Master Degree in Stomatology Strategic Assessment

September 15, 2009

The Department of Oral Pathology, Radiology, and Medicine offers a Master of Science in Stomatology Degree through The University of Iowa Graduate College, in addition to clinical specialty certification in oral and maxillofacial pathology and radiology. Stomatology is the science concerned with the structure, function, and diseases of the oral cavity. The goal of the MS program is to train and educate students so that they are capable of evaluating the literature and having the basic science knowledge necessary to permit them to develop and advance the profession through well-designed research projects. The graduates become well-versed in the application of research methods and the evaluation of the data necessary to develop intellectual growth, foster a creative attitude, and stimulate a desire for continued study.

The primary educational mission of the department is to carry-out ‘research investigations in the areas of Oral and Maxillofacial Pathology, Oral and Maxillofacial Radiology, Pharmacology and Therapeutics to increase understanding of oral and paroral disease, its recognition, its treatment, and its prevention. The department also conducts research to improve methods for teaching subject-related decision making and learning skills to students in the specific academic areas encompassed by this Department’.

The majority of our graduates pursue academic appointments and many of these academicians are jointly appointed in Colleges of Dentistry as well as Colleges of Medicine. Since there are a small number of U.S. dental schools and very few positions available it is important that our program be able to train practitioners who are not only capable of clinical practice but also well-trained in teaching and research.

Organization of the program

The department has a Graduate Program Committee that establishes admission criteria for applicants and evaluates applications for admissions, the progress of current trainees, and the management and adequacy of the program to ensure that the program goals are being adhered to and met. The graduate program is chaired by the director, Dr. Sherry R. Timmons, and also includes Drs. Axel Ruprecht, Michael Finkelstein, Steven Vincent, John Hellstein, Veeratrishul Allareddy, Christopher Squier, and Phillip Wertz. Five of the committee members are tenured professors, and three members are clinical track, one professor and two assistant professors. Two of the clinical track committee members hold temporary appointments in the Graduate College and the third clinical track member is in the process of applying for temporary membership.

Admission

To be considered for admission to our program, applicants must have successfully completed an accredited program leading to the D.D.S. or D.M.D., or a foreign equivalent. Applicants must have a 3.0 minimum cumulative grade point average (on a 4.00 scale). The program requires all applicants to take the Graduate Record Examination (GRE) General Test. In evaluation and comparison of applicants, the department utilizes the GRE scores as an indicator of educational achievement and to validate transcript grades from previous institutions. Students from countries whose primary language is not English must present evidence of satisfactory performance on the Test of English as a Foreign Language (TOEFL). In addition to these requirements, applicants are required to submit transcripts from all institutions of higher learning, three letters of recommendation, current curriculum vitae, and a statement of purpose.
Upon review of the submitted materials, the Graduate Program Committee places emphasis on previous scholastic performance and scholarly activity, emphasizing research experience and demonstration of scholarly activity. The committee also places weight on the statement of purpose. Because our graduates tend to pursue academic careers the purpose should indicate an objective goal of pursuing an academic career and research endeavors. Those individuals who are supported by foreign institutions are given particular consideration as this support indicates a strong commitment to pursue academic careers. The department also requires a personal interview from anyone we are considering for admission, providing an opportunity for us to interact directly with applicants.

During the 2002-2009 review period, the number of program inquiries varied from 9-48 and between 1 and 11 completed applications were submitted per cycle. Due to our admission requirements and stringent application review process, we typically interviewed 3-4 students per cycle, admitting 1-3 students into the program per year. During each year reviewed, we typically had 1-2 U.S. applicants and the rest were foreign trained individuals. Applicants have comprised a nearly 1:1 male to female ratio with the current ratio being 2:3 male to female students. During the review period we have had three White students, one Hispanic, one Black student, and six Asian/Pacific Islanders (per the university classification scheme). The grade point average of applicants averaged 3.17, for those admitted to the program the average was 3.43, and the average for those enrolled was 3.50. The GRE score for applicants averaged 634.

Although the department does not provide financial assistance to foreign trained students, out of the five current students three are international students and one of those has support from a host institution (this individual is enrolled in the Oral Science PhD program.) During the last eight years all of the enrolled students have successfully matriculated through our program and the average program duration has been 36 months. Although at any one moment in time we have a small number of students matriculating through our program, we have a high success rate for program completion.

The Department of Oral Pathology, Radiology, and Medicine offers core courses in a variety of areas including manifestations and treatment of oral and para-oral diseases, head and neck radiology, and techniques to appropriately evaluate relevant literature. Additional required core courses such as research methodology, systemic pathology, and statistical methods are also taken through other departments. The didactic requirements for our advanced degree program also provide an opportunity for trainees to interact with a broad variety of departmental and external mentors and undertake projects in both laboratory and clinical research. Many of our faculty have joint appointments in other University units and this allows for more extensive collaborative opportunities for our trainees.

The department has a faculty-graduate student ratio of about 1.8:1 faculty per graduate student. In addition to the numerous teaching responsibilities in the pre-doctoral curriculum, the dominant trend is for faculty to direct 1-2 graduate courses per year. These courses vary from once per training year to every semester. In many of these courses in addition to the course director, other departmental faculty members participate as contributors or lecturers. The majority of the program faculty serves on thesis committees, with everyone serving on approximately 1-4 thesis committees at any given time (this includes non-departmental thesis committees.) Departmental thesis committees depend upon the area of research and committee members are chosen from both collegiate and university faculty based on their area of expertise.

Upon entering the program, the advisor, student, and program director develops a plan of study based on the student’s interests and goals and the requirements and resources of the Department. At the beginning of each semester, the advisor and student review the plan of study and makes revisions if necessary. The student cannot drop or add courses without permission of the program director.
The Master of Science in Stomatology degree program requires a *minimum* of 30 semester hours, consisting of didactic coursework and research hours. Most students exceed this minimum standard because additional didactic courses are required based in the area of interest for the thesis project. In addition to a research project, students are also required to write a thesis, present an oral summary of the thesis, and successfully pass an oral examination.

Evidence as to how successfully the program prepares students for their roles as educators and researchers is provided by the type of professional appointments obtained by graduates as well as the type and number of manuscripts produced and published. Of the six students receiving the MS degree during the 2002-2009 review period, four individuals have full-time academic appointments, one has a post-doctoral appointment and one is an international student pursuing a D.D.S. degree at a U.S. institution. The individuals with academic appointments teach pre-doctoral and/or graduate students and most still engage in research endeavors. Since one of our main program goals is for our graduates to remain in the academic arena, we are doing quite well in this pursuit.

There have been six theses completed during the review period and sixty percent of students are currently writing manuscripts with the intent of submitting them to refereed journals. Of the seven MS degree students who had/have begun their research project approximately fifty percent have presented their research at professional meetings.

The major challenge for our program is the limited funding opportunities available to both US and international students. Although we are able to provide a stipend for US students, there are still costs that need to be covered usually via personal funds or loans. The inability to provide any funding to international students reduces our applicant pool and probably denies access to very well-qualified applicants. The prospect of having primarily an academic appointment with limited compensation compared to private practice will continue to deter potential applicants, especially North American dental graduates who often have large student loan debts.

In summary, the Master of Science in Stomatology is a strong program and has a reputation of providing a balanced, comprehensive educational experience. We have knowledgeable, skilled faculty committed to student learning and professional and scientific growth. We have a supportive clinical and administrative staff that is willing and able to assist the graduate program as needed. We have the in-house facilities and outside collaborations necessary to meet the varied needs and interests of our students. We have a structured curriculum that provides a solid foundation in basic sciences as well as allowing the flexibility to provide instruction in areas related to the research activities. We have established a good balance between the requirements for specialty certification and the advanced degree program that allows students to pursue both endeavors simultaneously. We continue to produce knowledgeable, motivated educators who pursue active research and teaching endeavors. Our goal is to continue to provide a sound educational experience for our students, and continue to build on our strengths.