

**INFORMATION FOR THE GRADUATE STUDENT/RESIDENT  
VETERINARY DENTISTRY AND ORAL SURGERY  
JULY 2009**

1. Description of the Program

- a. The graduate student/residency program is a three-year program which allows the student to develop competence and expertise in the specialty of veterinary dentistry.
- b. The program will prepare the student for credentialing for both the American Veterinary Dental College (AVDC) and/or the European Veterinary Dental College (EVDC). It is expected that the graduate student will credential for the AVDC and/or EVDC by the third year of their residency and take the certifying examination of the AVDC and/or EVDC that year.
- c. The major portion of the program is clinical training with an emphasis on clinical research, undergraduate teaching program, and scientific writing. The graduate student will be expected to interact with small, large, and exotic animal specialists in the Veterinary Teaching Hospital (VTH) and human dentists at the College of Dentistry. The student will have ready access to the veterinary and medical library.
- d. The graduate student/resident must enroll with the College of Graduate Studies and Research and complete a Master of Veterinary Science degree. This will involve course work and a research project as outlined below.

2. Clinical Duties

The majority of the graduate student/residency program will entail participation in clinical service and undergraduate student teaching in the small and large animal teaching hospital. The resident will be responsible for receiving referral cases approximately 75% of each year. Teaching and research will occupy approximately 25% of the year. It is during this time that the graduate student will be expected to pursue research, publication, and teaching. In addition the graduate student will be expected to assist in outreach teaching when appropriate.

The resident will be responsible for all hospitalized cases and the emergency duty will be shared with faculty on approximately a 60/40 basis. In regards to the emergency duty, early in the program (years 1 and 2) the resident will be assisted in all emergencies while later in the program emergencies may be handled alone as the resident's expertise develops. Generally all cases seen by the graduate student will also be examined by the faculty dentist. The residency/graduate program will

closely mirror the recommendations of the American Veterinary Dental College and the European Veterinary Dental College programs. A surgical log of all cases must be maintained. Numerous cadaver surgeries should be scheduled and completed by the resident during the early stages of the residency. CAT scans, MRI, and contrast imaging studies are to be observed by the resident and all diagnoses discussed with the radiologist or advanced imaging specialist at the time they are being completed. Referral letters will be dictated and signed by the faculty member and the graduate student/resident.

### 3. Teaching

The graduate student will participate in clinical teaching of second, third and fourth year undergraduate students and interns. In addition, the graduate student will be expected to play an active role in teaching third year and 580 laboratories and participate in didactic lectures when appropriate.

Evaluations of undergraduate students will be completed in conjunction with the faculty member. The graduate/student resident will be expected to take an active role during the last two years of the residency in preparing lectures, creating and marking examinations, critiquing the undergraduate dentistry program and making suggestions for improvement. The graduate student/resident will be expected to take an active role in the oral (histological) pathology rounds with the graduate pathology students. In addition the graduate student/resident will be expected to present a minimum of one clinical case or research project per year with relevance to veterinary dentistry to a post graduate group setting such as the Annual Veterinary Dental Forum.

### 4. Credentialing, Publishing Requirements

During the course of the residency the graduate student/resident will be responsible for writing four AVDC EVDC credentialing case reports in the first two years and having them critiqued by the faculty. These case reports are required by the AVDC and EVDC for credentialing. These are expected to be in depth cases with photographs, laboratory results, and imaging confirming the diseases initially and at completion of the case, follow up is mandatory and a complete literature search. In addition the graduate student/resident will be expected to present a minimum of one clinical case or research project per year with relevance to veterinary dentistry to the Annual Veterinary Dental Forum. Limited funds may be available from the University to subsidize and offset part of the travel.

## 5. Coursework

Each resident/graduate student will be enrolled in the Master of Veterinary Science (project) degree program. The requirements for this program include a three-year clinical residency and graduate courses (30 credits) to be completed within the three-year program. In addition, a research project should be determined as soon as possible after arrival at the WCVM. Application for admission to the College of Graduate Studies and Research should be made immediately upon appointment to the residency/graduate student position. The graduate student must register in their first-year courses by early September. Consultation with the faculty supervisor and graduate student advisory committee regarding which courses to take will occur as soon as possible after arrival.

Every graduate student/resident in the M.Vet.Sc. program **must** enrol in:

Two mandatory on-line courses, **Introduction to Ethics and Integrity** (GSR 960) and **Ethics and Integrity in Animal Research** (GSR 962), must be taken through the University during your first term. Students register for these Ethics courses through PAWS along with their other courses and will receive a CR on their transcript for the courses once they have been completed.

**Friday morning seminars** (VSAC 990) - Register for this non-credit course each Fall and Spring. Residents will give two lectures each academic year in this course and will attend as many of the lectures as possible. The participation of residents in providing constructive criticism to other speakers is mandatory.

**Project** (VSAC 992)- All students in the non-thesis program must register for this course each term (Fall ,Spring , Summer) during each year of their program, starting in the first Fall session of their program ( Fall 2009).

Other possible courses for students in this program include:

### **VSAC 873.6 Advanced Small Animal Clinical Sciences (Veterinary Dentistry)**

Procedures in diagnostic, therapeutics, and treatments as applied to daily clinical case load.

### **VSAC 868.6 Advanced Veterinary Anesthesiology**

Subjects include anesthetic equipment, pain control, pharmacology of anesthetic agents, mechanisms of anesthesia and the effects of anesthetic agents on the various body systems. Anesthetic

techniques for specific body systems and disease conditions will also be discussed.

### **VSAC 803.6 Special Field Experiences**

Total immersion in the area of study pertinent to the graduate student. A complete report is required and should come from a daily log of activities and be organized from a protocol set up by the students advisory committee prior to going out on this experience.

### **VLAC 881.3 Clinical Trial Design and Analysis**

A course for veterinary graduate students who need an understanding of clinical trial design, statistics and clinical epidemiology in order to carry out their research and to evaluate themselves as clinicians. The course will cover areas of clinical trial design, applied medical statistics, diagnostic test evaluation and writing research grants.

### **VSAC 899.6 Special Topics (Human Oral Infectious Disease)**

A discussion course covering the pathophysiology, diagnosis and therapy of selected important veterinary oral infectious diseases. A part of the course comprises each student writing a paper on a selected topic.

Prerequisite: PATH 305.6-1(7L/P/T)

PATH 305.6-1(7L/P/T)

Consists of didactic lectures, laboratory exercises, and clinical microbiology conferences, part of which are taken in conjunction with the College of Medicine. Deals with the general principles of medical bacteriology, mycology, virology, parasitology, and the organisms involved in systemic infections in general and oral infections in particular. Complications of systemic infections with oral manifestations or oral infections resulting from dental procedures are discussed. The role of the medical laboratory in the diagnosis of infectious diseases is also discussed together with consideration of antimicrobial therapy in relation to both systemic and oral infections.

### **DENT 486.3 Oral Pathology**

Provides the students with the knowledge and understanding of diagnosis, pathogenesis, clinical and histological features, management, and prognosis of oral diseases with emphasis on their oral manifestations and implications. Topics include developmental abnormalities of the oral hard and soft tissues; infections of the oral cavity; physical and chemical injuries of the oral cavity; benign and malignant neoplasm's; the oral manifestation of metabolic, dermatologic, hematologic, and

immunologic disease; fibro-osseous lesions; non-odontogenic and odontogenic tumors and cysts; salivary gland disease; and forensic odontology. Supplementary clinical case exercises are given weekly to enhance, examine and reinforce student's knowledge.

### **DENT 214.2 Oral Histology and Embryology**

A lecture and laboratory course that studies the development, histology and function of oral structures that have special significance to dentistry. Course content considers the processes involved in craniofacial development; the development of the teeth and palate; and the histology of hard and soft tissues of the oral and perioral regions.

### **VSAC 899.6 Special Topics (Veterinary Dentistry, Oral Medicine and Surgical Advanced Topics)**

This offers critical review of the current literature and discussion of the implications for treatment planning and management of oral pathology and treatment in animals. This is a present time online program. This must be taken in the last year of the program. A partial list of topics to be discussed at a session are: oral anatomy and histology, oral structural biology, oral pain control, general anesthesia management for the dental patient, oral pathology, periodontal disease, endodontic disease, orthodontics, dental materials and equipment, restorative dentistry, implantology, maxillofacial repair, pedodontics, temporo-mandibular function disease and treatment, oral tumors, equine dentistry, pocket pet and small mammal dentistry, exotic dentistry, systemic disease with oral complications.

### **VSAC 899.3 Special Topics (Veterinary Oral Pathology)**

An interactive histological analysis session discussing cases for the veterinary teaching hospital, incorporating signalment, clinical presentation, pathophysiology, and treatment planning. This course must be taken in the last year of the program. This is a present time online program.

Courses are subject to change and may not be offered every year.

## **6. Research Project**

A research project will be assigned to the graduate student upon entering into the graduate program and during the first four months the graduate student will review the previously funded project and the literature applicable to the project. During the next eight months the graduate student will be responsible for scheduling time to allow completion of this

research project. The following year will entail writing a scientific paper and completing a presentation at the annual meeting of the AVDC or the EVDC. It is essential that the research project be addressed early in the residency and completed prior to the beginning of the third year to allow for delays that commonly occur during research or clinical trials. The graduate student will complete the literature search and may alter the design of the research project with the permission of the supervisor and the graduate student advisory committee. A research grant proposal will be written together with the faculty supervisor during the third year of their residency to ensure funding for future projects and graduate students. This will ensure that the graduate student is exposed to research grant writing and the guidelines of granting agencies. Again, analysis of data, writing the research paper and presentation should be completed during the second year of the residency to ensure adequate time for publication. The research paper is a requirement of the degree and should be in the hands of the graduate student's advisory committee before January 1 of the third year of their program. The graduate student/resident will be expected to present the results of their research in a seminar to the faculty of the WCVM near the end of their program. On that same day they will be expected to defend their project and be examined in general dentistry and oral surgery by an examination committee.

#### 7. Evaluation of Graduate Students

Written and oral evaluations to the graduate student/resident will be completed on a six month basis during the three years of the residency program. These evaluations will be subjectively completed by faculty members in the various sections where the graduate student works and will be collected and collated by the supervisor in an oral and written form to help guide the graduate student through the program.

#### 8. Miscellaneous

All graduate students are allowed three weeks of vacation time each year which must be taken out of the academic time in the program. Approximately 12 weeks of every year are available for academic time. Academic time is allotted to allow the graduate students to complete a research project, to pursue/collect and become familiar with the world of dentistry literature, write papers for publication, and prepare for the AVDC/EVDC examinations. Self-funded externships in areas of special interest may be approved by the advisory committee. Scientific meetings such as the Annual Veterinary Dental Forum must be attended during vacation or academic time. Some funding assistance for travel may be available within the department. The graduate student/resident will be

expected to complete a schedule of their academic and vacation time each year no later than August 1 of each year of the residency. Changes to this schedule can only be made with approval of the faculty advisor.

Stationary supplies are available for the graduate students through the Department of Small Animal Clinical Sciences. The department secretary will, when possible, provide some assistance for preparation of teaching related handouts. Referral letters that are dictated will be typed by the Veterinary Teaching Hospital Office secretaries. Microcomputer time is available in the Department and in the Auto tutorial center. Graduate students will be issued a personal number for use of the Xerox machine in the department. The maximum allowable number per year is 3000 copies per resident. Given the volume of the veterinary dental literature that is required for preparation for the certifying examination of the AVDC or EVDC the resident must personally budget additional funds for photocopying. The graduate student/resident will be expected to follow the requirements of the AVDC and/or EVDC and provide useful evaluations of the dentistry residency and discussion of these with the faculty member prior to completion of the program.

The graduate student will be responsible for tuition fees for the three year period. Saskatchewan Veterinary Medical Association licensing and self funding of externships is the responsibility of the graduate student.