CANCER BIOLOGY GRADUATE PROGRAM

UNIVERSITY OF WISCONSIN
SCHOOL OF MEDICINE AND PUBLIC HEALTH

Academic Policies and Procedures Handbook

McArdle Laboratory for Cancer Research
Department of Oncology

2017-2018

I. PROGRAM OVERVIEW

This handbook is intended for graduate students who are pursuing a Ph.D. Degree in Cancer Biology at the University of Wisconsin-Madison. The Cancer Biology Graduate Program is an interdepartmental program administered at the McArdle Laboratory for Cancer Research (also known as the Department of Oncology) in the School of Medicine and Public Health. The Cancer Biology Program consists of over 50 trainers that span multiple departments across UW-Madison.

The UW-Madison Graduate School is the ultimate authority for granting graduate degrees at the University. The Graduate School's Academic Policies and Procedures provide essential information regarding general University requirements (https://grad.wisc.edu/acadpolicy/). The policies in this handbook provide additional information specific to the Cancer Biology Program.

Degrees and course requirements may change over time. Students are required to meet the degree and course requirements in effect when they entered the program. Administrative procedures and processes may also change over time. Students are required to follow the procedures and processes listed in the most current handbook.

If you have any questions about the policies or guidelines outlined, please contact the Cancer Biology Program Coordinator. For the current version of this handbook, please visit the Cancer Biology website: http://cancerbiology.wisc.edu

PhD Timeline

YEAR 1

Participate in Orientation activities
Register for Fall semester courses and 990 research credits
First day of classes
Lab Rotation 1
Lab Rotation 2
Lab Rotation 3
Begin in new lab
Enroll for spring classes and 990 research credits
Establish a Certification Committee consisting of 5 faculty members
Schedule the first committee meeting (notify Coordinator of date and designated meeting chair), complete meeting and submit form

YEAR 2

Present in Cancer Biology Student/Postdoc Seminar Series (enroll in Oncology 901: Seminar)	Spring Semester
Complete all major coursework requirements (and minor coursework, if applicable)	Spring Semester
Schedule Preliminary Exam and notify Coordinator of the scheduled date and designated meeting chair (at least three weeks in advance), complete Prelim Exam and submit paperwork	By August 31

YEAR 3 AND BEYOND

Present in Cancer Biology Student/Postdoc Seminar Series (enroll in Oncology 901: Seminar)	Fall or Spring Semester
Schedule Committee Meeting (notify Coordinator of date and designated meeting chair), complete meeting and submit form	By August 31

FINAL YEAR

Schedule Semi-Final Report approximately 6 months prior to Dissertation Defense and submit form
Schedule Dissertation Defense and notify Coordinator of date and designated meeting chair (at least 3 weeks in advance)
Defend Dissertation and submit necessary paperwork to Coordinator and Graduate School

*On average, the Cancer Biology PhD Degree requires 5.5 years to complete

II. NEW STUDENTS

There are various tasks that students must complete before, or soon after, arriving on campus.

NETID
WISCMAIL
WISCARD
BUS PASS
BIOLOGOCIAL SAFETY
INDIVIDUAL DEVELPOMENT PLAN (IDP)
INTERNATIONAL STUDENTS

III. ORIENTATION

Orientation will be held at the end of August and provides incoming students with an introduction to the Cancer Biology Graduate Program. You will learn about curriculum requirements, rotations, and individual trainer research. You will also meet with Chris Carollo-Zeuner to complete payroll paperwork and discuss health insurance/benefits. See the financial information section of this handbook for more information.

Following the rotation talks during orientation, you should set up meetings as soon as possible with faculty members of interest in order to begin the process of scheduling lab rotations. Send a professional email introducing yourself, briefly explaining your interest in their lab, and requesting a meeting. Remember to use your full name and note your graduate program. Students are encouraged to meet with multiple faculty trainers before deciding on three lab rotations.

IV. ROTATIONS

During the first semester, you will rotate in a minimum of three laboratories prior to selecting a permanent laboratory home. Each rotation will last approximately four to five weeks. It is important to take all rotations seriously; while you are evaluating the Advisor and lab to decide if it's a good fit, the Advisor and lab are simultaneously evaluating you.

Rotations provide students with the opportunity to:

- Assess the Advisor's mentoring style and determine if the laboratory is a good fit
- Learn more about the research projects available to students and discuss a research project with the Advisor
- Get to know the members of the laboratory and ask questions about other students' lab experience has been

Choosing Rotations:

- You are encouraged to gather information from faculty rotation talks during orientation, review faculty web pages, and review publications to help identify faculty with matching interests.
- You are advised to meet with at least six faculty members whom you are interested in rotating with in order to discuss questions or obtain more information about the lab.
- You should then arrange a suitable 4-5 week rotation period with three faculty members. Submit the online "Rotation Schedule" form (https://uwmadison.co1.qualtrics.com/SE/?SID=SV_8xhhlvY9aLRlBJz) to the Program Coordinator, with at least the first rotation scheduled, by September 6. The first rotation should start no later than September 6.
- Following the completion of each rotation you will submit the online "Lab Rotation Questionnaire" form (https://uwmadison.co1.qualtrics.com/SE/?SID=SV_6Eje8KOYaH3t8AR). This form is meant to provide you with the opportunity to honestly discuss your most recent rotation, let us know how things are going, and addresses any concerns that you may have at this point in time. Your responses will be kept in confidence.
- The goal of rotations is to provide you with a realistic glimpse into the workings of the Advisor and lab. You should immerse yourself into the daily routine of the lab and spend as much time there as possible. Doing so will give you a basis for making an informed decision when it comes time to choosing an Advisor and joining a lab in December.

Choosing an Advisor/Lab:

- All students must have a Cancer Biology faculty Advisor. The Advisor advises students about coursework, supervises the student's research, and acts as a mentor to the student throughout his/her graduate career.

- Remember that “what you see is what you get,” i.e. your experience as a rotator is likely to reflect what it will be like once you join that lab. You should talk to the Advisor, as well as other members in the lab, in order to get a clear idea of the Advisor’s expectations, mentoring style, dynamic of the lab and intellectual environment. Some things to learn while rotating include:
- What is the mentoring style of the Advisor? How much time did you spend interacting with the Advisor and what were those interactions like? Does he/she meet regularly with the students in the lab? Are there regular group meetings?
- What is the intellectual culture/environment of the lab like? While in the lab, how interactive are the students?
- Do the students in the lab publish, review manuscripts, attend scientific meetings, and participate in seminars and journal clubs?
- How long did it take the last few students in the lab to graduate?
- What are former students doing now?
- What research projects would be available to you?
- You will choose your Advisor/laboratory, by mutual agreement, in early December.
- IMPORTANT: If you experience lab rotation difficulties at any time or are unable to identify a home lab at the end of your third rotation, immediately contact the Program Coordinator prior to rescheduling your current rotation(s) or scheduling additional rotations for January and February. If a home lab cannot be agreed upon in early December, you are required to schedule two additional rotations by the end of December. Your fourth rotation must start by the beginning of January.

V. CURRICULUM REQUIREMENTS

The curriculum for Cancer Biology is designed to introduce you to research related to the induction, properties, and therapy of cancer and to ensure that you have the necessary background in one or more areas of related, fundamental science to enable you to do original research. Courses are drawn from the Department of Oncology as well as various related departments, including Bacteriology, Biochemistry, Biomolecular Chemistry, Chemistry, Genetics, Human Oncology, Medical Microbiology and Immunology, Pathology and Laboratory Medicine, and Pharmacology.

The Graduate School at UW-Madison requires PhD students to complete a minimum of 51 credits in order to obtain a PhD Degree. These credits are fulfilled via core curriculum courses, 990 research, and electives. Courses numbered below 300, audit, and pass/fail do not satisfy the minimum requirement. It is suggested that you take approximately 2 courses per semester with the remaining credits being 990 research. All courses must be completed by the end of your second year, before completing the Preliminary Exam. In addition, Cancer Biology students are required to participate in two seminar series (see below).

FALL		SPRING
Year 1	Oncology 703 Oncology 640 (recommended) or Elective Oncology 990: Research	Oncology 715: Ethics in Science Oncology 725: Readings in Cancer Biology Oncology 990: Research Elective
Year 2	Oncology 735: Problems in Cancer Research Oncology 990: Research BMI 541: Intro to Biostatistics Elective	Oncology 901: Seminar Oncology 990: Research

CORE CURRICULUM		
ONCOLOGY 703	CARCINOGENESIS AND TUMOR CELL BIOLOGY	3 CREDITS
This course covers factors involved in tumor production in humans and experimental animals, biology and biochemistry of neoplasia, both in vivo and in vitro. A grade of B or better must be received or the course must be repeated.		
ONCOLOGY 715	ETHICS IN SCIENCE	1 CREDIT
This course offers a review and discussion of the fundamentals of good scientific communication and ethical issues in science. This course fulfills your ethics requirement.		
ONCOLOGY 725	READINGS IN CANCER BIOLOGY	2 CREDITS
This course focuses on how to master critical reading of seminal papers in cancer research.		
ONCOLOGY 735	PROBLEMS IN CANCER RESEARCH	2 CREDITS
The emphasis of this course is on the development of skills in data analysis and interpretation, proposal writing, and oral presentation to help prepare students for their Preliminary Exam. Open to second-year graduate students only. This course is not listed in the course schedule; the Coordinator will provide you with the course number in order to register. A grade of B or better must be received or the course must be repeated.		
ONCOLOGY 901	CANCER BIOLOGY STUDENT AND POSTDOC SEMINAR SERIES	1 CREDIT
The Cancer Biology Student and Postdoc Seminar Series (Oncology 901- Student Seminar -1 credit) is a critical component in the Cancer Biology training program. All trainees are required to participate (attend) in this seminar series that is designed to train the students in the art of effective speaking. Students are required to give an annual Student Seminar presentation starting in their second year. First year students do not present, but are expected to attend all seminars. The seminar series calendar is posted online: http://cancerbiology.wisc.edu/events/studentpostdoc_seminars.html.The program coordinator works with advisors, students, and postdoctoral researchers to determine the schedule. This is done several months in advance. If you are unable to present during your allotted session, it is your responsibility to find another student or postdoctoral researcher with whom to trade with. Once you have identified a student with whom to switch, email that information to the program coordinator. All Cancer Biology trainers are strongly encouraged to attend weekly seminar presentations.		
ONCOLOGY 990	RESEARCH	9-12 CREDITS
You will be conducting your independent research in this course. As a first-semester student, you will register for 990 research credits under Program Co-Director, Dr. Dan Loeb. Once a lab is selected, these credits will be registered under the section of your Advisor. See the “Enrollment” section for more information.		
BMI 541	INTRO TO BIOSTATISTICS	3 CREDITS
Course designed for the biomedical researcher. Topics include descriptive statistics, hypothesis testing, estimation, confidence intervals, t-tests, chi-squared tests, analysis of variance, linear regression, correlation, nonparametric tests, and survival analysis and odds ratio. Biomedical applications used for each topic.		

Elective Courses/Minor Coursework

To fulfill the remainder of required credits, you must take at least 3 electives pertaining to individual training goals, as suggested or required by your Certification Committee (if a student chooses to complete a minor (see below), the minor coursework may fulfill these elective requirements). Some elective courses include, but are not limited to:

FALL SEMESTER		
BIOCHEMISTRY 601	PROTIEN AND ENZYME STRUCTURE AND FUNCTION	2 CREDITS
Protein structure and dynamics. Protein folding. Physical organic chemistry of enzymatic catalysis. Analysis of enzyme kinetics and receptor-ligand interactions. Enzymatic reaction mechanisms.		
BIOCHEMISTRY/PHARM/ZOO 630	CELLULAR SIGNAL TRANSDUCTION MECHANISMS	3 CREDITS
Comprehensive coverage of human hormones, growth factors, and other mediators; emphasis on hormone action and biosynthesis, cell biology of hormone-producing cells.		
MICROBIOLOGY/BIOCHEMISTRY/GENETICS 612	PROKARYOTIC MOLECULAR BIOLOGY	3 CREDITS
Molecular basis of bacterial physiology and genetics with emphasis on molecular mechanisms; topics include nucleic acid-protein interactions, transcription, translation, replication, recombination, regulation of gene expression.		
MICROBIOLOGY/GENETICS 607	ADVANCED MICROBIAL GENETICS	3 CREDITS
Molecular genetic methods and related aspects of prokaryotic and lower eukaryotic biology, as well as critical analysis of the scientific literature.		
MICROBIOLOGY/MMI 740	MECHANISMS OF MICROBIAL PATHOGENESIS	3 CREDITS
Lecture-discussion. Host-pathogen relationships in microbial diseases.		
M&E TOXICOLOGY/ONCOLOGY/MEDICINE/PATH 625	TOXICOLOGY I	3 CREDITS
Basic principles of toxicology and biochemical mechanisms of toxicity in mammalian species and man. Correlation between morphological and functional changes caused by toxicants in different organs of the body.		
ONCOLOGY 640	GENERAL VIROLOGY-MULTIPLICATION	3 CREDTIS
Bacterial and animal viruses, their structure, multiplication, and genetics.		
MICROBIOLOGY 528	IMMUNOLOGY	3 CREDITS
Development and functions of immune response in animals; a comprehensive study of experimental humoral and cellular immunity.		
PATH/BIO 720	ADVANCED IMMUNOLOGY: CRITICAL THINKING	3 CREDITS
Advanced course focusing on current questions in immunological research. Course explores immunology topics including genetic, cellular, and molecular features of immune system fundamental to regulation of immune responses. Course format: discussion of research articles and exposure to research seminars.		
PATHOLOGY & LABORATORY MEDICINE 803	PATHOGENESIS OF MAJOR HUMAN DISEASE	3 CREDITS
This course will focus on disease pathogenesis and discussion of the leading disease research model. Throughout the course, we will combine expert clinicians, basic scientists, and literature review on specific major diseases.		

SPRING SEMESTER[1]		
BIOCHEMISTRY 620	EUKARYOTIC MOLECULAR BIOLOGY	3 CREDITS
This course focuses on the basic molecular mechanisms that regulate DNA, RNA, and protein metabolism in eukaryotic organisms. This course is intended for first year graduate students with a firm knowledge of basic biochemistry.		
BIOCHEMISTRY 625	COENZYMES AND COFACTORS IN ENZYMOLOGY	2 CREDITS
Course will emphasize the importance of coenzyme and cofactors of enzymes in biochemistry. All aspects of the biochemistry of coenzymes will be covered, including their biosynthesis as far as is known, the biochemical reactions they catalyze, their chemical and spectroscopic properties, and the mechanisms by which they facilitate biochemical reactions.		
CELL & REGENERATIVE BIOLOGY 640	FUNDAMENTALS OF STEM CELL AND REGENERATIVE BIOLOGY	3 CREDITS
The course will provide a foundation to understand fundamental biological, mechanistic, and experimental concepts in the field of stem cell and regenerative biology.		
CELL & REGENERATIVE BIOLOGY 650	MOLECULAR & CELLULAR ORGANOGENESIS	3 CREDITS
This course will cover the most current knowledge of the basic principles of organogenesis including the molecular and cellular pathways leading to normal organ development and tissue regeneration. Tissue/organ specification, differentiation, and developmental processes, focusing on molecular and associated signal transduction pathways and transcriptional regulation will be covered in depth.		
CELL & REGENERATIVE BIOLOGY / MEDICINE 701	CELL SIGNALING AND HUMAN DISEASE	1-3 CREDITS
This course is intended for PhD students interested in medically relevant basic science. Landmark discoveries, as well as current knowledge and controversies in human health, with an emphasis on cancer biology, will be covered.		
CHEMICAL & BIOLOGICAL ENGINEERING 520	STEM CELL BIOENGINEERING	3 CREDITS
Covers engineering approaches that are used to understand and manipulate stem cells. Concepts covered include: introduction to stem cell biology, quantitative modeling of stem cells signaling, methods to engineer the stem cell microenvironment, and the role of stem cells in tissue development and regeneration.		
CHEMICAL & BIOLOGICAL ENGINEERING 783	DESIGN OF BIOLOGICAL MOLECULES	3 CREDITS
Introduction to the methodologies for engineering the structure and function of biological molecules, especially proteins. Students will develop an understanding for the integration of computation and experiment to address biological molecular engineering problems.		
GENETICS/ MEDICAL GENETICS 677	ADVANCED TOPICS: ADVANCED GENETICS	1-3 CREDITS
PATHOLOGY 750	CELLULAR AND MOLECULAR BIOLOGY/PATHOLOGY	3 CREDITS
The emphasis is on our current understanding of molecular and cellular mechanisms. Wherever possible, human diseases are used to illustrate the outcome of the organismal level of defects in these mechanisms. Lectures will draw from the current research literature and cover topics such as cell and tissue organization, intracellular sorting, cell migration and growth.		
PATH-BIO/MMI 750	HOST-PARASITE RELATIONSHIP IN VERTEBRATE VIRAL DISEASE	3 CREDITS
Lecture. Detailed study of the pathogenesis of vertebrate viral disease, stressing viral invasion, dissemination, mechanisms of disease production and resistance, and transmission.		

[1] For a list of all courses offered and their descriptions, please refer to the Course Guide: http://registrar.wisc.edu/schedule_of_classes_students.htm.

Minor (Optional). The Cancer Biology Program does not require students to complete a minor; however, the option is available to those who wish to do so. Acceptance of the minor requires the approval of the Advisor and respective department in which the minor is administered.

Option A (Degree Specific)	Complete at least 9 credits from a degree program outside of Cancer Biology. You must abide by the minor department's requirements. Courses cross-listed with Oncology may fulfill the minor requirement, provided this is approved by your Certification Committee and the minor department. Your Certification Committee must include one member from the minor department. See individual departments for specific requirements.
Option B (Distributed)	Complete at least 9 credits from two or more departments outside of Oncology. Courses cross-listed with Oncology may fulfill the minor requirement, pending approval by your Certification Committee.

If you wish to complete a minor, you must inform the Program Coordinator of your minor option selection by the end of the first year. The minor must be approved by your Certification Committee and must be completed along with the major course requirements by the end of your second year. Please note that minor coursework may count towards the elective course requirements.

Previous Graduate Work

- In some circumstances, a student may petition for a waiver of an elective course requirement. The basis for such a waiver will be evidence of previous work at the same level and content that must be approved by the program.
- You must provide a written justification describing the reasons for requesting the waiver. You must also provide a copy of the substitute course syllabus and transcript (can be unofficial copy) indicating the grade received in the substitute course.
- A course elective that has been waived carries no credit toward the Graduate School's minimum credit requirements for the degree nor will the course appear on your UW-Madison graduate transcript.

Grades and Satisfactory Progress

- To make satisfactory progress toward the degree, you must maintain a minimum graduate GPA of 3.0.
- Oncology 703 and Oncology 735-Problems in Cancer Research require a grade of B or better, otherwise the course must be repeated.
- For other courses, grades of BC or C may be offset by higher grades on a credit-by-credit basis.
- Courses in which a grade of D or F was assigned will not be counted toward the Graduate School credit requirement.

- Incomplete (I) grades are considered to be unsatisfactory if they are not removed during the subsequent semester of enrollment; however the instructor may impose an earlier deadline.
- A student may be placed on probation or suspended from the Graduate School for low grades or failing to resolve incompetencies in a timely fashion.
- In special cases, the Graduate School permits students who do not meet these minimum requirements to continue on probation upon recommendation of the Advisor.
- A minimum of 51 credits taken in graduate level courses.

Master's Degree. The Cancer Biology Program does not admit for a Master's Degree. However, a terminal coursework Master's Degree may be awarded in some circumstances if the student and/or Certification Committee decide that the student should not continue towards a Ph.D. To obtain a Master's Degree, the student must complete a minimum of 30 graduate credits.

Seminar Requirements

- Cancer Biology Student/Postdoc Seminar (Oncology 901)
  - Beginning in your second year, you will be required to give an annual, formal presentation in the Cancer Biology Student/Postdoc Seminar Series. You will register for Oncology 901-Seminar during the semester in which you present. Your seminars will be recorded and you will receive feedback from the seminar course instructor to help improve your public speaking and presentation skills.
  - The 2017-18 seminar is held on Mondays, at 3:30 pm in Rm. 6571 McArdle Laboratory (WIMR II). Attendance at this seminar series is required. The schedule is posted on the McArdle website: http://mcardle.oncology.wisc.edu/events/studentpostdoc_seminars.html
  - Cancer Biology Seminar
    - You are expected to attend the Cancer Biology Seminar throughout your graduate career (no registration required). The Cancer Biology Seminar, which features local and outside faculty speakers, is held on Wednesdays at 10:30 a.m. in 1345 HSLC. The schedule is posted on the McArdle website: http://www.mcardle.wisc.edu/events/cancerbiology_seminar.html

Other. Formal coursework is only one element of graduate education. UW-Madison and the Cancer Biology Program offer a wealth of resources intended to enrich your graduate studies and enhance your professional skills. It is expected that you will take full advantage of the resources that best fit your needs and support your career goals as a scientist and professional (seminars and lecture series, national conferences, joint lab meetings, volunteer opportunities, campus workshops, etc.).

Speaker Chat. Following the Cancer Biology Seminar series is the opportunity to meet with the speaker during our "Speaker Chats." Paper(s) are provided by the seminar speaker and circulated

the week before their talk for students to read in order to help prepare questions for the speaker in advance. Speaker Chat will take place in room 6471 McArdle Laboratory (WIMR II), from 12:15-1:15 p.m. A light lunch will be provided.

Teaching. There is no formal teaching requirement as part of the Cancer Biology Program; however there are many opportunities on campus for students who wish to gain teaching experience (for example, the Biocore Program and serving as TA for some Oncology courses). Contact the Program Coordinator if interested in teaching opportunities.

Data Club. Data Club is a student-led group organized by Cancer Biology Graduate Students. It is open to all graduate students and postdocs on campus who are conducting cancer research and provides an informal environment to discuss science, troubleshoot, practice talks, and network with colleagues.

Professional Development. GradConnections Weekly, a weekly e-newsletter, is emailed to all Cancer Biology students that highlight various funding, professional development, volunteer, teaching, etc. opportunities from the Graduate School. Visit the Cancer Biology website and UW-Madison Graduate School for a list of additional resources.

VI. ENROLLMENT

Prior to the start of each semester, you will receive an email from the Registrar's Office inviting you to enroll. To remain on the payroll, Research Assistants and Trainees must be enrolled as full-time students each semester. For pre-dissertators, a full-time credit load is 12-15 credits during the fall and spring semesters, and 2 credits for the 8-week summer session. It is recommended that pre-dissertators enroll for the maximum number of credits, so that they maintain full-time status if they must drop a course after the semester starts. Dissertators must enroll each semester for exactly 3 credits of coursework/research related to their dissertation project. The Graduate School will remove dissertator status if a student is enrolled for more or less than 3 credits. The Graduate School's policy on enrollment requirements can be found at: https://grad.wisc.edu/acadpolicy/#EnrollmentRequirements.

Semester	Pre-Dissertator *(before passing prelim)*	Dissertator *(after passing prelim)*
Fall	12-15 credits	3 credits
Spring	12-15 credits	3 credits
Summer	2 credits	3 credits

If you do not enroll on time, you may be subject to a late fee. The Cancer Biology Program is not responsible for any late fees. For important enrollment deadlines and other information, visit the Registrar's website: http://registrar.wisc.edu/ .

Dissertator Status

- To achieve dissertator status, you must successfully complete all Cancer Biology course requirements and pass the Preliminary Exam.

- Dissertator status should be achieved within 2 years of starting the program.
- Dissertators are required to register for 3 credits directly related to their dissertation research every semester (including summer) until graduation. Students who do not maintain continuous registration will be assessed a degree completion fee equal to 12 times the current per-credit rate.
- Dissertators will be required to register for the Oncology 901 seminar in the semester in which they present. During this semester, registration will consist of 1 credit of seminar and 2 credits of 990 research.
- For additional information about dissertator status, see these links:
  - Graduate School Policy: http://grad.wisc.edu/acadpolicy/#dissertationstatus
  - Dissertator Eligibility Deadlines: http://grad.wisc.edu/currentstudents/degreedeadlines

VII. PROGRESS REQUIREMENTS

Curriculum Certification (Year 1). After joining a lab, you are required to form a Certification Committee. This committee will help guide you through the process of earning the PhD Degree. The Certification Committee consists of at least five members, including your Advisor. At least three members must be trainers in the Cancer Biology Graduate Program (http://cancerbiology.wisc.edu/faculty/faculty.html) and at least one member must be from outside your Advisor's department. If you opt to complete an Option A minor, one member of the committee must also represent the minor department. Submit the "Certification Committee Approval" Online Form (https://uwmadison.co1.qualtrics.com/SE/?SID=SV_cSKM0zGcddYPycZ) with the names of your committee members by May 31 of your first year. Once a Certification Committee is established, you must hold your first committee meeting by August 31 of your first year. The goal of this meeting is to discuss appropriate coursework and briefly introduce your research project/direction to the committee. At least three committee members, including the Advisor, must attend. If necessary, you should meet individually with committee members who could not attend after the meeting. Students who do not meet with their committees in a timely fashion may be prevented from registering for the next semester.

Steps to Complete:

- Schedule committee meeting, designate meeting chair, and reserve room location (cannot be Advisor) by August 31.
  - Committee meeting chair must be designated prior to the start of the meeting.
  - Notify Coordinator of the scheduled date and the name of the meeting's designated chair.
- Distribute the project summary and first portion of committee form to committee members at least one week prior to the meeting.
- Bring a copy of the committee form to the meeting.

- Committee holds an executive session and designated chair prepares a written evaluation.
- Obtain signatures on the committee form and submit to the Program Coordinator.

Prelim Exam (Year 2)

The Preliminary Examination consists of a written research proposal and oral defense of that written proposal. The proposal is based on your proposed dissertation research and is evaluated by your Certification Committee. The purpose of this examination is to evaluate whether you have mapped out a sound approach to an important and answerable question and to assist with the planning of your project. The prelim is based on your original work; however you are encouraged to consult with your Advisor and other colleagues during the planning and writing of the research proposal. You should complete your Prelim Exam by the end of your second year (August 31). In special circumstances, a one-semester extension will be granted when justified in writing by the student and Advisor.

Steps to Complete:

- Schedule Preliminary Examination, designate meeting chair, and reserve room locations (All committee members must be present).
    - Preliminary Examination meeting chair must be designated prior to the start of the meeting.
    - Warrant requests must be submitted at least 3 weeks in advance.
    - Complete "Warrant Request" online form (https://uwmadison.co1.qualtrics.com/SE/?SID=SV_5dQsJdV1KOM0P3L).
- Notify Coordinator of the designated meeting chair.
- Have written proposal draft(s) reviewed by Advisor. Once proposal is approved by the Advisor, distribute first portion of Preliminary Examination Form and proposal to committee members at least 10 days before exam.
- Bring a copy of the Prelim Exam Form to the meeting.
- Give a 20-minute oral presentation describing the research proposal and respond to questions from the Certification Committee which correspond to the proposal itself and any related material (Advisor must not contribute to the student's responses unless specifically asked to by the other members of the Committee).
- Committee holds an executive session and the designated chair prepares a written evaluation.
- Obtain signatures on the prelim form, warrant and minor approval form (if applicable) and submit to the Program Coordinator.

Students who successfully complete the Preliminary Examination will achieve dissertator status and continue their work toward the PhD degree. Students who receive a "conditional" pass on the Preliminary Examination must address deficiencies or revisions as requested by his/her Committee prior to continuing work toward the PhD degree. Students who do not pass the

Preliminary Examination will be required to repeat the exam or will be granted a Non-Thesis Master's Degree based on the successful completion of required coursework.

Format for the Preliminary Examination:

The length of the proposal should not exceed 20 pages, double-spaced (Arial, 12-point, 1-inch margins), excluding title page and literature cited. Number the pages consecutively beginning with the title page. Adherence to this format will be considered in the final evaluation.

Title Page	Descriptive title of proposal. Your name. Date, time, and location of the oral defense. Names of all committee members. Not included in page limit.
Abstract	Less than one page. Summarize the research proposed clearly describing the objectives.
Specific Aims	Less than one page. State the broad, long-term objectives and describe concisely and realistically what the specific research is intended to accomplish and any hypotheses to be tested.
Background & Significance	2-3 pages. Briefly sketch the background to the proposal, critically evaluate the existing knowledge, and specifically identify the gaps the project is intended to fill. Concisely relate the specific aims to the broad, long-term objectives.
Preliminary Studies	Use this section to provide an account of preliminary studies by you (and/or the members of your laboratory with proper credit) pertinent to this application and/or any other information that will help to establish the experience and competence of the student to pursue the proposed project.
Experimental Design & Methods.	Outline the experimental design and the procedures to be used to accomplish the specific aims of the project. Include the means by which the data will be collected, analyzed, and interpreted. Describe any new methodology and its advantages over existing methodologies. Discuss potential difficulties and limitations of the proposed procedures and alternative approaches to achieve the aims. Provide a tentative timetable for the investigation.
Figures & Tables	Figures and tables (with legends) critical to the proposal must be included within the 20-page limit. The student will have the opportunity to present additional figures during the oral presentation.
Literature Cited	(not included in the page limit). Each citation must include the names of all the authors, title, book or journal, volume number, page numbers, and year of publication. Make every effort to be judicious in compiling a relevant and current list of literature citations.

Annual Committee Meetings (Years 3+). You are required to conduct a yearly committee meeting with your Certification Committee after passing the Preliminary Exam. This meeting ensures that you are making satisfactory research progress toward the PhD Degree. Committee meetings must be scheduled and completed by August 31 of each year. At least three committee members, including the Advisor, must attend. If necessary, you should meet individually with committee members who could not attend after the meeting. Students who do not meet with their committees in a timely fashion may be prevented from registering for the next semester.

Steps to Complete:

- Schedule committee meeting, designate meeting chair, and reserve room location (cannot be advisor) by August 31st.
    - Committee meeting chair must be designated prior to the start of the meeting.
    - Notify Coordinator of the scheduled date and the name of the meeting's designated chair.

- Distribute project summary and first portion of committee form to committee members at least one week prior to meeting.
- Bring a copy of the committee form to meeting.
- Present prepared presentation of research progress and accomplishments over the past year.
- Committee holds an executive session and designated chair prepares a written evaluation.
- Obtain signatures on the committee form and submit to the Program Coordinator.

Semifinal Report. Approximately 6 months before the anticipated completion of the dissertation, you must present a research report on the proposed dissertation to the members of your Certification Committee. The goals of this "6-month" meeting are to inform the committee of the proposed content of your dissertation in detail and to seek the committee's approval for that proposed content. At least 10 days prior to this meeting, you must distribute a proposed outline of the dissertation (which has already been reviewed and approved by the Advisor) to your Committee members. It is essential that this outline of the dissertation be sufficiently detailed so that the committee can evaluate the questions addressed, the exact experiments used to address the questions, and any other information needed. Upon approval by the Certification Committee, a committee form should be completed and signed by the Certification Committee and returned to the Program Coordinator.

Dissertation Defense (Final Year). The Dissertation Defense is a formal, oral presentation based on your original, independent research. Following the seminar presentation is a closed meeting with your Certification Committee. Per Graduate School policy, the Dissertation Defense must be completed within five years after completion of the Preliminary Exam. The dissertation must be formatted according to the guidelines of the Graduate School. Instructions for preparing and depositing your dissertation can be found at: https://grad.wisc.edu/currentstudents/degree/ (completing your degree).

Steps to Complete:

- Schedule Dissertation Defense, designate meeting chair, and reserve room locations (All committee members must be present).
    - Dissertation Defense meeting chair must be designated prior to the start of the meeting.
    - Warrant requests must be submitted at least 3 weeks in advance.
    - Complete "Warrant Request" online form (https://uwmadison.co1.qualtrics.com/SE/?SID=SV_5dQsJdV1KOM0P3L).
- Notify Coordinator of the designated meeting chair.
- Distribute copy of dissertation to Certification Committee members at least 10 days before the date of exam. Students should be prepared to provide hard copies or electronic copies, as preferred by individual committee members.
- Present public seminar and then defend and answer questions posed by Certification Committee in closed meeting.

- Obtain signatures on the warrant (you will bring your warrant with you to your final review at the Graduate School).
- After you pass your oral defense, you can schedule your final review appointment at the Grad School. Times fill up quickly toward the end of the semester, so it is helpful to call ahead of time.
- Deposit your dissertation electronically. Detailed instructions can be found in Step 3 of. All corrections and revisions must be made before depositing; you are not allowed to make changes after submission. You should deposit your dissertation at least one day before your final review appointment.
- Attend your scheduled final review appointment at the Grad School. Detailed instructions can be found in Step 4 of. You will need to bring the following to your final review appointment:
    - Warrant
    - Survey of Earned Doctorates (SED) certificate of completion
    - Graduate School's Doctoral Exit Survey (DES) certificate of completion
- Submit the following materials to the Program Coordinator:
    - Copy of the signed warrant
    - Online Address Information Form (https://uwmadison.co1.qualtrics.com/jfe/form/SV_bwn2zeB65MH4EgB)
    - 4 printed copies of your dissertation which will be bound for you; one copy for your Advisor, one copy for McArdle, and 2 copies for you (Please note that ordering additional copies from ProQuest is separate from these copies. You will be responsible for paying for any additional copies ordered through ProQuest).

Diploma. Degrees are posted on official transcripts approximately 4-6 weeks after the end of the semester and diplomas are sent approximately four months after the end of the semester in which you graduate. Be sure to update your address in MyUW, so that the diploma is sent to the correct address. You can request a "Certification of Degree" letter from the Registrar's office (https://registrar.wisc.edu/degree_certification_letters_acad_rec.htm) indicating that you have fulfilled all of the degree requirements after you have deposited your dissertation and paid the necessary fees (this letter is often required if a student is applying for a postdoc position immediately after graduation). To request this letter, email certs@em.wisc.edu.

VIII. GRIEVANCE PROCEDURES

If a student feels unfairly treated by the advisor, another faculty, staff, or another student, the Program offers the following strategies to resolve the issue. Grievances can be placed into two general categories; those with another student, staff, or other faculty (type 1), and those with the Advisor (type 2).

- Type 1 grievances should be brought to the attention of the Advisor, and the Advisor will work with the student to help resolve the situation; e.g., a grievance with another student within the lab. If a satisfactory resolution is not achieved after involving the Advisor, then the student should contact the program coordinator and then if unresolved, the program Co-directors for guidance. Most grievances can be handled locally, however, students will also be made aware of departmental/college/graduate school resources available to them.
- Type 2 grievances are particularly pernicious due the inherent imbalance of power in the advisor-student relationship. If the student feels aggrieved by the advisor, there are several potential routes to pursue. The student is strongly encouraged to inform the program (either program coordinator or Director) of the nature of the problem and seek guidance. Some problems can be resolved through the Certification committee. Examples include disagreements about when to publish a manuscript or when to have their semi-final committee meeting. Other challenges should be discussed with a Program Co-Director, who will serve as an ombudsperson between faculty, Certification Committee, and student. If the program is unable to resolve the issue, the student will be guided through other campus resources available to them. These include the Department Chair in Oncology, and Ombuds offices in SMPH and the Graduate School for additional guidance and formal routes of appeal.

UW Academic Policies and Procedures for Grievances can be found on the graduate school web page (http://grad.wisc.edu/acadpolicy/) under Grievances and Appeals.

IX. FINANCIAL INFORMATION

Students are admitted into the Cancer Biology Program as a Research Assistant (RA) unless they have received a fellowship or training grant.

- Stipend: All Cancer Biology students are awarded a pre-tax stipend of $27,000 for the 2017-18 year (12 month appointment). You will receive your first full paycheck in early October (for part of August and full month of September). Students will receive a paycheck at the beginning of every month going forward.
- Relocation Allowance (Welcome Check): Upon registering as a full-time student and completing benefits paperwork, first-year students will also receive a one-time $1,000 relocation allowance.
- Tuition: Tuition is remitted. If you receive a tuition bill, you should contact the Program Coordinator immediately. Students will be responsible for any late fees.
- Segregated Fees: Each semester, students with a Research Assistant title will be responsible for paying segregated fees. These fees cover the cost of University Health Services, bus passes, use of the unions, etc. Fees may be paid online through your MyUW Student Center

or at the Bursar's Office (Student Services Tower, E. Campus Mall, and Rm. 10501). Students will be responsible for paying a $100 late fee if fee payment is not made by the deadline.

- Official Document Fee: Students are assessed a $65 one-time fee on their first semester tuition bill. Students, with a Research Assistant title will be responsible for paying this fee. For more information on what is included in this fee, please review the Office of the Registrar's FAQ page: https://registrar.wisc.edu/official_document_fee_faq.htm.
- International Student Fee: The International Student Services Fee was implemented in fall 2015. All graduate F1 and J1 visa holders are responsible for paying this $75 fee per enrolled semester.
- Research Assistants (RA)
    - Stipend: RAs are awarded a pre-tax stipend of $27,000 for the 2017-18 year (12 month appointment) paid by the Advisor.
    - Tuition: Remitted.
    - Segregated Fees & Other Fees: RAs are responsible for paying segregated and other fees each semester.
    - Taxes: Taxes are withheld from monthly paycheck.
- Fellows/Trainees
    - Stipend: All or the majority of stipend is paid by the fellowship/training grant (if fellowship/training grant funding rate is below the Cancer Biology stipend, it will be supplemented to match the current Cancer Biology stipend rate).
    - Tuition: Paid by the fellowship/training grant.
    - Segregated Fees: Paid by the fellowship/training grant.
    - Taxes: Often taxes and social security are not automatically withheld from a Trainee/Fellow's paycheck. Trainees or Fellows are responsible for paying the necessary taxes directly to the Internal Revenue Service (www.irs.gov) and the state Department of Revenue (www.dor.state.wi.us). Most students file quarterly estimated tax payments; failure to do so can result in tax penalties. The University of Wisconsin Service Center has put together a website with general information about tax filing: http://uwservice.wisc.edu/tax/filing-resources.php

X. HEALTH & WELLNESS

- Health Insurance and Benefits. All graduate students are eligible for various insurance plans at minimal cost. Applications for insurance coverage must be completed within 30 days of your start date (to receive health insurance effective September 1, you must complete benefits forms by August 30). Premiums are automatically deducted from your monthly paycheck. For more information about each plan, see the UW-Madison New Employee

Benefits website (http://www.ohr.wisc.edu/benefits/new-emp/grad.aspx) or contact Chris Carollo-Zeuner (zeuner@oncology.wisc.edu, 6405 McArdle Laboratory (WIMR II)).

- **UWell.** UWell is a UW-Madison holistic resource for all things wellness-related. This site includes information and opportunities for work/school, financial, environmental, physical, emotional, and spiritual and community wellness: http://uwell.wisc.edu/.
- **University Health Services (UHS).** Students who pay segregated fees are eligible for UHS services, the campus health clinic. Many services are provided at no extra cost, including outpatient medical care during regular business hours, Monday-Friday. UHS is located in the Student Services Tower at 333 East Campus Mall, 608-265-5600.
- **Disability Information.** Students with disabilities have access to disability resources through UW-Madison's McBurney Disability Resource Center. As an admitted student, you should first go through the steps to "Become a McBurney Client" at http://www.mcburney.wisc.edu/students/howto.php.
- **Mental Health Resources.** University Health Services (UHS) is the primary mental health provider for students on campus. UHS counseling and Consultation Services offers a wide range of services to the diverse student population. They offer immediate crisis counseling, same day appointments and ongoing treatment. Go to https://www.uhs.wisc.edu/mental-health/ or call 608-265-5600 (option 9).
- **Recreational Facilities.** UW-Madison has multiple recreational facilities, group fitness classes, intramural sports, club sports, etc. Visit the Division of Recreational Sports website for details: http://www.recsports.wisc.edu/.

XI. LAB SAFETY

When working in a lab on campus, you are required to complete three basic biosafety courses administered by the UW Office of Biological Safety: http://www.ehs.wisc.edu/bio-biotraining.htm. These trainings must be completed by the first day of rotations:

- Biosafety 101: Building Biosafety into your Research-Risk Assessment
- Biosafety 104: Building Biosafety into your Research-Safe Use of Sharps
- Biosafety 201: NIH Guidelines

Additional trainings may be required depending on each laboratory; i.e., when working with animals (http://www.rarc.wisc.edu) or radiation (http://www.ehs.wisc.edu/rad-training.htm). You must speak with your Advisor about which trainings are required for his/her laboratory. For a complete list of trainings offered, please visit: https://fpm-www3.fpm.wisc.edu/EHSTraining/Default.aspx.

XII. McARDLE BASICS

Conference Rooms

- Conference rooms (6471, 6571, and 7571) in the McArdle Laboratory may be reserved for committee meetings, examinations, etc. via the McArdle internal website at: https://intra.oncology.wisc.edu/.
- To request rooms in WIMR I refer to the WIMR reservation policy: http://intranet.med.wisc.edu/facilities/wimr-room-reservation-policy/36783.
- Rooms in HSLC/CSC may be reserved online at: http://www.med.wisc.edu/facilities/hslc/room-reservations/25305

Everybody List

To send a business-related email message to everyone in the Department of Oncology, the address is everybody@oncology.wisc.edu. As a Cancer Biology graduate student, you are automatically added to this list.

XIII. PROGRAM CONTACTS

Graduate Program Co-Director Dr. Dan Loeb 6453 McArdle Laboratory (WIMR II) 1111 Highland Ave. 608-262-1260 loeb@oncology.wisc.edu	Graduate Program Co-Director Dr. Elaine Alarid 6151 WIMR I 1111 Highland Ave. 608-265-9319 alarid@oncology.wisc.edu	Graduate Program Coordinator Jenny Schroeder 6435 McArdle Laboratory (WIMR II) 1111 Highland Ave. 608-262-4682 jmschroeder2@wisc.edu