

DEPARTMENT OF HUMAN PHYSIOLOGY



2022

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 in 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 been advanced to candidacy (by passing the comprehensive 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 Master of Science (MS) and 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 the opportunity to grow as university-level educators.

Faculty Advisor

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. To be accepted into the PhD program, a tenure-related faculty member within the department of Human Physiology must be willing to serve as the student's research advisor.

Changing Advisors

Graduate students must have a research advisor. The advisor-advisee relationship requires initial and continuing mutual consent for that relationship. When either the student or advisor is considering ending this relationship, a meeting should be called between the student, advisor, and DGS. If an amicable solution cannot be found and the decision is made that an advisor change is in order, the student must find a new advisor within 8 weeks of this decision. The first step in this process should involve a meeting with the student and DGS to discuss options for another advisor. The 8 weeks does not include university break periods. If a student goes longer than 8 weeks without an advisor, the Division of Graduate Studies will be notified, an action which 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 advisor. There is no guarantee that students will be able to find a replacement 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 why students would be admitted conditionally include but are not limited to missing specific courses or a low GPA.)

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 advisor. The student should submit the syllabus and documentation of their grade for the completed course, an approval letter from their advisor, and a written justification for the waiver to the DGS (which should include confirmation from the instructor-of-record at the University of Oregon).

Continuous Enrollment Requirement

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

Annual Review

During the winter quarter, graduate students should have a formal meeting with their advisor to review their progress and goals. Based on this meeting, a short progress report will be written up for each student by their faculty advisor. 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 advisor, as appropriate.

Teaching Orientation

Prior to the start of the academic year, the department hosts a Teaching Orientation for new Human Physiology graduate employees. This is 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.

Teaching Academy

Each term, the department will put on a Teaching Academy for all Human Physiology graduate employees. These workshops will be an hour each and cover newer strategies and developments 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.

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 website.

MS DEGREE

Students who want to earn a Master of Science on their way to completing the doctoral degree (Master's in-passing) 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 (e.g., EDUC 614 & 640) 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 614 & 640 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 Advisor and Director of Graduate Studies 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 advisor to determine the most beneficial set of courses for the individual student.

Research Committee

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

Formation: Each student should form a research committee no later than the end of Winter term of their first year.

Composition: Two members - advisor and one additional Human Physiology faculty member.

Role: At regular intervals during the course of the MS project, it is recommended that the candidate meet with the research committee to provide an update of, and receive feedback on, the progress of the MS work. These meetings should occur 1-2 times each academic year.

NOTE: Research Committee membership can be identical to the Program Committee (see PhD Program > Committee section below) but does not have to be.

Project vs. Thesis

To receive a 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 advisor 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 Research Committee in the spring term of their first 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 Research Committee at least 2 weeks prior to the proposal defense.

Once the committee 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

Department faculty, in consultation with the student, determine 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 public 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 Research Committee 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 at least the primary advisor and, potentially, the remaining Research Committee member. Once all required revisions are complete, the Research Committee 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 Coordinator. This form must be submitted no later than the Friday before the start of the new term.

Deadlines for Graduating Term

- Apply for 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 period needs to be agreed upon by all committee members, or the defense date must be rescheduled.
- Submit the title, date and time of oral defense to the Graduate Coordinator: at least 2 weeks prior to the oral defense.
 1. The Graduate Coordinator will work with the student to find a location for the presentation.
- PROJECT OPTION – Submit the MS Project Completion Form to Graduate Coordinator: after committee 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.
- Research committee formed by end of winter term of first year.
- Proposal defense by spring term of first year.
- Finish required coursework in year two.
- Communication with research committee as needed in year two (meetings and email).
- 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, in consultation with their Advisor, wishing to take a course not listed above should email the Director of Graduate Studies for approval.
- Students must complete two courses in statistical analysis (e.g., EDUC 614 & 640) 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 614 & 640 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 Advisor and Director of Graduate Studies 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 comprehensive 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 advisor to determine the most beneficial set of courses for the individual student.

Good 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.

Committees

Doctoral students should work with their advisor to identify appropriate faculty members to serve on the following committees, listed in the order in which they should be formed. It is likely that the members of these committees will have considerable overlap.

1. Program Committee

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

Formation: Each student should work with their Advisor shortly after their arrival on campus to form this committee.

Composition: Two members - advisor and one additional Human Physiology faculty member. The additional faculty member is typically in a discipline closely aligned with that of the student's advisor.

Role: The program committee 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.

2. Comprehensive Exam Committee

Purpose: Administer the comprehensive examination.

Formation: Each student should form this committee no later than the end of the first year of study but must be formed no later than six months prior to taking the comprehensive exam.

Composition: Three members - advisor and two additional Human Physiology faculty members. At the discretion of the advisor, the committee may have additional members if they are needed to ascertain the student's knowledge in a particular area of study.

Role: Generate questions for the candidacy comprehensive exam and assess the student's ability to answer questions in written and oral formats.

3. Dissertation Committee

Purpose: Guides the student in developing the dissertation proposal, data collection and analysis, and writing of the dissertation; oversees an examination of the proposal and the end-product of the student's work, the written dissertation and oral defense; upholds the standards of both the university and the department for scholarly activity and degree expectations.

Formation: Each student should form a dissertation committee, in consultation with and approved by their research advisor, within one month of completing the comprehensive exam.

Composition: The committee must have a minimum of four members: A Chair, an Institutional Representative, and two Core Members. The committee may have additional Core Members to bring appropriate expertise to the committee.

1) Chair

- Must be a tenure-related member of the graduate faculty at the University of Oregon who holds a doctoral degree; usually the student's research advisor but may also be another faculty member from human physiology or a different department.

2) Two Core Members

- At least one core member must be a member of the graduate faculty in human physiology.
- If the committee Chair is from a different department, the second Core member must also be a member of the graduate faculty from human physiology. This member must be either a tenure-related faculty or a Career Lecturer, not a Courtesy or Affiliated Faculty member.
- The remaining member may be:
 - A member of the graduate faculty from human physiology
 - A member of the graduate faculty from another UO department
 - A non-tenure track faculty member who is not a member of the graduate faculty*
 - A faculty member from another college or university*
 - A qualified practitioner professional or community member*

*must be nominated by the department and approved by the CAS Dean and Division of Graduate Studies

3) The Institutional Representative –

- Must be a tenure-related member of the graduate faculty at the University of Oregon.
- Cannot be from human physiology or from the same department as the Chair.

Role: At regular intervals during the course of the dissertation project, it is recommended that the candidate meet with the dissertation committee to provide an update of, and receive feedback on, the progress of the dissertation work. These meetings should occur 1-2 times each academic year.

Comprehensive Examination

Written and oral doctoral comprehensive examinations are taken after completing a substantial portion of the program of study. It is recommended that comp exams take place during the student's second year of study. Details about the administration of the exam can be found in the Doctoral Comprehensive Exam Policy (later in this document).

Students must submit a *PhD Comprehensive Exam Application* form to the Graduate Coordinator no later than Friday of week 1 during the term the exam is to be taken.

No later than one week after completing part C of the comprehensive exam, the committee Chair must complete and submit a *PhD Comprehensive Exam Results* form to the Graduate Coordinator.

Advancement to Candidacy

After successful completion of the doctoral comprehensive exam, the student will be advanced to candidacy. After advancement, the student must enroll in Dissertation (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 Proposal

The dissertation proposal must be successfully defended by the conclusion of the academic term following advancement to candidacy. For students who advance at the end of spring term, their Proposal must be defended by the conclusion of Fall term.

The dissertation proposal provides an outline of the research project that the student proposes to complete for their dissertation. It should include 1) relevant background information, 2) current gaps in the knowledge, 3) specific aims and hypotheses to be addressed in the dissertation research, 4) a detailed outline of the experimental methods and statistical analyses to be used, 5) the expected results, and 6) a timeline. The candidate will provide the Dissertation Committee with the proposal in written form at least 2 weeks prior to the proposal defense, where they must complete an oral defense of the proposal prior to undertaking the dissertation research.

The candidate must satisfactorily address any questions/concerns that the committee has about the proposal, before the committee can sign off on the proposal. Once the committee is satisfied with the proposal, the committee Chair will sign off on the proposal by submitting the *PhD Dissertation Proposal* form to the Graduate Coordinator within one week of signing off on the proposal (but no later than the Friday before the start of the new term).

Dissertation Defense

The public oral defense of the dissertation project is the culmination of the research completed by the candidate during the doctoral degree. 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 committee members.

Deadlines for Graduating Term

- Form 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.
 - 1) 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.
- Comprehensive Exam Committee formed by the end of first year.
- Finish required coursework in year two.
- Comprehensive Exam completed by end of second year.
- Dissertation Committee formed by end of second year.
- Proposal defense in beginning of third year, but no later than the term after advancing to candidacy.
- 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 COMPREHENSIVE EXAMINATION POLICY

The Doctoral Candidacy Comprehensive Examination (or Comprehensive Exam) is a series of written and oral examinations, which address the primary subject areas of the field of human physiology. This exam is taken after the majority of required coursework has been completed, unless specifically waived by the committee, and after most of the requirements for the degree, except proposal, completion and defense of the dissertation, has been satisfied. After successful completion of the comprehensive exam, the student is advanced to candidacy and may then present their dissertation research proposal.

Philosophy

The comprehensive exam is based on the philosophy that a doctoral candidate needs both a breadth and depth of knowledge about human physiology to be successful as either a teacher or a researcher. In many ways, the comprehensive 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, it is the final test of the student's global knowledge about the field and should ascertain whether the student is adequately prepared to take on the role of instructor of human physiology. It is also a test of 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

Many consider this the highest level of exam offered in academics. At the doctoral level, it is insufficient to merely recall facts; students must also demonstrate the ability to use their knowledge base to explain observations or synthesize ideas relevant to the field. Also, students must demonstrate the ability to organize information succinctly to address questions of key interest in the field. The exam content is determined by the student's advisor and comprehensive exam committee members, all of whom serve as the examiners. As such, it is important that the student establish their committee early on, so that committee members may help advise in the selection of courses in the student's program of study. The committee should be finalized at least 6 months prior to the student's exam and the committee should review and approve the student's completed coursework prior to the exam.

Format

Following is a brief description of the three parts of the Comprehensive Exam. More detail is provided on the next page under 'Guidelines Specific to Each Part of the Exam'.

Part A is a take-home exam in which the student writes independently in response to two questions that are formulated to test the student's knowledge of, and ability to assimilate, the primary research literature within their field.

Part B is a closed-book exam in which the student writes independently in response to two questions which are formulated to test the student's global knowledge about the field and should ascertain whether the student is adequately prepared to take on the role of instructor of human physiology.

The questions are comprehensive and integrate the student's coursework and research interests in a way that goes beyond course examination questions.

Part C is an oral exam in which the student must address questions related to both Parts A and B and any

other material the examiners deem necessary to ascertain the student's breadth and depth of knowledge about human physiology.

Scheduling

The committee should be finalized at least 6 months prior to the student's exam and the committee should review and approve the student's completed coursework prior to the exam. Once the committee has approved the student's completed/in-progress coursework, the student should schedule both their written (Parts A and B) and oral exams (Part C). Either written part can be scheduled first. The oral exam should occur between 7 and 14 days after the completion of the written exam to allow committee members time to evaluate the answers to the written exam and for the student to prepare for the oral exam.

Should it be necessary for a student to retake any part of the exam, the committee 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 written or oral exams. If students are registered with the Accessible Education Center (AEC), they are encouraged to contact the AEC to schedule a room for the written exam.

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 but not for Part B or C of the exam. 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 is a take-home exam in which the student writes independently on two questions, which are formulated to test the student's knowledge of and ability to assimilate the primary research literature within their field. The student will be able to access their own notes, book, and journal articles but must reference these sources as appropriate. The student may not discuss their exam question with anyone other than their advisor or a committee member who is delegated as responsible for a particular question and may only do so to clarify the question, not to discuss the answer to the question.

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 questions are not known in advance, but the advisor and committee may suggest a general direction by providing the student with a reading list of articles or book sections prior to the exam.

The student has one week, from the time they receive the exam, to complete the exam and return it to their advisor for distribution to the committee.

Each question is limited to 10 pages of double-spaced text in a standard font and size (e.g., Times New Roman

12 point or Arial 12 point). References and drawn figures are excluded from this page limit.

Suggestions for the student:

- Recognize that the question may not have a clearly right or wrong answer. In such cases, the student may need to decide between arguing a weak position and providing the evidence for or against both sides. In either case, the experimental evidence from the literature should be used to support any claims.
- Consider including the following elements: an introductory paragraph outlining the issues or organization of the written response, a discussion of appropriate theories, citation of empirical research to support ideas, identification of contemporary debate in the scientific community, and a summary or concluding paragraph.
- Be concise, but thorough, remembering the 10-page limit for each question.
- Avoid the use of direct quotations.
- Read questions carefully and make sure that all parts of a question have been addressed. Failure to answer a part of a question is a simple but costly mistake and could require a redo of a section of the exam.
- 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 a closed-book exam in which the student writes independently on two questions which are formulated to test the student's global knowledge about the field and should ascertain whether the student is adequately prepared to take on the role of instructor of human physiology. The questions are comprehensive and integrate the student's coursework and interests in a way that goes beyond course examination questions. The student does not have access to notes, book, or journal articles during the exam but will be provided with a computer for typing their answers to the questions, and/or blank sheets of paper for writing equations and diagrams as well as their written answers. The student may not discuss their exam question with anyone other than their advisor or a committee member who is delegated as responsible for a particular question and may only do so to clarify the question, not to discuss the answer to the question.

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 student has 6 hours from the time they receive the exam, to complete the exam and return it to their advisor for distribution to the committee. The questions are not known in advance, but the advisor and committee may suggest a general direction. Limit each of the two questions to 10 pages of double-spaced text in a standard font and size (e.g., Times New Roman 12 point or Arial 12 point). A formal reference section is generally not included in Part B. Drawn figures are not included in the page limitation.

Suggestions for the student:

- As with Part A, recognize that the question may not have a clearly right or wrong answer.
- Consider including the following elements: an introductory paragraph outlining the issues or organization of the written response, a discussion of appropriate theories, reference to well-known studies that support ideas, identification of contemporary debate in the scientific community, and a summary or concluding paragraph.

- Be concise, but thorough, remembering the 10-page limit for each question.
- Read questions carefully and make sure that all parts of a question have been addressed. Failure to answer a part of a question is a simple but costly mistake and could require a redo of a section of the exam.
- Take time to proof-read all sections of Part B. Be sure to check for spelling/grammatical errors.

Guidelines for Part C

After turning in Part A and B, it is recommended that the student spend time reviewing these sections, to objectively assess the limitations in their written answers and prepare to demonstrate improvement and mastery of the material during Part C. Students will have access to a copy of their written exam to review during this time, but generally do not receive direct feedback from the committee on these sections. However, in an effort to guide the student's preparation for Part C, the advisor and committee may comment to the student as they see fit.

It is expected that the student will demonstrate the ability to think on their feet and articulate their thoughts in a scholarly way about a diverse number of topics related to the field. It is also expected that the student will demonstrate a breadth and depth of knowledge necessary to teach the field at all levels and mastery of the research principles and findings within their field.

A minimum of three examiners must be present for the entirety of Part C, which is generally 2-3 hours in length. The examiners may question the student about their answers from Part A and B or any topic that is deemed necessary to ascertain the student's breadth and depth of knowledge about human physiology. The student does not have access to notes, book, or journal articles during the exam but may have a copy of their written exam. Once the student has completed 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 clearly 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.

Grading

Each of the four written exam sections (two questions from Part A and two questions from Part B) will be assigned a grade of Satisfactory, Marginal, or Unsatisfactory by the Committee. A grade of Satisfactory indicates that the student's performance on that section was at the level expected of a doctoral candidate. A grade of Marginal 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. A grade of Unsatisfactory indicates that the student's performance on that section was below what is acceptable for a doctoral candidate, and it is unlikely that this performance can be redressed during the oral exam.

Students must redo any portion of the written exam that receives a grade of Unsatisfactory before proceeding to the oral exam. Students will have only one opportunity to redo each Unsatisfactory section of the written exam. In general, students will not be asked to redo any portion of the exam that receives either a

Marginal or a Satisfactory grade, unless they also fail the oral exam (see next paragraph). Students may not take the oral exam until they achieve a grade of Marginal or Satisfactory on all four sections of the written exam.

After the oral exam, the committee will assign the student a grade of Pass or No Pass for the entire exam. A Pass indicates the student's performance was as strong as is expected of a doctoral candidate. 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 the oral exam. In general, students will not be asked to redo any portion of the written exam prior to redoing the oral exam. However, at the committee's discretion, a student may be asked to redo a portion of the written exam on which the student received a grade of Marginal prior to redoing the oral exam. Students who fail to Pass the exam on their second attempt will be dismissed from the doctoral program. There is no "Conditional Pass" option.

Misconduct

The written exam should be produced exclusively by the student without assistance from others. 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 Form
- MS Project Completion Form
- PhD Comprehensive Exam Application Form
- PhD Comprehensive Exam Results Form
- PhD Dissertation Proposal Form

Master of Science Project Proposal Form

Name of Student: _____

Project Working Title: _____

Date of Proposal: _____

The following members of the MS Research Committee verify that the student has satisfactorily addressed all questions/concerns from the committee about the project and give the student approval to begin their research:

Advisor

Signature

Member

Signature

Master of Science Project Completion Form

Name of Student: _____

Date of Oral Defense: _____

Format: Journal-style Manuscript Formal Master's Thesis
 (reviewed by department) (reviewed by the Division of Graduate Studies)

Title: _____

The following members of the MS Research Committee hereby certify that all required revisions have been completed and that we find the student's work to be Satisfactory. The Committee approves the project submitted by the student in partial fulfillment of the requirement for the Master of Science degree:

Advisor

Signature

Member

Signature

PhD Comprehensive Exam Application Form

Name of Student: _____

Schedule:

Date of part A (take-home) exam to be given to student: _____

Date of part A exam to be handed in:
(no later than one week after exam is given) _____

Date of part B (closed book) exam to be given to
student: _____

Date of part C (oral) exam:
(must occur between 7-14 days after written exam) _____

The following members of the comprehensive exam committee verify that this student has completed substantively all required degree coursework, and is eligible to take the doctoral comprehensive examination:

Advisor

Signature

Member

Signature

Member

Signature

PhD Comprehensive Exam Results Form

Name of Student: _____

Date of Oral Exam: _____

For each committee member, indicate:

1. Your decision regarding the student's performance for each question
 - a. Satisfactory, Marginal, or Unsatisfactory
2. An overall recommendation for the exam
 - a. Pass or No Pass

Advisor

Question 1: _____

Question 2: _____

Question 3: _____

Question 4: _____

Exam Recommendation _____

Signature _____

Member

Question 1: _____

Question 2: _____

Question 3: _____

Question 4: _____

Exam Recommendation _____

Signature _____

Member

Question 1: _____

Question 2: _____

Question 3: _____

Question 4: _____

Exam Recommendation _____

Signature _____

PhD Dissertation Proposal Form

The student should form a dissertation committee, in consultation with and approval by their research advisor, within one month of completing the comprehensive exam. The student shall then meet with their dissertation committee to present and successfully defend a Dissertation Proposal prior to undertaking any dissertation research. Upon successful defense of the Dissertation Proposal, students must comply with the University requirements for dissertation preparation, procedure, form, and style, as specified in the current University of Oregon Catalog and the University of Oregon Style and Policy Manual for Theses and Dissertations (available online).

Name of Student: _____

Date of Proposal Defense: _____

Working Title: _____

Committee Comments:

The following members of the Dissertation Committee hereby certify that the student has satisfactorily addressed the committee's questions/concerns about the proposal and is hereby granted approval to undertake dissertation research:

Chair

Signature

Member

Signature

Member

Signature

Member

Signature

Institutional Representative

Signature