Process for Preliminary Examinations

The PhD in Oral Biology requires passing two major examinations.

Written Preliminary Examination

The written preliminary examination is taken during the 2nd year of coursework. Before the exam may be taken, the student must file the Graduate Degree Plan. The Graduate Program in Oral Biology strongly recommends the student assign his/her preliminary oral examination committee (process below) and meet with the committee at least once prior to submitting the written preliminary examination.

The written preliminary examination consists of the submission of a research proposal. The proposal must represent the student’s own work. Excessive intellectual assistance or editing by the advisor is not allowed in the preparation of the proposal. To promote the learning process, however, students are encouraged to initiate discussions and seek input from faculty with appropriate expertise as the research proposal is developed.

The proposal is based on the student’s proposed thesis research and should be submitted and defended in writing by the 16th month in residence. Students in combined clinical specialty/PhD tracks may file a petition with the Director of Graduate Studies for a reasonable extension of the deadline for submission of the thesis research proposal.

The student is expected to review the literature, develop precise hypotheses to be tested, describe an appropriate experimental design and plan, and address the significance of the proposed research. The literature review should be critical rather than exhaustive and lead the reader to a significant research question which is then stated as a formal hypothesis. The experimental design must describe a definitive and feasible test of the validity of the hypothesis. The experimental protocol need not be described in definitive detail, but must provide sufficient information so as to be readily comprehensible to a knowledgeable reviewer.

The proposal is to be written in the following format and comply with NIH formatting guidelines (line spacing, margins, fonts, etc.) for R03/R21 proposals.

<table>
<thead>
<tr>
<th>Section/Field Name</th>
<th>Instructions</th>
<th>Page limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>For revised exams only. An Introduction must be included that summarizes the substantial additions, deletions, and changes to the proposal. The Introduction must also include a response to the issues and criticism raised by the reviewers. Additionally, the substantial scientific changes must be marked in the text of the application by bracketing, indenting, or change of typography. Do not underline or shade the changes. Deleted sections should be described but not marked as deletions. If the changes are so extensive that essentially all of the text would be marked, explain this in the Introduction.</td>
<td>1</td>
</tr>
<tr>
<td>Specific Aims</td>
<td>State concisely the goals of the proposed research and summarize the expected outcome(s), including the impact that the results of the proposed research will exert on the research field(s) involved. List succinctly the specific objectives of the research proposed, e.g., to test a stated hypothesis, create a novel design, solve a specific problem, challenge an existing paradigm or clinical practice, address a critical barrier to progress in the field, or develop new technology.</td>
<td>1</td>
</tr>
<tr>
<td>Research Strategy</td>
<td>Organize the Research Strategy in the specified order and using the instructions provided below. Start each section with the appropriate section heading – Significance, Innovation, Approach. The Significance and Innovation sections should reflect a critical review of the literature with appropriate citations.</td>
<td>6 single-spaced pages (or equivalent double-spaced pages)</td>
</tr>
<tr>
<td>-------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>(a) <strong>Significance</strong></td>
<td>• Explain the importance of the problem or critical barrier to progress in the field that the proposed project addresses. • Explain how the proposed project will improve scientific knowledge, technical capability, and/or clinical practice in one or more broad fields. • Describe how the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field will be changed if the proposed aims are achieved.</td>
<td></td>
</tr>
<tr>
<td>(b) <strong>Innovation</strong></td>
<td>• Explain how the application challenges and seeks to shift current research or clinical practice paradigms. • Describe any novel theoretical concepts, approaches or methodologies, instrumentation or interventions to be developed or used, and any advantage over existing methodologies, instrumentation, or interventions. • Explain any refinements, improvements, or new applications of theoretical concepts, approaches or methodologies, instrumentation, or interventions.</td>
<td></td>
</tr>
<tr>
<td>(c) <strong>Approach</strong></td>
<td>• Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project. Include how the data will be collected, analyzed, and interpreted. • Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims. • If the project is in the early stages of development, describe any strategy to establish feasibility, and address the management of any high risk aspects of the proposed work.</td>
<td></td>
</tr>
</tbody>
</table>

| Bibliography | Cite references. | None |

When written, the preliminary exam is submitted to the DGS Assistant. Working with the DGS, the DGS Assistant will circulate the exam to the reviewers, who then have 2 weeks to complete their initial review. The proposal is reviewed by members of the preliminary oral exam committee. An additional reviewer, external to the University, may be invited at the DGS’ discretion. Reviewers will prepare written critiques and choose one of 4 options: Pass without reservations, Pass with reservations to be addressed in the preliminary oral exam, Unacceptable in present form (Modify), or Unacceptable (Prepare a new proposal). If a reviewer who is not a member of the preliminary oral exam committee selects “Pass with reservations to be addressed in the oral exam,” s/he will contact the committee chair to discuss the concerns raised. For each reviewer who selects “Unacceptable (Modify),” students must respond in writing to the critique point-by-point and modify the proposal. Unanimous approval of the proposal by the reviewers constitutes completion of the preliminary written examination.

The results of the examination are reported by program staff directly to the Graduate Student Services & Progress office. It is the student’s responsibility to ensure that the written preliminary exam result has been certified before scheduling the preliminary oral examination.
**Preliminary Oral Examination**
The preliminary oral examination is scheduled after the preliminary written examination is passed, but before writing the dissertation. It consists primarily of a defense of the thesis research proposal, but any area of oral biology and related disciplines (particularly the minor) may also be covered. If the examination is failed, it may be repeated once at the discretion of the examining committee in consultation with the Director of Graduate Studies. The preliminary oral examination is conducted as a closed examination, attended by only the student and the examining committee.

- **Committee**
The examination is administered by a committee. The University’s administrative policy on *Appointments to Graduate Examination Committees* dictates who is eligible to serve on such committees. In Oral Biology, the preliminary oral examining committee includes a minimum of four members: three from the major field of Oral Biology and one from the minor field. In order to provide the student with as robust a review and examination as possible, the Graduate Program does not allow the advisor to serve on the preliminary oral examination committee. The advisor is more than welcome to attend and observe the examination. Committee members cannot represent more than one field simultaneously. All assigned members must be present at the preliminary oral examination; the absence of any member results in an invalid examination. The Committee chair is encouraged to discuss the exam in advance with the student's advisor.

Substitutions on the examining committee may be necessitated by such circumstances as a faculty member’s temporary absence on leave from the University. The adviser or DGS must request the School of Dentistry's approval of such substitutions well in advance of the examination. Substitutions necessitated by emergency situations must also be approved in advance. In such cases, the adviser should consult with the Graduate Student Services & Progress staff before the start of the examination.

- **Scheduling**
*It is the responsibility of the student to schedule the preliminary oral exam* with the examiners at least one week in advance. Once a date is determined, the student must notify the Graduate School via an online form at [http://www.grad.umn.edu/students/forms/doctoral/index.html](http://www.grad.umn.edu/students/forms/doctoral/index.html).

Before the oral examination can be scheduled, the Graduate Degree Plan and preliminary examination committee must be fully approved, the written preliminary examination result must be certified, and the student must have active student status.

Please note that the student is responsible for scheduling and confirming the time and place of the examination with all committee members.

- **Outcome**
The exam is recorded with one of three outcomes: pass, pass with reservations, or fail.
Pass—Congratulations! The signed oral examination report form is submitted to the Graduate Student Services & Progress Office by the committee chair.

Pass With Reservations—If the student passes the examination with reservations, the student is informed immediately, but the committee is permitted one week in which to convey its reservations to the student in writing, informing the student of the steps that must be taken to remove them. A copy of this letter must be sent to the Graduate School and should accompany the signed oral examination report form. When the student has satisfied the committee’s reservations, a second letter informing the student and the Graduate School that the reservations have been removed and that the student may proceed toward the degree is also required. Both letters must be written by the committee chair. The final oral examination may not be scheduled until the Graduate School has received a copy of the letter indicating that the reservations have been removed. If the committee members disagree as to whether the reservations have been satisfactorily removed, the committee chair asks for another vote, the results of which are subject to the same voting proportions as the initial vote. If the student is unable to satisfy the committee’s reservations, his or her doctoral candidacy and graduate student status may be terminated.

Fail—Students who fail the examination may be excluded from candidacy for the degree or may be allowed, on unanimous recommendation of the examining committee, to retake the examination, providing the reexamination is conducted by the original preliminary oral examining committee. In no case may the reexamination take place before 10 weeks have passed. No more than one reexamination is allowed.

Final Oral Examination
The final oral examination consists of a public defense of the thesis, and is conducted as described in the Graduate School Catalog. All doctoral students are required to successfully defend their theses in a final oral examination and graduate within five calendar years after passing the preliminary oral examination. To be eligible for the final oral examination, a student must have completed all coursework on the Graduate Degree Plan, must have passed both the written and oral preliminary examinations, must have maintained active status, and must have satisfied the thesis credit requirement. In addition, the thesis must have been certified by the readers as ready for defense.

- Committee
The University’s administrative policy on Appointments to Graduate Examination Committees dictates who is eligible to serve on the final examination committee. In Oral Biology, the committee must consist minimally of four members: three (including the student’s adviser) from the major field and one from the minor field. Committee members cannot represent more than one field simultaneously. Although the student’s adviser may serve as a member of the final oral examining committee, another member of the committee is designated as the chair and functions in this capacity at the final oral examination. The chair must be a member of a graduate faculty at the University of Minnesota, in either the major or minor field. All committee members must be present at the examination; the absence of any member results in an invalid examination. At least one committee member
must have full tenure at the University of Minnesota and at least two members must be tenure-track or tenured faculty.

Substitutions on the examining committee may be necessitated by such circumstances as a faculty member’s temporary absence on leave from the University. The adviser or DGS must request the School of Dentistry’s approval of such substitutions well in advance of the examination. Substitutions necessitated by emergency situations must also be approved in advance. In such cases, the committee chair should consult with the Graduate Student Services & Progress staff before the start of the examination.

The Graduate Program in Oral Biology expects students to meet regularly with the final examination committee, not less than one meeting per semester. After every committee meeting, the chair must submit a written report to the Director of Graduate Studies. Reports should utilize or follow the attached form.

**Thesis Reviewers**
All members of the final oral examining committee read the thesis, although only those designated as thesis reviewers sign the report form certifying that the thesis is ready for defense. The designated thesis reviewers consist of the adviser, representing the major field, and at least two other members of the final oral examining committee, including at least one representative from the major field and one representative from the minor or supporting program. Reviewers cannot represent more than one field simultaneously. Certification of the thesis as ready for defense is a necessary step toward the final oral examination, but in no way diminishes the significance of that examination. The thesis reviewers’ report form is obtained from the Graduate Student Services & Progress Office (160 Williamson Hall), or by requesting a graduation packet online.

At the time the candidate submits a draft of the thesis to the thesis reviewers, copies must also be provided to all other members of the final oral examining committee. The thesis abstract must be included with the thesis when it is distributed to the committee. The abstract must be signed by the adviser and submitted, with the final thesis copy, to the Graduate School. To permit faculty to allocate sufficient time to read the thesis and decide whether it is ready for defense, students must notify their adviser and other members of the final oral committee at least two weeks in advance that the thesis will be delivered on a particular date. All members of the examining committee must then have at least two weeks to read the thesis after it has been delivered. When signing the thesis reviewers report form, the reviewers have three options: the thesis is acceptable for defense as presented; the thesis is acceptable for defense with minor revisions; or the thesis requires major revisions and is not acceptable for defense as presented. The reviewers must be unanimous in certifying that the thesis is ready for defense, whether as presented or with minor revisions. If this is the case, and all other requirements have been met, the student will be authorized for the final oral examination. In any instance where revisions are required, the committee must inform the student in writing of the revisions required, and all questions concerning such revisions must be resolved before the final copies of the thesis are submitted and the degree is conferred. It is the
adviser’s responsibility to ensure that revisions required by the reviewers are satisfactorily made.

- **Scheduling**
  The student must schedule the examination at least one week in advance with the Graduate Student Services & Progress Office. Please note that the committee must receive the thesis at least two weeks prior to the exam. The final oral examination is scheduled online. When the examination is scheduled, the student’s Graduate School file is checked to determine if the student can be cleared to take the examination as stipulated above. If so, the report form for the final oral examination will be forwarded to the chair of the examining committee. If difficulties are apparent, Graduate Student Services & Progress staff will contact the student immediately. A minimum of 10 weeks must intervene between the preliminary oral and the final oral examinations. Also, the final oral should not be scheduled during the summer unless the committee members can be assembled without substitution.

To schedule the final oral exam:
- The electronic scheduling process **must be initiated by the student**. To do so, the student clicks on the Final Oral Examination Scheduling link listed at [http://www.grad.umn.edu/current_students/forms/doctoral.html](http://www.grad.umn.edu/current_students/forms/doctoral.html).
- After logging in with the x.500 ID and password, the student enters the final oral examination date and clicks “submit.” (Note that all other required student information fields are automatically populated.)
- The Graduate Student Services & Progress (GSSP) office will notify the student by email regarding any outstanding final oral exam requirements, and how to fulfill those requirements. The student will also receive confirmation from the GSSP office upon the Graduate School’s authorization of the final oral examination. This continues current practice.
- The DGS assistant will be copied automatically on all of the above-mentioned emails so that the graduate program office is informed of the Graduate School’s review and authorization of their student’s final oral exam.
Report of the Final Examination Committee

Student:

<table>
<thead>
<tr>
<th>Name</th>
<th>ID#</th>
</tr>
</thead>
</table>

Meeting date:

Committee members

<table>
<thead>
<tr>
<th>Chair?</th>
<th>Name</th>
<th>Unit Represented</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Describe student’s progress since last meeting.

Is progress satisfactory?

What does student need to accomplish before next meeting?

Is student ready to present 6-month seminar?

Is student ready to defend thesis?

Chair’s signature:

Date of next meeting