animal and Poultry Science (in the Ontario Agricultural College) addresses fundamental mechanisms controlling gamete production, fertilization and pregnancy; embryo development; and stem cell differentiation. The program has three overarching themes: i) discovery; ii) development; and iii) optimization that are designed to address problems common to development and delivery of reproductive technology to diverse animal species (porcine, bovine, equine, ovine and avian) and production systems.

12.10.2 PROVIDE EVIDENCE FOR THE BREADTH AND QUALITY OF THE COLLEGE RESEARCH PROGRAM, INCLUDING:

12.10.2.A THE NUMBER OF INDIVIDUAL FACULTY MEMBERS WITHIN EACH DEPARTMENT INVOLVED IN RESEARCH, TOTAL RESEARCH FTE, AND RESEARCH PRODUCTIVITY (TABULATE BELOW FOR EACH OF THE LAST THREE YEARS). FOR EXAMPLE: DEPT. A HAS 35 FACULTY MEMBERS WITH 30 INVOLVED IN RESEARCH AND 6 FTE ASSIGNED TO RESEARCH.

Please refer to: Appendix 10.1 - Table A: Research Faculty.

12.102.B A DESCRIPTION (ONE PAGE OR LESS) OF OTHER MEASURES OF FACULTY RESEARCH ACTIVITY (E.G., FACULTY PARTICIPATION AND PRESENTATION OF ORIGINAL RESEARCH IN SCIENTIFIC MEETINGS, INVOLVEMENT OF FACULTY IN PANELS, ADVISORY BOARDS OR COMMISSIONS, AND NATIONAL AND INTERNATIONAL RESEARCH AWARDS RECEIVED).

Please see Appendices 10.4 – 10.6 showing: Involvement of faculty in panels, advisory boards or commissions; Faculty participation and presentation of original research in scientific meetings; and National and international research awards received.

Please refer to: Appendix 10.2 - Table B: Research Funding; and Appendix 10.3 - Table C: DVM Student Involvement in Research.

12.10.3 DESCRIBE THE IMPACT OF THE OVERALL RESEARCH PROGRAM ON THE PROFESSIONAL PROGRAM AND ON PROFESSIONAL STUDENTS, INCLUDING:

12.10.3.A. DESCRIBE COURSES OR PORTIONS OF THE CURRICULUM WHERE RESEARCH-RELATED TOPICS ARE COVERED (LITERATURE REVIEW/INTERPRETATION, RESEARCH ETHICS, RESEARCH METHODS OR TECHNIQUES, AND STUDY DESIGN).

Refer to Appendix 10.7.

12.10.3.B DESCRIBE/LIST THE CURRENT OR PROPOSED OPPORTUNITIES FOR PARTICIPATION IN RESEARCH, INCLUDING SUMMER RESEARCH PROGRAMS (MERIAL, NIH, HOWARD HUGHES, ETC.), ACADEMIC YEAR PROGRAMS (NIH FELLOWSHIPS, INDUSTRY FUNDED, CURRICULAR TIME ALLOWED FOR RESEARCH), STUDENT EMPLOYMENT IN RESEARCH LABS AND PROJECTS, AND INDIVIDUALLY MENTORED RESEARCH EXPERIENCES.

The Summer Leadership and Research Program (SLRP) is designed to nurture undergraduate student interest in research, academia and graduate/residency programs. The primary goal of the program is to provide activities and exposure for DVM students to non-clinical careers including research. It provides DVM, BSc and other OVC summer research students exposure to careers in research while complementing primary research experience and educational activities with individual faculty advisors. By providing experiential learning opportunities to our DVM students through exposure to research and participation at conferences where the results of scientific discovery are presented by DVMs, our objective is to motivate future graduates to consider non-practice careers. Financial support for the SLRP is provided by the New Opportunities Career Path program in the Ontario Ministry of Training, Colleges and Universities Special Grant awarded to the OVC.

Many of the students involved in summer research projects receive University Research Assistantships (URA), that are based on student financial need, and University Student Research Awards (USRA) that are for students working in laboratories funded by the Natural Sciences and Engineering Research Council of Canada. In addition, there are several OVC Summer Research Assistantships available each year for first and second year DVM students. Like SLRP, the primary purpose of the Summer Research Assistantships is to increase the number of experiential learning opportunities in research for DVM undergraduate students and to motivate them to consider alternative career options. The assistantships are to support students who are engaged in semi-independent research projects or are participating in larger ongoing research projects during the summer. For example, the awards available in summer 2015 include the Bayer Summer Student Research Scholarship Award, the Dr. Robert W. Woolner Summer Student Research Funding, and the CIHR Health Professional Student Research Stipend, three OVC Research Support Services Summer Research Assistantships, two Merial Veterinary Scholars Program Summer Research Assistantships, and a studentship from the Zoetis Summer Student Research Fund.

12.10.3.C DESCRIBE EFFORTS BY THE COLLEGE THAT FACILITATE THE LINK BETWEEN VETERINARY MEDICAL STUDENT RESEARCH AND SUBSEQUENT OR CONCURRENT GRADUATE EDUCATION, AND THAT ENHANCE THE IMPACT OF COLLEGE RESEARCH ON THE VETERINARY PROFESSIONAL PROGRAM.

Mentoring by our faculty and graduate students provides student participants in summer research projects with support and role modeling. DVM students work alongside current graduate students on complementary projects, allowing summer students to experience the graduate experience first-hand. Moreover, students involved in SLRP participate in workshops where they engage with graduate students who describe their experiences in various graduate programs.

College efforts to enhance clinical research have significantly increased the number of clinical trials conducted in the OVC Health Sciences Centre. DVM students on clinical rotations participate in data collection with DVSc students and experience first-hand the process of clinical investigation and discovery.

12.10.3.D DESCRIBE COLLEGE RESEARCH SEMINARS AND PRESENTATIONS FOR DVM STUDENTS, INCLUDING THE NUMBER OF INTERNAL AND EXTERNAL SPEAKERS, ENDOWED RESEARCH LECTURESHIPS, DVM STUDENT RESEARCH SEMINARS, DVM STUDENT POSTER PRESENTATIONS, AND COLLEGE RESEARCH DAYS AND AWARDS AND PRESENTATIONS MADE BY VETERINARY MEDICAL STUDENTS AT SCIENTIFIC MEETINGS OR SEMINARS AT EXTERNAL SITES.

There are two distinguished research lecture series given annually at OVC, the Schofield Memorial Lecture (fall semester) and the Chappel Memorial Lecture (winter semester). The Schofield Memorial Lecture was established in 1970 to commemorate Francis Schofield, a renowned veterinary pathologist who taught at OVC from 1921 to 1955. Schofield is internationally respected for his work on animal diseases and his discovery of the sweet clover anticoagulant later identified as dicumarol (warfarin). This prestigious lecture series provides an opportunity for DVM and graduate students, staff and faculty of OVC and the entire university community to gain exposure to veterinarians who play key leadership roles in the diverse areas in which veterinary medicine has substantial impact. This lecture is integral in motivating students, faculty and staff to achieve the highest possible goals in research, clinical sciences or environmental issues and in inspiring our DVM students to become engaged in alternate career paths and become leaders in their profession.

The Chappel Memorial Lecture was established in 1988 through an endowment by Dr. Clifford Chappel (OVC 1950). Since that time, internationally renowned researchers have been invited to the University of Guelph to summarize their current work and discuss the development and progression of their program over the years. The lecture and informal meetings are meant to act as a source of inspiration for students engaged in, or considering, graduate studies in biomedical research.

At the end of the summer, students involved in SLRP are required to present their research findings to the OVC community through poster presentations. Our yearly Graduate Student Research Symposium occurs on the same day as the Schofield lecture during which our graduate students present their research to the OVC community through oral and poster presentations. In addition, every year approximately five veterinary students who are supported in part by the Merial attend the Merial Veterinary Scholars Symposium to present their research and review and discuss the results of other students and attend the symposium sessions on alternate career paths.

A select listing of research symposia that have occurred at OVC recently is below:

- Campbell Centre for the Study of Animal Welfare's (CCSAW) annual Research Symposium (last eight years)
- ICCI Cancer Research Symposium - 2013, 2014, 2015
- Centre for Public Health and Zoonoses Scientific Symposium - since 2010
- Emergency Management Research Expo - 2011, 2012, 2013, 2014
- Global Development Symposium - 2013 and 2014
- OVC Graduate Student Research Symposium - last six years
- Hill's OVC Nutrition Symposium – 2013, 2014, 2015
- Ontario Veterinary College Alumni Association Continuing Education Symposium – 2015
- International Feline Retrovirus Research Symposium and the International Society for
- Companion Animal Infectious Disease Symposium - 201

STANDARD 11. OUTCOMES ASSESSMENT

12.11.1. STUDENT EDUCATIONAL OUTCOMES MUST INCLUDE, BUT ARE NOT LIMITED TO:

12.11.1.A - NAVLE SCHOOL SCORE REPORT DATA AND PASSAGE RATES OVER THE PAST FIVE YEARS

Please refer to: Appendix 11.1 - Table A: NAVLE Scores

12.11.1.B - STUDENT ATTRITION RATES WITH REASONS

Please refer to: Appendix 11.2 - Table B: Attrition

Student attrition remains at a very low level.

12.11.1.C - THE LEARNING OBJECTIVES FOR EACH OF THE NINE LISTED COMPETENCIES, AND A SUMMARY OF THE ANALYSIS OF EVIDENCE-BASED DATA COLLECTED FOR EACH OF THE NINE LISTED COMPETENCIES USED TO ENSURE THAT GRADUATES ARE PREPARED FOR ENTRY LEVEL PRACTICE (PLEASE NOTE THAT A LISTING OF CORE AND ELECTIVE BLOCKS DOES NOT CONSTITUTE EVIDENCE OF LEARNING). EVIDENCE OF STUDENT LEARNING OUTCOMES FOR CLINICAL COMPETENCIES MUST BE OBTAINED BY DIRECT MEASURES. THESE MAY INCLUDE CAPSTONE EXPERIENCES, STUDENT PORTFOLIOS, STANDARDIZED CLINICAL PROFICIENCY EXAMS, OR OTHER EVALUATIONS OF CLINICAL PERFORMANCE BASED ON MEASURABLE AND PUBLISHED PROGRAM OBJECTIVES. INDIRECT MEASURES SHOULD NOT BE USED AS THE SOLE DETERMINANTS OF CLINICAL COMPETENCY OUTCOMES. EXAMPLES INCLUDE EMPLOYER SURVEYS AND STUDENT COURSE OR ROTATION GRADES

Our curricular quality control process utilizes several methods of outcome assessment, both direct and indirect, in order to monitor the performance of our students over the course of the four year program. These data are aligned with, and summarized at the level of the stated learning outcomes for each year of the program. All of the data are reviewed by the Curriculum Committee and reported annually at a College meeting and the results are posted on the College website. Any issues or concerns that are identified are managed by the curriculum committee, which then directs any required actions to the most appropriate faculty group.

Below is a brief outline of our direct and indirect methods of outcome assessment:

PRE-CLINICAL (PHASES 1–3):

Please refer to Appendix 11.4 - Summarized Phase 1, 2 and 3 Self-evaluation of Confidence results.

The Clinical Medicine Phase 1, 2, and 3 courses are implementing sequenced (across years), standardized format and integrated (within and between courses) summative final exams (Objective Structured Clinical Exams [OSCEs]) and a written knowledge-based component) for both large animal and small animal. These changes are the result of recommendations from our program review and will align these exams with the curricular learning outcomes. This assessment methodology was first used for the Clinical Medicine 1 course in the 2014-2015 academic year and will be implemented for the Clinical Medicine II

and III courses in September 2015 and 2016 respectively. The Art of Veterinary Medicine (AVM) courses assess student communication skills in each year of the program using Objective Structured Clinical Examinations (OSCEs). The first year Veterinary Anatomy course includes "viva voce" exams as part of its assessment. At the end of each year of the program our students complete a self-assessment of their achievement of the Phase learning outcomes.

Overall, we feel that our students are progressing well in developing their confidence for the stated Learning Outcomes for each Phase of the Program. In Phase 1 the notable lack of confidence related to genetics is related to the re-development of the course and that the course delivery and assessments are being refined for the upcoming academic year. In Phases 2 and 3 where students indicate they are less than confident for the stated Learning Outcomes, we believe that this represents the need for reinforcement and repetition through exposure to clinical case material in Phase 4 of the Program.

CLINICAL (PHASE 4 - FINAL YEAR)

The DVM Program contains 16 core competencies that students are expected to attain at the end of Phase 4. All of the direct and indirect assessments presented in this section, are aligned to these competencies. Below we present our summarized direct and indirect data at the program-level for the Externship, Core Rotations and OSCE's. These data are derived from multiple assessment points from each of those aforementioned areas. For example, using the competency of Technical and Procedural skills, the value of 100% of the class meeting graduating expectations during the core rotations is derived from direct observation of students in, on average, 15 Core Rotations where this competency is assessed using four criteria (60 direct assessment data points).

EXTERNSHIP: Please refer to Appendix 11.5 - Externship Indirect Host and Student Self-evaluation results. The Externship is a required core course that students take in the summer months after completion of Phase 3 and it is their first exposure to clinical practice following completion of the didactic portion of the curriculum. As expected at this stage of their competency development, there are many students who are not yet fully confident in their abilities and this is aligned with the assessments of the host practitioners, although they generally perceive the students to be better than the students perceive themselves. These data are typical of what is reported over several years.

CORE ROTATIONS: All the core rotations use a standardized Phase 4 Rotation Student Assessment Rubric that is aligned with our Phase 4 learning outcomes and the COE competency statements. The rubric is used for both formative and summative assessments in order to provide standardized feedback to students. The rubrics are completed based on direct faculty observation of student performance during the rotation and include feedback from others (house officers and staff) involved with delivery of the rotation. The move towards using this rubric online has facilitated more timely feedback and release of results to students. By use of standardized rubric criteria, we are now better able to assess a student's performance across multiple learning situations and scenarios to get a deeper assessment of each specific competency.

Please refer to Appendix 11.6 - Summary of Rotation Direct Assessment of Competency Data – OVC Class of 2015. The summary results show that overall our students are succeeding in attaining the expected graduating competencies by the end of final year. Detailed summaries of student attainment of competencies are provided to each rotation coordinator for review with the faculty and are also reviewed by the Curriculum Committee.

DOPS AND MINI-CEX: In addition to being evaluated through use of the Phase 4 Rotation Student Assessment Rubric, students in the Companion Animal Primary Care rotation are required to also

complete a minimum of one Direct Observation of Procedural Skills (DOPS) and one Mini-Clinical Evaluation Exercise (Mini-CEX) in weeks one and two of the three-week rotation. The Mini-CEX is completed by a veterinarian since it is an overall assessment of how the student performs in an appointment with a client; veterinarians observe these from outside the exam rooms. The DOPS can either be completed by a veterinarian or a technician since this is a structured method to provide feedback on specific procedural skills such as placing an IV catheter, collecting blood, etc. Neither tool is used as a formal assessment, but rather as feedback for the students as the rotation progresses.

OSCEs: Please refer to Appendix 11.7 - Summary of OSCE Direct Assessment of Competency Data – Class of 2015. In April of their final year, all students undertake a series of OSCEs and a written exam for core rotations in companion animal primary care, food animal primary care, clinical and anatomic pathology, theriogenology, and communication skills. The OSCEs are aligned with our Phase 4 learning outcomes and the COE competency statements.

The summary results provided show that overall the majority of students are succeeding in attaining the expected graduating competencies by the end of final year. There are two areas noted this year where student performance was below what we consider acceptable and they will require further review by the Curriculum Committee. The two areas identified are *Client Communication Skills* and *Case Ownership and Continuity of Care*.

STUDENT SELF-ASSESSMENT: Please refer to Appendix 11.8 - Phase 4 Summary of Student Self-Evaluation of Clinical Proficiency – Class of 2015. At the end of their final year, students complete a self-assessment of their achievement of the Phase 4 learning outcomes. Overall, the majority of students feel confident in their attainment of entry-level competencies. The areas students indicate they are only Somewhat Confident are largely skill related and support our need within the curriculum to provide more development in these areas.

Please refer to Graphical Summary of Student Self-Evaluation of Confidence Data for DVM Class 2015, 2016, 2017 and 2018 for the 2014-15 academic year self-evaluation of confidence. These data provide an overview of the four Phases of the DVM Program for the 2014-2015 academic year. Overall, greater than 80% of students feel confident in meeting the DVM Program expectations for their current year and prepared for their next year of study. The Curriculum Committee reviews the detailed Phase Learning Outcomes to identify those areas where students feel less confident. Areas of concern are directed back to Phase leaders and course coordinators to take action as needed.

12.11.1.D - EMPLOYMENT RATES OF GRADUATES (WITHIN ONE YEAR OF GRADUATION)

Please refer to Appendix 11.3 - Table C: Employment. The employment rate of our graduates has been consistently high over many years and is not an area of concern.

12.11.1.E - ASSESSMENTS OF GRADUATING SENIORS; AND ASSESSMENTS OF ALUMNI AT SOME POST- GRADUATION POINT (FOR EXAMPLE, THREE AND/OR FIVE YEARS POST-GRADUATION) ASSESSING EDUCATIONAL PREPAREDNESS AND EMPLOYMENT SATISFACTION,

ONE YEAR POST-GRADUATION SURVEY: Please refer to Appendix 11.9 - Graduate Self-Assessment of Clinical Competencies One Year Post-graduation results for the Class of 2014. A one-year post-graduation survey that assesses graduates' views on whether our curriculum has adequately prepared them for their current employment has been conducted annually since 1999. The survey questions have been aligned to our DVM and Phase 4 Learning Outcomes and Graduation Competency Statements. We believe that

conducting this survey within the first year since graduation provides us with the best indication of the success of our program in preparing students to enter practice as the impact of experience on their responses will be minimized. The most notable area of concern for our graduates one year after graduation continues to be related to their surgical skill proficiency. This reinforces the direction we are taking in the curriculum to provide increased training and opportunity for psychomotor skill development.

FIVE YEARS POST-GRADUATION SURVEY: Please refer to Appendix 11.10 - Five-Year Post-graduation Preparedness Survey showing summarized results for the Class of 2010. We have initiated a survey of our graduates five years post-graduation to assess their preparedness for their current position and their employment satisfaction. This is the first year we have conducted this survey. A review of the data shows that overall our graduates feel they are adequately prepared for their chosen career path and the ability to make changes. For next year, we hope to improve our response rate by obtaining more graduate contact information for that cohort.

12.11.1.F - ASSESSMENTS OF EMPLOYERS OF GRADUATES TO DETERMINE SATISFACTION WITH THE GRADUATES

Please refer to the results of Appendix 11.11 - Employer Survey Summary for the Class of 2014. In conjunction with the one-year post-graduation survey outlined above, we obtain the name of the graduate's employer and send each employer a similar survey that is aligned to our graduation competency statements asking about their satisfaction with the graduate they have hired to be able to perform the job for which they were hired.

The data show that overall the employers of our graduates are very satisfied with their performance. The one area of concern that is noted consistently is related to surgical skill proficiency, which mirrors the results of the graduate survey data. Probing of employers indicates that this is mostly related to graduates not performing surgery as quickly as they would like, and is not related to their ability to conduct surgery per se. They recognize that the graduates' performance will improve with more experience.

12.11.1.G - ASSESSMENTS OF FACULTY (AND OTHER INSTRUCTORS, FOR EXAMPLE INTERNS AND RESIDENTS) RELATED TO SUCH SUBJECTS AS ADEQUACY OF CLINICAL RESOURCES, FACILITIES AND EQUIPMENT, INFORMATION RESOURCES, ETC.; AND PREPAREDNESS OF STUDENTS ENTERING PHASES OF EDUCATION

Annually faculty complete a report of the resources (people, animals and budget) required to deliver their course or rotation. This also includes documenting any changes that were made, or are planned, for the delivery of the course. Each year of the program (Phase) has a faculty member who serves as the Phase Leader. One of their duties is to meet on a semester basis with the group of course coordinators for that phase to raise and discuss any issues related to the delivery of the program or concerns with student learning. A similar meeting is held with the student representative for each of the courses in the phase. The Phase Leaders meet with the Associate Dean, Academic to review the outcome of these meetings and determine what, if any, issues need to be addressed.

12.11.1.H - ADDITIONAL ASSESSMENT THAT MIGHT ASSIST THE COLLEGE IN BENCHMARKING ITS EDUCATIONAL PROGRAM.

In April, 2015, the OVC placed fourth worldwide, and first in Canada (third in North America), in a global ranking by Quacquarelli Symonds of 50 veterinary schools. Schools were evaluated based on academic reputation, employer reputation, and research impact. The rankings are aimed at prospective students seeking to identify leading schools in their field.

12.11.2. INSTITUTIONAL OUTCOMES.

12.11.2.A - DESCRIBE HOW THE COLLEGE EVALUATES PROGRESS IN MEETING ITS MISSION (FOR EXAMPLE, BENCHMARKING WITH OTHER INSTITUTIONS, ETC.).

The OVC has an Integrated Plan which is updated and reported on annually. The College contributes to the AAVMC Comparative Data Report and reviews the data from other schools as part of our planning process.

12.11.2.B - DESCRIBE THE ADEQUACY OF RESOURCES AND ORGANIZATIONAL STRUCTURE TO MEET THE EDUCATIONAL PURPOSES (DEAN SHOULD PROVIDE).

The organizational structures of the University of Guelph and the Ontario Veterinary College allow us to successfully meet the educational mission of the DVM program. Base government funding for the College is currently adequate to support our activities; however, we face increasing challenges as we struggle with inflationary pressures. Our dedicated faculty and staff support the teaching research and services activities of the four academic departments (Biomedical Sciences, Population Medicine, Clinical Studies and Pathobiology) and the OVC Health Sciences Centre and the college strives to maintain a collegial atmosphere which promotes an environment of mutual respect.

Our clinical facilities have presented challenges in terms of keeping up with growth and providing modern veterinary care. However, the College has made substantive improvements or additions in many areas, including the Hill's Pet Nutrition Primary Healthcare Centre, Companion Animal Hospital reception area, examination rooms, and Intensive and Intermediate Care units, Mona Campbell Centre for Animal Cancer, Equine Sports Medicine and Reproduction facility, and the Large Animal Isolation building.

12.11.2.C - DESCRIBE OUTCOMES ASSESSED FOR COLLEGE ACTIVITIES THAT ARE MEANINGFUL FOR THE OVERALL EDUCATIONAL PROCESS (FOR EXAMPLE, SCHOLARLY ACTIVITY OF THE FACULTY, FACULTY AWARDS, FACULTY AND STAFF PERCEPTION OF TEACHING RESOURCES, STUDENT SATISFACTION WITH THE EDUCATIONAL PROGRAM, TEACHING IMPROVEMENT BENCHMARKS, AND OTHERS). IF YOUR PROGRAM ASSESSES OTHER OUTCOMES, BRIEFLY DESCRIBE THE RESULTS.

We have several faculty who have completed the Institute for Healthcare Communication Faculty Development Program and we sponsor at least one faculty member per year to take the course.

Several of our faculty have already completed, or are currently enrolled in, the University's EnLite program. This Educational Leadership in Teaching Excellence program is designed to promote educational leadership through faculty engagement in the principles, practice and scholarship of teaching and learning in higher education. Several faculty have also participated in the Course ReDesign Institute to

assist them in undertaking improvements to courses and teaching. Faculty participation in the U of G annual Teaching and Learning Innovations Conference is also high.

On an annual basis, all non-tenured faculty members in tenure track positions are assessed for performance and progress towards tenure and promotion. Tenured faculty are assessed on a biennial basis. This assessment is conducted by both the department tenure and promotion committee and then subsequently by the college tenure and promotion committee. Faculty submit information related to their distribution of effort, a detailed summary of their activities, including research productivity, and supporting documentation such as teaching, service and/or research dossiers, numeric teaching assessment scores and any other documents they feel will assist the committees in accurately assessing performance and productivity. The structure of the tenure and promotion and performance review process for faculty is clearly stipulated in the collective agreement between the University and the University of Guelph Faculty Association.

12.11.2.D DESCRIBE HOW OUTCOMES FINDINGS ARE USED BY THE COLLEGE TO IMPROVE THE EDUCATIONAL PROGRAM (GIVE EXAMPLES).

As described in Standard 9 - Curriculum (please refer to Sections 12.9.2 and 12.9.3), the faculty review our outcome assessment data at several levels, including the course, the Phase and the overall program. This is a bi-directional process that is facilitated by course coordinators, Phase Leaders, and the Curriculum Committee.

Curricular issues identified during our program review were assessed by the Curriculum Committee and specific tasks were assigned to faculty working groups to develop action plans for change. This process was facilitated with the assistance of our educational specialist. The data used as part of our review process include the summary results of our indirect (student self-assessments, Externship host assessments, focus groups and course coordinator reports) and direct (standardized rotation rubric and OSCE results) assessments that we generate annually.

From these data has emerged a consistent and repeated concern related to our students attaining adequate psychomotor skill development. Focus group data indicated that there was a lack of confidence on the part of the students in their technical skill abilities, which was supported by their self-assessments. Meetings with students, faculty and external practitioners indicated that their lack of confidence was mostly derived from the need for repetition. The clinical faculty were tasked with developing proposals to address this issue which resulted in changes to the Clinical Medicine courses and the Surgery/Anesthesia curriculum in Phases 1 – 3 to provide increased opportunity for repeated and reinforced skill development. We are in the process of increasing the availability of models for student use and creating a clinical skills laboratory for students to be able to increase their opportunity to practice these skills.

Another area of concern identified through our direct and indirect assessment tools was adequacy of some of our students in their communication skills. Further investigation with the faculty indicated that some students struggled to integrate the communication skills into the whole client-patient interaction in an appointment. Data from the last four years has indicated that some students were having issues with their inter-personal communication skills within the clinic team setting. Both of these concerns are being addressed by better integrating the teaching and assessment of communication skills within the context of the clinical setting (for example in primary care appointments at the OVC Smith Lane Animal Hospital).

As well, the OSCE data from the last academic year are a concern with the performance of students related to the “case ownership and continuity of care” competency. This will be investigated by the Curriculum Committee during the current academic year.

APPENDIX 1. ORGANIZATION

APPENDIX 1.1 - UNIVERSITY OF GUELPH ORGANIZATIONAL CHART

Please refer to the University of Guelph Organizational Chart.

APPENDIX 1.2 - UNIVERSITY OF GUELPH ADMINISTRATORS

Chancellor*	
David Mirvish	
President and Vice-Chancellor	
Franco Vaccarino	
Vice-Presidents	
Charlotte Yates	Provost and Vice-President (Academic)
Don O'Leary	Finance, Administration and Risk
Daniel Atlin	External
Malcolm Campbell	Research
Associate Vice-Presidents	
Bob Carter	Physical Resources
Serge Desmarais	Academic
Rich Moccia	Research (Strategic Partnerships)
John Livernois	Research (Services)
Martha Harley	Human Resources
John Miles	Finance and Integrated Planning
Brenda Whiteside	Student Affairs
Assistant Vice-Presidents	
Karen Bertrand	Major Gift Advancement
Anthony Clarke	Graduate Studies and Program Quality Assurance
Chuck Cunningham	Communications and Public Affairs
Tracey Jandrisits	Faculty and Academic Staff Relations
Jason Moreton	Alumni Advancement
Jane Ngobia	Diversity and Human Rights
Brian Pettigrew	Resource Planning and Analysis and Registrar

*The Chancellor presides at convocations, confers all University degrees and acts as an ambassador for the University. As the University's senior volunteer, he or she represents its interests to all government levels.

APPENDIX 1.3 - ONTARIO VETERINARY COLLEGE ORGANIZATIONAL CHART

Please refer to the OVC Organizational Chart.

APPENDIX 1.4 - ONTARIO VETERINARY COLLEGE ADMINISTRATORS

Dean	
Kerry Lissemore, BSc, DVM, DVSc (Interim to Sept 30, 2015); Jeff Wichtel, BVSc, PhD, DACT (From Oct 1, 2015)	Ontario Veterinary College
Associate Deans	
Kerry Lissemore, BSc, DVM, DVSc	Academic
Gordon Kirby, DVM, MSc, PhD	Research and Innovation
Stephanie Nykamp, DVM, MSc, DACVR	Clinical Program
Peter Conlon, BSc(Agr), MSc, DVM, PhD, MEd	Students
Department Chairs	
Neil MacLusky, BSc, PhD	Biomedical Science
Carolyn Kerr, DVM, DVSc, PhD, DACVA	Clinical Studies
John Lumsden, BSc, DVM, MSc, PhD, MACVSc, DACVP	Pathobiology
Cate Dewey, DVM, MSc, PhD	Population Medicine
Chief Administrative Officer	
Carol Ann Higgins, BA, MSc	Ontario Veterinary College
Chief Financial Officer	
Judy Tack, BA	Ontario Veterinary College
Directors	
Janice Sargeant, DVM, MSc, PhD	Centre for Public Health and Zoonoses
Brenda Coomber, BSc, MSc, PhD	Institute for Comparative Cancer Investigation
Paul Woods, DVM, MS, DACVIM (Internal Medicine and Oncology)	Institute for Comparative Cancer Investigation
Tami Martino, BSc, MSc, PhD	Cardiovascular Research Centre
Managing Directors	
Gayle Ecker, BA, BEd, MSc	Equine Guelph
Kim Robinson, BSc, MEd	Pet Trust
Manager	
Paul McDonald, BSc	Information Technology Services
Senior Development Manager	
Carly O'Brien, BSc, BEd	Ontario Veterinary College

APPENDIX 2. FINANCES

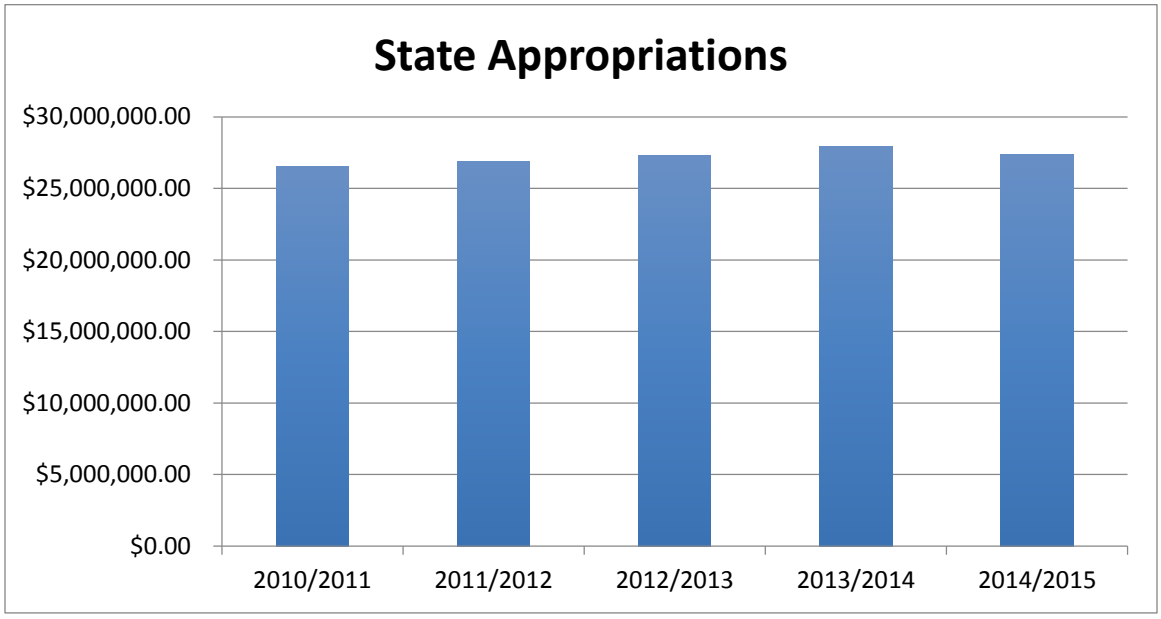
APPENDIX 2.1 - TABLE A: TOTAL EXPENDITURES FOR THE PAST 5 FISCAL YEARS (DIRECT AND INDIRECT EXPENSES)

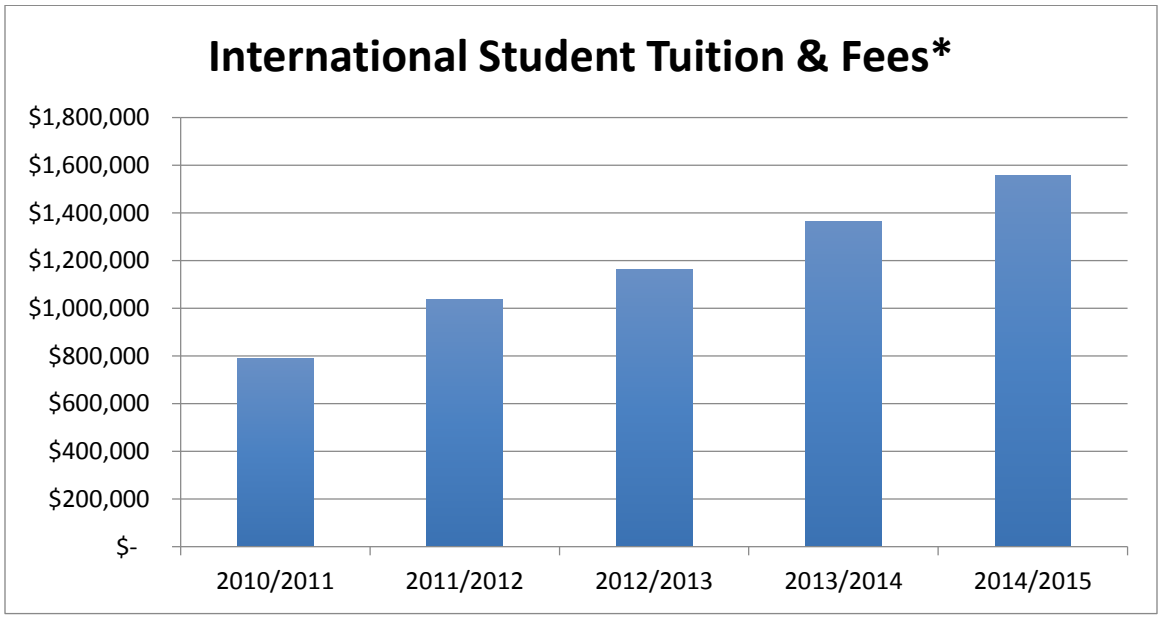
Years	Instruction	Academic Support	Student Services	Services of Educational Activity				Non-sponsored Student Aid	Sponsored Student Aid	Sponsored Research	Other Sponsored Activity	External and Public Service	TOTAL DIRECT EXPENSES
				Teaching Hospital	Diagnostic Lab	Other							
						Amt.	Type						
2010-11	$21,132,269	$4,791,843	$332,275	$17,326,491	$0	$851,459	PHC	$1,163,351	$2,006,700	13,480,561	$6,359,691	$0	$67,444,641
2011-12	$20,405,750	$3,535,955	$312,689	$16,063,538	$0	$856,798	PHC	$1,405,261	$1,772,758	12,643,999	$6,889,226	$0	$63,885,973
2012-13	$21,048,701	$4,100,727	$324,033	$19,619,391	$0	$806,144	PHC	$1,299,457	$2,469,593	10,387,759	$2,918,371	$0	$62,974,176
2013-14	$21,976,383	$3,660,074	$427,214	$17,168,465	$0	$754,192	PHC	$1,753,651	$2,279,328	11,224,879	$2,838,779	$0	$62,082,966
2014-15	$21,307,573	$4,024,910	$461,552	$17,753,871	$0	$926,873	PHC	$2,286,990	$2,014,821	9,952,709	$4,615,481	$0	$63,344,779
Net Change	**101%**	**84%**	**139%**	**102%**	**--**	**109%**	**PHC**	**197%**	**100%**	**74%**	**73%**	**--**	**94%**
% of Total	**34%**	**6%**	**1%**	**28%**	**0%**	**1%**		**4%**	**3%**	**16%**	**7%**	**0%**	**100%**

APPENDIX 2.2 - TABLE B: COLLEGE REVENUE

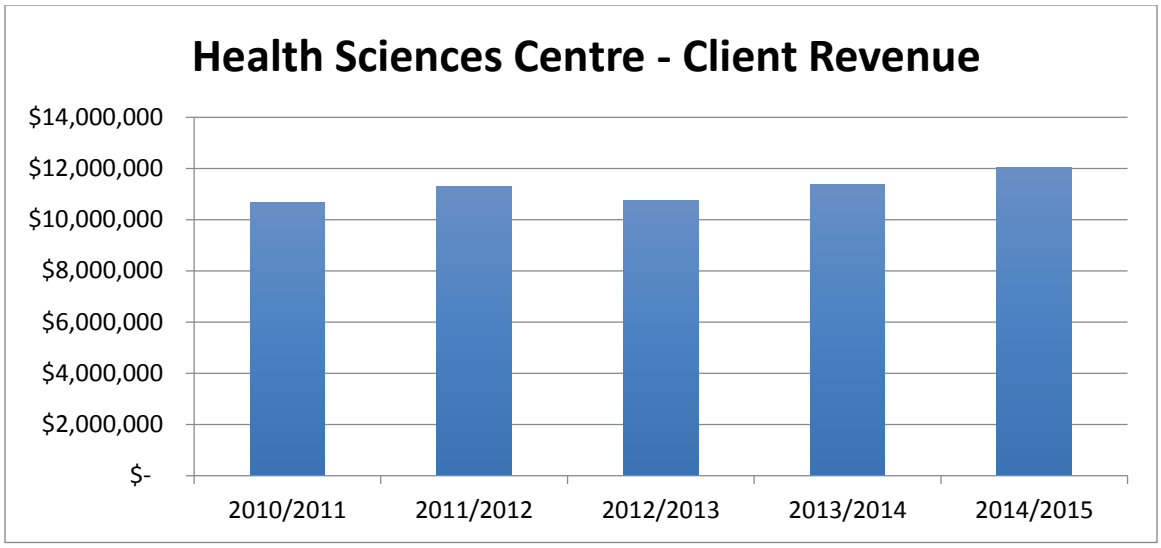
Fiscal Years	State Appropriations	Tuition & Fees (note 1)	Is Tuition Estimated Amt.	Endowment Income	Gifts for Current Use	Sponsored Programs/ Cost Recovery	Other	Sales and Services			Reserves and Transfers	TOTAL REVENUE
								Teaching Hospital	Diagnostic Lab	Other Sources		
2010-11	$26,539,454	$791,340	no	$236,115	$4,628,150	$19,903,788	$591,418	$10,680,793	$0	$321,425	$7,661,398	$71,353,882
2011-12	$26,901,953	$1,037,081	no	$313,149	$5,030,509	$16,415,765	$651,052	$11,283,290	$0	$665,156	$7,470,351	$69,768,306
2012-13	$27,285,630	$1,161,125	no	$301,086	$3,051,440	$15,723,979	$414,473	$10,730,910	$0	$661,546	$10,942,830	$70,273,019
2013-14	$27,943,408	$1,364,554	no	$472,526	$3,652,316	$15,182,573	$806,187	$11,382,171	$0	$742,310	$9,580,186	$71,126,231
2014-15	$27,396,477	$1,556,987	no	$540,145	$3,177,327	$15,634,905	$751,263	$12,043,433	$0	$873,702	$13,172,871	$75,147,111
Net Change	**103%**	**197%**	**--**	**229%**	**69%**	**79%**	**127%**	**113%**	**--**	**272%**	**172%**	**105%**
% of Total	**36%**	**2%**	**--**	**1%**	**4%**	**21%**	**1%**	**16%**	**--**	**1%**	**18%**	**100%**

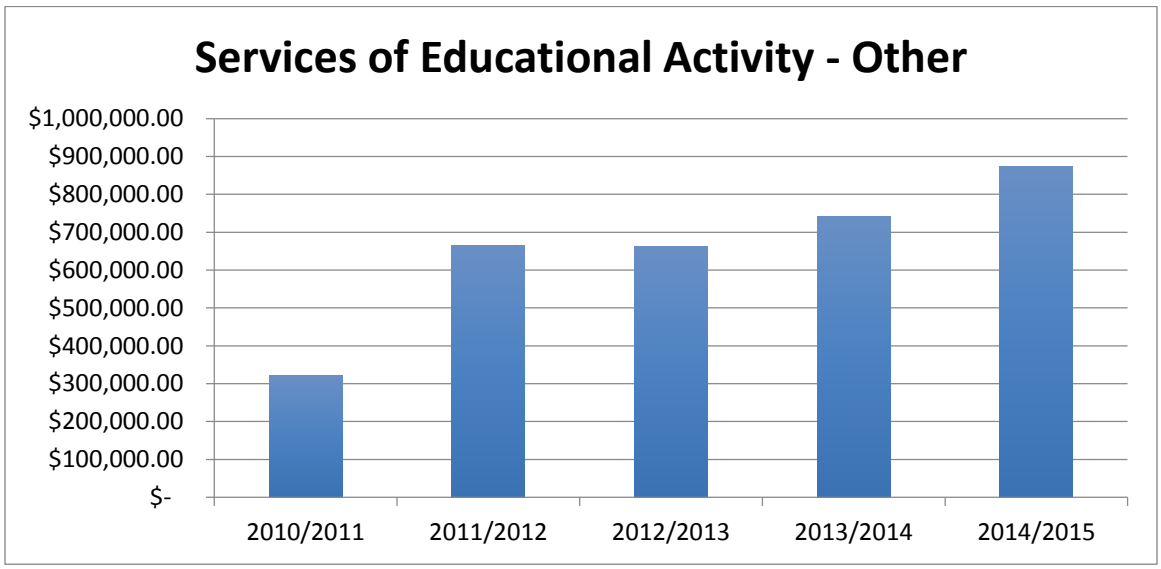
APPENDIX 2.3 - TREND ANALYSIS OF REVENUE SOURCES





* The College receives 60% of the international tuition and the University 40%. The College does not receive domestic tuition directly.





APPENDIX 2.4 - HOSPITAL INCOME COMPARED TO OPERATIONAL COSTS

Fiscal Year	Expenditures	Revenue	% Revenue to Expenses
2010/2011	$17,326,491	$10,680,793	62%
2011/2012	$16,063,538	$11,283,290	70%
2012/2013	$19,619,391	$10,730,910	55%
2013/2014	$17,168,465	$11,382,171	66%
2014/2015	$17,753,871	$12,043,433	68%

APPENDIX 3. PHYSICAL FACILITIES AND EQUIPMENT

THERE ARE NO APPENDICES FOR THIS STANDARD

APPENDIX 4. CLINICAL RESOURCES

APPENDIX 4.1 - TABLE A: TEACHING HOSPITAL

Animal Species	Year	CA/LA # of Patient Visits	# Hospitalized	# of Hospital Days
Bovine	2010-11	110	102	372
	2011-12	101	79	481
	2012-13	121	94	562
	2013-14	122	107	679
	2014-15	78	66	489
Canine	2010-11	10,726	2,726	5,114
	2011-12	11,511	2,757	6,841
	2012-13	10,991	2,259	5,298
	2013-14	12,021	2,210	5,567
	2014-15	12,509	2,181	5,364
Caprine	2010-11	12	11	34
	2011-12	4	2	5
	2012-13	8	8	211
	2013-14	2	1	4
	2014-15	8	7	86
Equine	2010-11	1,128	793	2,870
	2011-12	1,214	865	4,427
	2012-13	904	533	2,736
	2013-14	743	491	2,559
	2014-15	881	599	3,458
Feline	2010-11	1,294	451	2,614
	2011-12	1,341	423	1,477
	2012-13	1,254	321	726
	2013-14	1,805	336	997
	2014-15	2,020	422	1,241

Ovine	2010-11	13	11	14
	2011-12	7	5	21
	2012-13	16	4	9
	2013-14	2	1	9
	2014-15	6	6	68
Porcine	2010-11	19	6	3
	2011-12	21	11	20
	2012-13	25	5	11
	2013-14	11	5	17
	2014-15	16	14	63
Caged Pet Birds	2010-11	320	76	126
	2011-12	236	36	58
	2012-13	216	27	58
	2013-14	321	52	118
	2014-15	404	72	151
Caged Pet Mammals	2010-11	721	140	135
	2011-12	501	102	172
	2012-13	164	11	17
	2013-14	331	45	95
	2014-15	490	83	156
Avian Wildlife	2010-11	-	-	-
	2011-12	-	-	-
	2012-13	-	-	-
	2013-14	-	-	-
	2014-15	-	-	-
Other *	2010-11	63	28	83
	2011-12	86	25	89
	2012-13	57	19	68
	2013-14	100	25	81
	2014-15	125	31	63

* includes CA (CA-Other, Reptiles, etc.) and LA (Camelids, Cervine, LA-Other)

APPENDIX 4.2 - TABLE B: AMBULATORY/FIELD SERVICE PROGRAM

Animal Species	Year	# of Farm (site) Visits	# Animals Examined/Treated
Bovine	2010-11	1377	***
	2011-12	812	7417
	2012-13	769	6735
	2013-14	716	6156
	2014-15	718	6292
Caprine	2010-11	3	***
	2011-12	4	3
	2012-13	1	1
	2013-14	1	4
	2014-15	6	16
Equine*	2010-11	47	***
	2011-12	31	31
	2012-13	15	15
	2013-14	9	9
	2014-15	17	17
Ovine	2010-11	92	***
	2011-12	103	823
	2012-13	108	774
	2013-14	69	578
	2014-15	108	933
Other**	2010-11	7	***
	2011-12	13	12
	2012-13	15	12
	2013-14	3	2
	2014-15	1	11

*Equine visits - assumption of one animal per visit
**Other = Camelid, Canine, Cervine, Feline, Porcine, Elephant
*** No data available on number of animals seen

APPENDIX 4.3 - TABLE C: HERD/FLOCK HEALTH PROGRAM

Animal Species	Describe your clinical resources for production medicine training by production group below
Dairy	There are 10 dairy herds in our practice (size 50 to 200 milking cows) + 1 x 300 cow dairy where we provide biweekly consulting + 6-8 dairy herds for electives from outside of OVC practice locations (size range from 50 to 600 dairy cows - new herds every year). Also, we have access to up to 200 dairy herds in the Heartland Veterinary practice in Listowel, Ont. through an elective rotation.
Beef Feedlots	We visit 2 local moderately-sized Ontario feedlots, and students have access to large Western Feedlots through the fourth-year beef elective
Cow-calf	There are 25 to 30 local producers in our practice, plus the herd at the University's Elora beef research centre (150 cows).
Small Ruminants	There are 8 sheep producers in our practice (50 to 1000 ewes), as well as the Ponsonby Research Centre (200 ewes), and goat herds that are visited as needed for the fourth-year small ruminant rotation.
Swine	We have a University Research herd of about 300 sows with farrow to finish capability. In addition, we work closely with a commercial farm located just outside of Guelph that is about 650 sows, farrow-to-feeder pig on one site with 4,000 head finishing capacity close by in two separate finishing barns. We act as the herd veterinarian for this farm and visit every week; likewise we provide primary veterinary care to the University herd. We frequently use nursery and finishing barns in one particular large production system that finishes over 100,000 hogs per year, doing inspections or trouble-shooting because of disease breaks. Generally other farms that are visited are through requests made to private practitioners.
Fish	The Fish Health rotation visited three farms; a rainbow trout hatchery that raises 6 million eggs per year, a tilapia farm that sells more than a million tilapia to the live fish market in Toronto and finally a small closed containment trout farm (two raceways on an experimental basis) being started in the Puslinch gravel pits.
Equine	We maintain an OVC Equine Teaching Herd that has 19 horses. This is heavily used by multiple courses and rotations throughout the DVM program. As well, we do preventive healthcare at the OMAFRA Arkell Equine Research Herd, which has anywhere from 50-70 horses at a time. The Equine Primary Care Phase 4 rotation (offered 3 times/year) works with that herd. We also purchase a few horses each year, and accept a few patient donations (total approximately 4-6 per year) to augment equine teaching. These do not enter the resident herd. Finally, the OVC-HSC admits client-owned horses for castration procedures during rotations (offered twice a year).

Poultry	The below numbers are industry averages and can change significantly from year to year depending on farmer availability and willingness to allow students on their farm. Phase 1 Health Management I course: • 7,000 birds, 1 farm (total of 3 barns), 2 visits per year Phase 3 Health Management III course: • 30,000 broilers, 1 farm (1 barn), 1 visit per year Phase 4 Poultry Health Management rotation (hosted in alternate years by OVC and the Faculty of Veterinary Medicine at the University of Montreal): • 120,000 layers, 1 farm (1 complex), 1 visit per year • 30,000 broilers, 1 farm (1 barn), 1 visit per year • 8,000 turkeys, 1 farm (1 barn), 1 visit per year • 25,000 layers, 1 farm (1 barn), 1 visit per year • 20,000 broiler breeders, 1 farm (1 barn), 1 visit per year • 40,000 layers, 1 farm (2 barns), 1 visit per year • 40,000 turkeys/poults, 1 farm (2 barns), 1 visit per year • 20,000 broiler breeder pullets and cockerels, 1 farm (1 barn), 1 visit per year • 40,000 ducks, 1 farm (8 barns), 1 visit per year • Hatchery, 1 visit per year • Layer processing plant, 1 visit per year
Other	*Laboratory Animals:* We have an entire module in the third-year course VETM4530 (Advanced Health Management - Laboratory Animals) that deals with instruction in lab animal management. Approximately 30-50% of the class takes this module for credit each year. In terms of facilities, students visit these places for various courses and electives: - University of Guelph Central Animal Facilities, Research Isolation Unit, University's Aqualab - rodents, rabbits, fish, poultry, dogs, cats, sheep; - University of Toronto (Division of Comparative Medicine), University Health Network (Animal Resources Centre), Toronto Centre for Phenogenomics - all rodents, some primates at UHN; - Western University in London, Ontario (Animal Care and Veterinary Services) - all species including sheep and primates; - McMaster University in Hamilton, Ontario Central Animal Facility and Thrombosis & Atherosclerosis Research Institute - primarily rodents and pigs *Zoo Animals:* OVC doesn't own any animals of this type. A limited number of final year veterinary students do electives at a variety of zoos or other places where captive wildlife are kept for display or education purposes. The students create these opportunities on their own, sometimes with faculty mentorship. A faculty member takes a group of up to 10 students to the nearby African Lion Safari game park each year for one morning as part of a final year elective. The OVC has a joint DVSc program with the Toronto Zoo in pathology.

APPENDIX 5. INFORMATION RESOURCES

APPENDIX 5.1 - DESCRIPTION OF INCLUDED JOURNALS

This number represents total journals holdings from the A-Z journal list using the 'Agriculture' and' Life Sciences' categories only. The specific category for 'Medicine' was excluded as the titles were considered to be too focussed on human topics, though many relevant journals would be listed in both 'Life Sciences' and 'Medicine.'

APPENDIX 6. STUDENTS

APPENDIX 6.1 - TABLE A: VETERINARY MEDICAL PROGRAM

Academic Year	First-year	Second-year	Third-year	Fourth-year	# Graduated
2010-11	116	109	111	108	108
2011-12	117	120	107	109	109
2012-13	116	118	122	105	105
2013-14	119	113	118	122	122
2014-15	121	121	113	118	118

APPENDIX 6.2 - TABLE B: INTERNS, RESIDENTS AND GRADUATE STUDENTS

Department	Year	# Interns	# Residents	# Residents-MS	# Residents-PhD/DVSc	MSc	PhD
Biomedical Sciences	2010-11	-	-	-	-	41	22
	2011-12	-	-	-	-	49	25
	2012-13	-	-	-	-	45	28
	2013-14	-	-	-	-	50	28
	2014-15	-	-	-	-	47	25
Clinical Studies	2010-11	-	-	-	31	4	-
	2011-12	-	-	-	27	10	-
	2012-13	-	-	-	28	9	-
	2013-14	-	-	-	21	6	-
	2014-15	-	-	-	25	8	-
Pathobiology	2010-11	-	-	-	16	20	34
	2011-12	-	-	-	19	21	30
	2012-13	-	-	-	18	19	26
	2013-14	-	-	-	20	18	28
	2014-15	-	-	-	14	17	35
Population Medicine	2010-11	-	-	-	7	76	31
	2011-12	-	-	-	7	79	43
	2012-13	-	-	-	5	65	43
	2013-14	-	-	-	4	73	44
	2014-15	-	-	-	5	87	36
Health Sciences Centre	2010-11	14	1	-	-		
	2011-12	12	1	-	-		
	2012-13	10	1	-	-		
	2013-14	15	2	-	-		
	2014-15	14	2	-	-		

Assumptions:

- Course work Masters, MPH and diploma student all counted as MSc
- No residents simultaneously completed a MSc
- All DVSc students are considered Resident-PhD

APPENDIX 6.3 - TABLE C: DVM STUDENTS

Academic Year	DVM (at entrance to program)		
	Total	# Minority	% Minority
2010-11	114	14	12.3
2011-12	117	24	20.5
2012-13	116	21	17.4
2013-14	120	23	18.9
2014-15	120	25	20.8

APPENDIX 6.4 - TABLE D: OTHER EDUCATIONAL PROGRAMS

Academic Year	Activities			
	Additional Clinical Year Students	Veterinary Technician Program	Undergraduate Programs	Other
2010-11	0	0	629	0
2011-12	0	0	637	0
2012-13	0	0	681	0
2013-14	0	0	684	0
2014-15	0	0	742	0

APPENDIX 7. ADMISSIONS

APPENDIX 7.1 - TABLE A: APPLICANTS AND ADMISSIONS

Entry Year	Ontario Residents		Non-Residents		Contract Students		Total	
	A/P	O/A	A/P	O/A	A/P	O/A	A/P	O/A
2010-11	267/104	107/104	140/15	14/10	N/A	N/A	**407/119**	**121/114**
2011-12	319/105	105/105	148/15	15/12	N/A	N/A	**467/120**	**120/117**
2012-13	300/105	107/105	136/15	16/11	N/A	N/A	**436/120**	**123/116**
2013-14	332/105	108/105	140/15	27/15	N/A	N/A	**472/120**	**135/120**
2014-15	349/105	110/105	129/15	19/15	N/A	N/A	**478/120**	**129/120**

A/P = Applicants/Positions
O/A = Offers/Acceptances

APPENDIX 8. FACULTY

APPENDIX 8.1 - TABLE A: LOSS AND RECRUITMENT OF FACULTY (MAY 1, 2010 – APRIL 30, 2015)

Department	Lost (#)	Discipline/ Specialty	Recruited (#)	Year
Clinical Studies		Companion Animal Surgery	1	2010
Clinical Studies		Radiology	1	2010
Population Medicine		Animal Behaviour	1	2010
Clinical Studies		Large Animal Surgery	1	2011
Clinical Studies		Companion Animal Medicine	2	2011
Clinical Studies		Neurology	1	2011
Clinical Studies		Companion Animal Medicine	1	2011
Pathobiology		Anatomic Pathology	1	2011
Population Medicine		Equine Theriogenology	1	2012
Pathobiology	2	Anatomic Pathology		2011
Pathobiology	1	Immunology		2011
Biomedical Sciences		Stem Cell Biology	1	2012
Clinical Studies		Cancer Scientist	1	2012
Clinical Studies		Clinical Nutrition	1	2012
Pathobiology		Immunology/Virology	1	2012
Population Medicine		Veterinary Communications	1	2012
Biomedical Sciences		Toxicology/Pharmacology	1	2013
Biomedical Sciences	1	Histology		2013
Clinical Studies		Radiology	1	2013
Clinical Studies	1	Dermatology		2013
Pathobiology	1	Anatomic Pathology		2013
Population Medicine	1	Ruminant Health Management		2013
Biomedical Sciences	1	Histology		2014
Clinical Studies		Companion Animal Surgery	1	2014
Clinical Studies	1	Emergency and Critical Care		2014
Clinical Studies	1	Large Animal Surgery		2014
Pathobiology		Zoo/Wildlife	1	2014
Pathobiology	1	Bacteriology		2014
Population Medicine		Ruminant Health Management	1	2014
Population Medicine		Ecohealth	1	2014
Population Medicine		Primary Care Educator	1	2014
Population Medicine		Disease Modelling	1	2014
Population Medicine		Swine Health/Rural Community Veterinary Medicine	1	2014
Clinical Studies		Emergency and Critical Care	1	2015
Pathobiology		Anatomic Pathology	1	2015

Pathobiology		Avian Pathology	1	2015
Population Medicine	1	Veterinary Communications		2015
Population Medicine		Emerging Technologies and Bond-Centred Care	1	2015
TOTAL	**12**		**28**	

APPENDIX 8.2 - TABLE B: STAFF SUPPORT FOR TEACHING AND RESEARCH

Area	FTE Clerical	FTE Technical	Other
Clinical Teaching	15.9	64.5	0
Non-clinical Teaching	4.25	3.7	0
Research	3.3	13.53	0
Total	**23.45**	**81.73**	**0**

APPENDIX 8.3 - TABLE C: FACULTY (NON-VETERINARIANS)

Title	MSc	PhD	DVSc	Board Certified	Board Certified & MSc	Board Certified & PhD	Board Certified & DVSc	Total
Administrator		1						**1**
Professor		11						**11**
Associate Professor		7						**7**
Assistant Professor		7						**7**
Total	**0**	**26**	**0**	**0**	**0**	**0**	**0**	**26**

APPENDIX 8.4 - TABLE D: FACULTY (VETERINARIANS)

Title	DVM (only)	MSc	PhD	DVSc	Board Certified	Board Certified & MSc	Board Certified & PhD	Board Certified & DVSc	Total
Administrator			2	1			2		**5**
Professor	1		10	3	1	1	5	2	**23**
Associate Professor	2	1	14	1	4	1	4	4	**31**
Assistant Professor			7	4	1		7	4	**23**
Total	**3**	**1**	**33**	**9**	**6**	**2**	**18**	**10**	**82**

*Tables B, C and D are snapshots as of May 1st, 2015

**Tables C and D do not include three vacant funded faculty positions

APPENDIX 9. CURRICULUM

THERE ARE NO APPENDICES FOR THIS STANDARD

APPENDIX 10. RESEARCH PROGRAMS

APPENDIX 10.1 - TABLE A: RESEARCH FACULTY

Year	Department	Total # of Faculty* (on Dec. 31)	# Involved in Research	# Number of research faculty involved in delivering the professional curriculum	Total Research FTE	# Original Peer Reviewed Research Publications	# Original Book Chapters
2010	Biomedical Sciences	19	19	14	10.24	53	2
	Clinical Studies	34	34	34	9.28	73	18
	Pathobiology	24	24	18	11.91	153	7
	Population Medicine	24	24	15	9.75	162	3
	Totals	101	101	81	41.18	441	30
2011	Biomedical Sciences	19	19	14	10.24	45	4
	Clinical Studies	35	35	35	9.48	90	16
	Pathobiology	24	24	18	11.91	130	15
	Population Medicine	24	24	16	9.70	126	9
	Totals	102	102	83	41.33	391	44
2012	Biomedical Sciences	20	20	14	9.74	41	5
	Clinical Studies	36	36	36	9.78	62	18
	Pathobiology	24	24	18	11.71	124	8
	Population Medicine	24	24	16	9.80	112	8
	Totals	104	104	84	41.03	339	39
2013	Biomedical Sciences	19	19	14	8.50	44	3
	Clinical Studies	32	32	32	8.90	103	16
	Pathobiology	24	24	18	10.91	124	6
	Population Medicine	28	28	18	10.85	143	2
	Totals	103	103	82	39.16	414	27
2014	Biomedical Sciences	19	19	14	8.50	71	4
	Clinical Studies	33	33	33	9.15	107	68
	Pathobiology	28	28	22	13.26	192	25
	Population Medicine	28	28	19	10.80	231	18
	Totals	108	108	88	41.71	601	115

*Only tenured-track and tenured faculty. No contractually limited, long term disability or those on leave of absence.

**Peer reviewed publications and book chapters came from faculty CVs but were not verified by all members prior to 2012

APPENDIX 10.2 -TABLE B: RESEARCH FUNDING*

Year	Department	Extramurally-sponsored Federal Grants		Extramurally-sponsored Provincial Grants		Extramurally-sponsored Private Grants		Patents
		#	Value	#	Value	#	Value	#
2010	Biomedical Sciences	26	$1,362,546	1	$473,368	13	$726,229	1
	Clinical Studies	8	$479,124	1	$253,742	8	$255,355	0
	Pathobiology	31	$1,442,731	10	$1,895,574	24	$735,519	2
	Population Medicine	34	$1,953,725	4	$2,166,356	29	$3,803,094	0
	Totals	99	$5,238,126	16	$4,789,040	74	$5,520,197	3
2011	Biomedical Sciences	30	$1,500,855	2	$532,284	13	$789,440	0
	Clinical Studies	8	$453,038	1	$265,444	8	$251,482	0
	Pathobiology	35	$1,641,378	7	$1,927,612	24	$946,441	0
	Population Medicine	21	$679,589	3	$1,237,192	29	$1,957,447	0
	Totals	94	$4,274,860	13	$3,962,532	74	$3,944,810	0
2012	Biomedical Sciences	29	$1,624,975	4	$784,871	8	$714,314	0
	Clinical Studies	2	$30,716	1	$318,709	3	$524,243	0
	Pathobiology	30	$1,230,806	4	$1,251,113	14	$632,408	0
	Population Medicine	27	$601,787	3	$1,781,650	33	$1,000,554	0
	Totals	88	$3,488,285	12	$4,136,343	58	$2,871,520	0
2013	Biomedical Sciences	28	$1,568,573	9	$1,322,920	13	$715,461	0
	Clinical Studies	4	$252,803	3	$512,927	5	$107,632	0
	Pathobiology	32	$1,638,667	6	$1,573,405	15	$865,349	0
	Population Medicine	11	$339,774	6	$2,077,274	16	$583,862	0
	Totals	75	$3,799,817	24	$5,486,526	49	$2,272,304	0
2014	Biomedical Sciences	21	$1,064,727	1	$418,038	11	$572,516	0
	Clinical Studies	3	$123,499	2	$387,981	14	$732,936	0
	Pathobiology	27	$1,407,215	8	$1,736,527	12	$1,090,522	0
	Population Medicine	17	$596,375	6	$1,435,767	20	$1,534,494	0
	Totals	68	$3,191,816	17	$3,978,313	57	$3,930,468	0

*Internal sources are not included.

APPENDIX 10.3 - TABLE C: DVM STUDENT INVOLVEMENT IN RESEARCH

Year	Number of students in funded & unfunded research projects	Number of peer reviewed publications in which DVM students are authors/co-authors	Number of veterinary medical students in a joint DVM/graduate academic program	
			PhD (or equivalent)	Master's (or equivalent)
2010-11	25	N/A	0	0
2011-12	23	N/A	0	0
2012-13	6	N/A	0	0
2013-14	12	N/A	0	0
2014-15	33	N/A	0	0

APPENDIX 10.4 - FACULTY PARTICIPATION AND PRESENTATION OF ORIGINAL RESEARCH IN SCIENTIFIC MEETINGS

Activity	2010	2011	2012	2013	2014	Grand Total
Oral Presentations	394	427	442	405	348	**2016**
Poster presentations	212	210	221	241	177	**1061**
Round Table	1	1	0	1	3	**6**
Symposium	2	2	1	1	0	**6**
Workshop	6	2	4	9	5	**26**
Total	**615**	**642**	**668**	**657**	**533**	**3115**

APPENDIX 10.5 - INVOLVEMENT OF FACULTY ON PANELS, ADVISORY BOARDS OR COMMISSIONS

Activity	2010	2011	2012	2013	2014	Grand Total
Advisory Board Member	9	11	24	28	12	**84**
Member of Board of Directors	2	5	10	14	7	**38**
Member: Journal Editorial Review Board	4	6	16	26	20	**72**
Committee or Task Force: Chair	14	19	17	20	10	**80**
Committee or Task Force: Member	84	71	93	86	31	**365**
Professional Consultations	12	10	19	27	41	**109**
Reviewer of Grant Proposals	19	17	58	72	54	**220**
Total	**144**	**139**	**237**	**273**	**175**	**968**

APPENDIX 10.6 - NATIONAL AND INTERNATIONAL RESEARCH AWARDS RECEIVED

Awards & Honors	2010	2011	2012	2013	2014	Grand Total
Total	20	18	18	10	15	81

APPENDIX 10.7 – COURSES AND CURRICULUM WITH RESEARCH TOPICS

PHASE/Course/Instructors	Description
ONE/Health Management I, VETM*3400/ Lissemore; Turner	Students are taught the principles of evidence-based veterinary medicine and critical appraisal of the scientific literature through discussion of research papers, in the context of teaching an epidemiological concept. Also, content related to the role of the lab animal veterinarian in ethical use of animals and research oversight in Canada is presented.
TWO/Health Management II, VETM*3410/ Kelton	The following research-related material is delivered: observational study design, clinical trial study design, critical appraisal of the scientific literature, an overview of common statistical methods, and important considerations of study sample size calculation.
TWO/Anesthesiology and Pharmacology, VETM*3470/ Hanna	The need for clinical trials to determine drug efficacy is presented. Differences between anecdotes/personal experiences vs. systematic comparison in a body of evidence are described. Critical appraisal of the published medical literature and clinical trial design is discussed.
THREE/Systems Pathology, VETM*4490/ Bienzle	Research concepts are discussed in the context of new tests developed on endocrine conditions in animals (e.g. acromegaly in cats, metabolic syndrome in horses) or application of tests that change our understanding of endocrine conditions.
THREE/Advanced Health Management, VETM*4530/ Turner	In the Laboratory Animal Medicine Module, Phase 3 students are presented with selected elements of competency regarding oversight and care of research animals, including production and performance and health management programs.
THREE/Comparative Medicine, VETM*4480/ Turner	This course includes laboratory animal medicine/ethics of research animal use, regulatory oversight in Canada, ethical issues associated with research animal use, Animal Care Committee considerations for research animal use and primate medicine.
FOUR/Neurology Rotation/James	In this rotation students discuss diagnostic and treatment options for neurological diseases including evaluation and interpretation of the current literature pertinent to diseases under discussion.
FOUR/Laboratory Animal Medicine Rotation/ Turner	Material includes: career options available in laboratory animal medicine and pathology; common veterinary, welfare, and animal care concerns that may occur in research settings; best practices and limitations in animal care, enrichment, and veterinary care in animal facilities; management strategies for dealing with disease outbreaks; importance of animal user training; and handling and collecting specimens from laboratory rodent species.
Lab Animal Medicine Club/ Turner	OVC has a very strong lab animal medicine club that regularly meets for guest lectures, wet labs, and protocol discussions. The club is both a CALAM/ACMAL- and ASLAP-recognized student chapter. DVM student club members have received both ASLAP and CALAM/ACMAL student scholarships every year since 2003.

APPENDIX 11. OUTCOMES ASSESSMENT

APPENDIX 11.1 - TABLE A: NAVLE RESULTS

Graduation year	Students taking exam(s)	Students passing exams	% Passing	Average scores	
				OVC	All
2011	108	108	100	566	534
2012	109	107	98	534	522
2013	105	104	99	533	519
2014	122	118	97	527	515
2015	118	118	100	539	513

APPENDIX 11.2 - TABLE B: ATTRITION

Original Class	Relative Attrition*	Reason for Relative Attrition				Absolute Attrition**	
		Academic		Personal			
		Number	Percentage ***	Number	Percentage ***	Number	Percentage ***
OVC 2018	2	1	0.7%	1	0.7%	0	0
OVC 2017	3	2	1.7%	1	0.8%	2	1.7%
OVC 2016	2	0	0	2	1.7%	0	0
OVC 2015	0	0	0	0	0	0	0
OVC 2014	0	0	0	0	0	0	0

* Intend to return to the program
** Do not intend to return to the program
*** Percentage of Class

APPENDIX 11.3 - TABLE C: EMPLOYMENT

Graduating Class	# Graduates Who Received Employment or Advanced Training Offers/# Completing This Question, and (%)	Mean # Employment or Advanced Training Offers Received*
2009	68/70 (97%)	N/A
2010	65/67 (97%)	N/A
2011	72/72 (100%)	N/A
2012	73/73 (100%)	N/A
2013	80/81 (99%)	N/A
2014	35/37 (95%)	2

*The mean number of employment or advanced training offers received was not captured in the DVM graduate surveys before the 2014 class. That information will be captured for all future classes.

APPENDIX 11.4 – SUMMARIZED PHASE 1, 2 AND 3 SELF-EVALUATION OF CONFIDENCE RESULTS (CLASSES 2016, 2017 AND 2018)

*PHASE LEARNING OUTCOMES HAVE BEEN UPDATED SINCE THIS SURVEY WAS ADMINISTERED IN MARCH 2015

Student self-evaluation of confidence with Phase 1 Learning Outcomes						
Mapped COE Standard 11 Competencies	**Question: At this point in your training as a student veterinarian, how confident do you feel about your ability to perform each of the following items?** **Phase 1 Phase-level Learning Outcome***	**Student self-reported confidence expressed as a percent (%) Class n = 118**				
		(1) Not confident	**(2)**	**(3) Confident**	**(4)**	**(5) Very confident**
Planning and Analysis						
1, 4, 8	Describe the normal physiological & biochemical processes that maintain homeostasis n = 78	0	10	44	27	19
1, 2, 6, 7, 8, 9	Explain the physiological and biochemical basis for common tests used in diagnostic processes n = 78	1	28	44	22	5
1, 3, 9	Evaluate diagnostic tests based on test performance characteristics n = 78	1	19	34	31	15
1, 3, 4, 5, 6	Describe the evolution, development, function and identification of normal microscopic and gross anatomy n = 78	5	23	41	26	5
1, 2, 3, 6, 7, 8	Explain the inter-relationships between form and function in common domestic animals n=78	0	12	35	39	14
1, 2, 3, 9	Describe and identify the modes of inheritance of common genetic disorders & explain the current genetic tests available for specific diseases n = 78	43	36	10	8	3
Professionalism						
2,7,6,8	Conduct professional conversations with clients and colleagues that demonstrate empathetic listening and communication skills n = 78	0	1	12	45	42
2,6,7,8	Use and translate veterinary terminology to an appropriate level for a variety of audiences, such as co-workers, clients etc. n = 78	0	1	18	47	33
5, 7, 8, 9	Identify the veterinarian's role within common animal industries and describe differences in important health management issues n = 78	0	1	30	47	22
2, 5, 7, 8, 9	Describe and explain approaches to deal with differences in behavior, and the common measures of assessing the performance of groups of animals n = 78	0	5	27	53	15
Conducting Veterinary Activities						
1, 2, 3, 4,	Handle, restrain and perform a routine physical examination in small animal species n = 78	0	3	21	46	30
1, 2, 3, 4,	Handle, restrain and perform a routine physical examination in large animal species n = 78	0	8	24	45	23
1, 2 ,5, 8, 9	Take a thorough history of small animal species n = 78	0	4	14	58	24
1, 2 ,5, 8, 9	Take a thorough history of large animal species n = 78	1	8	24	49	18
1,2,5,8,9	Develop an initial problem list based on history and physical examination for small animal species n = 78	0	5	24	43	28
1,2,5,8,9	Develop an initial problem list based on history and physical examination for large animal species n = 78	0	6	27	48	19

Student self-evaluation of confidence with Phase 2 Learning Outcomes						
Mapped COE Standard 11 Competencies	**Question: At this point in your training as a student veterinarian, how confident do you feel about your ability to perform each of the following items?** **Phase 2 Phase-level Learning Outcome***	**Student self-reported confidence expressed as a percent (%) Class n = 118**				
		(1) Not confident	**(2)**	**(3) Confident**	**(4)**	**(5) Very confident**
Planning and Analysis						
1, 4, 6, 8	Describe the defence, injury and repair responses of an animal to disruptions in homeostasis when exposed to disease causing agents n = 100	0	11	58	26	5
6, 7, 8, 9	Compare and contrast the actions, applications, adverse effects, and contraindications of major classes of pharmaceuticals, biologicals, and other drugs used in veterinary medicine n = 100	6	40	27	25	2
1, 2, 3	Critically evaluate information in order to select appropriate diagnostic tests, treatments, and preventative strategies n = 100	2	27	51	19	1
3, 4, 5, 6, 7	Apply problem-solving processes when interpreting information derived from selected tests and procedures n = 100	3	21	45	27	4
Professionalism						
1, 2, 3, 9	Describe a veterinarian's legal, ethical and moral responsibilities and obligations n = 100	3	17	46	28	6
5,6,7,	Know and describe the OIE reportable and Canadian notifiable diseases, and associated human health risks n = 100	5	28	47	17	3
1, 2, 3, 4, 5, 6	Recognize and describe the common behavioural problems in common domestic animals n = 100	1	9	41	37	12
1, 2, 3, 4, 6, 7	Know and conduct the techniques for the assessment of behaviour, and for the practical assessment of welfare in common domestic species n = 100	1	19	43	29	8
1, 4, 5, 7, 8, 9	Know and describe the techniques for behavioural modification in common domestic species n = 100	1	10	52	30	7
4, 5, 6, 7, 9	Describe and explain the principles of prevention and control of disease in common domestic species n = 100	1	9	45	36	9
4, 5, 8, 9	Describe and explain the use of quarantine, vaccination and eradication in common domestic species n = 100	2	9	45	30	14
2, 4, 7, 8	Describe the development of disease including the transmission, pathogenesis and expression in relation to interactions of the host with its environment and disease causing agent n = 100	0	23	47	22	8
5, 7, 8	Develop a problem list and medical record for common domestic animals n = 100	5	11	54	24	6
2, 7, 9	Conduct dermatological and neurological examinations and radiological tests n = 100	13	34	37	12	4

1, 2, 8	Communicate effectively with clients, colleagues and staff as both a leader and team manager n = 100	2	15	26	42	15
Conducting Veterinary Activities						
1,3	Handle, restrain and perform a routine physical exam n = 100	6	17	27	29	21
2,3,4	Know and select the appropriate anesthetic drug for common procedures introduced in Phase 2 n = 100	9	27	41	18	5
2,3,4,5,	Demonstrate knowledge & skills in setting up anesthesia equipment, emergency management, shock, acid-base derangement and fluid therapy n = 100	3	18	39	34	6
1,2,4,	Describe reproductive management, cycles, and anatomical features for common domestic animals n = 100	1	15	53	24	7
1,2,5,9	Describe common reproductive diseases and syndromes, and their therapies for common domestic animals n = 100	1	20	49	25	5
4	Maintain aseptic technique for surgery n = 100	0	5	34	34	27
4	Correctly use selected surgical instruments n = 100	3	16	29	35	17
4	Perform basic suture patterns n = 100	0	15	35	29	21
4,5,6,7	Describe the principles of surgical procedures and wound management n = 100	1	14	41	28	16

Student self-evaluation of confidence with Phase 3 Learning Outcomes						
Mapped COE Standard 11 Competencies	**Question: At this point in your training as a student veterinarian, how confident do you feel about your ability to perform each of the following items?** **Phase 3 Phase-level Learning Outcome***	**Student self-reported confidence expressed as a percent (%) Class n = 118**				
		(1) Not confident	**(2)**	**(3) Confident**	**(4)**	**(5) Very confident**
Planning and Analysis						
1, 4, 6, 8	Identify and describe the presenting history and clinical signs of common diseases in a variety of domestic and non-domestic species relevant to the Canadian context n = 71	0	11	55	27	7
1, 2, 6, 7, 8, 9	Know and select the appropriate diagnostic tests, treatment options and prevention strategies of common diseases in a variety of domestic and non-domestic species relevant to the Canadian context n = 71	1	25	48	23	3
1, 3,7, 8	Identify and evaluate the ethical, animal welfare, legal, regulatory and economic issues involved in a case n = 71	0	9	45	37	9
Professionalism						
1, 2, 8, 9	Know the basic business concepts, structure and function of a veterinary practice n = 71	4	18	47	25	6
2,6,8,9	Know which diseases have zoonotic potential and identify which ones are reportable n = 71	0	8	54	32	6
1, 2, 3, 4, 5, 6	Create a clinically useful medical record n = 71	3	14	42	28	13

3, 4, 5, 6, 7	Communicate relevant follow-up care, management and prevention strategies to the owner n = 71	0	10	52	27	11
Conducting Veterinary Activities						
1,5,6,	Perform a thorough routine physical examination n = 71	3	11	44	28	14
1,2,5,8,	Conduct appropriate diagnostic tests and interpret results and findings, in order to develop a plan for treatment n = 71	3	21	61	14	1
1,2,5,8	Conduct appropriate diagnostic tests and interpret results and findings, in order to develop a list of diagnostic hypotheses n = 71	2	25	45	24	3
2,3,5	Plan and perform appropriate analgesic techniques commonly used in primary care practice n = 71	1	24	41	30	4
2,3,5	Plan and perform appropriate anesthetic techniques commonly used in primary care practice n = 71	1	20	45	30	4
2,4,5,6,	Plan and perform aseptic surgical techniques commonly used in primary care practice n = 71	3	4	32	42	19

APPENDIX 11.5 – EXTERNSHIP INDIRECT HOST AND STUDENT SELF-EVALUATION RESULTS (CLASS OF 2015)

OVC Core Externship Course <u>Host Evaluation of Student</u> Clinical Proficiency						
Mapped COE Standard 11 Competencies	**OVC Clinical Competencies**	**Proficiency of students expressed as a percent (%) of students assessed. Class n = 118**				
		Significant improvement needed	**Approaching graduating expectations**	**Meets graduating expectations**	**Exceeds graduating expectations**	
1, 2, 5, 6, 7, 9	Veterinary factual knowledge n = 118	0	32	59	9	
1, 4, 6, 8	Acquisition of case history n = 118	0	26	60	14	
6, 7, 8, 9	Communication skills with the client n = 118	3	30	57	10	
1, 3	Conducting a clinical/physical/ necropsy examination n = 118	1	39	52	8	
3, 4, 5, 6, 7	Handling animals safely and humanely n = 116	2	33	60	5	
2, 3, 6, 7	Consideration of animal welfare n = 109	0	20	73	7	
1, 2, 3, 9	Problem solving and clinical judgement n = 118	4	42	48	6	
1, 2, 3, 5, 6, 7	Diagnostic ability n = 118	0	27	65	8	
1, 2, 3, 4, 5, 6	Technical and procedural skills n = 118	1	32	60	7	
2, 3, 4, 6, 7	Case ownership and continuity of care n = 113	0	29	58	13	
1, 4, 5, 7, 8, 9	Written communication n = 105	0	10	70	20	

2, 4, 5, 6, 7, 9	Communication skills with professionals	n = 118	4	12	70	14
4, 5, 8, 9	Participation	n = 116	0	23	62	15
2, 4, 7, 8	Occupational and public health	n = 113	0	8	85	7
7, 8	Professional conduct and collegiality	n = 113	0	19	70	11
2, 7, 8, 9	Presentation skills	n = 73	0	16	68	16

OVC Core Externship Course Student Self-Evaluation of Clinical Proficiency					
Mapped COE Standard 11 Competencies	**OVC Clinical Competencies**	**Proficiency of students expressed as a percent (%) of students assessed. Class n = 118**			
		Not so confident	**Somewhat confident**	**Confident**	**Very confident**
1, 2, 5, 6, 7, 9	Veterinary factual knowledge n = 118	0	27	70	3
1, 4, 6, 8	Acquisition of case history n = 117	0	32	56	12
6, 7, 8, 9	Communication skills with the client n = 118	0	24	70	6
1, 3	Conducting a clinical/physical/ necropsy examination n = 117	6	67	25	2
3, 4, 5, 6, 7	Handling animals safely and humanely n = 118	2	32	59	7
2, 3, 6, 7	Consideration of animal welfare n = 117	2	39	57	2
1, 2, 3, 9	Problem solving and clinical judgement n = 118	1	51	46	2
1, 2, 3, 5, 6, 7	Diagnostic ability n = 118	0	48	49	3
1, 2, 3, 4, 5, 6	Technical and procedural skills n = 118	10	51	38	1
2, 3, 4, 6, 7	Case ownership and continuity of care n = 116	6	28	60	6
1, 4, 5, 7, 8, 9	Written communication n = 115	1	11	68	20
2, 4, 5, 6, 7, 9	Communication skills with professionals n = 118	0	9	75	16
4, 5, 8, 9	Participation n = 118	0	8	73	19
2, 4, 7, 8	Occupational and public health n = 117	2	29	54	15
7, 8	Professional conduct and collegiality n = 118	0	7	75	18
2, 7, 8, 9	Presentation skills n = 73	0	20	73	7

APPENDIX 11.6 - SUMMARY OF ROTATION DIRECT ASSESSMENT OF COMPETENCY DATA – OVC CLASS OF 2015 (N=32 CORE ROTATIONS)

AS ASSESSED BY STANDARDIZED RUBRICS

Mapped COE Standard 11 Competencies	OVC Clinical Competencies	Proficiency of students expressed as a percent (%) of students assessed. Class n = 118			
		Significant improvement needed	Approaching graduating expectations	Meets graduating expectations	Exceeds graduating expectations
1, 2, 5, 6, 7, 9	Veterinary factual knowledge n = 118	0	0	98	2
1, 4, 6, 8	Acquisition of case history n = 118	0	0	100	0
6, 7, 8, 9	Communication skills with the client n = 118	0	0	100	0
1, 3	Conducting a clinical/physical/ necropsy examination n = 118	0	0	100	0
3, 4, 5, 6, 7	Handling animals safely and humanely n = 118	0	0	100	0
2, 3, 6, 7	Consideration of animal welfare n = 118	0	0	100	0
1, 2, 3, 9	Problem solving and clinical judgement n = 118	0	0	100	0
1, 2, 3, 5, 6, 7	Diagnostic ability n = 118	0	0	100	0
1, 2, 3, 4, 5, 6	Technical and procedural skills n = 118	0	0	100	0
2, 3, 4, 6, 7	Case ownership and continuity of care n = 118	0	1	96	3
1, 4, 5, 7, 8, 9	Written communication n = 118	0	0	100	0
2, 4, 5, 6, 7, 9	Communication skills with professionals n = 118	0	0	100	0
4, 5, 8, 9	Participation n = 118	0	0	100	0
2, 4, 7, 8	Occupational and public health n = 118	0	0	100	0
7, 8	Professional conduct and collegiality n = 118	0	0	100	0
2, 7, 8, 9	Presentation skills n = 118	0	2	93	5

APPENDIX 11.7 - SUMMARY OF OSCE DIRECT ASSESSMENT OF COMPETENCY DATA – CLASS OF 2015 (N=25 STATIONS)

Mapped COE Standard 11 Competencies	OVC Clinical Competencies	Number of students in each quadrant, expressed as a percent (%) of students assessed. Class n = 118			
		Significant improvement needed to meet expectations	Approaching graduating entry-level expectations	Meets graduating entry-level expectations	Exceeds graduating entry-level expectations
1, 2, 5, 6, 7, 9	Veterinary factual knowledge n = 118	0	1	54	45
1, 4, 6, 8	Acquisition of case history n = 118	7	11	30	53
6, 7, 8, 9	Communication skills with the client n = 118	6	25	63	7
1, 3	Conducting a clinical/physical/ necropsy examination n = 15	0	0	40	60
3, 4, 5, 6, 7	Handling animals safely and humanely n = 27	0	4	37	59
2, 3, 6, 7	Consideration of animal welfare n = 27	0	0	15	85
1, 2, 3, 9	Problem solving and clinical judgement n = 118	1	6	59	34
1, 2, 3, 5, 6, 7	Diagnostic ability n = 118	6	6	30	58
1, 2, 3, 4, 5, 6	Technical and procedural skills n = 118	0	1	19	81
2, 3, 4, 6, 7	Case ownership and continuity of care n = 118	25	25	38	12
1, 4, 5, 7, 8, 9	Written communication n = 118	3	0	12	85
2, 4, 5, 6, 7, 9	Communication skills with professionals n = 118	1	3	26	70
4, 5, 8, 9	Participation n = 0	Not assessed at stations			
2, 4, 7, 8	Occupational and public health n = 118	1	0	4	95
7, 8	Professional conduct and collegiality n = 0	Not assessed at stations			
2, 7, 8, 9	Presentation skills n = 0	Not assessed at stations			

APPENDIX 11.8 - PHASE 4 SUMMARY OF STUDENT SELF-EVALUATION OF CLINICAL PROFICIENCY – CLASS OF 2015

Mapped COE Standard 11 Competencies	OVC Clinical Competencies	Proficiency of students expressed as a percent (%) of students assessed. Class n = 118			
		Not confident	Somewhat confident	Confident	Very confident
1, 2, 5, 6, 7, 9	Veterinary factual knowledge n = 65	0	12	80	8
1, 4, 6, 8	Acquisition of case history n = 64	0	6	63	31
6, 7, 8, 9	Communication skills with the client n = 64	0	3	73	23
1, 3	Conducting a clinical/physical/ necropsy examination n = 63	0	21	65	14
3, 4, 5, 6, 7	Handling animals safely and humanely n = 63	0	19	62	19
2, 3, 6, 7	Consideration of animal welfare n = 63	2	17	71	10
1, 2, 3, 9	Problem solving and clinical judgement n = 62	2	27	66	5
1, 2, 3, 5, 6, 7	Diagnostic ability n = 61	0	16	80	3
1, 2, 3, 4, 5, 6	Technical and procedural skills n = 60	0	38	60	2
2, 3, 4, 6, 7	Case ownership and continuity of care n = 60	0	10	70	20
1, 4, 5, 7, 8, 9	Written communication n = 60	0	7	63	30
2, 4, 5, 6, 7, 9	Communication skills with professionals n = 59	0	3	76	20
4, 5, 8, 9	Participation n = 59	0	7	76	17
2, 4, 7, 8	Occupational and public health n = 59	0	19	63	19
7, 8	Professional conduct and collegiality n = 59	0	19	63	19
2, 7, 8, 9	Presentation skills n = 59	0	0	61	39

APPENDIX 11.9 - GRADUATE SELF-ASSESSMENT OF CLINICAL COMPETENCIES ONE YEAR POST-GRADUATION (SUMMARY SURVEY DATA FOR OVC CLASS 2014)

Mapped COE Standard 11 Competencies	OVC Clinical Competencies	Proficiency of graduates, expressed as a percent (%) of students assessed. Class n = 118				
		Poor	Low	Average	High	Very High
1, 4, 6, 8	Obtain a relevant & accurate history, of the animal & environment n=34	0	2	15	65	18
1, 3	Perform a physical examination of the animal, assess the environment as appropriate, and develop a problem list n=34	0	2	30	50	18
3, 4, 5, 6, 7	Ability to modify behaviour to suit the animal & situation n=34	0	3	32	50	15
1, 2, 3, 5, 6, 7, 9	Develop a diagnostic plan & select relevant ancillary diagnostic tests/procedures n=34	0	9	38	38	15
1, 2, 3, 4, 5, 6	Perform common medical procedures effectively & efficiently n=34	0	3	38	44	15
1, 2, 3, 4, 5, 6, 7	Perform & interpret diagnostic imaging when indicated n=34	2	18	59	15	6
1, 2, 3, 4, 5, 6, 7	Recognize when various forms of analgesia are clinically indicated & perform them effectively n=34	0	3	38	47	12
1, 2, 3, 4, 5, 6, 7	Recognize when sedation and/or anaesthesia is clinically indicated & perform it effectively n=34	0	6	33	49	12
1, 2, 3, 4, 5, 6	Conduct minor & minimally invasive surgical procedures effectively & efficiently n=34	3	6	47	38	6
1, 2, 3, 4, 5, 6	Conduct more invasive surgical procedures effectively & efficiently n=34	6	33	52	6	3
1, 2, 3, 4, 5, 6, 7, 9	Ability to conduct more specialized exams to augment the general physical examination n=34	2	15	53	18	12
1, 2, 3, 9	Interpret, analyze & integrate the outcomes of history, physical exams, & diagnostic tests in order to reach/refine a diagnosis n=34	0	3	53	35	9
7, 8	Recognize personal limitations, seek additional consultation, and/or effectively refer a patient n=34	0	0	23	53	24
1, 2, 3, 4, 5, 6, 7, 8, 9	Recognize, communicate & perform euthanasia when warranted n=34	0	0	23	53	24
1, 2, 3, 5, 6, 7, 9	Ability to problem-solve effectively when dealing with non-routine or unusual cases n=34	0	6	50	35	9
1, 2, 3, 4, 6, 7, 8, 9	Develop an appropriate therapeutic or preventative plan of action, & discuss associated fiscal issues n=34	0	0	47	44	9
1, 4, 5, 7, 8, 9	Create a clinically useful medical record n=34	0	6	30	46	18
6, 7, 8, 9	Communicate professionally, effectively & efficiently with clients during professional activities n=34	0	2	18	56	24
1, 2, 3, 5, 6, 7, 9	Effective diagnosis, treatment & prevention of zoonotic diseases n=34	0	5	62	18	15
1, 2, 3, 5, 6, 7, 9	Recognize the possibility of notifiable disease & take appropriate action n=34	3	7	61	13	16
1, 2, 3, 4, 5, 6, 7, 8, 9	Understand & comply with legislation governing a licensed veterinarian n=34	2	6	56	27	9
2, 3, 6, 7, 8, 9	Assess & advise on common animal behaviour issues n=34	0	14	53	30	3
2, 3, 6, 7	Evaluate & address animal welfare issues appropriately n=34	0	6	52	30	12
2, 3, 6, 7	Assess & advise on production and performance at the group and/or the individual-animal level n=34	3	21	46	17	13
2, 4, 5, 6, 7, 9	Communicate professionally, effectively & efficiently with colleagues, staff, co-workers, & others during professional activities n=34	0	0	24	62	14
2, 4, 5, 6, 7, 8, 9	Able to work effectively with co-workers to manage conflict, manage time, & prioritize job-related tasks n=34	0	0	32	56	12
4, 5, 7, 8, 9	Able to work effectively independently to manage time, & prioritize job-related tasks n=34	0	0	33	52	15
1, 4, 5, 7, 8, 9	Perform job-related management functions n=34	3	0	32	56	9
2, 7, 8, 9	Deliver presentations to a variety of audiences using appropriate audio-visual aids n=34	4	7	46	32	11
How would you rank your overall ability to do the job for which you were hired? n=34		6	0	35	53	6

APPENDIX 11.10 - FIVE-YEAR POST-GRADUATION PREPAREDNESS SURVEY (CLASS OF 2010)

Question	Responses					
What stream did you complete at OVC? n=21	Equine, n=3	Food Animal, n= 4	Mixed Animal, n = 2			Small Animal, n=12
How would you describe your position after graduating? n=21	Academic, n=2	Equine practice, n=1	Food Animal practice, n=1		Mixed Animal practice, n = 5	Small Animal practice, n=13
How would you describe your current position? n=21	Same as after graduating, n=16	Small Animal practice, n=1	Further education, n=2	Emergency-after hours clinic, n=1	Parental leave, n=1	Mixed Animal practice, n = 1
Have you completed other training opportunities since completing your DVM? n = 20	None, n=8	Advanced Clinical Training n=4	Post Graduate education, n= 4		Certificates, n=3	Specific technique courses, n=1
Have you held your current position since graduating from OVC? n=21	Yes, n = 5		No, n=16			
How satisfied are you with your current position? n= 20	Very satisfied, n=8	More than satisfied, n=10	Satisfied, n=1		Less than satisfied, n=1	Not satisfied, n=0
How well did your DVM training at OVC prepare you for your first position? n=19	Very well, n=3	More than adequate, n=3	Adequately, n=13		Less than adequate, n=0	Not well, n=0
How well did your DVM training at OVC prepare you for the different/changing role(s) you have held since graduation? n=19	Very well, n=4	More than adequate, n=8	Adequately, n=7		Less than adequate, n=0	Not well, n=0

Questions asked in the 5-year OVC Alumni Survey:

1. What stream did you complete at OVC?
2. How would you describe your first position after graduating from OVC?
3. How would you describe your current position?
4. Have you held your current position since graduating from OVC? Yes or No (please explain – open text).
5. How satisfied are you with your current position?
6. Have you completed other training opportunities since completing your DVM? Please tell us why you pursued these opportunities? (open text)
7. How well did your DVM training at OVC prepare you for your first position post-graduation?
8. How well did your DVM training at OVC prepare you for the different/changing role(s) you have held since graduation?
9. Please provide us with any additional comments that you think would be beneficial for the DVM Program at OVC (open text).

APPENDIX 11.11 –EMPLOYER SURVEY SUMMARY, ONE YEAR POST GRADUATION (SUMMARY SURVEY DATA FOR OVC CLASS 2014)

Mapped COE Standard 11 Competencies	OVC Clinical Competencies	Proficiency of graduates, expressed as a percent (%) of students assessed.				
		Poor	Low	Average	High	Very High
1, 4, 6, 8	Obtain a relevant & accurate history, of the animal & environment n=19	0	0	17	55	28
1, 3	Perform a physical examination of the animal, assess the environment as appropriate, and develop a problem list n=19	0	0	22	39	39
3, 4, 5, 6, 7	Ability to modify behaviour to suit the animal & situation n=19	0	6	28	44	22
1, 2, 3, 5, 6, 7, 9	Develop a diagnostic plan & select relevant ancillary diagnostic tests/procedures n=19	0	0	16	53	31
1, 2, 3, 4, 5, 6	Perform common medical procedures effectively & efficiently n=19	0	0	33	50	17
1, 2, 3, 4, 5, 6, 7	Perform & interpret diagnostic imaging when indicated n=19	0	0	26	58	16
1, 2, 3, 4, 5, 6, 7	Recognize when various forms of analgesia are clinically indicated & perform them effectively n=19	0	0	12	53	35
1, 2, 3, 4, 5, 6, 7	Recognize when sedation and/or anaesthesia is clinically indicated & perform it effectively n=19	0	0	12	65	23
1, 2, 3, 4, 5, 6	Conduct minor & minimally invasive surgical procedures effectively & efficiently n=19	0	6	29	36	29
1, 2, 3, 4, 5, 6	Conduct more invasive surgical procedures effectively & efficiently n=19	6	18	29	41	6
1, 2, 3, 4, 5, 6, 7, 9	Ability to conduct more specialized exams to augment the general physical examination n=19	0	0	35	59	6
1, 2, 3, 9	Interpret, analyze & integrate the outcomes of history, physical exams, & diagnostic tests in order to reach/refine a diagnosis n=19	0	0	26	58	16
7, 8	Recognize personal limitations, seek additional consultation, and/or effectively refer a patient n=19	0	0	21	58	21
1, 2, 3, 4, 5, 6, 7, 8, 9	Recognize, communicate & perform euthanasia when warranted n=19	0	0	12	63	25
1, 2, 3, 5, 6, 7, 9	Ability to problem-solve effectively when dealing with non-routine or unusual cases n=19	0	0	37	47	16
1, 2, 3, 4, 6, 7, 8, 9	Develop an appropriate therapeutic or preventative plan of action, & discuss associated fiscal issues n=19	0	0	28	44	28
1, 4, 5, 7, 8, 9	Create a clinically useful medical record n=19	0	6	11	44	39
6, 7, 8, 9	Communicate professionally, effectively & efficiently with clients during professional activities n=19	0	0	17	55	28
1, 2, 3, 5, 6, 7, 9	Effective diagnosis, treatment & prevention of zoonotic diseases n=19	0	0	47	41	12
1, 2, 3, 5, 6, 7, 9	Recognize the possibility of notifiable disease & take appropriate action n=19	0	0	40	40	20
1, 2, 3, 4, 5, 6, 7, 8, 9	Understand & comply with legislation governing a licensed veterinarian n=19	0	0	23	59	18
2, 3, 6, 7, 8, 9	Assess & advise on common animal behaviour issues n=19	0	0	35	47	18
2, 3, 6, 7	Evaluate & address animal welfare issues appropriately n=19	0	0	28	36	36
2, 3, 6, 7	Assess & advise on production and performance at the group and/or the individual-animal level n=19	0	0	29	57	14
2, 4, 5, 6, 7, 9	Communicate professionally, effectively & efficiently with colleagues, staff, co-workers, & others during professional activities n=19	0	5	21	32	42
2, 4, 5, 6, 7, 8, 9	Able to work effectively with co-workers to manage conflict, manage time, & prioritize job-related tasks n=19	0	6	22	28	44
4, 5, 7, 8, 9	Able to work effectively independently to manage time, & prioritize job-related tasks n=19	0	5	21	37	37
1, 4, 5, 7, 8, 9	Perform job-related management functions n=19	6	0	29	36	29
2, 7, 8, 9	Deliver presentations to a variety of audiences using appropriate audio-visual aids n=19	0	0	0	67	33
How would you rank the graduate's overall ability to do the job for which they were hired? n=19		0	0	11	63	26