I. PROGRAM OVERVIEW

The mission of the Cancer Biology Graduate Program is to provide graduate students with the intellectual and technical training that will enable them to carry-out independent scientific research within the field of cancer biology. We train students to be critical, creative, independent thinkers, and scientific scholars. In so doing, we establish a robust and compelling foundation for them to embark on successful and satisfying professional careers.

Our handbook and website (<u>https://cancerbiology.wisc.edu/</u>) are intended for graduate students who are pursuing a PhD degree in Cancer Biology at the University of Wisconsin-Madison. The Cancer Biology Graduate Program is administered by the McArdle Laboratory for Cancer Research/ Department of Oncology in the School of Medicine and Public Health. The Cancer Biology Graduate Program consists of faculty-mentors (PIs) that span multiple academic 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* (<u>https://grad.wisc.edu/academic-policies/</u>) provide essential information regarding University requirements. The policies in this handbook provide additional information specific to the Cancer Biology Graduate Program.

Degrees and course requirements may change over time. 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 Program Coordinator.

II. WELCOME/ORIENTATION

Welcome/Orientation is a multi-day event held in late-August that will provide you with an introduction to the Cancer Biology Graduate Program, current students, curriculum requirements, laboratory rotations, degree progress, and payroll/benefit paperwork.

Additionally, faculty-mentors who are hosting fall rotations will present 15-minute lab presentations during our Welcome/Orientation. These presentations, along with the faculty-mentor's website and publication list allow you to learn more about the science conducted in their laboratories (<u>https://cancerbiology.wisc.edu/our-laboratories/</u>). Since not all faculty-mentors who are hosting fall rotators are available to present during our Welcome/Orientation, we encourage you to not limit your rotation search based on these presentations and to reach out to the faculty-mentors listed on our website (<u>https://cancerbiology.wisc.edu/our-laboratories/</u>).

III. LABORATORY ROTATIONS & FINDING A HOME LAB

The goal of laboratory rotations is to familiarize you with the breadth of research in the lab, the faculty-mentor's mentoring style, the laboratory environment, culture, and its members (e.g., other graduate students, postdoctoral fellows, technicians, scientists, or undergraduate students), and finally, research projects available. You will complete three laboratory rotations during fall semester before making a home lab choice. Each rotation lasts four to five weeks.

Things to accomplish during the first weeks on campus:

1. Complete Biosafety Training

When working in a laboratory on the UW-Madison campus, you are required to complete a basic biosafety course (**Biosafety Required Training**) administered by the UW Office of Biological Safety. Course information can be found online (<u>https://ehs.wisc.edu/training/?topics%5B%5D=23</u>). This training course must be completed before your first rotation.

Additional trainings may be required depending on each laboratory; i.e., when working with animals or radiation. You are required to speak to your faculty-mentors about these requirements.

2. Scheduling Laboratory Rotations

Following our Welcome/Orientation, you will schedule meetings with faculty-mentors to discuss potential rotations. To schedule these meetings, send a professional email inducing yourself, briefly explaining your interest in their lab, and request a meeting to discuss a potential rotation. Include a copy of your CV in the email and mention that, if interested, you will have your grad application sent to them by the Program Coordinator. Remember to use your full name and introduce yourself as a Cancer Biology graduate student. You are encouraged to meet with at least six faculty-mentors before finalizing your three lab rotations.

ACTION ITEM: You are required to notify the Program Coordinator after finalizing your rotation schedule by submitting the *First Year Rotation Schedule Form* prior to the start of fall classes. https://cancerbiology.wisc.edu/first-year-rotation-schedule-form/.

3. Maximize Your Rotation Experience

During your rotation, remember that you are not the only one evaluating a possible home lab placement. The faculty-mentor and their lab members are also evaluating you. It is important to be on time, attend lab meetings, and to communicate effectively with the entire lab.

Things to think about during your rotation:

- Reflect on your past mentoring experiences and identify qualities in a mentor that promoted your learning.
- What is the mentoring style of the faculty-mentor/advisor? How much time does the faculty-mentor spend interacting with graduate students individually and as a group?
- Are there regularly-scheduled meetings, both individual and group? Is constructive criticism given? Are ideas freely shared?
- What is the intellectual culture/environment of the lab—friendly, supportive, and cooperative? While in the lab, how interactive were the other graduate students, postdoctoral fellows, and/or undergraduate students? Given a choice again, would current lab members choose this lab again?

Plan to present you're findings from your rotation project at a lab meeting during the last week of the rotation. This will give both you, the mentor, and laboratory members a chance to interact.

You should request an "exit" meeting with the faculty mentor near the end of the rotation. This is an opportunity for you to ask questions about the lab; e.g., possible research projects.

As you progress through your rotations, it important for you to reflect on your experiences. You should think about which labs you can see yourself having a successful graduate career. Even after the rotation is over, if you have additional questions, feel free to contact the faculty mentor.

As you progress through each rotation, if you are experiencing difficulties at any time, please reach out to the Program Coordinator, as soon as possible. The Program Coordinator can be a great sounding-board to help you organize and clarify your thoughts. Don't be shy!

You will meet monthly with the Program Coordinator to discuss your rotation experiences. In addition, the program coordinator will ask you to complete a written evaluation of the rotation.

4. Making a Home Lab Decision

Home lab decisions are made by mutual agreement between you and the faculty-mentor. At the beginning of December, following the completion of your final rotation, contact faculty-mentors whose laboratories you are interested in joining to discuss possible dissertation-research projects. Give yourself adequate time to think about each rotation. If your rotation went particularly well, make sure to let the faculty mentor know that you had a good experience, but do not ask to join a lab until you have had the opportunity to complete your rotations.

During your meeting to discuss home lab placement, take the opportunity to fully understand what the faculty-mentor expects from you and what you expect of them during your PhD training. Often the faculty mentors don't make an on-the -spot decision. This is a common occurrence so don't take it negatively if you don't get an immediate answer. It is an important decision for everyone so it is good that it is made thoughtfully.

Be aware that The Cancer Biology Graduate Program is not the only program at this time with students looking for home laboratories. Be timely about contacting faculty whose labs you are interested in joining.

If you are struggling to make this decision, contact the Program Coordinator, immediately. Sometimes it is beneficial to discuss your thoughts out loud in a thoughtful way.

ACTION ITEM: You are required to notify the Program Coordinator of your home lab selection by completing the *Home Lab Selection Notification Form* as soon as a decision has been agreed upon. https://cancerbiology.wisc.edu/first-year-home-lab-selection-form/

In the rare event, a home lab cannot be identified by early December the student will need to meet with the Program Coordinator ASAP to begin the process of scheduling a 4th rotation.

5. Joining Your Home Lab

Once you're identified a home lab by mutual agreement with the advisor, you should "start" in that lab immediately; i.e., don't wait until January to start. Along these lines, you should discuss with your Advisor your travel plans for the upcoming holidays. As a graduate student, your schedule is not tied to the undergraduate academic calendar. It is key to discuss expectations for holidays and vacations with your advisor prior to making travel plans so that there is no last minute confusion.

ACTION ITEM: Discuss your planned spring course selection with your new advisor. It is possible that your advisor will suggest an alternative elective course. You must enroll prior to the start of Spring Semester.

IV. PhD COURSEWORK REQUIREMENTS

Cancer Biology coursework is designed to provide you with fundamentals to become a creative and critical thinker in cancer biology.

Courses: Table 1 provides a typical Oncology course schedule by year of degree progress that will be individualized with Elective courses offered through complementary departments.

YEAR 1		
Fall	Carcinogenesis and Tumor Cell Biology	ONC 703
	Research	ONC 990
	General Virology-Multiplication of Viruses	ONC 640
Spring	Ethics in Science	ONC 715
	Readings in Cancer Biology	ONC 725
	Research	ONC 990
	Elective	
Summer	Research	ONC 990
YEAR 2		
Fall	Problems in Cancer Research	ONC 735
	Research	ONC 990
	Intro to Biostatistics (or BMI 571 or ONC 778)	BMI 541
	Flective	
Coring		ONC 778
Spring	BioInformatics for Biologists (or BMI 541) McArdle Trainee Seminar Presentation	ONC 778 ONC 901
	(Student/Postdoc)	UNC 901
	Research	
	hesed ch	ONC 990
Summer	Research	ONC 990
Sammer		
Year 3, 4, 5		
	McArdle Trainee Seminar Presentation	ONC 901
	(Student/Postdoc)	
	Research	ONC 990

TABLE 1Coursework Timeline

Additional information regarding Oncology courses can be found online on UW Guide (<u>https://guide.wisc.edu/courses/oncology/</u>).

Elective courses: The courses that fulfill elective requirements are broad and the choice of which elective courses will be guided by discussions with your mentor, and/or your certification committee at your First Year committee meeting. A sampling of possible elective courses is shown in Table 2.

TABLE 2.	Elective Courses Elective courses must fulfill the 50% Graduate Course Requirement: (https://policy.wisc.edu/library/UW-1244).	Course Number
Fall	 Protein and Enzyme Structure and Function Cellular Signal Transduction Mechanisms Prokaryotic Molecular Biology Advanced Microbial Genetics Mechanisms of Microbial Pathogenesis Toxicology I Immunology Advanced Immunology: Critical Thinking Pathogenesis of Major Human Disease 	BIOCHEM 601 BIOCHEM 630 MICROBIO 612 MICROBIO 607 MICROBIO 740 M&ENVTOX 625 MICROBIO 525 MM&I 720 PATH 803
Spring	Eukaryotic Molecular Biology Coenzymes and Cofactors in Enzymology Fundamentals of Stem Cell & Regen. Biology Cell Signaling & Human Disease Stem Cell Bioengineering Design of Biological Molecules Advanced Genetics Cellular & Molecular Biology/Pathology Host-Parasite in Vertebrate Viral Disease	BIOCHEM 620 BIOCHEM 625 CRB 650 CRB 701 CBE 520 CBE 783 GENETICS 566 PATH 750 PATH-BIO 750

Additional course information can be found online on UW Guide (<u>https://guide.wisc.edu/courses/</u>).

Minors: The Cancer Biology Graduate Program does not require you to complete a minor; however, the option is available to those who wish to do so. There are two types of potential minors; Degree-specific and Distributed. Table 3 describes these two options.

The minor must be approved by your Certification Committee and must be completed along with the major curriculum requirements by the end of the second academic year (Spring Semester). Please note that minor coursework may count toward the required elective course requirements.

TABLE 3.	Minor Options (not required).	
Option A	(Degree Specific): Complete at least 9 credits from a degree program	
	outside of Cancer Biology. The student must abide by the minor	
	department's requirements. Courses cross-listed with Oncology may	
	fulfill the minor requirement, provided this is approved by the student's	
	Certification Committee and the minor department. Certification	
	Committee must include one member from the minor department. See	
	individual departments for specific minor 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 the student's Certification	
	Committee.	

Waivers: In some circumstances, a student may petition for a waiver of an elective course requirement because of previous graduate/medical school coursework. To apply for a waiver, the student is required to provide a written justification describing the reasons for requesting the waiver, a copy of the substitute course's syllabus, and a transcript indicating the grade received in the substitute's course (unofficial copy of the transcript is acceptable). Waivers will be granted if there is evidence of previous work at the same level and content, and must be approved by the program. A waived course elective carries no credit toward the Graduate Schools' PhD minimum credit requirement (see below) nor will it appear on your University of Wisconsin-Madison graduate transcript.

Graduate School Requirements: The Graduate School requires PhD students to complete a minimum of 51 credits in order to obtain a PhD Degree. The credits required to meet Graduate School requirements are fulfilled via curriculum courses, Oncology 990 research credits, and electives. Courses numbered below 300, audit, and pass/fail do not satisfy the minimum requirement. The Graduate School requires PhD students to maintain a minimum graduate GPA of 3.0. Courses in which a grade of D or F were assigned will not be counted toward the Graduate School minimum credit requirement of 51 credits. A student may be placed on probation or suspended from the Graduate School for low grades or failing to resolve shortcomings in a timely fashion.

You are required to complete all required coursework by the end of your second spring semester, before completing the Preliminary Examination.

You are required to participate in an Individual Development Plans (IDPs) process on an annual basis. As part of this process, you and your faculty-mentors discuss the following elements during a confidential, face-to-face meeting set up specifically for the IDP purpose: i.) career goals; ii.) assessment of relevant skills, ranging from proficiency at the lab bench to knowledge of the literature, oral presentation, writing, leadership, collegiality, etc., as they relate to these goals; iii.) achievements over the last year; and iv.) discussion of progress toward graduation and preparation for post-graduation professional life. More information on IDPs can be https://grad.wisc.edu/documents/individual-development-plan/.

Other requirements: Two important steps on the ladder of becoming a contributing member of the scientific community are learning to communicate your ideas and learning from the ideas communicated by others. Toward those goals, you are required to attend the weekly McArdle Trainee Seminar Series (students/postdocs) (Mondays, 3:30 PM-4:30 PM, Rm. 6571 WIMR II) and the Cancer Biology Seminar (Wednesdays, 10:30 AM-11:30 AM, Rm. 1345 HSLC) during the academic year. The seminars are announced in advance and you will receive weekly reminders.

TABLE 4.	Summary of Degree Requirements by Year	
YEAR 1		
Mid-August	Welcome/Orientation, lab rotation presentations, enroll in courses, complete biosafety training, and <u>finalize rotation schedule</u>	
September	Lab Rotation 1	
October	Lab Rotation 2	
November	Lab Rotation 3	
December	Begin in home laboratory	
By March 15 th	Establish a <u>Certification Committee</u> consisting of 5 faculty members &	
	Complete Notification Form	
By May 15th	Schedule First Committee Meeting & Complete Notification Form	
By August 31 st	First Certification Committee Meeting	
YEAR 2		
Spring Summer By May 15 th By August 31 st	Presentation in McArdle Trainee Seminar Series (students/postdocs) <u>Preliminary Examination</u> (Certification Committee Meeting) Schedule Preliminary Examination & <u>Request Prelim Warrant</u> Preliminary Examination	

V. DEGREE BENCHMARKS TOWARD YOUR DOCTORATE

YEAR 3, 4, 5		
	Annual Presentation in McArdle Trainee Seminar Series	
	(students/postdocs)	
	Annual Certification Committee Meeting(s)	
By May 15 th	Schedule Annual Committee Meeting & Complete Notification Form	
By August 31 st	Annual Committee Meeting	
FINAL YEAR		
	Semifinal Report ~6 months before the anticipated completion of the	
	dissertation, students are required to present a research report on the	
	proposed dissertation to all members of the Certification Committee.	
	Dissertation Defense the formal, oral presentation based on the student's	
	original, independent research.	
	Request final PhD Warrant three weeks prior to your Dissertation Defense	

Degree benchmarks: Information and Required Forms can be found under the Degree Quick <u>Links</u> tab under Handbook, Resources, & Students on the Cancer Biology Website.

Certification Committees and Annual Committee Meetings by Year

1) Year 1: Forming a <u>CERTIFICATION COMMITTEE</u>

After joining a home lab, you will form a Certification Committee. The faculty that will make up this committee is a decision that you will make with the advice of your mentor. This committee and your annual meetings with them are meant to help guide you through the process of earning a PhD degree. The Certification Committee consists of four members plus your faculty-mentor (PI). At least three members, including your advisor, must be trainers in the Cancer Biology Graduate Program and at least one member from outside your faculty-mentor's home department. If you opt to complete an Option A minor, one member from the committee must also represent the minor department.

Things to think about when forming your committee:

- What are the areas of focus for my PhD work?
- What areas of expertise, beyond my mentor's, will be helpful in developing my project?
- Will specialized techniques be employed and are there faculty that can advise me on the use of those techniques?
- What faculty can challenge my thinking in a constructive manner?

ACTION ITEM: You are required to notify the Program Coordinator by completing the *Certification Committee Notification Form* by **March 15th of Year 1**. If anytime during your course of study, committee membership is updated, you are required to submit an updated form to the Program Coordinator. <u>https://cancerbiology.wisc.edu/first-year-certification-committee-form/.</u>

Failure to submit required information will result with an academic hold being placed on your account and could result in late enrollment fees of up to \$100.00 and delayed payroll.

FIRST CERTIFICATION COMMITTEE MEETING

The goal of this meeting is to discuss appropriate coursework and briefly introduce your research project/direction to your committee. At least three committee members, including the faculty-mentor, must attend. If necessary, you should plan to meet with individually with committee members who could not attend the meeting.

This meeting must be schedule by **May 15th** and it must be held by conclusion of Year 1, **August** 31^{st} .

Steps toward First Certification Committee Meeting:

- 1) **By May 15th**, identify a date for your committee meeting. Ask your committee members for a date before August 31 that will work for your meeting. This can be done using polls such as Doodle polls (doodle.com) or When2meet (when2meet.com). WARNING: Summers are busy travel times for meetings, conferences and vacations. This can make scheduling a meeting tricky, so make sure to do this well in advance of the deadline (i.e. between the middle to end of the spring semester).
- 2) **By May 15th**, ask one of the committee members that is not your mentor if they are willing to chair the meeting. The chair is responsible for guiding the discussion of the meeting and will be responsible for writing up a description of the discussion and outcome of the meeting on the **First Committee Form**. Include in your request a link or copy of the First Committee Form so they are clear of the expectations.
- 3) By May 15th, Submit the Meeting Notification Form to the Program Coordinator. https://cancerbiology.wisc.edu/annual-committee-notification-form/
- 4) Fill out the First Year Committee Form, including the names of your committee, the coursework, and whether you have created an Individual Development Plan (IDP).
- 5) Complete a Written Proposal: Provide a brief description (<u>not to exceed one page</u>) of your research project including a general background of the idea being investigated and a basic description of the approach.
- 6) *At least 10 days prior to this meeting*, distribute your completed First Committee Meeting document and written proposal to your Certification Committee. Remind the chairperson of their role.
- 7) Prepare an oral presentation. Remembering that the focus of the first meeting is on coursework, plan a brief oral presentation, not to exceed 20 minutes. Things to include in your oral presentation:

- a. A brief introduction of yourself and your education and research background
- b. The courses that you have taken toward your PhD degree and any relevant courses that you took prior to graduate school that provided additional background knowledge.
- c. The courses that you plan to take and what requirements that they fulfill
- d. A brief general description of your PhD project; the question that you plan to address and approaches that you will take to address that question.
- e. Professional development activities in which you have or plan to participate.
- f. Long term career goals (optional)
- 8) The day before the committee meeting, send a reminder to your committee members of the time and location of the meeting.
- 9) Bring copies of the First Committee Form to the meeting.

Failure to submit required information will result with an academic hold being placed on your account and could result in late enrollment fees of up to \$100.00 and delayed payroll. If this meeting is not possible, it is your responsibility to contact the Program Coordinator.

Year 2: PRELIMINARY EXAMINATION

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: (1) evaluate your understanding of relevant background material; (2) evaluate whether you have mapped out a sound approach to an important and answerable question; (3) presented your ideas in a clear and logical fashion in written document and oral presention; and (4) can answer question in a straight-forward and compelling way.

You are required to schedule your Preliminary Examination by May 15th and it must be held by the conclusion of Year 2, August 31st. All Certification Committee members are required to attend this meeting. In special circumstances, a one-semester extension will be granted when justified in writing by you and your Advisor

Steps toward Prelim examination Meeting:

- 1. **By May 15**th, identify a date for your prelim exam. Ask your committee members for a date before August 31 that will work for your meeting.
- 2. **By May 15th**, ask one of the committee members that is not your mentor if they are willing to chair the meeting. The chair is responsible for guiding the discussion of the meeting and will be responsible for writing up a description of the discussion and outcome of the meeting on the **Prelim Examination Form**. Include in your request a link or copy of the First Committee Form so they are clear of the expectations.
- 3. By May 15th, Submit the Warrant Request Form to the Program Coordinator. https://cancerbiology.wisc.edu/warrant-request/.

- 4. Begin working on the preliminary examination document well in advance of the date of the exam. The Preliminary Examination document is written by you; however, you are encouraged to consult with your Advisor and other colleagues during the planning and writing of the research proposal. Writing a scientific proposal is an iterative process and will undergo multiple drafts. You should expect to go back and forth with your advisor with new drafts throughout this process. The format for the written document is described in <u>detail below.</u>
- 5. Complete a Written Proposal and get approval to submit it to your committee from your faculty mentor. It is recommended that the written document be complete at least 14 days in advance of the exam to allow time for minor edits.
- 6. *No later 10 days prior to this meeting,* distribute your finished prelim proposal to your committee.
- 7. At this time also distribute a completed Preliminary Exam From to your committee. It can be found at <u>https://cancerbiology.wisc.edu/preliminary-examination/</u>. Remind the chairperson that you select back in May of their role.
- 8. Prepare the oral presentation. <u>Details for the format of the oral presentation are described</u> <u>below.</u> The oral presentation should not exceed 20 minutes. It should describe an overview of your proposal. The intent of the oral presentation is not to describe every detail of your experimental plan. Those details are in your written proposal which everyone has read. You're encouraged to have slides in reserve that might aid in answering questions during the question period that will follow your presentation.
- 9. Practice your oral presentation with your mentor, lab-mates, and fellow students. The day before the prelim meeting, send a reminder to your committee members of the time and location of the meeting.
- 10.Bring a copy of the Preliminary Exam Form to the meeting for the chairperson.
- 11.Day of meeting: The chairperson leads the meeting. The meeting begins with your 20minute oral presentation. Then the question period begins. The chairperson will open the floor for questions. Your mentor will not be allowed to participate in the question period and, in effect, is a spectator. The discussion will drift in a direction of its own and will last up to 2 hours (or longer). It is best to schedule a 3-hour period of time for the exam. It won't necessarily go this long, but it's better to safe than sorry.
- 12.At the conclusion of the question period, you will leave the room and the committee discuss your performance and fill out the written evaluation section of the Preliminary Exam Form. Then they'll call you back into the room and discuss the outcome. Their discussion is summarized by the chair when you rejoin the meeting.
- 13.You are responsible for obtaining your Certification Committee's signatures on both the Preliminary Examination document and your Preliminary Examination Warrant. Once obtained, the signed documents should be delivered to the Program Coordinator within one week of your exam.

Failure to submit required information will result with an academic hold being placed on your account and could result in late enrollment fees of up to \$100.00 and delayed payroll. If this meeting is not possible, it is your responsibility to contact the Program Coordinator.

Shortly after the submission of a signed Preliminary Warrant to the Graduate School, you will receive an email confirming your dissertator status for the following semester and admission to candidacy for your PhD degree. Dissertator status is a university fee status in which you have completed all necessary PhD requirements, except the thesis/dissertation. To reach dissertator status, you must have completed all course requirements and pass your Preliminary Examination.

You have 5 years from the date of passing their preliminary examination to take your final oral examination/defense and deposit your dissertation. Failure to complete your degree within this 5-year period may result in you having to retake the preliminary exam and be re-admitted to candidacy.

Format for Written Proposal

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	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	
Significance	fill. Concisely relate the specific aims to the broad, long-term objectives.	
Preliminary	Use this section to provide an account of preliminary studies by you (and/or the	
Studies	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	Outline the experimental design and the procedures to be used to accomplish	
Design &	the specific aims of the project. Include the means by which the data will be	
Methods.	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	&	Figures and tables (with legends) critical to the proposal must be included within
Tables		the 20-page limit. The student will have the opportunity to present additional
		figures during the oral presentation.
Literature		(not included in the page limit). Each citation must include the names of all the
Cited		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.

Format for the Oral Presentation & Meeting

You will present a 20-minute oral presentation describing your research proposal. Discuss the content of the presentation with your mentor. One example is shown below.

Background	Background introduction of key evidence in the field that led to your question
Proposed	Key findings that support your hypothesis and your proposed model based on
model and	background information and your new data
Preliminary	
data	
Specific	Brief reminder of the aims that you propose
Aims	
Expected	What are the possible outcomes of the experiments that you propose
outcomes	
Significance	Restate the larger picture of your question and how it addresses an important
	concept in Cancer biology.

ANNUAL COMMITTEE MEETINGS (YRS 3, 4, and 5)

This annual meeting ensures that you are making satisfactory research progress toward the PhD Degree. 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.

Now that you are a seasoned graduate student, you know the drill! You are required to schedule your annual committee meeting by May 15th and it must be held by the conclusion current Year, August 31st.

- 1. **By May 15**th, Identify a date for your committee meeting. Ask your committee members for a date before August 31 that will work for your meeting. WARNING: Faculty schedules are still crazy. Do this well in advance!
- 2. **By May 15th**, ask one of the committee members that is not your mentor if they are willing to chair the meeting. The chair is responsible for guiding the discussion of the meeting and will be responsible for writing up a description of the discussion and outcome of the meeting on the **Annual Committee Form**. Include in your request a link or copy of the Annual Committee Form so they are clear of the expectations.

- 3. By May 15th, Submit the Meeting Notification Form to the Program Coordinator. https://cancerbiology.wisc.edu/annual-committee-notification-form/
- 4. Complete a Written Proposal: Provide a concise written report (1-2 pages) describing your accomplishments during the past year and outlining plans, including anticipated plans for publishing.
- 5. At least 10 days prior to this meeting, distribute your completed First Committee Meeting document and written proposal to your Certification Committee.
- 6. Prepare an oral presentation. Remembering that the focus of your research progress, plan a brief oral presentation, not to exceed 20 minutes. Things to include in your oral presentation:
 - a. A brief refresher for your committee on the rationale and background of your project
 - b. Discuss progress toward previously described plans or new directions that your research has taken.
 - c. Describe your accomplishments and specific plans to move forward
 - d. Professional development activities in which you have or plan to participate.
 - e. Long term goals (optional, but highly recommended as you progress toward your degree)
- 7. The day before the committee meeting, send a reminder to your committee members of the time and location of the meeting.
- 8. Bring copies of the Annual Committee Form to the meeting for your committee.

Failure to submit required information will result with an academic hold being placed on your account and could result in late enrollment fees of up to \$100.00 and delayed payroll. If this annual meeting is not possible, it is your responsibility to contact the Program Coordinator.

SEMI-FINAL REPORT MEETING

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.

Your proposed dissertation outline must be approved by your advisor prior to being sharing with your committee. 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 to determine that sufficient progress has been made toward a PhD.

At least 10 days prior to this meeting, the student is required to distribute the completed Annual Committee Meeting Form and proposed dissertation outline to all committee members.

ACTION ITEM: Students are required to notify the Program Coordinator regarding meeting and designated chair information by submitting the *Annual Committee Notification Form* at least 3 weeks prior to meeting. <u>https://cancerbiology.wisc.edu/annual-committee-meetings/</u>.

Sample Thesis Outline for Six-Month Meeting

Title Page	Descriptive title of proposal. Your name. Names of all committee members.	
Chapter 1	Introduction	
Chapter 2	Paper 1 (published, submitted, or in preparation)	
	*Provide a chapter title that encapsulates the topic for the entire thesis	
Chapter 3	Paper 2	
	**Provide the paper title. It would also be helpful to include subheadings (A,B,	
	C) with the major findings of the paper	
Chapter 4	Paper 3 (same as Chapter 2)	
Chapter 5	Future directions	
Appendix 1	Unpublished data	
	***Provide a title for data that do not fit into one of the paper chapters but	
	constitute an important part of your thesis research. Each appendix could include	
	single or multiple figures.	
Appendix 2	Unpublished data (same as Appendix 1)	

DISSERTATION DEFENSE/DEGREE CONFERRAL/DISSERTATION DEPOSIT (PAYROLL END DATE)

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. Please review the *Guide to Preparing Your Doctoral Dissertation*. The dissertation must be formatted according to Graduate School guidelines. Instructions for preparing and electronically depositing the dissertation can be found: https://grad.wisc.edu/current-students/doctoral-guide/.

You must distribute copies of your thesis to all members of their Certification Committee at least **10 days prior to the scheduled Dissertation Defense**. You should be prepared to provide printed-paper or electronic copies, per committee members' individual preferences.

Following a seminar presentation is a closed meeting with your Certification Committee. Per Graduate School polity, the Dissertation Defense must be completed within five years after completion of the Preliminary Exam.

ACTION ITEM: Students are required to notify the Program Coordinator regarding their meeting and designated chair information by submitting **a Warrant Request** at least **3 weeks prior** to the meeting. <u>https://cancerbiology.wisc.edu/warrant-request/</u>.

Upon successfully passing the oral defense, you are required to provide the program with 3-4 printed copies of their corrected and final dissertation for binding. Bound copies will be provided to you, your faculty-mentor, and the program at the expense of the program.

You will remain on payroll or stipend support through the date of dissertation deposit.

IV. GRIEVANCE PROCEDURES

Updated Grievance Policies and Procedures, including program contacts, are listed on the Cancer Biology Graduate Program's website. <u>https://cancerbiology.wisc.edu/current-student-resources/</u>.

V. PROGRAM CONTACTS

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