

UNIVERSITY OF LOUISVILLE

Advanced Education Program in Prosthodontics

Title of Certificate

School of Dentistry

Unit Submitting Proposal

CIP Code: 51.0511

EEO Status: Automatic

Level (check one): Undergraduate _____

Graduate X (post-professional)

Minimum Credits to Earn Certificate: 94 hours

**Department of Oral Health &
Rehabilitation (formerly PEDH)**

Department

Dentistry - Prosthodontics

Academic Major

CIP Code:

July 1, 2012

Proposed Starting Date

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Certificate Program Coordinator

The following guidelines have been established to assist those individuals developing certificate programs and those charged with reviewing and approving them in order to promote program quality and to assure an effective relationship between the certificate programs and the resource and academic mission of the sponsoring unit. Such programs should complement existing programs in a way that will make the University a center of lifelong learning for the University community. Non-academic credit programs are not included.

I. EDUCATIONAL OBJECTIVES AND RATIONALE

1.1 Program Objectives

a. Define the program objectives

The primary objective of the program, through an organized advanced and comprehensive curriculum, is to prepare dentists for the contemporary specialty practice of Prosthodontics. This is accomplished by fulfilling the following goals and objectives:

Goal A: Program graduates will be competent/proficient in clinical fixed, removable and implant prosthodontics, with an understanding of maxillofacial prosthodontics principles.

Objective 1: 100% of graduates will enter prosthodontic practice, or enter academic dentistry.

1. Candidates will receive an appropriate background in basic sciences.
2. Candidates will develop appropriate prosthodontic laboratory skills in order to ensure a broad prosthodontic education.
3. Candidates will receive teaching experience.
4. Candidates will receive a sound education in research methodology and will be encouraged to develop skills for critical evaluation of literature.
5. Candidates will be provided with an option to pursue a Master of Science degree.
6. Candidates will be encouraged to develop communication skills required for inter-specialty patient care.

Objective 2: Graduates will indicate through the exit interview process that adequate emphasis was given to curriculum areas to achieve this objective.

Goal B: Program graduates will be prepared to successfully challenge the American Board of Prosthodontics (ABP) examinations.

Objective 1: Successful completion of ABP examinations, initiated during enrollment where practical and appropriate within the guidelines for examination.

Objective 2: Students will achieve a passing grade in an ABP mock examination and any examinations required for progression within the program.

Goal C: Program graduates will receive teaching experience consistent with entry-level academic careers.

Goal D: Program graduates will be provided with experience in research, scientific writing and presentation of scientific data at the Master's degree level.

Objective 1: Candidates who choose to pursue the Masters of Science option will complete research, thesis and degree.

Objective 2: All candidates will undertake a research project appropriate for presentation at a national meeting.

Objective 3: All candidates will undertake a research project appropriate for publication in a refereed journal.

Objective 4: All candidates will learn the process of critical literature review and evidence-based treatment assessment.

Goal E: Program graduates will provide quality prosthodontic care for patients.

Objective 1: Candidates will become clinically proficient in prosthodontics.

Goal F: The program director will maintain a cost-effective graduate program.

b. Provide a rationale for this program

The rationale of the program is designed to produce clinicians proficient in a range of procedures characteristic of the discipline of Prosthodontics. By integrating courses in behavioral and biologic disciplines, in addition to clinical experience, graduates will also become competent at research and teaching.

1.2 Internal/External Influences

a. Relevance to the University mission, goals and objectives (strategic plan, CPE, community, etc.)

This program is consistent with the University mission to prepare graduates for responsible citizenship and for success in their chosen professions. Oral health continues to be problematic for Kentucky as evidenced by the fact that the Commonwealth has the distinction of ranking first nationally in the number of people having no natural teeth. The students who matriculate in the Advanced Education Program in Prosthodontics will treat patients in the University of Louisville School of Dentistry (ULSD) clinics as a part of their training, providing opportunities for referral of complex cases that are beyond the skill level of DMD students, and offering a level of specialty care that has not been available to patients outside of the private practice setting. Prosthodontics is the only core specialty area in dentistry that does not currently have a graduate program at the School of Dentistry to support the overall teaching mission and treatment of patients by the DMD students and by other specialty programs. All of the existing programs at ULSD will benefit from establishing this program. Students in the Advanced Education Program in Prosthodontics will spend time doing research, thus supporting the mission of the University in maintaining scholarship, research and pursuing critical thinking. These students will also provide some degree of instruction for the DMD program. These experiences are extremely important for both exposing DMD students to the specialty of Prosthodontics in their patient care

experiences, and in view of the fact that a faculty shortage for dental programs has been a problem, both locally and nationally. This experience provides an opportunity for these postgraduate students to explore academic dentistry, and has the potential to create prosthodontists who may be interested in pursuing academic careers.

b. Briefly describe demand for program (local, state, regional, and national).

As the population ages, and more people keep their teeth, the demand for the advanced restorative services offered by prosthodontists is rapidly increasing. General dentists depend upon an adequate supply of specialists to whom they can refer patients who have dental treatment needs that are complex. Currently, there is no dental school in Kentucky that offers a certificate program in prosthodontics, so dentists planning on practicing in Kentucky who are interested in pursuing prosthodontics training must relocate to another state for a minimum of three years.

Nationally, several new dental schools are in the process of starting new undergraduate programs. Financial and logistical constraints will make it difficult for these new schools to expand to the point where they can offer training in specialty programs; therefore, it is essential for these types of programs to be present in established dental schools in order to meet the rising demand for specialists in dentistry, especially in prosthodontics.

c. Describe employment prospects for students.

There are only 18 prosthodontists in the Commonwealth of Kentucky. Approximately one-half of them teach in an academic setting. Kentucky is in dire need of these specialists, especially in parts of the state outside of the metropolitan areas. Nationally, the number of prosthodontists is low compared to other specialists. There is also a tremendous need for prosthodontists in academic dentistry. Employment opportunities abound for these specialists in private practice, research, and academic areas.

d. Describe any unusual or special faculty/student needs to which the program would be responsive.

Since the suspension of the Advanced Education Program in Prosthodontics in 2001, there has been a decrease in the exposure of our DMD students to the use of advanced techniques in the field of implants, esthetic dentistry, and other prosthodontic procedures. The reinstatement of this program would meet that need. In terms of any special student learning needs on an individual basis, if a student notifies the School of Dentistry of the possibility of a learning difference, they are encouraged to apply to the Disabilities Resource Center of the University of Louisville for further evaluation and recommendations for accommodations for their needs. If accepted, the School of Dentistry will do everything possible to comply with reasonable requests for accommodations.

e. Describe the impact the certificate program will have on other programs within the University.

The addition of an Advanced Education Program in Prosthodontics will have a positive impact on the School of Dentistry by providing the DMD program, as well as other postgraduate certificate programs, an additional level of expertise in treatment of patients with prosthodontic needs. The students who matriculate in the Advanced Education Program in Prosthodontics will treat patients in the School of Dentistry clinics as a part of their training, providing opportunities for referral of complex cases that are beyond the skill level of DMD students, and offering a level of specialty care that has not been available to patients of the school outside of the private practice setting. Prosthodontics is the only core specialty area in dentistry that does not currently have a graduate certificate program at the School of Dentistry to support the overall teaching mission and treatment of patients by the DMD students and by other specialty programs.

f. Describe any exceptional circumstances that favor the development of this program (special facilities, grants, patrons, etc.)

There are currently no other Advanced Education Programs in Prosthodontics in the Commonwealth, and at present only 18 board-certified prosthodontists in the state. Although it can be difficult to predict where a program's graduates might eventually live and practice, the presence of the program at the School of Dentistry provides patients in the Louisville-metropolitan area with consistent access to these advanced services, and increases the likelihood that graduates of the program will choose to stay in Kentucky.

g. Explain why this proposed certificate program is appropriate for the student or community rather than a degree program.

All specialty training in dentistry is accomplished through accredited certificate programs that are offered as post-professional degree training.

II. PROGRAM DESCRIPTION

2.1 Admission

Applicants should meet the standards of general admission to the University and any specific requirements of the academic unit admitting the student.

a. List and explicitly define the qualifications required for admission to the certificate program, and provide a rationale for each.

All applicants must be graduates from an institution accredited either by the Commission on Dental Accreditation, the Commission on Dental Accreditation of Canada, or be graduates of foreign dental schools who possess equivalent educational background and standing as determined by the School of Dentistry and the program. Criteria for interview selection rest with the program director and faculty. Application is made through the Postdoctoral Application Support Service (PASS) offered through the American Dental Education Association, or by

applying directly through the University of Louisville School of Dentistry's website. Factors considered are class rank, National Boards, and grade point average. Candidate acceptance is based on these factors in addition to the strength of the applicant's interviews. Acceptance decisions are made by the program director and faculty. Two applicants will be accepted the first year of the program. Eventually, there will be two applicants accepted per year for a total of six graduate students in the program. Candidates will be ranked on the basis of several factors: the successful passing of National Boards Part I and Part II (where appropriate), a class ranking in the upper third of their dental school program, and a grade point average of at least a 3.3 in their dental degree. In addition, any prior clinical experience post-dental training, as well as the strength of the individual interview, will be figured into the overall ranking of the candidates. The rationale for choosing these measures for acceptance is to provide educational opportunities for individuals that the director and faculty feel will be highly successful in completing this postgraduate program with the ability to successfully practice Prosthodontics in private practice or be involved in teaching and research.

b. Indicate specifically what documentation applicants will be required to provide and give a brief rationale for each.

Applicants must submit the following documents to the program director directly or via the application service (PASS): application form, official transcript of all previous college and dental school grades, official course-by-course evaluation report from Educational Credential Evaluators, Inc. for foreign-trained dentists, recommendations from three persons well acquainted with applicant's abilities, recent photograph (optional), National Board scores or equivalent, and a \$50 non-refundable fee. If applicable, those for whom English is a second language must also take the Test of English as a Foreign Language (TOEFL) examination and submit those scores. The rationale for choosing these measures is to help select candidates for training in the Advanced Education Program in Prosthodontics; therefore, providing educational opportunities for individuals whom the director and faculty feel will be highly successful in completing this postgraduate program and will have the ability to successfully practice prosthodontics or enter academic dentistry after completion of the program.

c. If exceptions are anticipated to either a. or b. above, indicate what circumstances might warrant considering other qualifications or other documentation and indicate how these exceptions will be handled.

No exceptions are anticipated.

d. Indicate the person(s) responsible for securing and reviewing the appropriate documents and judging an applicant's qualification for admission (program director, admissions committee, program committee, etc.).

The Program Director of the Advanced Education in Prosthodontics program and other prosthodontic faculty members, as well as the Associate Dean of Postgraduate Education, will review the documents and participate in interviews, with the final decision being made by the Program Director in conjunction with the faculty.

e. If the program must restrict admissions because of limited resources, indicate how selection will be made among those who meet minimum program admission standards.

As described in the above paragraph, candidates will be ranked according to qualifications. In the event of the need to restrict admissions, only the top-ranked candidates will be accepted.

2.2 Curriculum

The program must be clearly identified and labeled as a certificate program.

a. Describe the certificate program curriculum and provide a rationale for each part.

The goal of the Advanced Education Program in Prosthodontics at the University of Louisville is to develop skillful clinicians and researchers for careers in academic dentistry or private practice of prosthodontics. Excellent training in clinical, research and teaching skills is essential to equip tomorrow's specialists with the proper scientific background to deal with the changes and challenges inherent in a profession undergoing rapid scientific advancement.

These postgraduate students are exposed to a wide variety of clinical techniques by a group of highly qualified faculty with diverse training and varied backgrounds. The philosophy of the program is that clinical excellence is based on technical proficiency, expert diagnostic skills and broad-based knowledge of the prosthodontic literature.

The didactic portion of the curriculum explores in depth the biomedical sciences upon which the practice of modern prosthodontics is based. Instruction in anatomy, biochemistry, oral biology, microbiology and immunology are integral parts of the basic science curriculum offered. The M.S. in Oral Biology degree is not required but strongly encouraged for completion of the program.

The Advanced Education Program in Prosthodontics will share the following core courses with the existing Advanced Education Programs in Endodontics, Orthodontics, Pediatric Dentistry, and Periodontics. Note that all core courses are not required for each program. The program specific core courses are provided in Appendix 1.

Advanced Clinical Pharmacology (OBIO-0635-615)

1 Hour

To appropriately identify the indications for and prescribe medications used most commonly in dentistry, pharmacologically manage primary oral mucosal diseases and secondary mucosal disorders arising from drug reactions, to anticipate and diagnose drug interactions based on the patient's medications regimen and clinical signs.

Oral Biology Seminar (OBIO-0635-606)

1 Hour

This course is designed to help the student become familiar with presenting and defending personal research findings in a scientific setting.

Advanced Head and Neck Anatomy (ASNB 675)

2 Hours

To review the gross anatomic relations of the head and neck, practice techniques, facilitate knowledge and develop skills pertinent to specialties on cadaveric specimens, assess anatomical knowledge and its application in the practice of dentistry.

Concepts in Immunology (OBIO-0635-600)	4 Hours
To provide an in-depth analysis of how the host's immune system within the oral cavity is involved in mediating host immunity against periodontal pathogens, as well as defining the immunological events underlying the initiation and progression of periodontal diseases.	
Advanced Oral Pathology (OBIO-0635-617)	1 Hour
To build upon previous knowledge of oral pathology so that residents will be prepared to clinically assess and manage oral pathoses in their area of specialization and in general.	
Biomedical Data Analysis (OBIO-0635-601)	3 Hours
To develop a conceptual understanding of statistical techniques and procedures, use the SPSS statistical package to summarize and analyze data, and to acquire the knowledge to interpret data analysis findings and explain the findings to other health care professionals.	
Introduction to Oral Biology Research (OBIO-0635-601)	1 Hour
To gain an understanding of research design, how to evaluate the dental literature, clinical trials, protection of human subjects in biomedical research, research ethics and presentation of research findings.	
Diagnosis and Oral Medicine (OBIO-0635-614)	1 Hour
To present to graduate students advanced topics in diagnostic methods and therapy relative to oral-maxillofacial and systemic diseases, as well as the interrelationships between oral and systemic disease.	
Craniomaxillofacial Diagnostic Imaging (OBIO-0635-612)	2-4 Hours
To prepare the student to comprehend principles of interpretation and image-guidance for current diagnostic imaging modalities used to image the craniomaxillofacial complex.	
The Diagnosis and Treatment of Temporomandibular Disorders and Facial Pain (OBIO-0635-613)	1 Hour
To allow residents to understand the terminology of occlusion and how occlusal morphology is affected by various determinants of mandibular movement, understand pathologic occlusions and treatment of such conditions, diagnose and treat temporomandibular disorders.	

Total Credit Hours Required: 94

b. Indicate required courses and activities.

See Appendix 1

c. Indicate distribution requirements and list the courses or activities that will meet them.

N/A

d. Define any required sequence of courses or activities.

See Appendix 2.

e. If the program requires either independent study, capstone projects, or internships, identify these explicitly, and in addition to the rationale indicate the resources available to support them.

N/A

f. Provide a chart indicating the frequency of the courses that are available to support the program.

See Appendix 2

g. Include other information appropriate to the proposed program (Are, for example, some or many of the courses taken unique to this program? Is this curriculum delivered only at night, only on weekends, only in summer? Does this curriculum require a special mix of students?).

N/A

h. Include a course description for each course.

See Appendix 1

2.3 Experiential Components

For programs that have an experiential component (for example: cooperative internship, clinical, practicum, fieldwork, etc.):

a. Provide a rationale.

A clinical program such as this is primarily experiential by its very nature. Students who are enrolled in the Advanced Education Program in Prosthodontics will be trained using a combination of didactic, pre-clinical, and clinical instruction.

b. Discuss the objectives of this component and how these experiences are integrated into the overall curriculum.

It is anticipated that these postgraduate students will spend approximately 45 percent of their time in didactic and pre-clinical learning and 55 percent of their time in the provision of direct clinical care to patients.

c. List and discuss the nature of the experiential sites used in this program.

The majority of the experiential/clinical provision of care will take place in the clinics of the School of Dentistry. In recent years, School of Dentistry faculty, staff and students have participated in a number of clinical outreach programs to underserved populations. Chief among these programs is the RAM (Remote Area Medical) free clinics that are held in Pikeville, Kentucky and other underserved areas. A recent addition to the basic dental services offered to patients treated in the RAM program involves prosthodontic services. The students in the Advanced Education Program in Prosthodontics will make a strong contribution to this community service project by both participating in the general clinic and in the prosthodontic specialty area.

d. What is the student-faculty FTE ratio for the experiential sites and how does this affect faculty workload?

During the first year, when it is anticipated that 2 students will be enrolled, approximately .80 FTE of faculty supervision will be provided. In the second year of the program, approximately 1.6 FTE of faculty supervision will be provided. In the third year of the program, that number will increase to approximately 2.4 FTE. Because these postgraduate students will be working alongside the school's DMD students, existing faculty will be able to supervise both types of students simultaneously. In anticipation of this program and because of increased DMD enrollment, the school has been gradually building up the number of prosthodontic faculty, using clinical funds to provide salary for this faculty.

2.4 Accreditation/Certification

If there are recommended curricula and/or other program standards available from an accrediting body, certifying agency, or professional society, identify the source and compare the proposed certificate program with the recommendations and/or standards.

The Advanced Education Program in Prosthodontics is accredited by the Commission on Dental Accreditation of the American Dental Association.

Commission on Dental Education
211 East Chicago Avenue
Chicago, IL 60611

Specific accreditation standards are prescribed for each postgraduate program at the University of Louisville School of Dentistry and evidence that the standards are being met occurs every seven years through a site visit of peers with significant knowledge of each program discipline.

2.5 Evaluation

Define the expected outcomes and how they will be measured.

See Appendix 3

III. ADMINISTRATION OF CERTIFICATE PROGRAMS

3.1 The Program:

a. Identify the office responsible for the administration of the program, record keeping and accountancy.

Administration – Division of Prosthodontics, Department of Oral Health and Rehabilitation (PEDH)
Record Keeping – Division of Prosthodontics, Department of Oral Health and Rehabilitation (PEDH)
Accountancy – Business Office

b. Describe the possibility of collaboration with other institutions including articulation, transfer, or duplication of programs.

N/A – The University of Louisville will have the only Postgraduate Education Prosthodontics Program available in Kentucky.

3.2 Reviews:

All certificate programs will be reviewed in accordance with guidelines established by the University Program Review Committee.

3.3 Programs Must Be Approved By:

Programs should be submitted by the unit Dean to the Provost. The Provost's Office will coordinate the review process.

- a. Unit appropriate curriculum committee(s)
- b. Unit Dean
- c. Faculty Senate Budget Committee
- d. Faculty Senate Academic Programs Committee
- e. Graduate Council (interdisciplinary programs only)
- f. Faculty Senate
- g. Provost
- h. Board of Trustees

IV. RESOURCES

4.1 Resources Required

a. Describe the facilities to be used for this certificate program.

The School of Dentistry completed a two-year renovation of the entire facility in October of 2011. All of the postgraduate programs are located on the same floor and occupy a state-of-the-art facility that includes conference rooms and full capability for an electronic health record including digital radiography. Location of these postgraduate programs adjacent to each other allows for enhanced collaboration and economies of scale. The number of operatories allows space for DMD students as well.

b. Provide a statement from the library concerning the availability of current and proposed library resources.

See Appendix 4

c. Faculty

- 1) Submit abbreviated curriculum vitae of all faculty involved in this certificate program.**
- 2) Describe where and how faculty will participate, including term and part-time faculty.**

See Appendix 5

4.2 Budget Request

a. Complete new programs form for all program expenditures & revenues.

See Appendix 6, 7 and 8

4.3 Financial Aid

Please note that in order for students enrolled in a certificate program (see attached sheet from the Financial Aid Office) to be eligible for federal financial aid, the program must secure approval from the Department of Education (DOE), a process that takes three to six months. Each new certificate program must be approved separately.

Is DOE approval desired for the program? yes no

If yes, after the Board of Trustees approves the program, the Provost's Office will notify the Financial Aid Office which immediately will apply to DOE for financial aid eligibility for this program.

V. MAJOR REVISIONS OF CERTIFICATE PROGRAMS

5.1 Revisions

Revisions of certificate programs that substantially alter the purpose of the program must be submitted as a new proposal.

VI. PROGRAM DELETION PROPOSALS

6.1. Deletions

- A. Certificate title, unit responsible for program
- B. Rationale for deleting the program
- C. Concurrence of appropriate committees, Dean, etc.

Revised CCS 8.17.201