DEPARTMENT OF HUMAN PHYSIOLOGY



Student Handbook for the Research-Intensive Graduate Program

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Administrative Staff

Director of Graduate Studies (DGS)

The DGS is a faculty member within the department of Human Physiology. The role of the DGS is to ensure the quality of graduate education is uniform across the department. The DGS serves as an advocate for graduate students with respect to the department faculty and university at large. Additionally, the DGS coordinates departmental Graduate Employee (GE) assignments.

Graduate Coordinator

The Graduate Coordinator is a staff member within the department of Human Physiology. The role of the Graduate Coordinator is to help implement the policies of the Graduate Program, including maintaining graduate student files, tracking graduate student progress, overseeing the department seminar series, and acting as liaison between the Division of Graduate Studies and the department.

Graduate Employee (GE) Information

GE is the term used at the UO for graduate assistantships, regardless of whether the funding is for teaching (TA) or research (RA). There are three GE levels:

- GE I: Graduate students who are not eligible for a GE II or GE III appointment.
- GE II: Graduate students who have a) an MS in a related field prior to enrolling at University of Oregon, b) an MS in Human Physiology at the University of Oregon, or c) completed 45 credit hours toward a doctoral degree, be in good academic standing, and have approval from the DGS and department head.
- GE III: Regularly enrolled doctoral students who have advanced to candidacy (by passing the candidacy examination).

Transition from a GE I to a GE II is automatic with the completion of a MS in Human Physiology at the University of Oregon or after a student has successfully completed 45 credit hours towards their doctoral degree.

Students with teaching appointments (TA) are sometimes offered a research assistantship (RA) by a department faculty member after the academic year has begun. In such cases, the student must receive the approval of the DGS before making a contract change from TA to RA.

GENERAL POLICIES

The research-intensive graduate program leads to a Doctor of Philosophy (PhD) degree. The primary goal of this program is to provide classroom and research experiences that will allow students to grow into professionals with the knowledge and experience to be exceptional researchers and educators. Providing students with an in-depth understanding of human physiology and advanced research skills is our hallmark. The program also provides students with the opportunity to grow as university-level educators.

Students, in consultation with their Dissertation Advisory Committee (DAC), may opt to get a Master of Science (MS) on their way to earning a PhD.

Admissions

Decisions on accepting applicants to the graduate program are based on student qualifications, as well as space within laboratories and financial support available, both of which vary from year to year. There is no "classroom only" option – all students must work in a research lab as part of their studies. The lab PI will

generally be the student's Primary Advisor.

Conditional Status

If admitted to the graduate program with a conditional status, students need to fulfill the condition by the end of their first year of study, unless otherwise detailed in their acceptance letter. Examples of why students would be admitted conditionally include but are not limited to missing specific courses or a low GPA.

Continuous Enrollment Requirement

Students should refer to the Division of Graduate Studies' continuous enrollment policy; https://graduatestudies.uoregon.edu/academics/policies/general/continuous-enrollment.

Dissertation Advisory Committee (DAC)

Doctoral students should work with their Primary Advisor to identify appropriate faculty members to serve on the DAC.

1. Dissertation Advisory Committee

Purpose: Advise the student from early in their training on coursework, requirements, and research topics.

Formation: Each student should work with their Primary Advisor shortly after their arrival on campus to form this committee, which must be formed no later than Spring term year 1.

Role: The DAC should meet with the student shortly after the student arrives on campus to review the student's academic record, try to identify and point out gaps in the student's preparation or potential difficulties with departmental requirements and regulations, and plan jointly with the student their first term's work beyond the required courses. They will also administer the Candidacy exam and as the name implies, will serve to advise the students while they complete their dissertation work.

Composition: minimum of four members; at least two members must be from HPHY.

1) Chair (UO-Affiliated)

- Chair cannot be the student's Primary Advisor.
- Chair participates in all aspects of the meeting(s) and is a first-point resource outside the Primary Advisor for the student.
- Chair should be tenure-track faculty member (with a PhD) at the UO, but they are not required to be from HPHY.
 - If the Chair is not from HPHY, they must be authorized by the department to serve in this role

2) Primary Advisor

- Must be a member of the graduate faculty with authorization to serve as Primary Advisor.
 - If not from HPHY, must be authorized by the department to serve as Primary Advisor.

3) Additional Scientific Advisors

- If co-advised, this spot is for the co-advisor.
- If not co-advised, can be other UO faculty, Advisor-Approved clinical or industry partner or faculty outside UO.
 - Must be authorized by department, CAS Dean, and Division of Graduate Studies to serve on committee.
- 4) The Institutional Representative
 - Tenure-related member of the graduate faculty from outside HPHY department.

 If Primary Advisor is not from HPHY, the IR must be from a different department/research institute than the Primary Advisor

Changing Primary Advisors/DAC Members

Graduate students must have a Primary Advisor. The advisor-advisee relationship requires initial and continuing mutual consent for that relationship. When either the student or Primary Advisor is considering ending this relationship, a meeting should be called between the student, Primary Advisor, and DGS, who will notify the DAC of the meeting's outcome. If an amicable solution cannot be found and the decision is made that a Primary Advisor change is in order, the student must find a new Primary Advisor within 8 academic weeks of this decision. The first step in this process should involve a meeting with the student and DGS to discuss options for another Primary Advisor. The 8 weeks does not include university break periods. If a student goes longer than 8 weeks without a Primary Advisor, the Division of Graduate Studies will be notified, which is an action that could result in the student's termination from the program. It is important to note that while the department will help, if possible, it is the responsibility of the student to find a new Primary Advisor. There is no guarantee that students will be able to find a replacement Primary Advisor.

In the case of shifts in research focus or change of Primary Advisor, the remaining DAC members will work with the DGS and Graduate Coordinator to facilitate a revised committee structure for the student prior to the student's dissertation defense (no later than 6 months prior to defense).

Required Course Waiver Policy

Required courses may be waived with transfer credits under the following conditions: (i) the student has completed (with a grade of B- or higher) a course judged by the instructor-of-record for a course at the University of Oregon as equivalent for covering the same knowledge and skills, and (ii) the student has approval from their Dissertation Advisory Committee.

The student should submit the following to the DGS for review: 1) transfer course syllabus, 2) documentation of the grade received for the course, 3) an approval letter from their Dissertation Advisory Committee, and 4) a written justification for the waiver, which should include confirmation from the instructor-of-record at the University of Oregon.

Mentoring Feedback and Annual Review

Formal and informal mentorship feedback occurs regularly (~once every two months) throughout the year. It is recommended that formal feedback #1 occurs early in the academic year followed by 2 informal feedback sessions. During the winter quarter, graduate students should have a second formal meeting with their Primary Advisor to review their progress and goals and the dates of the two formal meetings should be included in the Annual Review followed by 2 additional informal feedback sessions. Based on the formal feedback meetings, a short progress report will be written for each student by their Primary Advisor as the annual review. The intent of this meeting and report is to ensure that students are making measurable progress in their degree, as evidenced by the milestones of coursework, comprehensive exams, dissertation proposal and defense. This report should summarize where the student is in their studies and the expectations and planned work for the next year. Reports must be submitted to the Graduate Coordinator no later than the conclusion of winter term and will be reviewed by the DGS. Where there is a potential concern about progress, the DGS will meet with the individual student and/or Primary Advisor, as appropriate. Informal mentorship feedback should occur twice between each of the formal feedback meetings. There are no reports required from the informal feedback unless the mentee or mentor wishes to involve the DGS or department head.

Teaching Academy & Graduate Teaching Initiative

Prior to the start of the academic year, the department hosts a two-part Teaching Academy:

- **Tier One:** designed to arm new GEs with key information and perspectives that can help them succeed in the classroom. All new Human Physiology graduate employees are required to attend.
- **Tier Two:** designed to provide continuing professional development within the realm of effective teaching. It will be delivered at a level that should be appealing to both the new and the experienced instructor. All graduate employees are welcome to attend.

Other on campus resources such as the <u>graduate teaching initiative</u> are available as well for students to receive additional training in teaching.

Laboratory Safety

At the beginning of the academic year, the department will schedule safety classes in CPR and First-Aid. All students are expected to attend the appropriate classes to keep their certification current. If students cannot attend these classes, it is their responsibility to maintain CPR and First-Aid certification and to provide proof of certification to the Graduate Coordinator no later than the first day of Fall term.

Seminar Series

The department runs a seminar series, in which faculty invite speakers who are emerging leaders or leaders in their respective field. External speakers will present every other week in a one-hour research presentation format with audience questions. The research presentation will be followed with an informal Q&A session with the speaker for graduate students. Alternative weeks will be dedicated to professional development activities for graduate students. Consistent attendance reflects professional behavior, and it is expected that students attend these activities on a regular basis.

Scholarships

Each year the department of Human Physiology awards several scholarships. Details about the available scholarships can be found on the department <u>website</u>.

Eugene and Clarissa Evonuk Memorial Graduate Fellowship

Students whose research pertain to the topics of applied physiology (such as environmental, cardiovascular, or stress physiology) are eligible to apply for the Evonuk Fellowship once they have completed their candidacy exam. All students who receive this fellowship are required to provide the award committee with an abstract of the completed research. Additionally, awardees are required to use the following acknowledgement language in all publications funded by this fellowship: "This study was supported by the Eugene and Clarissa Evonuk Memorial Graduate Fellowship in Environmental, Cardiovascular, or Stress Physiology, University of Oregon Foundation, Eugene, OR, USA."

MS DEGREE

Students who want to earn a Master of Science on their way to completing the doctoral degree (Master's inpassing) must notify the Director of Graduate Studies and the Graduate Coordinator in writing no later than the end of Winter term of their first year.

Coursework

The Master of Science in-passing consists of a minimum of 45 credits beyond the bachelor's degree, with at least 30 of these credits in Human Physiology (HPHY) courses at the UO. Additionally, 24 of the total credits must be graded credits (i.e., not Pass/No Pass).

The following are required classes:

- Professional Skills (HPHY 611, 612, 613) [1 credit each]
- System Physiology (HPHY 621, 622, 623) [4 credits each]
- Students must complete two courses in statistical analysis covering the following topics:
 descriptive statistics, logic of hypothesis testing, elementary inferential statistics, confidence
 intervals, and introduce one-way analysis of variance, post hoc comparisons, a priori contrasts,
 within-subjects and between subjects effects, 2-way and higher order designs, and interactions.
 - 1. EDUC 641 & 643 automatically count towards this requirement. Students wanting to take any other statistical analysis course(s) need to request the course(s) count toward this requirement by filling out a Statistical Analysis Course Request form and having it approved by their Dissertation Advisory Committee prior to enrolling in the course(s).
- Research (HPHY 601) or Thesis (HPHY 503) [minimum of 9 credits]
 - 1. See Project vs Thesis section below to determine which credits to register for.

In addition to these required elements, other Human Physiology courses and courses in other departments can be taken outside of the department to fulfill the 45-credit requirement, especially to augment the student's training in an area unique to their research topic.

All planned coursework should be discussed with the student's DAC to determine the most beneficial set of courses for the individual student.

The DAC should guide the student in developing the MS proposal, data collection and analysis and writing up the results.

Project vs. Thesis

To receive an MS in-passing, students must complete a substantial body through either a special project or the writing of a formal thesis. In terms of research, the department expectations are the same for both options; the only difference is whether a student prepares a journal style manuscript that is reviewed by the department only or completes a formal thesis that is submitted to the Division of Graduate Studies. The department strongly suggests that students complete a special project, but students should work with their DAC to determine the best option.

Students who choose to complete a special project for their MS in-passing should register for research credits (HPHY 601). Students who choose to complete a formal thesis are required to register for thesis credits (HPHY 503).

MS Proposal

Students must prepare a formal proposal for their research project and present it to their DAC in the fall term of their second year of study. The proposal should provide an outline of the research project that the student proposes to complete for their MS in-passing. It should include relevant background information, current gaps

in the knowledge, specific aims and hypotheses to be addressed, a detailed outline of the experimental methods and statistical analyses to be used, the expected results, and a timeline.

Students should submit their written proposal to their DAC at least 2 weeks prior to the proposal defense.

Once the DAC is satisfied that the student has satisfactorily addressed the committee's questions/concerns, they will sign off on the proposal using the MS Project Proposal form. The Committee Chair should submit this form to the Graduate Coordinator after signing off on the proposal, but no later than the Wednesday of Finals week.

Students must successfully defend their research proposal prior to undertaking the project/thesis research.

MS Project/Thesis Defense

The DAC, in consultation with the student, determines the format for presentation of their research, which will include an oral defense in combination with either a journal-style manuscript or a formal master's thesis.

The oral defense of the MS research is the culmination of the work completed by the student to complete their MS in-passing. As with the MS proposal, the final written thesis or journal-style manuscript should be provided to the DAC at least 2 weeks prior to the defense.

Following the defense, the candidate will quite often be required to complete revisions to the manuscript or thesis that require approval from the DAC. Once all required revisions are complete, the DAC will determine whether the student's work is satisfactory, and if so they will sign off on the project/thesis by submitting the MS Project Completion form to the Graduate Coordinato no later than the Friday before the start of the new term.

Deadlines for Graduating Term

- Apply for Advanced Degree via GradWeb: submit advanced degree application by Friday, Week 2.
- Submit special project or formal thesis: at least 2 weeks prior to the oral defense date.
 - 1. If extenuating circumstances make this impossible, then approval for a shorter time needs to be agreed upon by all committee members, or the defense date must be rescheduled.
- PROJECT OPTION Submit the MS Project Completion form to Graduate Coordinator: after DAC signs off but no later than Wednesday of finals week.
- THESIS OPTION Upload approved thesis and thesis approval form to the Division of Graduate Studies: Monday finals week.
- See information on the Division of Graduate Studies' website for term-by-term deadlines.

Recommended Schedule

- Complete Systems Physiology and Professional Skills sequences during first year.
- DAC formed by end of spring term of first year.
- Proposal defense by fall term of second year.
- Finish required coursework in year two.
- Attend Annual Meetings with DAC in remaining years.
- Defend MS in-passing project/thesis at end of year two.

PHD PROGRAM DEGREE

Coursework

The doctoral degree consists of a minimum of 81 credits of graduate-level work beyond the bachelor's degree. At least 60 of these credits must be completed through Human Physiology courses.

The following are required classes (if not already completed as part of earning the MS in-passing in Human Physiology at the University of Oregon):

- Professional Skills (HPHY 611, 612, 613) [1 credit each]
- System Physiology (HPHY 621, 622, 623) [4 credits each]
- Students must complete at least one upper division 600 level Human Physiology class. Current options include Signal Transduction (HPHY 640), Advanced Respiratory Physiology (HPHY 670); Human Cardiovascular Control (HPHY 676); Kinematics of Human Movement (HPHY 684); Kinetics of Human Movement (HPHY 685).
 - Students wishing to take a non-HPHY 600-level course to fulfil this requirement should submit a non-HPHY 600-level Course Request form to their Dissertation Advisory Committee for approval prior to enrolling in the non-HPHY course.
- Students must complete two courses in statistical analysis covering the following topics:
 descriptive statistics, logic of hypothesis testing, elementary inferential statistics, confidence
 intervals, and introduce one-way analysis of variance, post hoc comparisons, a priori contrasts,
 within-subjects and between subjects effects, 2-way and higher order designs, and interactions.
 - EDUC 641 & 643 automatically count towards this requirement. Students wanting to take
 any other statistical analysis course(s) need to request the course(s) count toward this
 requirement by filling out a Statistical Analysis Course Request form and having it
 approved by their Dissertation Advisory Committee prior to enrolling in the course(s).
- Dissertation (HPHY 603) [minimum of 18 credits]. These credits cannot be taken until the student has passed the candidacy exam.

In addition to these required elements, other Human Physiology courses and courses from other departments that augment the student's training in an area unique to their research topic can be taken to fulfill the 81-credit requirement.

All planned coursework should be discussed with the student's DAC to determine the most beneficial set of courses for the individual student.

Satisfactory Academic Standing

To be considered in good standing with the Division of Graduate Studies, students must: 1) take courses for letter grades and receive grades of B- or better, 2) maintains a minimum 3.0 grade point average, and 3) accumulate no more than 7 credits of incomplete (I) grades. Additional satisfactory progress details can be found on the Division of Graduate Studies' Website.

The Department of Human Physiology also considers research progress in determining satisfactory academic standing. Grades of "Incomplete" or "N" in research credits are a strong indicator of lack of research progress.

Annual DAC Meeting

Meetings with this committee occur annually throughout degree progression.

Yearly meetings will include a portion of time dedicated to the committee members discussing with the Primary Advisor and without student, followed by a discussion between committee members and the student without the Primary Advisor.

If it is determined that a student is making unsatisfactory progress in research toward their degree (such as, through "Incomplete" or "N" grades in research credits, "No pass" for candidacy progress), a written description of clear next steps/milestones will be created in agreement between student and DAC members and will be submitted to the DGS and GC. The timeline for completion needs to be consistent with Division of Graduate Studies criteria and other timelines established with the GC, particularly those related to the Incomplete policy.

Year 2: During Fall term of 2nd year (4th term), the student will meet with the entire DAC to discuss progress and give a brief (15-20 min) presentation. No later than one week prior to this meeting, the student will submit a 3-6-page report that includes an introduction to the dissertation project and summary of early progress, including any relevant data.

Candidacy Exam (detailed policy below)

Students will take the Candidacy Exam in spring term of 2nd year (6th term), but no later than last day of spring term in Year 3. Candidacy Exam details within the policy will be determined by the DAC.

Advancement to Candidacy

After successful completion of the Candidacy Exam, the student will be advanced to candidacy. After advancement, the student must enroll in Dissertation credits (HPHY 603) during every subsequent term of enrollment and complete a minimum of 18 total dissertation credits by the time of graduation. Students must register for at least 3 credits in the term of graduation (9 if holding a GE appointment).

Dissertation Defense

The public oral defense of the dissertation project is the culmination of the research completed by the candidate during the doctoral degree. Students will follow the Division of Graduate Studies' policies and guidelines for the dissertation oral defense. Dissertation Advisory Committee members needn't all participate, but this is the preferred best practice. For the dissertation defense, the student, Chair, Primary Advisor, and IR must be present. One Core Member can waive their attendance and submit any questions to the committee chair in advance. See the Division of Graduate Studies' Oral Defense Attendance Polices for additional attendance options.

Students will be required to submit all dissertation documents to the committee no later than 3 weeks prior to the public defense.

Following the defense, the candidate will quite often be required to complete revisions to the dissertation that require approval from at least the Primary Advisor and, potentially, the remaining DAC members.

Deadlines for Graduating Term

- Format of Dissertation: if the dissertation will include published or unpublished co-authored
 material, published material without co-authorship, or be in journal format style, the student must
 submit a completed Doctoral Dissertation Content and Style Request form to the Graduate School
 at least 1 term prior to the defense.
- Apply for Advanced Degree: apply online via GradWeb no later than Friday week 2.
- Complete written copy of dissertation: submit to the committee members at least 3 weeks prior to the oral defense date.
 - If extenuating circumstances make meeting this deadline impossible, approval for a shorter time needs to be agreed upon by all committee members, or the defense date must be rescheduled.
- Title, date and time of oral defense: submit to the Graduate Coordinator at least 3 weeks prior to the oral defense.
 - 1) The Graduate Coordinator will work with the student to find a location for the defense.
- Application for Final Oral Defense: apply online via GradWeb at least 2 weeks prior to defense.

- 1) You must have a room reserved prior to applying for the oral defense
- Final Oral Defense: must be completed by end of week 9.
- Committee certification of defense: completed by committee via GradWeb no later than 2 weeks after defense
- Upload approved dissertation: once the Dissertation Chair approves the final dissertation, you must upload your dissertation to ProQuest/ETD no later than 2 weeks after the defense.
- Term-by-term deadlines can be found on the Division of Graduate Studies' website.

Recommended Schedule

- Complete Systems Physiology and Professional skills sequences during first year.
- DAC formed by the end of first year.
- Finish required coursework in year two.
- Candidacy Exam completed by end of second year.
- Attend Annual Meetings with DAC
- Communication with proposal committee as needed (meetings and email).
- Defend PhD.

Time to completion will vary greatly between students, but ideally student coming in with an MS should defend within 4 years and those coming in without an MS should defend within 5-6 years.

PHD CANDIDACY EXAMINATION POLICY

The Doctoral Candidacy Examination is a series of written and oral examinations, which address subject areas in human physiology and should also serve as the dissertation research proposal. This exam should start after most required coursework has been completed, occurring near the end of the second year, and must be completed by the end of year 3 to remain in good academic standing. The timing of these exams may be adjusted by the Dissertation Advisory Committee (DAC) with approval of the DGS. After successful completion of the candidacy exam and all required coursework (at least 45 credits – Division of Graduate Studies requirement), the student is "advanced to candidacy" and will be considered as successfully completing the dissertation research proposal. Students will be grandfathered into the version of comps that was approved when they entered the program.

Philosophy

The candidacy exam is based on the philosophy that a doctoral student obtains both a breadth and depth of knowledge about human physiology during their formal course work. The candidacy exam marks a turning point in the training of a doctoral student, from being a student of the field, to becoming an expert on a particular research topic or subspecialty. Along these lines, the goal of the candidacy exam is not to test the student's global knowledge about the field but rather start them on a directed set of studies within the field of physiology that will allow them to become an expert. The format of the candidacy exam is therefore designed to test the student's knowledge of, and ability to assimilate, the primary research literature within their field and should ascertain their readiness to embark on the line of research that will constitute their doctoral dissertation.

Content

The candidacy exam is the beginning of the doctoral student's pathway to becoming an expert. Doctoral students must demonstrate the ability to use their existing knowledge base to understand observations and synthesize ideas relevant to the field. Also, doctoral students must demonstrate the ability to organize information succinctly to address questions of key interest in the field. The candidacy exam is therefore in the format of a grant proposal with a written rebuttal and oral defense of the proposal. The topic on what the grant is written on is determined by the Dissertation Advisory Committee (DAC), all of whom serve as the examiners. The DAC is formed in year 1 and thus allows committee members to best advise the selection of courses in the doctoral student's program of study.

Format & Timeline

The following is a brief description of the parts of the Candidacy Exam. More detail is provided on the subsequent pages under 'Guidelines Specific to Each Part of the Exam'.

The ideal timing of the exam completes all exam parts by end of Year. 2. The following timeline, however, highlights the latest dates that each section can be completed, though extenuating circumstances may allow for flexibility. Completing each section sooner will allow time to retake parts of the exam and still complete by the end of year 2.

Fall Term 2nd Year

Week 5 (Pre-exam): Aims page and PhD Candidacy Exam Application form submitted to DAC for approval before beginning the written exam

Week 7: DAC provides feedback to student – if OK then student proceeds (must follow timeline on Candidacy Exam Application),

- if not OK student resubmits Week 5 winter term; if OK then student proceeds,
- if not OK after second attempt, DAC will determine the subsequent steps

Winter Term 2nd Year

Week 5 Winter term – Aims page and PhD Candidacy Exam Application resubmission as required and timeline is shifted accordingly

Spring Term 2nd year

Week 5 - Written Exam due to DAC

Week 7 - Feedback from DAC

Week 8 - Oral exam with rapid feedback

Week 9 – 1 page rebuttal submitted

Week 10 - DAC determines P/NP

Pre-exam – The Aims Page will be shared with the DAC and must receive approval from all committee members no later than the quarter prior to proceeding with the three parts of the exam. The Aims Page must also indicate the chosen funding opportunity announcement (FOA) format for Part A. The approved Aims Page, as well as the PhD Candidacy Exam Application form, should be submitted to the Graduate Coordinator no later than the last day of the term approved by the DAC.

Part A (Grant Proposal) is a take-home exam in which the student writes a trainee-style grant independently to test the student's knowledge of, and ability to assimilate, the primary research literature within their research topic or subspecialty. The research topic may be either related to a currently funded study or may be completely independent but must be original work by the student and should represent the student's research direction as Part A also serves as the written dissertation proposal. The DAC members will provide individual feedback prior to Part B and will approve any deviations from the original proposal.

Part B (Oral Exam) is an oral exam in which the student must defend the grant proposal and answer questions related to Part A, including the feedback provided by the DAC, and any other material the examiners deem necessary to ascertain the student's knowledge of, and ability to assimilate, the primary research literature within their research topic or subspecialty. At the conclusion of the Part B Oral Exam, a summary of the critiques will be provided to the student by the chair of the committee.

Part C (Rebuttal) is a one-page independently written response to the grant critiques provided by the DAC chair after Part B. It is suggested that the DAC use NIH scoring system (https://grants.nih.gov/grants/peer/guidelines_general/scoring_guidance_research.pdf) but limited to 3 criteria: significance, innovation, and approach. DAC members could then simply indicate Strengths and Weaknesses for each of those three criteria and score them in the range 1-9 (https://grants.nih.gov/grants/peer/guidelines_general/scoring_system_and_procedure.pdf) Impact scoring should be disregarded.

<u>Scheduling</u>

The DAC should be finalized in the first year of study to review and approve the doctoral student's proposed coursework prior to the candidacy exam. Once the DAC has approved the completed/in-progress coursework, the doctoral student should schedule both their written (submission of Part A) and oral exams (Part B). Part A should be submitted to the DAC 3 weeks prior to Part B. The DAC will provide written critiques within 2 weeks. This time frame allows committee members time to evaluate the answers to the written exam (Part A) and for the student to prepare for the oral exam (Part B). The doctoral student will have up to 1 week to provide the one-page written rebuttal to the DAC critiques from Parts A and B.

Should it be necessary for a student to retake, or re-schedule, any part of the exam, the DAC will determine the appropriate time interval that will provide the student with a reasonable opportunity to improve their performance on that part of the exam.

Students should contact the Graduate Coordinator for help reserving a room for the oral exam.

If an adequate grant writing course becomes available, it is recommended that the doctoral student enroll in the course concurrent with or in advance of writing their grant proposal.

Language

English is recognized as the international language of science and students must be able to communicate their knowledge in that language. Students may have access to English language assistance from Academic Learning Services for Part A and Part C but not Part B (Oral) of the exam. Other outside assistance with writing undermines the ability of the committee to assess how well the student organizes their thoughts on a topic.

Guidelines Specific to Each Part of the Exam

Guidelines for Part A

Part A (Grant Proposal) the student will write independently a trainee-style grant proposal to demonstrate 1) the student's knowledge of, and ability to assimilate, the primary research literature within their particular research topic or subspecialty and 2) the student's ability to formalize a novel research question for experimental investigation.

The student will be able to access any and all resources necessary to develop the proposal but must appropriately cite resources and submit a references list (does not count toward page limits, see below). The student may discuss their plan with others, including their Primary Advisor and committee members, but the written proposal must be their own independent work. The Primary Advisor and committee may suggest a general direction and may provide the student with a reading list, but the Primary Advisor and DAC cannot edit the grant proposal document.

It is expected that the student will demonstrate the ability to synthesize the literature in their own scholarly voice and apply a level of critical analysis to the current literature. Thus, discussion of the literature should contain not only the general postulates, but acknowledgment of weaknesses and omissions in theory development or experimental results.

The format of the grant should follow the guidelines of the respective funding opportunity announcement (FOA) agreed upon by the DAC. Appropriate examples include:

F31 NRSA https://researchtraining.nih.gov/programs/fellowships/F31 (1-page Specific Aims & 6-page Research Strategy)

AHA predoctoral fellowship https://professional.heart.org/en/research-programs/aha-funding-opportunities/predoctoral-fellowship (2500 character lay summary & 5-page Research Plan)

SBIR Phase I https://www.sbir.gov (1-page Specific Aims & 6-page Research Strategy)

Formatting should be consistent with the respective FOA. References are excluded from this page limit.

Alternatives to the above examples are allowable given the explicit approval of all DAC members.

Suggestions for the student:

- Do not wait to begin writing the grant proposal until after the Aims Page is approved. These components
 can be written in parallel, and it is expected they will be written under the general guidance of the
 Primary Advisor and DAC members.
- Enrollment in a grant-writing course/workshop is strongly encouraged to facilitate the development of the proposal.
- Take time to proof-read all sections of Part A. Be sure to check for spelling/grammatical errors.

Guidelines for Part B

Part B is an oral exam in which the student must defend the grant proposal to 1) ascertain the student's ability to assimilate the primary research literature within their research topic or subspecialty, 2) to formulate a worthwhile/significant research question (or product for development) and 3) demonstrate expertise in experimental design and relevant methodology and rationalize alternative strategies. Students will receive

written DAC feedback on Part A 1 week prior to the oral exam. The student will meet with the chair of the DAC prior to Part B to provide guidance to the student on exam format and any notable areas of concern from the committee related to Part A. After turning in Part A, it is recommended that the student spend time reviewing the grant, to objectively assess the limitations in their written work and to prepare by reviewing written feedback provided by the DAC.

Extenuating circumstances notwithstanding, all members of the DAC must be present for the entirety of Part B, which should be 2 hours in length. Each examiner may question the student about their answers from Part A for an equal amount of time in the first hour (e.g., 4 members would get 15 min each with the chair keeping time). In the second hour, each member will have less but equal time (e.g., 4 members would get 10 min each with the chair keeping time) which allows for a discussion the end with regards to P/NP and feedback to the student. It is expected that the student will demonstrate the ability to think on their feet and articulate their thoughts in a scholarly way related to the proposed work as well as topics foundational to the research premise. Students will have access to a copy of their written exam to review during this time; but will not have access to additional notes, books, or journal articles during the exam. Once the student has completed the second round of questions in their oral exam, they will be asked to leave the room while the examiners deliberate on the success of the examination.

Suggestions for the student:

- Do not read from your exam to answer a question.
- Recognize that the questions may not have a clear right or wrong answer.
- Ask for clarification of any question that is not understood, rather than trying to answer a question that is not clear.
- It is better to recognize and indicate to the committee when you do not know the answer to a question, rather than attempting to fish for an answer.

Guidelines for Part C

Part C is a one-page independently written response to the grant critiques provided by the DAC before Part B and the DAC chair after Part B. The student should complete this one-page response independently. This one-page response will provide the committee with an indication that their critiques have been understood and are being addressed by the student. It will also set the course for the grant revision that ideally will be submitted.

Suggestions for the student:

- The student should focus on addressing all concerns as concisely as possible
- The student should use the format that most closely aligns with their given grant

<u>Grading</u>

Each of the 3 exam sections (Parts A, B & C) will be assigned a grade by the DAC:

- PASS indicates that the student's performance on that section was at the level expected of a doctoral
 candidate.
- CONDITIONAL PASS (allowed grade for Part A only) indicates the student's performance on that section was not as strong as is expected of a doctoral candidate, but that they may be able to redress this performance by a stronger performance during the oral exam.
- NO PASS indicates that the student's performance on that section was below what is acceptable for a doctoral candidate, and it is unlikely that 1) this performance can be redressed during the oral exam or 2) the student may not progress to candidacy.

Students who receive a grade of NO PASS on Part A must redo Part A and receive a grade of CONDITIONAL PASS or PASS before they can proceed to Part B. Students will have only one opportunity to redo a NO PASS for Part A NO PASS after attempt #2 will result in dismissal from the program. In general, students will not be asked to redo Part A if they receive either a CONDITIONAL PASS or PASS, unless they also fail Part B.

After Part B, the committee will assign the student a grade of PASS, or NO PASS. A No Pass indicates that the student's performance was below what is acceptable for a doctoral candidate and the student may not progress to candidacy. Students will have only one opportunity to redo Part B. In general, students will not be asked to redo any portion of Part A prior to redoing Part B. However, at the DAC's discretion, a student may be asked to redo a portion of Part A on which the student received a grade of CONDITIONAL PASS prior to redoing Part B. Students who fail to Pass Part B on their second attempt will be dismissed from the doctoral program. There is no "Conditional Pass" option for Part B.

Upon submission of Part C, the one-page rebuttal, the DAC will assign the student a grade for Part C. A PASS indicates the student's performance was as strong as is expected of a doctoral candidate. A grade of NO PASS indicates that the student's performance was below what is acceptable for a doctoral candidate and the student may not progress to candidacy. Students will have only one opportunity to redo Part C. Students who fail to Pass Part C on their second attempt will be dismissed from the doctoral program. There is no "Conditional Pass" option for Part C. The DAC will review Part C and assign a grade within one week.

Misconduct

The written exam should be produced exclusively by the student without assistance from others, including any form of artificial intelligence, e.g., ChatGPT. References used as experimental evidence to support ideas must be properly cited. There is seldom reason to include verbatim statements, but if they are included, they must be surrounded by quotation marks and properly cited. References must be cited whenever the student uses previously published ideas and theories unless this information is considered part of the common knowledge of the field of human physiology as would be covered in a textbook. The department and university take violations of academic conduct seriously. Students unfamiliar with any aspect of academic misconduct are encouraged to see the following resources: https://dos.uoregon.edu/conduct.

Appendix A: Forms

The following pages contain forms for the following program milestones:

- MS Project Proposal
- MS Project Completion
- PhD Candidacy Exam Application
- PhD Candidacy Exam Results

Master of Science Project Proposal

Name of Student:	
Project Working Title:	
Date of Proposal:	
	ify that the student has satisfactory addressed all see about the project and give the student approval to begin their
Chair	Signature
Primary Advisor	Signature
Co-Advisor/Scientific Advisor	Signature
Institutional Representative	Signature

Master of Science Project Completion

Name of St	udent:	<u> </u>	
Date of Ora	al Defense:		
Format:	Journal-style Manusc (reviewed by departn		
Title:			
that we find	the student's work to be	eby certify that all required revisions have been completed and atisfactory. The Committee approves the project submitted by t uirement for the Master of Science degree: Signature	ne
Primary Ad	visor	Signature	
Timary Ad	VISOI	Signature	
Co-Advisor,	/Scientific Advisor	Signature	
Institutiona	al Representative	Signature	

PhD Candidacy Exam Application

Name of Student:	
Schedule:	
Date Pre-Exam (Aims Page) turned in by stude	ent:
Date of part A (Grant) to be handed in by Stu- (Must be submitted 3 weeks prior to Part B)	dent:
Date of part B (Oral) to be given to student:	
Date of part C (Rebuttal): (must be turned in within 7 days after Part B)	
The following members of the DAC verify that degree coursework, and is eligible to take the	et this student has completed substantively all required e doctoral candidacy examination:
Chair	Signature
Primary Advisor	Signature
Co-Advisor/Scientific Advisor	Signature
Institutional Representative	Signature

PhD Candidacy Exam Results

Name of Student:		
Date of Oral Exam:		
For each committee member, indicate: 1. Your decision regarding the student's only), No Pass 2. An overall recommendation for the expectation of	performance for each part: Pass, Conditional Pass (Part kam: Pass or No Pass	Α
Chair	Signature	
Part A:	Part B:	
Part C:	Exam Recommendation	
Primary Advisor Part A:	Signature Part B:	
Part C:	Exam Recommendation	
Co-Advisor/Scientific Advisor	Signature	
Part A:	Part B:	
Part C:	Exam Recommendation	
Institutional Representative	Signature	
Part A:	Part B:	
Part C:	Exam Recommendation	