POLICIES AND PROCEDURES ON GRADUATE EDUCATION

SCHOOL OF HEALTH SCIENCES PURDUE UNIVERSITY

Adopted by the faculty on: August 26, 1996

Revised on: May 5, 2006

Revised on: December 10, 2010

Revised on: December 4, 2015

Revised on: March 21, 2019

Revised on: February 7, 2020

INTRODUCTION

The Policies and Procedures on Graduate Education serves as a guideline for the M.S and Ph.D. students, their mentors, and anyone else involved in graduate studies in the School of Health Sciences (HSCI). This document contains current policies and practices related to graduate studies in HSCI, and supersedes prior editions of the Policies and Procedures on Graduate Education. The university-wide Graduate School Policies and Procedures Manual for Administering Graduate Student Programs can be found at https://www.purdue.edu/gradschool/faculty. The Ph.D. students in **PULSe** program must follow the guidelines at the following website: https://www.purdue.edu/gradschool/pulse/index.html. All M.S and Ph.D. students must comply with the requirements mandated by the Graduate School of Purdue University. In graduate school, the student bears the ultimate responsibility for ensuring her/his own progress and fulfillment of all applicable guidelines.

COURSE REQUIREMENTS

All graduate students must register in HSCI69600 (Seminars in Health Sciences) for a grade and one credit each semester. M.S. students may only indicate one credit of seminar on their plan of study. Thesis-based M.S. students may present one seminar on their thesis. This is usually presented at or near the completion of the student's research. Ph.D. students must give two seminars. The first will be presented on their research proposal (usually during the fourth semester in residence) or on another topic approved by the seminar coordinator. The second is presented on the topics covered in the student's Ph.D. thesis. Ph.D. students will indicate two credits on the plan of study.

Students (M.S. or Ph.D.) in the areas of health physics, medical physics, radiation biology, imaging sciences, occupational and environmental health sciences, public health sciences, and toxicology are required to take the core courses or their equivalents. The updated core courses are posted on the HSCI school website: https://www.purdue.edu/hhs/hsci/students/graduate/programs/index.html. Alternate courses will be determined first by the student's major professor, and then approved by the student's advisory committee. If students have already had a course or equivalent in other institutions either as undergraduate or graduate students, they may ask for a credit transfer. The exact number of transferable credits will be determined by the student's advisory committee, Graduate School Policies, and in some cases the policies of accredited programs prior to registration or before the plan of study is filed with the graduate school.

SELECTION OF MAJOR PROFESSOR

The timely selection of a major professor, serving as academic and research advisor, is important for new students. Failure to select the major professor may cause significant delay of a student's degree progress. Upon acceptance by the graduate school, the graduate student will be assigned to an initial advisor, who will help the incoming student with registration and related matters until a major professor is chosen. There is no obligation on the part of either the student or the faculty member to make this a permanent arrangement. All M.S. and Ph.D. students enrolled in the graduate program must select their major advisor, preferably by the end of the first semester, but no later than the middle of the second semester. Normally, an incoming graduate student already knows which area of specialization (health physics, occupational and environmental health sciences, medical physics, radiation biology, imaging sciences, public health sciences, toxicology or

an interdisciplinary area of specialization) he/she is going into. If the student is recruited by a professor, he/she will be the student's major professor based on their mutual agreement. In most cases, the student will meet with each professor working in their area of specialty during their first semester to learn about their research interests and the potential to do research with that specific faculty member as a major professor, or as co-major professor. In some cases a graduate student may have two co-major professors: If the student is a HSCI graduate student, and carries out his/her thesis research under the research supervision of a faculty member in another department or institution (e.g. Indiana University), this faculty member serving as research mentor should be designated as co-major professor. The research mentor has the responsibility to set priorities in the student's research project(s), as well as for publications, presentations, intellectual property and collaborative engagements. In addition, such a student will need to identify a co-major professor from HSCI, who will serve as academic and administrative advisor, and as chair of the advisory committee. In all cases, graduate students must submit the Form GS-24 (Request for Assignment of Major Professor) to the School Head, indicating her/his choice of major professor. This form can be obtained from our Graduate Program Coordinator (Karen Walker). Then, the School Head will make the assignment, taking into consideration the student's request, concurrence of the major professor involved, and other administrative factors. To facilitate student development and interactions, students will complete with their mentor the HSCI Individual Development Plan and Shared Mentoring Expectations form annually by November 1st. The form is available on the HSCI website. Verification of HSCI Individual Development Plan and Shared Mentoring Expectations form completion will be sent to the Graduate Program Coordinator (Karen Walker).

ESTABLISHMENT OF ADVISORY COMMITTEE

Graduate students in HSCI must establish their Graduate Advisory Committee no later than the end of the first academic year. The purpose of the advisory committee is to help the student determine the coursework needed for the plan of study and to advise the student in his/her research endeavors throughout the entire graduate period. The advisory committee for a M.S. student shall consist of a minimum of three members of the graduate faculty with at least two members from HSCI. The advisory committee for a Ph.D. student shall consist of a minimum of four members of the graduate faculty including the major professor and one member from outside HSCI. It should be noted that a student's committee must consist of more regularly certified members than special members. Special members are appointed for each individual student, and may include those from Indiana University or any other university, emeriti faculty of HSCI, and/or industrial scientists. Adjunct and Courtesy Faculty will be considered a HSCI faculty within a student's graduate committee but can only be a co-chair, with a full FTE HSCI faculty as the other co-chair.

The committee chair (administrative chair) must be a faculty member from HSCI. If the major professor is a HSCI faculty, he/she will also serve as the administrative chair. If the student is a HSCI graduate student, and carries out his/her Ph.D. thesis research under the supervision of a faculty member (major professor) in another department or institution (e.g. Indiana University), this faculty member should be designated as the committee co-chair. It is the student's responsibility to follow all guidelines and timelines for the HSCI graduate program. The student should regularly consult with the committee chair to ensure progress. The major professor also has the responsibility to set priorities in the student's research project(s) and for the purposes of publications, presentations,

intellectual property and collaborative engagements. The advisory committee must meet at least once per year for the thesis-based graduate students in addition to the meetings for examination. The student, in conjunction with the major professor, is responsible for scheduling committee meetings, providing the committee in advance with sufficient written information to be discussed at the meeting, and providing written minutes of the meeting to the committee within one week after the meeting.

PLAN OF STUDY

The Plan of Study serves to officially establish an advisory committee with the graduate school. For thesis-based graduate students, a draft plan of study must be submitted within a month after choosing their major professor and establishing the advisory committee. This draft will be distributed to members of the advisory committee for its finalization and approval. For non-thesis M.S. students, the draft plan of study should be discussed with the temporary advisor within the first two weeks after the student's arrival on Purdue campus. The finalized plan of study should be submitted to and approved by the non-thesis student's advisory committee during the first semester. Timely completion of appropriate forms (GS-4 for Ph.D. and GS-6 for M.S.) is required. A special form (GS-13) is needed if a student wants to change his/her plan of study, including the membership of the advisory committee. All these forms must be submitted electronically via MyPurdue. Students can also access the electronic plan of study. It is important to note that only 6 credits of courses at 300 and 400 levels are permitted on a student's plan of Study. However, this does not restrict the advisory committee from recommending and requiring more courses at or below this level to maximize the student's knowledge base in the area of the student's specialty area. Sample plans of study for each graduate area of specialization are provided on the HSCI school web site: https://www.purdue.edu/hhs/hsci/students/graduate/programs/index.html. These requirements are subject to change and in addition, each student's needs are taken into consideration when designing the individual plan of study. Some restrictions may apply if students receive financial support through a training grant. Students supported by the National Institute for Occupational Safety and Health training grant must select a thesis-based graduate degree option.

Typically, a standard Plan of Study requires a minimum of 30 coursework credit hours, which requires 6 credit hours of research if thesis-based. Ninety credit hours are required for the Ph.D. degree and these are a mixture of both course credits and research credits. There is no minimum number of coursework credit hours required for a Ph.D. plan of study. Upon recommendation of the student's Advisory Committee up to 30 credits may be applied to the Ph.D. for a relevant M.S. degree. The Plan of Study must include GRAD61200 (1-credt course) or equivalent for all graduate students. GRAD61200 gives an overview of values, professional standards, and regulations that define responsible conduct in research. Students learn the values and standards of responsible research through readings, lecture/discussion, professional training (in-school seminars given by faculty members), and practice application of these values and standards in life sciences research. The Graduate School policies state that an overall average of B is required for all courses on the student's transcript. The Graduate School does not allow D or F grades for any course in the Plan of Study. Such courses must be repeated with a passing grade and are not dropped from the plan of study. A student with a GPA below 3.0 must maintain a "B" average in the subsequent semester, and has a period of one year to restore his/her cumulative GPA to 3.0 or better. A student who fails to meet the GPA requirements will be reviewed first by the student's Advisory Committee, and then by the School faculty. Upon recommendation of these two groups, the student may be dismissed from the program.

TRANSFER CREDITS ON PURDUE PLAN OF STUDY

All transfer of credit must be consistent with the policies of Purdue University Graduate School as stated in the *Graduate Policies and Procedures Manual*. Typically, transfer of credits will be considered under the following conditions:

- (a) The student has completed at least one semester of satisfactory work in residence at Purdue
- (b) The student has obtained approval from his/her Advisory Committee for the transfer credits requested
- (c) The request from the student includes documentation about the content of the transfer courses and the level at which it was taught (undergraduate or graduate)
- (d) Credits that were needed to complete an undergraduate degree may not be transferred to the plan of study
- (e) The courses for which credit is transferred must be applicable to the student's plan of study and taught at an appropriate level as determined by the students Advisory Committee. Certain courses, covering material normally considered prerequisite for admission to the graduate program, may not be eligible for transfer of credit

Ph.D. CANDIDACY EXAMINATIONS

The doctoral candidacy exam consists of two parts: a written and an oral part. Both parts are required by HSCI, but the oral component is formally recognized by the graduate school as the candidacy exam. The written exam is eight hours in total length, and is usually given in two 4-hour segments over two days. The written exam precedes the oral exam, and is offered twice a year (August: the first Tuesday and Wednesday of the fall semester; February: the first Tuesday and Wednesday of February). The candidate must take the written exam no later than at the end of their second academic year. This exam is specifically designed to test the student's analytical capability and examine the student's academic competence in their chosen specialty. The Ph.D. student's major professor(s) will be responsible for preparing the written exam. Questions will be solicited from the Advisory Committee and/or faculty members who have delivered courses listed on the plan of study. Students with an average of 70% total score or above will be considered to have passed the exam. If a student passes with an average score of 70% or above but has an abnormally low score (i.e., ≤50%) on any particular aspect of the exam, the student's Advisory Committee will implement means to shore up the said weakness(es) through appropriate coursework and/or research. If a student fails to achieve this score for the written exam, the student's Advisory Committee must have a meeting with/without the presence of the student to evaluate her/his academic competence for Ph.D. degree. Upon recommendation of his/her Advisory Committee, the student will be allowed only one more chance to take the whole written exam and this must be at the very next available opportunity. If a student fails the second written exam, he/she must leave the Ph.D. program, but upon the recommendation of his/her advisory committee may still complete an M.S. degree. The written exam consists of 3-5 sections covering the student's knowledge and understanding on the fundamentals within his/her field of expertise. These questions are typically taken from the required courses of the academic track. Additional 1-3 sections are included to allow the student's advisory committee members to ask questions to test the student's understanding of her/his research area. These questions can be based on (given) manuscripts related to the field of study, laboratory experiences, or similar questions.

After passing the written exam, the student must take the oral exam within the next six months of the academic year. The student will write a detailed proposal on the future research. Defense of that proposal will be the basis of the oral exam. This proposal will be written in NIH (the National Institutes of Health) R21 style, including one page of specific aims and six pages of research strategy. The research proposal <u>must be sent to the committee members at least two weeks before</u> the oral exam. One committee member other than his/her major professor(s) shall preside over the candidate's oral exam. The major professor(s) will not be present in the room during candidate's oral exam. One or two additional advisory members shall be added to the oral exam committee to have at least four faculty members present. The committee is free to ask questions on any aspect of the student's specialization in addition to the proposal material itself. It is the student's responsibility to file the form for permission to take the exam with the Graduate School at least two weeks prior to the exam date. An up-to-date copy of this form is available on MyPurdue. Failure to complete the oral exam within the prescribed period will require that the graduate student formally apply for one semester extension to the School Head. Exceptions to these rules can only be granted by the School Head upon receipt of a written request. This request must be signed by the graduate student and approved by the student's major professor and majority of the advisory committee.

The timely completion of Form 8 to set up the exams is required, with the student <u>submitting their completed form at least two weeks prior to the exam date</u>. Failure to do so will require a letter from the oral exam committee chair to the School Head confirming consent of the committee to proceed with the same exam date and that all other expectations have been met (i.e. receipt of the research proposal document within the required time frame). If there is sufficient time for the process to be completed (graduate school signatures) prior to the exam day, then the exam can proceed. However, students are cautioned that these signatures can take time to process and completion prior to the exam time is required for the exam to be valid. If all signatures have not been received prior to a scheduled exam date, then this exam date is invalid and must be rescheduled. Exceptions to this rule are rare, and will require signature from the School Head, under the advisement of the oral exam committee.

PROGRESS TOWARDS THE GRADUATE DEGREE

M.S. students are encouraged to publish a peer-reviewed journal article on the basis of their research. Ph.D. students are required to publish at least one research journal article as first author (must be accepted prior to oral defense or final exam); and are encouraged to have two other manuscripts being submitted for peer-review as first author or co-author. These manuscripts must be based on their own research. Copies of these manuscripts should be provided to members of their advisory committee. Exceptions can only be approved by School Head, upon the recommendation from the student's major professor and advisory committee.

Continuation in the graduate program toward a thesis—based degree requires satisfactory performance and progress in research. Two consecutive sessions of unsatisfactory (U) grades for research registration (HSCI 698 or 699) will mandate that the School take a formal action and inform

the Graduate School with regard to discontinuation or conditions for continuation of the student's graduate study. Recommendations for continuation in the program or termination can be made by the major professor in consultation with the student's Advisory Committee. This decision will be reported to the School Head. In addition to research, the major professor and advisory committee will review the progress of the student periodically in adhering to the other requirements of the degree in accordance with the timeline described in this document. The milestones to be met by graduate students can be found at the HSCI school website: http://www.healthsciences.purdue.edu

THESIS AND FINAL EXAMINATION

The final exam is a defense of the Ph.D. thesis. At least two academic sessions must elapse between the oral preliminary exam and final doctoral exam. The *Graduate School Policies and Procedures Manual for Administering Graduate Student Programs* and *A Manual for the Preparation of Graduate Thesis* should be consulted for details of formatting and deposition. These documents are available at https://www.purdue.edu/gradschool/faculty/forms.html. Once the student has completed the thesis and reviewed by his/her major professor, copies will be submitted to the members of examining committee at least two weeks prior to exam. It is the student's responsibility to file the appropriate permission form to take the exam to the Graduate School at least two weeks prior to the exam date. This is the same form used for preliminary examinations. Note that this exam may not be held the last week of classes.

Thesis defense involves a public presentation, followed by a private "closed door" defense with only the candidate and committee members present in the room. The student must provide the title with a graphic (an abbreviated version of a figure from their thesis) for public announcement in the school, college and Purdue University. Some of the PDF flyers may be posted around the buildings of the program. During the closed-door portion of the thesis defense, committee members are free to ask any question related to the student's thesis to evaluate the candidate and inform the pass/fail decision for the oral defense. A written summary of critiques, or track- changed/marked up document from committee members must be provided to the Ph.D. candidate in a timely fashion so that the student will have sufficient time to make appropriate corrections required by the committee for final approval of the thesis.

LABORATORY SAFETY

If their research requires them to work in a laboratory handling hazardous chemicals or biological materials, all graduate students must take CHEM 605 entitled "Safety in the Laboratory". Additional information on laboratory safety is available from the Radiological and Environmental Management program (REM) at the web site: https://www.purdue.edu/ehps/rem/. This includes important manuals such as *Guidelines for Handling and Disposal of Chemicals, Radiation Safety Manual*, and *Biological Safety Manual*. Students whose research includes the use of radiation (including lasers) or radioactive chemicals or animals must receive special training and be certified prior to their use. The information related to the proper use of radioactivity can be found at the REM's web site: https://www.purdue.edu/ehps/rem/. The use of animals is covered by the Purdue University Animal and Care Committee, and details can be found at: https://www.purdue.edu/research/research-compliance/regulatory/care-use-of-animals/.

Similarly, students involved in research with human subjects must have prior approval from IRB. More detailed information is available at: https://www.irb.purdue.edu/.

INVENTIONS, PATENTS, COPYRIGHTS, AND PUBLISHING

The University owns the economic and property rights, and the right to patent inventions and to copyright materials made or developed by University personnel either during employment by the University or through the use of facilities or funds provided by or through the University. Graduate staff employment is subject to the University's policy on Intellectual Property (I.A.1). All such inventions and materials should be reported in writing; for inventions, use the Technology Disclosure Form, available from the Office of Technology Transfer, Purdue Research Foundation. (See Faculty and Staff Handbook and Policy I.A.1). Regarding publications, it generally is expected that research results will be published as openly and widely as possible. While the norms concerning the order and inclusion of co-authors vary by discipline, usually anyone who has made a significant contribution to the research should be included either as a co-author or acknowledged in the publication. Faculty, graduate students, and others involved in the research should discuss such matters early in the planning stages in order to arrive at acceptable and fair authorship decisions.

SUPPORT OF GRADUATE STUDENTS

Graduate students are expected to complete their M.S. degree requirements within 2 years and Ph.D. requirements within 5 years. M.S. students are usually not supported by any school source (TA, RA, fellowship, traineeship) after 2 years and similarly 5 years for the Ph.D. graduate students. Exceptions must be requested in writing and approved by the Advisory Committee and School Head. Normally, graduate students in HSCI are appointed as Teaching Assistants or Research Assistants on fiscal year appointments.

VACATION AND LEAVE POLICIES

All leaves must be requested using the SuccessFactors system. Detail information related to graduate student employment may be found in the document "Graduate Student Employment Manual" available at the Graduate School web site. Questions regarding leaves of absence should be directed to Human Resources – Employee Benefits at 765-494-2222 or e-mail at hr@purdue.edu. University policy allows the school to determine vacation policies with certain limitations. The granting of a vacation request should take into account the progress of student towards his/her degree objective. The vacation time taken must be mutually agreeable to the student and major professor and must not conflict with the teaching responsibilities of students supported by teaching assistantships. Most graduate students in HSCI are on fiscal year (12 month) appointments. Fiscal year (12 month appointment) graduate staffs are eligible for the ten official university holidays. Graduate students who are not classified as graduate staff (e.g. fellowship and training grant appointees) are not subject to university vacation policies. Such students should reach a mutually acceptable agreement with their major professors. Graduate students on fiscal (12 month) appointments accrue vacation time each month - 2 days per month except for March and September (1 day/month). Vacation days may not be taken which have not accrued. Fiscal year graduate staff may be granted a maximum of 22 days per year subject to the conditions of the preceding paragraph. Vacation days accrued in excess of 22 working days are forfeited. Students must submit an absence from campus duty form prior to taking the vacation.

In the unusual circumstance that a student is appointed as an academic year graduate staff member, then they are considered to have vacation status when classes are not in session. The seven-day period prior to the start of classes and the period between the end of classes and date for submission of final grades are not considered vacation days. If students are absent due to travel to meetings or on trips related to their research projects and are to receive reimbursement, they must file a Form 17 "request for authority to travel on university business" prior to the trip. Upon return, an accounting Form 25 "travel reimbursement request" must be completed.

Graduate students are eligible for two weeks (10 working days) per year of paid sick leave for illness. "Illness" is defined as a staff member's own illness, disabling injury, or pregnancy. This includes childbirth and complications of pregnancy, miscarriage, abortion, and confined recovery there from, for the period during which the employee is unable to perform normal duties as determined by a physician. Family and Medical Leave Act of 1993 (FMLA) provides provision for time off for an employee's own serious health condition, to take care of a family member with a serious health condition, to give birth, to adopt, or to place a child in the employee's home for foster care. FMLA states that up to 12 weeks of unpaid leave per year is available. If the leave is taken for an employee's own health condition or disability due to childbirth, all sick leave with pay must be exhausted prior to FMLA taking effect. In order to be eligible for leave under FMLA, graduate student staff must have been employed at Purdue for a year or longer and have worked at least 1,250 hours in the past 12 months. "Family member" is defined as the employee's own spouse, son, daughter, or parent. Further information on FMLA is available by contacting Personnel Services. Refer to Executive Memorandum No. C-30 for the University's policy on family leave. Graduate student staffs are eligible for three working days per year paid leave for immediate family illness. "Immediate family" is defined as spouse, parents, children, grandparents, grandchildren, sisters, brothers, and corresponding in-laws and step-relatives. Family members not included here, but who reside in the employee's home, are considered immediate family.

OUTSIDE EMPLOYMENT, OTHER OUTSIDE ACTIVITIES, AND CONFLICTS OF INTEREST

Purdue employees may not engage in outside employment and other outside activities that would conflict with their University duties. Graduate student employees are required to file a Disclosure of and Application for Permission to Engage in a Reportable Outside Activity form before engaging in any reportable outside activities. Such outside activities include employment and connections with business enterprises, public offices, professional associations, educational institutions, and foundations (see the definition of a reportable outside activity in policy III.B.1.) In addition, graduate student employees are required to complete a Conflict of Interest Disclosure Statement for any business enterprise activities in which the employee expects to derive a profit from any University contract or purchase (see the definition of financial conflicts of interest in policy III.B.2). For additional information and the University's policies on these topics, refer to the following:

- 1. Individual Financial Conflicts of Interest (III.B.2)
- 2. Conflicts of Commitment and Reportable Outside Activities (III.B.1)

Graduate students should recognize that the pursuit of a graduate research degree is a full-time activity that may require significant personal sacrifices, which will hopefully pay off in a more rewarding life's work and greater earning potential. Therefore, students are strongly discouraged from engaging in work outside of the School to supplement their University income. Any student

wishing to engage in outside work to supplement his/her income is encouraged to discuss the matter with his/her major professor. The overriding issue is whether the student is making satisfactory progress towards his/her degree, and if the proposed outside work will jeopardize that progress. A student on appointment who is working outside the school will be held to the same standards as the one who is not. A student needs no formal approval from the School for any activity conducted on his/her own time. However, students on appointment who wish to engage in outside work during regular working hours must take personal vacation for this purpose, and, like any vacation, this must be approved in advance. The major professor, school head, and TA supervisor (if applicable) must sign the approval.

NONDISCRIMINATION POLICY STATEMENT

Purdue University is committed to maintaining a community which recognizes and values the inherent worth and dignity of every person; fosters tolerance, sensitivity, understanding, and mutual respect among its members; and encourages each individual to strive to reach his or her own potential. In pursuit of its goal of academic excellence, the University seeks to develop and nurture diversity. The University believes that diversity among its many members strengthens the institution, stimulates creativity, promotes the exchange of ideas, and enriches campus life. Purdue University views, evaluates, and treats all persons in any University-related activity or circumstance in which they may be involved, solely as individuals on the basis of their own personal abilities, qualifications, and other relevant characteristics.

Purdue University prohibits discrimination against any member of the University community on the basis of race, religion, color, sex, age, national origin or ancestry, genetic information, marital status, parental status, sexual orientation, gender identity and expression, disability, or status as a veteran. The University will conduct its programs, services and activities consistent with applicable federal, state, and local laws, regulations and orders, and in conformance with the procedures and limitations as set forth in Purdue's Equal Opportunity, Equal Access and Affirmative Action policy which provides specific contractual rights and remedies. Additionally, the University promotes the full realization of equal employment opportunity for women, minorities, persons with disabilities, and veterans through its affirmative action program.