Overview

The following guidelines govern all students in the Program in Cancer Biology (CANB) and are in partnership with the requirements set forth by the Program in Molecular and Cellular Biosciences (PMCB) and the Graduate Council of the Oregon Health & Science University (OHSU) School of Medicine.

General Timeline

The Ph.D. program is organized as follows:

Year 1	Complete PMCB requirements				
	Complete CON course requirements (CONJ 661, 662, 663, 664, 665, [one of 667,				
	668, 669], 650-ethics, 607-seminar series, 605, 601)				
	3 laboratory rotations				
	Present research in rotation talk forum				
	Attend departmental seminars				
	Attend PMCB journal club				
	Successful completion of the comprehensive examination (CONJ 608A)				
	Select Program and Mentor				
	Recommended CANB courses (CANB 607, CANB/MGEN 606-spring term)				
Year 2	Complete PMCB CONJ course requirements				
	Attend and participate in Departmental Seminars and a Journal Club				
	Complete required and elective CANB courses				
	 CONJ 607E 	PMCB seminar series			
	• CANB 601	Engage in research in dissertation laboratory			
	• CANB 607	Attend Departmental Seminar Series			
	• CANB 606	Participate in CANB Journal Club			
	• ### 607	Grant Writing & Qual Exam Prep (Fall or Spring)			
	• CANB 616	Advanced Topics in Cancer Biology (Spring)			
	 Highly recommended to take Vollum Institute's writing course 				
	Successfully complete qualifying examination				
	Participate in Knight Cancer Research Group (Thursdays, noon)				
Years 3 +	Advance to Ph.D. Candidacy				
	Create a Dissertation Advisory Committee (DAC)				
	DAC meeting at least every 6 months				
	Engage in research in dissertation laboratory (CANB 601)				
	Attend Departmental Seminar Series (CANB 607)				
	Present your research in the Cancer Seminar series (30 minute talk) – Years 3 +				
	Present research in 1 hour seminar format in year 4 or 5				
	Participate in CANB Journal Club (CANB/MGEN 606)				
		Participate in Knight Cancer Research Group			
	Participate in the Research in Progress OHSU forum				

Links

Basic & Translational Sciences Seminar Series Basic Sciences Shared Administration Services CANB Graduate Program Center for Diversity & Inclusion Graduate Studies – Forms and Policies Graduate Programs Academic Regulations OHSU Code of Conduct

Program Contacts

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Required Courses

To complete the requirements for the Ph.D. degree, graduate students in the Program in Cancer Biology must successfully complete required and elective courses, attend Knight Cancer Biology seminar series (BTS), perform research and write and defend a dissertation. The program requires the completion of a minimum of 135 term-hours of course credit, of which 100 hours must be in either departmental courses or conjoint courses. Generally, students are expected to enroll in 12-16 credit hours each term.

Credit for previous courses: if a student feels that they have completed an equivalent, graduate-level course to any of the required courses, they may petition to have the course requirement waived. To petition, the student should write a memo to the director requesting that the course requirement be waived and explaining why the student feels that the previous course is equivalent to the required course. A course outline or syllabus that indicates the subjects covered by the previous course should be included with that memo.

I. Required CANB Graduate Courses Year 2

CANB 601	Research (F/W/S/Su)	10-16 credits
CANB/MGEN 606#	Cancer Biology Journal Club (F/W/S)	1 credit
CANB 607*	Cancer Biology Seminars(F/W/S)	1 credit
CANB/CELL 616	Advanced Topics in Cancer Biology (Spring)	4 credits
	Grant Writing & Qual Exam Prep (Fall or Spring)	0-1 credit
CON 665	Development, Differentiation and Cancer (Spring)	3 credits
	Usually taken year 1, but must be taken by end of 2 nd year	

	Plus two CanB elective courses	
	Total credits per term:	16 credits
II. Required CANB Graduate	Courses Year 3 through completion:	
CANB 601	Research (F/W/S/Su)	10-16 credits
CANB/MGEN 606#	Cancer Biology Journal Club (F/W/S)	1 credit
CANB 607*	Cancer Biology Seminar (F/W/S)	1 credit
	Total credits per term:	16 credits

1st Year PMCB Courses

For information about the PMCB Conjoint Courses, please contact Robert Duvoisin.

[PROGRAM] Courses

Electives

CANB requires that students complete at least two elective graduate courses offered by CANB or other departments in addition to the above required courses. See "Course Descriptions" below for a listing of the more popular electives.

Research Credits

Students are required to register for at least 2 credits of XXXX 601.

Dissertation Credits

Ph.D. candidates, that have been approved to defend, are required to register for at least 2 credits of CANB 603.

Seminar

Basic & Translational Sciences Seminar Series sponsored by the Knight Cancer Institute and the Department of Cell, Developmental and Cancer Biology. This series has a strong emphasis on fundamental science and translational research topics presented by leading extramural scientists.

All students are required to enroll in and attend *CANB 607, the Cancer Biology Seminar Series, throughout their graduate tenure.

As part of CANB 607, students in their second year of graduate training (year 1 in the CANB program) are required to participate in a pre-seminar journal club, during which students will discuss selected papers by outside speakers. This journal club will be organized by the course director for 607.

Also as part of CANB 607, students who have completed their Qualifying Examinations will be required to give a 30-minute presentation each year on their dissertation research. In general, students will give their first presentation in the spring term of their 3rd year and subsequent presentations annually throughout their graduate training. Students will receive oral and written critiques from participating faculty to help improve their presentation skills.

*Students are required to attend one cancer related seminar each week during the academic year. Attendance will be monitored to evaluate student participation in class.

Journal Clubs

Students are required to enroll in CANB/MGEN 605, Mechanisms of Cancer Journal Club, or CANB 606A Tumor Microenvironment Journal Club, throughout their graduate tenure, excluding summer term.

Modified September 2016 Contacts updated July 2018 Modified April 2020

Guidelines and Expectations for Ph.D. Students

#Students can elect to take MGEN Journal club, Cancer Genetics and Genomics during the winter term in lieu of CANB/MGEN605, but must get approval from the graduate coordinator.

Course Load

Students are expected to register for 16 credits each term until they confer.

Grading

Only courses (required and elective), and not research, journal club or seminar credits, will contribute to the GPA. Students must receive a grade of A or B in the required courses specified in this document. If a student does not receive an A or B, the student must repeat the course the following year. The course can be repeated one time only. Failure to receive an A or B the second time will result in dismissal from the program. The required courses for which this rule applies are CON 650, 661, 662, 663, 664, 665, 667 and 668. The grade of Incomplete is reserved for circumstances in which a student is unable to complete the course requirements the end of the term in which the course is offered due to circumstances beyond their control (i.e. illness) AND it is possible to fulfill the remaining requirements within the subsequent term to earn a grade.

Course Descriptions

CANB 610, Current Topics in Cancer (Winter, odd years)

Graduate course with an emphasis on recent ground-breaking research from cancer biology literature along with indepth presentation of supporting basic concepts of biochemistry and molecular biology. Topics are chosen from areas of expertise and interest among the Cancer Biology faculty including: drug discovery, tumor microenvironment, role of DNA damage response in cancer susceptibility and drug resistance, regulatory signaling pathways, cancer stem cells, metastatic progression, and angiogenesis.

CANB 613, Tissue Biology (Winter, annual)

Introduction to the organization and differentiated function of the major tissues and organs of the body. Students will help develop expertise in the histological identification of tissue and organs under the light microscope. Last 4 weeks focuses on dissection of a research area that highlights tissue biology. Students will present the background and manuscripts selected to incorporate their knowledge of histological or histochemical analysis in combination with transgenesis or other molecular approaches.

CELL 616: Cancer Biology (4 credits). Spring term, yearly.

The course consists of a comprehensive coverage of topics in cancer biology including mechanisms of carcinogenesis, the roles of oncogenes and tumor suppressor genes, molecular targets for novel therapeutic strategies, and an understanding of the pathogenesis of specific cancers such as breast, prostate, gastrointestinal, skin, and blood.

CELL 618, Mechanisms of Development (Winter, alt years)

Topics covered include (i) signal transduction and transcriptional regulation of cell fate, (ii) RNA localization and translational control of development, (iii) asymmetric cell division, (iv) embryonic inductions, (v) signaling networks that establish the major body axes, (vi) stem cell plasticity and (vii) organogenesis.

Guidelines and Expectations for Ph.D. Students

CELL 620, Model Systems Biology (Summer, even years)

Exploration of the history of, power of and use of key model organisms used in biomedical research. Past model systems focused on mouse, chick, zebrafish, drosophila, yeast, frog, pig, primate, human. We offer a hands-on laboratory component for real-time exposure to some of the model organisms.

MBIM 610, Introduction to Immunology (Winter, annual)

This introductory course will provide students with an overview of how the immune system functions and the special vocabulary and experimental systems that describe it. Reading and discussion of the textbook (Immunology by Janeway, et al, 5th Edition) with study questions and occasional experimental papers. The course is designed for two kinds of students; those specializing in other areas who want to learn enough immunology to gain access to the experimental literature and those with a particular interest in immunology as preparation for the Advanced Immunology course.

PHPH 617, Pharmacokinetics (Fall, annual)

This course will provide students with an introduction to drug absorption, distribution, metabolism, and elimination.

PHPH 524, Introduction to Biostatistics (not currently offered) MGEN 624, Gene and Cell Therapy (Winter) Etc.

Academic Progress

Grade Point Average Requirements.

The program requires that graduate students maintain an overall 3.0 grade point average in their courses (A = 4; B = 3; C = 2; D = 1). Courses graded on P/NP basis do not contribute to calculation of the grade point average. If a student's cumulative grade point average drops below 3.0, the student will be placed on academic probation, requiring that they bring up their grade point average at least a 3.0 within the next 12 months. Please note that academic probation may limit the availability of some kinds of student loans or other financial aid (for further information contact Registrar's office). Any student who fails to achieve a grade point average within the one year time limit will be subject to dismissal from the department.

Required GPA for Required Courses

Students must earn a grade \ge B (3.0) in all required courses (defined in Section II). A student who receives a grade below a B must repeat that course the next available time it is offered and obtain a passing grade within 1 year. Failure to do so constitutes grounds for termination from the program. Performance on the comprehensive examination along with overall academic performance will be considered in mandating this requirement.

Incomplete Grades

The grade of Incomplete can be given in circumstances beyond the control of the student (e.g. illness) that prevent completion of the course requirements by the end of the term. An Incomplete can only be given if the student is able to complete the requirements within the subsequent term.

Failing Research Credits

Students failing a semester of Research credits, (i.e. receives a NP or No Pass on research) are immediately placed on academic probation. To return to good standing, the student must obtain a passing grade on the next term of Research and all subsequent terms. Failure to do so constitutes grounds for termination from the program.

Guidelines and Expectations for Ph.D. Students

Pre-Qualifying Graduate Students

A pre-qualifying graduate student is required to notify and meet with their mentor, graduate education committee director (GPD) and graduate program coordinator (GPC) immediately upon receiving a failing grade on the research credits in any one term. The GPD will suggest a course of action that the student must follow in correcting their academic performance.

Post-Qualifying Graduate Students

A post-qualifying graduate student (in consultation with their mentor, GPD and GPC) is required to schedule a Dissertation Advisory Committee (DAC) meeting immediately upon receiving a failing grade on their research credits in any one term. This DAC meeting must take place within two weeks of receipt of the failing grade on the research credits. The mentor and DAC will suggest a course of action that the student must follow in correcting their research performance.

Training in the Responsible Conduct of Research

The National Institutes of Health requires continued ethics training for all trainees, fellows, participants, and scholars receiving support through any NIH training, career development, research education, and dissertation research grant (<u>NOT-OD-10-019</u>). To meet this requirement, all graduate students are required to:

- Complete CONJ 650 The Practice and Ethics in Science during their first year
- <<requirement for ongoing ethics training>>

Qualifying Exam

Overview

The purpose of the Qualifying examination in CANB is two-fold. First the examination will determine if the student has acquired sufficient knowledge and skills to pursue their Ph.D. dissertation. Second, the exam will provide the student with the opportunity to practice the preparation of a research proposal. Before taking the candidacy examination, the student must have completed the CANB course requirements. In the event that a course is not offered before the end of the second year, and the student is otherwise prepared to take the candidacy examination, the examination of the course with approval from the Graduate Education Committee. However, the required course must be taken prior to the dissertation defense.

The qualifying examination will consist of written research proposal prepared by the student within their general area of research, <u>but not directly on the student's research project</u>, followed by an oral examination.

Note: CANB guidelines are in accordance with PMCB written guidelines with minor differences that are outlined and bolded

Eligibility

To be eligible to take the PMCB Qualifying Examination (QE), students must have successfully completed all courses required in the first two years of the PMCB curriculum, and they must have received a passing grade on the PMCB Comprehensive Examination. Students may not take the qualifying examination if they are on academic probation or if an incomplete grade remains on their transcript.

Timeline and Description

Each student is expected to complete the qualifying examination by no later than the end of the summer term (this is not true for a re-examination) of their second year in the program, <u>in compliance with the PMCB requirements.</u>

On or before May 22nd of their second year, students must submit <u>at least one abstract</u> to the Graduate Education Committee members.

June 5th: the GEC will select a Qualifying Examination Committee (QEC) responsible for conducting the student's qualifying examination. A chair of the QEC will be designated. The student is notified of the names of the panel members.

June 12th: The QEC notifies the student in writing of selection of the examination topic and the acceptance or of any weaknesses or specific suggests for improvement to their proposal.

All exams will be scheduled for the week of July 10th. This complies with graduate studies expectation that examinations must be completed by at least ten days before the beginning of the Fall term.

Students submit their final written proposal to the QEC and their dissertation advisor at least one week prior to the Examination date. <u>Students must submit a letter to the QEC from their dissertation advisor describing the advisor's role</u> <u>during preparation of the proposal (see "Role of dissertation Advisor and Other Faculty" in the PMCB guidelines)</u>.

A student who is asked to repeat the candidacy examination will be expected to do so within 2 months of the initial examination

Qualifying Exam Committee

The Graduate Education Committee will appoint a 5-member examination committee for each student based on the topic to be presented by the student. The student's dissertation advisor may not serve on the examining committee, but may attend the examination as an observer. The Graduate Education Committee is charged with maintaining uniformity for the candidacy examinations. To this end, each examination committee will have at least one member of the Curriculum or Graduate Education Committee.

Role of Advisor/Mentor

To facilitate an objective examination, the student's mentor is not permitted to edit or comment on the written proposal. Neither is the mentor, nor any other faculty member, permitted to coach the student in a rehearsal of their oral presentation. The student must submit a signed letter from their dissertation advisor describing in specific detail the role of the advisor and of the student in the development of the hypothesis and research plan in this proposal. The dissertation advisor must confirm that they have NOT contributed to the written portion of the exam, and that the student has NOT used any of the advisor's prose within the proposal. The QEC has two weeks from receipt of the written proposal and dissertation advisor letter to request more information from the dissertation advisor if deemed necessary.

Format of Written Proposal

The qualifying examination will consist of written research proposal prepared by the student within their general area of research but not directly on the student's research project, followed by an oral examination. The written proposal should use the general format of the "Research Plan" section of an NIH NRSA Grant, which is detailed below.

http://grants.nih.gov/grants/funding/phs398/phs398.html

Guidelines and Expectations for Ph.D. Students

The research plan should have the substance and content, including <u>original thinking</u>, appropriate for such an application. That is, it shall be formatted in the following sections:

Format:

Use an Arial, Helvetica, Palatino Linotype, or Georgia typeface, a black font color, and a font size of 11 points or larger. Type density must be no more than 15 characters per inch and no more than six lines per inch. At least one-half inch margins should be used.

Page 1: Specific Aims.

- a) State concisely the goals of the proposed research and summarize the expected outcome(s), including the impact that the results of the proposed research will exert on the research field(s) involved.
- b) List succinctly the specific objectives of the research proposed, e.g., to test a stated hypothesis, create a novel design, solve a specific problem, challenge an existing paradigm, or address a critical barrier to progress in the field.

Pages 2-7: research proposal (six pages).

Organize the Research Strategy in the specified order using the instructions provided below. Start each section with the appropriate section heading — Significance and Approach. Cite published experimental details in the Research Strategy section and provide the full reference in the Bibliography and References Cited section that is not included in the page limit.

a) Significance (about ½ page)

- i) Explain the importance of the problem or critical barrier to progress in the field that the proposed project addresses.
- ii) Explain how the proposed project will improve scientific knowledge, technical capability, and/or clinical practice in one or more broad fields.
- iii) Describe how the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field will be changed if the proposed aims are achieved.
- b) Approach
 - i) Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project. Include how the data will be collected, analyzed, and interpreted.
 - ii) Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims.
 - iii) Note that the page limitations may preclude a detailed presentation of all the methods used in the proposal. However, the candidate should be prepared to discuss them fully during the oral presentation, if asked.

Before embarking on preparation of a research proposal, <u>the student will submit one abstracts of</u> approximately 300 words to the Graduate Education Committee Qual Exam Chair (Philip Stork and cc Missy Wong, Lola Bichler). The abstracts should describe specific research problems which have been designed by the student and which may include aspects of the student's dissertation research project, but should include at least elements that are uniquely developed by the student. The abstracts will be reviewed and the Graduate Education Committee will provide feedback for development. If the Graduate Education Committee deems the proposal is not suitable, the student will present additional proposals. During the preparation of the proposal, the student is encouraged to seek constructive criticism by others, <u>but is not permitted to ask members of the qualifying exam committee, their advisor or any other faculty member to review the qualifying exam proposal or a draft of the proposal, and then provide feedback about the</u>

Guidelines and Expectations for Ph.D. Students

<u>scientific content of the proposal</u>. As outlined in the PMCB academic guidelines, students may discuss topics and proposed experiments with all sources (fellow students, post-doctoral fellows, faculty, and visiting scientists), but none of them may be involved in any aspect of the student's written proposal. Students may also seek general assistance in scientific writing and proofreading. However, it must be remembered that the written proposal is an examination, and <u>must represent the student's ideas and development of the research topic</u>.

Format of Oral Exam

A period of 2.5 hours should be scheduled for the examination. The oral examination will probe the breadth of the student's knowledge and also the depth of the student's understanding of their research proposal. The student is expected to begin the oral examination by giving a short (20-30 minute) formal presentation summarizing the written proposal. Audio-visual aids may be used. Questions from the Qualifying Examination Committee should focus primarily on issues pertaining to the proposal; however, the student is responsible for all areas of cellular and molecular biology that have been covered during the first two years of graduate study. Therefore, students also should expect questions on general knowledge in addition to questions relating to the proposed experiments. Student should be prepared to discuss the rationale for the proposed study, the strengths and limitations of the proposed experimental strategies and the potential pitfalls and alternative.

Following the student's short presentation, the qualifying examination committee will question the student on all areas of cancer biology relating to the proposal. The chairman of the committee will establish the length and format of the questioning period, and will determine when the exam has concluded.

Preparation for Oral Exam

Outcomes

The two sections of the examination will be independently evaluated and scored to fall into one of the following categories

Pass

The student passes both the written and oral examination. In certain circumstances, the QEC may identify specific areas of weakness that the student needs to address during subsequent dissertation research. This information will be communicated in writing to the student, mentor, and PMCB by the chair of the examination panel.

Fail

If the student fails either portion of the examination, the student fails the Qualifying Examination. Within one week of the examination, the chair of the Examination Panel will provide a written statement to the student, the mentor and the PMCB office, describing the deficiencies that led to failing the qualifying examination. The student may petition the QEC to take the qualifying examination (written and oral) again within the subsequent three months, or alternatively may resign from the graduate program. The QEC may also elect to offer the student the option to complete a Master's Degree, rather than re-taking the Qualifying Examination. In such a case, students will be obligated to complete all the requirements for the Master's Degree of their home department. The QEC will counsel the student with respect to the most prudent course of action. If the student decides to re-take the Qualifying Examination, then they must submit a revised or new proposal to the QEC as summarized above; and will have five weeks to complete the full proposal.

Program in Cancer Biology Guidelines and Expectations for Ph.D. Students Advancement to Ph.D. Candidacy

Upon successful completion of the qualifying examination, students will become eligible for recommendation for advancement to candidacy. The PMCB Director will sign the Qualifying Examination form indicating successful completion of all PMCB requirements and forward the form to the relevant program. The graduate program director will have responsibility for recommending students for advancement to Ph.D. candidacy when all of the program's academic requirements have been fulfilled.

Dissertation Advisory Committee

DAC Formation

Program Directors may include members that are not graduate faculty, or are outside the university; but these must be accompanied by a letter to the Associate Dean with a rational for this choice and a short NIH-style biosketch for the proposed member(s). (Complete guidelines can be found at this <u>link</u>)

- At least four faculty members (including the student's advisor) with expertise in one or more aspects of the student's project and who are familiar with the requirements of the graduate program for completion of a PhD. Students (in consultation with their faculty advisor and program director) may request specific faculty to serve on their DAC.
- A majority of DAC members must be members of the Graduate Faculty. OHSU faculty from outside the Graduate Faculty may be included.
- One member may be from outside the university, but these require approval by the Associate Dean for Graduate Studies (the Program Director should include a brief cv and short explanation of non OHSU-faculty expertise on the committee to the Associate Dean)
- No more than two DAC members may lack any DAC experience and at least one member must have been on a DAC for a graduated student.
- DAC Chair: One DAC member, not the mentor, with significant experience in mentoring graduate students, and having served on a DAC before.
- DAC members may be added or removed with the approval of the Program Director and Associate Dean of Graduate Studies. Following the change, the DAC composition will still adhere to the above requirements.

Typically, DAC members will be invited to serve as part of the student's Oral Exam Committee.

Student Responsibilities

Prior to a DAC meeting, students will submit a written summary of their recent research and educational training and prior DAC meeting summaries, to the committee members using the Dissertation Advisory Committee Meeting Summary Form. For students who have just begun their PhD research, this summary can consist of an outline of proposed aims. For more advanced students, this summary should include the goals identified by the committee at their previous DAC meeting, and a description of the student's accomplishments to address these goals (including successes and problems).

For each DAC meeting, students should prepare an organized presentation of their recent progress (e.g. as a PowerPoint presentation), including a summary of the goals outlined by the DAC during their previous meeting; a discussion of their accomplishments and any problems encountered; and a summary of the directions they intend to pursue during the following six months.

Committee Responsibilities

• Evaluate student progress toward degree.

Modified September 2016 Contacts updated July 2018 Modified April 2020

Guidelines and Expectations for Ph.D. Students

- Provide critical input and advice that will facilitate the student's completion of their PhD in a timely manner.
- Provide additional mentorship to the student as needed (including discussion of the student's career goals as appropriate)

Meeting Summaries

One week prior to each committee meeting, a short report that summarizes the issues raised during the meeting should be prepared by the student in consultation with the mentor (with revisions by the DAC members), or by the DAC chair (with input from the other faculty members). DAC chairs are responsible for distributing revised copies of the DAC summary to the student, all members of the DAC, the Graduate Program Director, Program Coordinator, and sending a copy to the Graduate Studies office.

The summary should include:

- 1) Date, present participants, and absent members if necessary
- 2) Summarize the student's progress since the previous DAC meeting
- 3) Summarize any significant problems or issues that need to be addressed
- 4) Summarize what the student should attempt to accomplish in the next 6 months
- 5) When appropriate, summarize the student's future plans/career goals
- 6) Estimate of date of completion (this will be more precise as student advances)
- 7) Date when DAC agreed that the student is ready to write their dissertation.

Student Seminar

(Third Year through completion of the Ph.D.) Following the completion of their Qualifying Examinations, students will present a 30 minute research seminar during the third year of graduate studies, as part of the program's regular seminar series. Subsequently, students will present research seminars once a year (on average) until they are ready to defend their dissertation. Students will be given written and oral critiques on their presentations from members of the faculty and their peers, to help improve their presentation skills. A meeting with the Dissertation Advisory Committee should be scheduled as soon as possible after the student's seminar to discuss the project and future directions.

Formation of Oral Examination Committee

The composition of the Oral Dissertation Examining Committee should be suggested by the student and mentor and must be approved by the CANB Graduate Education Committee. After these approvals are obtained, final approval of the composition of this committee must be obtained from the Associate Dean for Graduate Studies.

Oral Examination

CANB requires that the Dissertation Advisory Committee must meet to review and approve the proposed dissertation research before a dissertation defense can be scheduled. The chair of the Dissertation Advisory Committee should send a memo to the Program Director with copy to the Program Coordinator giving approval of the dissertation project and approval for scheduling the oral dissertation defense.

Preparation and Submission

All instructions and guidelines adopted by the Graduate Council By-Laws shall be carefully followed. The dissertation should represent the equivalent of at least two publications in significant, peer-reviewed journals; fulfillment of this requirement will be determined by the DAC.

Program in Cancer Biology Guidelines and Expectations for Ph.D. Students Ethical and Professional Behavior

CANB graduate students are expected to maintain high ethical standards. Graduate students should demonstrate honesty in all aspects of research activities. Students should learn about and avoid sources of error in scientific research. It is essential that students do not misrepresent scientific findings or misappropriate credit. All graduate students are required to take a course concerning ethics and science. Students should show cooperation, responsibility and respect in interacting with other students and faculty. Students should be considerate of the cultural and individual diversity of their colleagues. CANB graduate students will be held to the standards of the OHSU community and be in compliance with research integrity through courses on Compass, in addition to CONJ 650, Practice & Ethics of Science.

Students who are involved in unethical or unprofessional conduct such as cheating, misrepresentation of research findings, plagiarism (failure to credit the original author), or disruption of the learning process are subject to disciplinary action including dismissal from the department.

It should also be noted that students observing unethical behavior by students, faculty, or others on campus are obligated to bring these transgressions to the attention of the appropriate person.

See the OHSU Code of Conduct for further information.

Time Limit for Completing Degree Requirements

It is the School of Medicine Graduate Council policy that students must complete all requirements for Ph.D. within 7 years of matriculation. Students that do not complete degree requirements within this deadline may be dismissed from the graduate program. Students, mentors and the DAC should consider this deadline when evaluating dissertation research goals and progress.

Non-compliance

Non-compliance with any of the CANB requirements can and will result in the revocation of certain program privileges, academic probation and possible dismissal from the graduate program.

Grievances

The procedure for handling grievances is outlined in the OHSU Graduate Studies Handbook.

Exceptions

No exceptions from the policies and procedures described in these guidelines can be made without approval by the CANB faculty. In matters related to courses, exceptions must be approved by the CANB graduate education committee before review and consideration for approval by the CANB faculty.