Advanced Dental Education

Assistant dean for advanced dental education
Steven G. Morrow

The School of Dentistry offers advanced dental education programs in specialty and nonspecialty disciplines of dentistry. Postdoctoral certificates, Master of Science (M.S.), and Master of Science in Dentistry (M.S.D.) degrees are available. The purpose of these programs is to offer candidates an opportunity to integrate advanced clinical training with meaningful exposure to applied basic science and research. For additional information and to submit an online application, interested applicants should visit the School of Dentistry Web site (Graduate Programs).

Advanced dental education programs leading to a professional certificate with an option to also pursue the Master of Science (M.S.) degree or the Master of Science in Dentistry (M.S.D.) degree are:

- Endodontics
- Implant Dentistry
- Oral and Maxillofacial Surgery
- Orthodontics and Dentofacial Orthopedics (M.S. degree only)
- Pediatric Dentistry
- Periodontics
- Prosthodontics

These programs are organized to comply with the standards of the Council on Dental Education of the American Dental Association, and the objectives and content meet the requirements of the respective specialty boards. In addition, the programs in endodontics, oral and maxillofacial surgery, orthodontics and dentofacial orthopedics, pediatric dentistry, periodontics, and prosthodontics are accredited by the Commission on Dental Accreditation, a specialized accrediting body recognized by the Council on Postsecondary Accreditation and the United States Department of Education. For additional information, the student may contact:

The Office of Advanced Education
Loma Linda University
School of Dentistry
Loma Linda, CA 92350
<llu.edu/dentistry/gradprograms>

Student learning outcomes (SLOs)

Graduate students and residents in advanced dental education programs are expected to:

1. Understand the didactic foundation of their discipline and master the clinical skills required to utilize that foundation.
2. Integrate advanced clinical training with meaningful exposure to the applied basic sciences.
3. Engage in a project involving advanced clinical training with meaningful exposure to research.
4. Integrate interdisciplinary treatment planning into their didactic and clinical activity.
5. Apply for and pursue board certification in their discipline through the appropriate sponsoring organization.
6. Understand the importance of developing a commitment to the University-wide student learning outcomes.

Residence

The required time in residence varies with each program. For the length of a program, refer to the information under each program description.

Stipends

Stipends are provided in the Oral and Maxillofacial Surgery and Pediatric Dentistry programs. For details, contact the program coordinator personally.

Tuition

Tuition and fees quoted in the school financial information section of this CATALOG are for the academic year 2018-2019.

Thesis

The student must complete a research project presented in thesis format and orally defend it according to the standards set by the Faculty of Graduate Studies. A written thesis, approved by the student's research committee, must be submitted to the Faculty of Graduate Studies in order to receive a satisfactory grade for the course.

Publishable paper

Students on the Master of Science in Dentistry degree track must submit a publishable paper no later than one year from the date they complete their certificate program. Candidates are admitted to only one master's degree track of their choosing.

General requirements

For information about requirements and practices to which all graduate students are subject, the student should consult Section II of this CATALOG.

Admissions

Admission requirements for advanced dental education programs/postdoctoral programs

An appropriate degree from an accredited college or university is required for admission into the advanced dental education programs and postgraduate programs. A doctoral degree in dentistry (Doctor of Dental Surgery or Doctor of Dental Medicine) or the equivalent is required for admission to all programs. The applicant should have achieved a general grade point average of not less than 3.0 on a 4.0 scale, with no grade below 2.0. In addition to acceptable scholastic performance, the applicant must give evidence of personal and professional fitness for growth in the science and art of the intended dental discipline. For application deadlines, see the section on each individual program or refer to the chart on the following page.

After applicants are accepted into the advanced dental education programs in dental anesthesiology, endodontics, oral and maxillofacial surgery, pediatric dentistry, periodontics, prosthodontics, or the postdoctoral program in implant dentistry, they may apply for admission to the Faculty of Graduate Studies for the purpose of earning an M.S. degree; or to the Office of Advanced Education to earn an M.S.D. degree (in addition to the advanced program certificate). Applicants for the
Master of Science (M.S.) degree who meet or exceed the minimum entrance requirements may be accepted to the Faculty of Graduate Studies (FGS) by the School of Dentistry’s assistant dean for advanced dental education. The master’s degree thesis must be completed, defended, and accepted in final form (as evidenced by a completed Form D) by both the graduate program and the Faculty of Graduate Studies. Students have up to five years from the date of acceptance of the certificate program to complete the requirements for the MS degree. All the M.S.D. requirements may be completed during the program but no later than one year from the candidate’s program completion date.

### Admissions criteria for advanced dental education programs 2018

<table>
<thead>
<tr>
<th>Program</th>
<th>Official Transcript(s)</th>
<th>Cumulative G.P.A.</th>
<th>GRE³</th>
<th>National Boards Part I¹</th>
<th>DAT</th>
<th>TOEFL⁺⁴</th>
<th>Letters of Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endodontics</td>
<td>Required</td>
<td>3.0</td>
<td>Not required for certificate program</td>
<td>Required (only U.S.-trained applicants)</td>
<td>Not required</td>
<td>Required (internationally trained)</td>
<td>3</td>
</tr>
<tr>
<td>Implant Dentistry (36 mo./3 positions)</td>
<td>Required</td>
<td>3.0</td>
<td>Not required for certificate program</td>
<td>Not required</td>
<td>Not required</td>
<td>Required (internationally trained)</td>
<td>3</td>
</tr>
<tr>
<td>Oral and Maxillofacial Surgery ¹¹ (6 yrs./2 positions)</td>
<td>Required</td>
<td>3.0</td>
<td>Not required for certificate program</td>
<td>Required (all applicants) score of 86 or higher</td>
<td>Not Required</td>
<td>Required (internationally trained)</td>
<td>3</td>
</tr>
<tr>
<td>Orthodontics and Dentofacial Orthopedics ²⁶, ²₇, ²₉ (27 mo./6 positions)</td>
<td>Required</td>
<td>3.0</td>
<td>Required</td>
<td>Required (all applicants)</td>
<td>Required (all applicants)</td>
<td>Required (internationally trained)</td>
<td>3</td>
</tr>
<tr>
<td>Pediatric Dentistry ¹⁰, ¹² (24 mo./4 positions)</td>
<td>Required</td>
<td>3.0</td>
<td>Required for internationally trained applicants</td>
<td>Required (only U.S.-trained applicants)</td>
<td>Not required</td>
<td>Required (internationally trained)</td>
<td>3</td>
</tr>
<tr>
<td>Periodontics ⁸ (36 mo./3 positions)</td>
<td>Required</td>
<td>3.0</td>
<td>Not required for certificate program</td>
<td>Required (only U.S.-trained applicants)</td>
<td>Not required</td>
<td>Required (internationally trained)</td>
<td>3</td>
</tr>
<tr>
<td>Prosthodontics (36 mo./4 positions)</td>
<td>Required</td>
<td>3.0</td>
<td>Not required for certificate program</td>
<td>Required (only U.S.-trained applicants)</td>
<td>Not required</td>
<td>Required (internationally trained)</td>
<td>3</td>
</tr>
</tbody>
</table>

### Application and program dates

<table>
<thead>
<tr>
<th>Program</th>
<th>LLU Applications Open</th>
<th>LLU Applications Close</th>
<th>Admissions Committee Meets</th>
<th>Pass Applications Open</th>
<th>Pass Applications Close</th>
<th>Advanced Education Programs Start Date</th>
<th>Advanced Education Programs Ending Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENDN</td>
<td>1/1/2018</td>
<td>8/1/2018</td>
<td>August</td>
<td>5/2018</td>
<td>5/15/2018</td>
<td>July 1</td>
<td>Late September</td>
</tr>
<tr>
<td>IMPD</td>
<td>1/1/2018</td>
<td>8/15/2018</td>
<td>December</td>
<td>n/a</td>
<td>n/a</td>
<td>July 1</td>
<td>June 30</td>
</tr>
<tr>
<td>ORDN</td>
<td>1/1/18</td>
<td>8/1/2018</td>
<td>November</td>
<td>n/a</td>
<td>n/a</td>
<td>July 1</td>
<td>Late September</td>
</tr>
<tr>
<td>PROS</td>
<td>1/1/2018</td>
<td>9/1/2018</td>
<td>September</td>
<td>5/2018 Match participant</td>
<td>8/15/201</td>
<td>July 1</td>
<td>June 30</td>
</tr>
</tbody>
</table>

¹ Transcripts. Transcripts from all postsecondary schools from which credit was received, whether or not the work pertains to your LLU degree, are required to complete your application.

² Grade Point Average (G.P.A.). A cumulative G.P.A. of 3.0 (on a 4.0 scale) is required for admission.

³ National Boards, Part I. Refers to Part I of the two-part U.S. National Board Examinations. Part II must also be submitted when available. All must be passing grades.
Admission process

1. The following minimum requirements have been established for admission to the M.S.D. degree program:

   Admissions requirements
   • Cumulative grade point average (G.P.A.) of 3.0
   • Approval by the program director
   • Academic record of scholastic competence
   • Demonstrated professionalism and integrity

2. A candidate for the M.S.D. degree must complete a Loma Linda University online application for Admission and a Part I (Application for Admission for the Master of Science in Dentistry [M.S.D.] degree) form. The Part I form can be found in the advanced education section of Canvas. The Part I form must be accompanied by a research protocol approved by the candidate’s research guidance committee (RGC) and reviewed by the School of Dentistry Research Committee.

3. The Part I form must be signed by the applicant’s program director and the research guidance committee (RGC) members.

4. The completed Loma Linda University application, Part I form, and approved protocol are then reviewed for approval by the associate dean for advanced education to ensure all admissions requirements have been met.

5. Accepted applicants will receive a letter of admission from the associate dean for advanced education. They must acknowledge acceptance of their admission electronically to the Office of Advanced Dental Education.

Master of Science in Dentistry (M.S.D.) Degree, Advanced

Graduate students and residents enrolled in certain advanced education programs are eligible to apply for and be awarded a Master of Science in Dentistry (M.S.D.) degree, if they fulfill all of the following requirements.

Admissions requirements

1. The following minimum requirements have been established for admission to the M.S.D. degree program:

   Admissions requirements
   • Minimum cumulative grade point average (G.P.A.) of 3.0
   • Approval by the program director
   • Academic record of scholastic competence
   • Demonstrated professionalism and integrity

2. A candidate for the M.S.D. degree must complete a Loma Linda University online Application for Admission and a Part I form, and approved protocol are then reviewed for approval by the associate dean for advanced education to ensure all admissions requirements have been met.

3. Accepted applicants will receive a letter of admission from the associate dean for advanced education. They must acknowledge acceptance of their admission electronically to the Office of Advanced Dental Education.

Academic policies

Grading system for advanced education programs

The following information outlines the grading systems for all postdoctoral students/residents enrolled in advanced education programs.
programs in the School of Dentistry. Each course taught in the school has been approved for either a letter grade or an S/U grade, and deviations from this are not allowed other than the MS grade as specified below.

Grades and grade points for postdoctoral students/residents

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.0</td>
<td>Outstanding performance</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
<td>Very good performance</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
<td>Good performance</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
<td>Satisfactory performance</td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
<td>Minimum passing grade without remediation; Cumulative G.P.A. must be 3.0 or higher to avoid academic probation.</td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
<td>Remediation required and cumulative G.P.A. must be 3.0 or higher to avoid academic probation.</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
<td>Remediation required and cumulative G.P.A. must be 3.0 or higher to avoid academic probation.</td>
</tr>
<tr>
<td>C-</td>
<td>1.7</td>
<td>Unsatisfactory; Course must be retaken. Cumulative G.P.A. must be 3.0 or higher to avoid academic probation.</td>
</tr>
<tr>
<td>D</td>
<td>0.0</td>
<td>Failure; course must be retaken.</td>
</tr>
<tr>
<td>F</td>
<td>0.0</td>
<td>Failure; Course must be retaken; Academic probation required.</td>
</tr>
<tr>
<td>S</td>
<td>none</td>
<td>Satisfactory performance; Equivalent of a B grade or better.</td>
</tr>
<tr>
<td>MS</td>
<td>none</td>
<td>Marginally satisfactory; minimum passing grade; equivalent to a B- grade; Multiple MS grades may result in academic probation.</td>
</tr>
<tr>
<td>U</td>
<td>none</td>
<td>Unsatisfactory; The U grade is not computed in the G.P.A. The Course must be repeated to count toward a certificate and/or degree.</td>
</tr>
</tbody>
</table>

Postdoctoral students/residents who receive one or more of the following grades in any quarter will be placed on academic probation and must retake the course(s) for which these grades were received.

Process to remediate a course:
1. A detailed written plan must be developed by the course director/program director outlining how deficiencies will be remediated and reassessed.
2. The plan must be approved by the Office of Advanced Dental Education.
3. The postdoctoral student/resident is required to register for the following course: Advanced Dental Education Remediation (GRDN 700) with the sub-title of the course that is being remediated.
4. Remediation must be accomplished during the academic quarter immediately following the quarter in which the unsatisfactory grade was received.
5. Successful remediation of a course will not result in a grade change for the course.

6. Failure to successfully remediate a course will result in the need for the postgraduate student/resident to repeat the course with academic probation.
7. The postdoctoral student/resident may exercise the option to retake the course which may result in a grade change for the course.

Process to repeat a course:
1. The postdoctoral student/resident will be placed on academic probation.
2. The postdoctoral student/resident must register for the course to be repeated at the earliest opportunity.
3. The postdoctoral student/resident must receive a minimum grade of B- to continue in the advanced dental education program.

Academic disciplinary policy for advanced education programs:

Academic probation
Academic probation for postdoctoral students/residents will be for a minimum of one academic quarter following the quarter in which the unsatisfactory performance was noted. Probationary status will be reviewed on a quarterly basis until successful remediation has been recorded. Such action must be confirmed by memorandum to the student.

Under the following conditions, a postdoctoral student/resident will be sent an advisory letter from the Office of Advanced Dental Education regarding the potential for placement on academic probation.

1. Term G.P.A. below 3.0 (B)
2. One or more courses with a grade of C+ or lower
3. More than one course with a grade of Marginally Satisfactory (MS).

A postdoctoral student/resident will be placed on academic probation if he/she meets one or more of the following conditions:

2. One or more courses with a grade of C, or lower.
3. Failing or unsatisfactory grades in any course(s) required for the specialty certificate, Master of Science (M.S.) degree, or Master of Science in Dentistry (M.S.D.) degree programs.
4. Total of three or more Marginally Satisfactory (MS) grades.

Level of Academic Probation:
The level of academic probation indicates the seriousness of the cumulative academic deficiency. However, depending on the seriousness or nature of the academic deficiency, a postdoctoral student/resident may be considered for academic leave of absence or discontinuation at any level of probation.

Level I
First term on academic probation.

Level II
Second term on academic probation, consecutive or nonconsecutive.
EXCEPTION: Continued academic probation due to failing grade in a course that cannot be repeated until a later term.

Level III
Third term on academic probation, consecutive or nonconsecutive. If a student/resident is unable to remove academic probationary status within the following term, s/he will be considered for academic discontinuation.

EXCEPTION: Continued academic probation due to failing grade in a course that cannot be repeated until a later term.

Level IV
If a student/resident meets criteria for academic probation for a fourth term, consecutive or nonconsecutive, s/he will be considered for academic discontinuation.

Restrictions for a postdoctoral student/resident on academic probation:
A student/resident on academic probation:

1. May not serve as an officer for any class, school, or extracurricular organization.
2. May not take any elective courses.
3. May not participate in any elective off-campus, service learning, or mission activities.
4. Remains on academic probation until all the terms of the probation sanctions have been fulfilled, unless the postdoctoral student/resident is discontinued.

Remedial action (remediation):
A postdoctoral student/resident who is not performing up to expectations (academic and professional) may receive the following:

1. Restriction of clinical privileges by the program director.
2. Academic probation (Level I to III) – upon recommendation of the Program Director by the Assistant Dean for Advanced Dental Education.
4. Clinical probation (Level I to III) – upon recommendation of the Program Director by the Assistant Dean for Advanced Dental Education.
5. Discontinuation – upon recommendation of the Program Director to the Assistant Dean for Advanced Dental Education. Discontinuation must be approved by the Dean.

Probation:
All recommendations to the Assistant Dean for Advanced Dental Education for probation must be supported by well-documented evidence of repeated counseling and other internal measures designed to point out deficiencies and take corrective action through a detailed remediation program. A remediation program must be specific in design, implemented, and monitored for any postdoctoral student/resident who is not performing up to a program’s stated standards. It is important to have documentary evidence on record by multiple faculty members with detailed accounts of dates, times, explanations or counseling, discussions, and corrective measures. Written statements from support staff should also be included if they have direct contact or knowledge of a matter involving a postdoctoral student/resident.

Postdoctoral students/residents may be placed on academic probation, professional standards (behavioral) probation, and/or clinical probation. Probation begins at Level I and may progress to Level III. Postdoctoral students/residents should be placed on probation for the academic quarter immediately following the quarter in which the unsatisfactory performance was documented. Probationary status will be reviewed on a quarterly basis until successful remediation has been documented. This information must be conveyed to the postdoctoral student/resident verbally and in writing.

Continuation:
Postdoctoral students/residents who are not progressing as expected may be continued in their year group for as long as necessary before being promoted to the next year or discontinued. To exercise this option, the Assistant Dean for Advanced Dental Education must inform University Records of the decision to continue a postdoctoral student/resident and state the anticipated length of that continuation. Program directors make the determination as to when to recommend continuing a postdoctoral student/resident, when to recommend discontinuing a postdoctoral student/resident and when the postdoctoral student/resident has completed his/her program. Recommendation for continuation must be submitted to the Assistant Dean for Advanced Dental Education for review and approval.

Discontinuation:
Postdoctoral students/residents who do not achieve required measurable improvement by the end of the prescribed remediation and counseling periods may be recommended for discontinuation by their Program Director to the Assistant Dean for Advanced Dental Education for review. Recommendation to discontinue a postdoctoral student/resident must be submitted by the Assistant Dean for Advanced Dental Education, in writing, to the Dean for review and action.

Programs

• Endodontics — post-D.D.S. Certificate, M.S.D., M.S. (http://llucatalog.llu.edu/dentistry/endodontics)
• Orthodontics and Dentofacial Orthopedics — post-D.D.S. Certificate, M.S. (http://llucatalog.llu.edu/dentistry/orthodontics-dentofacial-orthopedics)
• Pediatric Dentistry — post-D.D.S. Certificate, M.S.D., M.S. (http://llucatalog.llu.edu/dentistry/pediatric)
• Periodontics — post-D.D.S. Certificate, M.S.D., M.S. (http://llucatalog.llu.edu/dentistry/periodontics)

General degree requirements

Master of Science in Dentistry (M.S.D.) Degree, Advanced

Graduate students and residents enrolled in certain advanced education certificate programs are eligible to apply for and be awarded a Master of Science in Dentistry (M.S.D.) degree, if they fulfill all of the following requirements.
Degree requirements

1. Students must perform scholarly activity as defined by the program director. Programs may differ in how this requirement is met in order to afford directors the opportunity to align such activity with the experience, background, and interest of each student and of the program faculty as a worthy and achievable goal is pursued. The nature of the scholarly activity will be defined in Part II (Statement of Completion for the Master of Science in Dentistry [M.S.D.] degree) of the degree application form as submission of a formatted, publishable manuscript.

2. Students must successfully complete all the course requirements of the certificate curriculum, with additional units in research for the master’s degree curriculum (see individual program descriptions at <llu.edu/dentistry/gradprograms>). Candidates complete sections I and II of Part II form to indicate their anticipated degree completion date.

3. A publishable paper and public presentation of the research are required. The manuscript must be in a format approved by the respective program director.

4. Students who do not complete the publishable paper while completing the curriculum will have one year from their program end date to fulfill this requirement.

5. After conducting an internal degree audit, the program director completes and signs the Part III form to indicate their anticipated degree completion date.

6. The associate dean for advanced education reviews the student’s file and academic record (final degree audit), the associate dean for advanced education signs Form D, indicating approval of the award of the Master of Science (M.S.) degree. Form D is then submitted to the Faculty of Graduate Studies (FGS) for final approval and degree issuance.

Master of Science (M.S.) Degree, Advanced

Graduate students and residents enrolled in certain advanced education programs are eligible to apply for and be awarded a Master of Science (M.S.) degree, if they fulfill all of the requirements stated below.

Degree requirements

1. Applicants must undertake scholarly activity/research as defined by each program director. Programs may differ on how this requirement is met in order to afford directors the opportunity to align such activity with the experience, background, and interest of each student and of the program faculty as a worthy and achievable goal is pursued.

2. Students must successfully complete all course requirements of the certificate curriculum, with additional units in research for the master’s degree (see individual program descriptions online). Also, students must submit a completed Form C, Petition for Graduation, to verify that all requirements for the M.S.D. degree have been met.

3. A thesis and a public thesis defense are required. The thesis must be in a format approved by the thesis editor in the Faculty of Graduate Studies (FGS) for final approval and degree issuance.

4. Students who do not complete the thesis during their program will have five years from the beginning of the certificate program to fulfill this requirement for the master’s degree.

5. After conducting a degree audit, the program director completes and signs Form D, Statement of Completion of Requirements for Degree, verifying that all requirements for the M.S. degree have been met.

6. After reviewing the student’s file and academic record (final degree audit), the associate dean for advanced education signs Form D, indicating approval of the award of the Master of Science (M.S.) degree. Form D is then submitted to the Faculty of Graduate Studies (FGS) for final approval and degree issuance.

Dual majors

The dual majors are no longer an option at this time.

Applicants to the programs in implant dentistry, periodontics, and prosthodontics have the option to select an extended program (approximately four-and-a-half years in length) to pursue dual majors in two of these areas of study.

Students must complete all the requirements of each ADA-recognized specialty program—periodontics (http://llucatalog.llu.edu/dentistry/periodontics/#programrequirementstext) and implant dentistry (http://llucatalog.llu.edu/dentistry/implant-dentistry/#programrequirementstext), comparison (http://llucatalog.llu.edu/dentistry/graduate/periodontics-implant-comparison); or prosthodontics (http://llucatalog.llu.edu/dentistry/prosthodontics/#programrequirementstext) and implant dentistry (http://llucatalog.llu.edu/dentistry/implant-dentistry/#programrequirementstext), comparison (http://llucatalog.llu.edu/dentistry/graduate/prosthodontics-implant-comparison)—to be eligible for board certification. Dual credit—up to 100 units—may be awarded for courses required by the two programs.

Individuals who wish to pursue the dual major option must indicate such interest by completing separate applications to both programs. Applicants in one of the optional dual major programs must not only meet the admissions requirements of each program, but must also be admitted to the advanced education programs they designate.

Length of program

- Periodontics and Implant Dentistry (approximately 4 1/2 years in length)
- Prosthodontics and Implant Dentistry (approximately 4 1/2 years in length)