

2000
University of Washington
Review School of Dentistry Masters in Science Program (MSD)

The Review Process

The School of Dentistry compiled and provided the members of the review committee with information about the Masters of Science in Dentistry (MSD) program. The committee also had access to the 1987 review provided by the Graduate School. In addition, we requested information on recent graduates and curriculum. The committee interviewed the leadership of the School and program, faculty and students on May 22-23, 2000.

Background

The School of Dentistry was established in 1945 with two specialty programs in orthodontics and operative dentistry. Subsequently various programs were added and deleted. The specialty programs now consist of training in endodontics, oral medicine, oral pathology, orthodontics, pediatric dentistry, periodontics and prosthodontics.

The program was reviewed last in 1987. The recommendations of the 1987 Committee were:

1. The school should establish a distinction between a certificate given for clinical training and a master's degree given for research training.
2. The faculty should explore the desirability of a core curriculum aimed at strengthening the base of instruction and reducing the duplication of faculty efforts.
3. A School wide mechanism should be developed to monitor the quality of the master's degree program in their theses.
4. The School of Dentistry should attempt to find funds to support students during their third year of the combined program when they are engaged in research and graduate education.

Current Status of the University of Washington MSD Program

This advanced specialty education program is composed of students receiving postdoctoral clinical specialty training in endodontics, oral medicine, oral pathology, orthodontics, pediatric dentistry, periodontics, prosthodontics. The objective of the clinical program is to develop clinical expertise in a specialty

discipline. Those students receiving more formal education in research associated with their specialty training are members of the MSD program, which compliments their specialty training.

The primary objectives of the MSD program are:

1. To prepare students to be proficient in the advanced clinical specialties identified above at a level consistent with national and regional trends in the profession and in accordance with accreditation standards for each specialty defined by the American Dental Association, Council on Accreditation.
2. To provide formal research training and experience developing research protocols, establishing a research budget and gathering and analyses of data such that the student is provided the opportunity to make an original contribution to science.
3. To provide the graduate student with an in depth didactic program beyond the extensive experience they have had in dental school and their specialty training.
4. To prepare individuals for a career in teaching and/or research at the university level.
5. To instill in the students the pattern of life-long learning and professional development.
6. To provide a high quality of dental care in the specialty areas for the public.
7. To contribute to postdoctoral research and general patient care programs within the Dental School at the University and regional allied programs.

The School of Dentistry leads the nation in peer reviewed research funding from the National Institute of Dental and Craniofacial Research and hosts a Regional Dental Clinical Research Center; a Research Center in Oral Biology; Dentist-Scientist and research training grants in periodontology, oral epidemiology and biostatistics; program projects in etiology and management of chronic pain; epidemiological programs directed to oral diseases among women; and a summer research Institute for faculty that draws participants world-wide. In addition, the National Institute of Dental and Craniofacial Research recently awarded the School, in collaboration with the School of Medicine and Children's Hospital, a Comprehensive Oral Health Research Center

The MSD program maintains an average applicant to accepted ratio of approximately 30:1. During the past ten years since the last review 90% of the students enrolled in advanced specialty education in dentistry have elected to participate in the MSD program. Eighty per cent of these students defended their master's thesis in open forum. In the last 10 years, 172 students have completed the MSD program.

Students are mentored from a pool of 70 faculty members from the School of Dentistry. Approximately 60% of those completing their thesis have had their research presented or published in peer review journals with 75% of the students submitting manuscripts for publication. Recent evaluation of graduates of the program indicate that 60% of the MSD students graduating in the past decade participate in the DDS, Graduate, Dental Hygiene and Dental Assisting level. MSD students have the opportunity to perfect their teaching skills by participating in the predoctoral dentistry program and also the graduate program. About 80% of the students in the past decade have received some funding for their research. These facts provide superb examples of the robustness of this program.

According to the self-study, 172 students have completed the MSD program in the last 10 years. The numbers of MSD graduates for each of the specialty areas varies. Combining the School of Dentistry MSD graduation records for 1998 and 1999, there were 6 graduates in Periodontics, 4 in Prosthodontics, 3 in Pediatric Dentistry, 12 in Orthodontics, 2 in Oral Medicine, and 1 in Endodontics. Further, the School reports that all MSD graduates in the last three years have assumed positions within specialty dentistry, with approximately 33% of the graduates working at least part-time in academia. Generally, though there appeared to be variability from one specialty area to another, the students seemed to be enthusiastic about the program and satisfied with the overall quality of the program. Of the 10 students responding to the Summer 1998 – Spring 1999 Graduate School Exit Questionnaire, the mean rating for "Overall quality of the program" was 4.3, SD = .82 (based on a 5-point scale with 5 being the highest). For this same period, the mean for the University was 3.88, SD = .82. For the 1997-1998 year, 17 students responded to the questionnaire and the mean for overall program quality was 4.18.

Students in the MSD program are enrolled in the Summer Institute for Clinical Research sponsored by the Regional Clinical Dental Research Center and the Department of Dental Public Health Sciences. This summer program is designed to educate the students in a common core curriculum, which includes biostatistics, epidemiology, and other topics related to clinical research. It also provides a mechanism to bring students who work in different departments in the School of Dentistry together at the beginning of their post graduate training, thus facilitating interdisciplinary collaboration in clinical care and research.

No formal evaluation mechanism for the entire MSD program. The leaders of the program generally monitor the percentage of students who publish their thesis work. The School does have a graduate program review committee, which has met periodically over the last decade. However, it is apparent that the students are supervised primarily in the subspecialty department of their mentor rather than as a unified group.

There is an effort to increase the interdisciplinary aspects of the training and many of the students interact with faculty of epidemiology, psychology and the basic medical sciences in the School of Medicine.

The MSD program at the University of Washington has the luxury of strong support by the Dental School Alumni.

Evaluation

In summary, this is an outstanding program. It is one of the premier programs in the country. The Review Committee was initially concerned about the mixture of clinical specialty/subspecialty training and graduate masters program. The graduate degree program is, however, closely tied to research and thesis production, and the problem in differentiating the certificate clinical program from the degree program does not seem to be a significant factor now. The committee found junior faculty extremely enthusiastic about both their career development and the multidisciplinary research opportunities afforded by the School of Dentistry and in the Health Sciences. They particularly appreciate the protected time for their research and graduate student teaching. The committee strongly endorses the interdisciplinary nature of the summer institute program. There exists overwhelming support for this program at all levels. It is essential that it be maintained should grant support be discontinued. The research topics of the students seem to be a good mix of basic and applied projects and the publication rate is impressive considering this is a master's program.

Recommendations:

- We enthusiastically recommend the continuance of the MSD program in the School of Dentistry.
- We strongly recommend continuation of the summer program which serves to integrate the diverse nature of the program and which provides an effective introduction to research.
- We recommend the essential need for school wide oversight and vision for the MSD program.
 - There is confusion in the school about the role of the UW Graduate School in specialty education.

- There is a need to establish a clear line of command in the School for reporting to the Dean and to the Graduate School. For example, the Director and Graduate program coordinator positions could be combined to interface effectively with both the Dean and the Graduate School.
- The Associate Deans for Academic Affairs and Research should be permanent members of the Graduate Program Directors Committee.
- We suggest that the Chair of the Graduate Program Directors Committee be an ex officio member of the faculty council to facilitate communication and raise awareness of the MSD program.
- There is a need for oversight of the composition of graduate thesis committees.
- We recommend the continued commitment to training of future scholars in both clinical and academic dentistry.
 - We endorse the continued mentoring of junior faculty and recognize the University's role in this process. For example, in addition to providing interaction with the junior faculty on their roles as research supervisors time must be provided for the research supervisors to lead their MSD students.
 - The School should continue to explore mechanisms as a way to promote students entering academic careers (e.g., reduced graduate education costs, loan forgiveness for students assuming academic positions).
 - The school should continue to seek stipend funding for graduate students as a way to maintain a competitive position for recruitment of high quality U. S. domestic graduate students.
 - The small number of research opportunities in some pathways (departments) would be solved by encouraging interdisciplinary research projects. Such an approach would also allow faculty and students to become proficient in new molecular biology techniques.



The University of Michigan

SCHOOL OF DENTISTRY

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August 6, 2000

Wayne E. Crill, MD
Chair, Review Committee on MSD Program in Dentistry
Professor, Physiology and Biophysics and Neurology
Box 357290
University of Washington
Seattle, WA 98195

Dear Dr. Crill:

As part of our Graduate School review of the School of Dentistry Masters of Dentistry (MSD) program, I submit this external reviewer letter. It is considered a summary viewpoint of one who has spend two decades directing and reviewing similar graduate programming in U.S. and international dental schools.

The University of Washington Graduate Review Committee chaired by you identified issues for the School of Dentistry MSD program that are common themes among all existing programs that attempt to meld the needs of graduate education to the accreditation expectations of clinic specialties in dentistry. Time, energy, supportive funding, and creative academic/research leadership are uniform shortcomings of such programs. These are also in critical short supply at the University of Washington, with the exception of research leadership.

In spite of shortages in resources, the Washington programs are strong. The quality of graduate students and the nature of their research publications are exemplary. Faculty are passionate about their mentoring of students. The administration understands the vital nature of these clinical specialists in the long-term survival of excellence in dental academics.

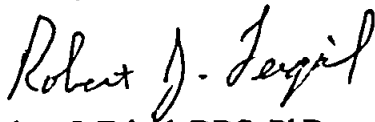
It is safe to say that the University of Washington resources, traditions of excellence, and commitment to quality MSD training would be the envy of most Schools of Dentistry. Only a handful of similar programs in the U.S. can compare. Therefore, accolades are in order to the School of Dentistry at your institution for a contemporary leadership position in this training.

The future will bring more challenges, as competition for funding tightens availability of dollars and as shortages of applicants to academically-based specialty programs are expected. The University of Washington program in the School of Dentistry will need to find secure funding to decrease the debt of young scholar/teachers, and the School will require a long-term commitment to maintaining their active, research faculty as a necessary aspect of supporting a vital academic/research training program.

Progress should be made in bringing all specialty disciplines to a more uniform level of academic expectation for their graduate students. Our Committee's recommendations regarding oversight and administrative clarity will go far to accomplish this goal. The beginnings of a core curriculum are seen, and it will be advantageous for the School to grow this curriculum.

In summary, the University of Washington MSD program is healthy and strong. It faces all the usual challenges for such programs that are identified on a national level, yet the Washington program is well positioned to lead the search for creative solutions for these issues. I give full support to a positive report from our Review Committee.

Sincerely,

A handwritten signature in black ink, reading "Robert J. Feigal". The signature is written in a cursive, flowing style with a large initial "R".

Robert J. Feigal, DDS, PhD
Samuel D. Harris Professor of Dentistry
Director of Pediatric Dentistry Programs
Associate Dean for Graduate Programs and Facilities