

INTRODUCTION

Welcome to the Graduate Program in Cancer & Cell Biology (CCB) at the University of Cincinnati College of Medicine! The CCB program is an interdisciplinary and interdepartmental program with over 60 graduate faculty members with expertise in many critical areas of modern Cancer, Cell Biology and Cellular Mechanism Research. The program is administered through the Department of Cancer Biology in the Vontz Center for Molecular Studies, but many of faculty members have their homes in other departments at UC or at Cincinnati Children's Hospital Medical Center (CCHMC). For you, this means a richer environment for learning Cancer and Cell Biology.

There are currently 47 PhD students in the CCB Program . All of our students receive training in areas that range from basic questions on mechanistic cellular function to more applied issues such as gene therapy, nanotechnologies, and targeting of cancer drugs to tumors. Along with basic course work and research opportunities, we will provide you with training in other areas of professional development including how to give scientific presentations, how to analyze papers, how to write grants, and the ethics of scientific research. Our students PhD Students typically spend about five years to earn their degrees; however, the program isn't about time spent but rather on your research training and productivity. Our philosophy is that PhD training should be intellectually stimulating, professionally challenging, and geared toward successful careers in a variety of fields. We set a high standard for success and then provide the training and mentoring to meet those goals. As such, our record of student placement has been excellent with the majority of our students going on to do postdoctoral work prior to going after more permanent positions in academic or private sector institutions.

The guidelines, rules, regulations, and advice in this handbook are meant to help you pass through Program productively and expeditiously. In establishing these guidelines, effort has been made to assure that the content is in full compliance with the Rules and Policies of the University of Cincinnati Graduate School; however, any issues that are not clearly stated in the handbook will be handled at the discretion of the Graduate Committee (the governing body of the CCB graduate program).

In closing, I think you will find your graduate years very challenging and very rewarding. You will likely hear me repeatedly reminding you that your goal should be to take complete advantage of this wonderful professional opportunity to earn an advanced degree while getting paid to do it. All you have to do is to have an unquenchable thirst for learning, be highly productive in the lab, publish your research, and move on to the next opportunity for a lifetime of continuous learning! Finally, I will leave you with my favorite saying, "This is your career; be the driver of that career!"

We are happy to have you here, and I wish you all the best.



Susan E. Waltz, Ph.D.
Director, Graduate Program in Cancer & Cell Biology

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Contents are in compliance with the rules and policies of the University of Cincinnati
Graduate School.

Cancer & Cell Biology Graduate Program
<http://cellbiology.uc.edu/>

2022-2023 ACADEMIC YEAR

Graduate Program Officers and Members

Program Director	Susan E. Waltz, Ph.D.
Administrative Program Director (Program Manager)	Pilar Ramos-Richey, M.Ed.
Director of Admissions	Tom Cunningham, Ph.D.
Graduate Committee	Susan Waltz, Ph.D., Chair Tom Cunningham, Ph.D. Krushna Patra, Ph.D. Daniel Starczynowski, Ph.D. Lisa Privette Vinnedge, Ph.D. Chenran Wang, Ph.D. Marie-Dominique Filippi, Ph.D. Makenzie Fourman (Student Rep)

I. APPLICATION AND ADMISSION TO THE GRADUATE PROGRAM IN CANCER AND CELL BIOLOGY

A. Application

All applicants are required by the Graduate School to have obtained a baccalaureate degree before entering a graduate program. Prospective students should have a strong undergraduate background in biology, chemistry, physics and mathematics with an overall GPA of at least 3.0 (out of 4.0). We believe that motivation and character are the most important determinants of research success. Therefore, while we use grades and test scores as part of our ranking process, we give greatest emphasis to the candidate's personal statement, letters of recommendation, and personal interviews.

1. Process

<https://grad.uc.edu/admissions/criteria.html>

The application process is completed online. You can access the application directly at the University of Cincinnati Graduate School website

<https://grad.catalyst.uc.edu/apply/>

If you have questions regarding the application process, you can contact the Cancer and Cell Biology Program Manager at 513-558-7379 or CCBProgramManager@uc.edu

[Please visit the "How to Apply" page on our website to view the most up-to-date application requirements, information, and deadlines.](http://med.uc.edu/cancerbiology/graduate/apply)

<http://med.uc.edu/cancerbiology/graduate/apply>

APPLICATIONS AND ALL SUPPORTING DOCUMENTS MUST BE COMPLETED BY THE APPLICATION DEADLINE AS LISTED ON THE PROGRAM WEBSITE TO BE CONSIDERED FULLY FOR ADMISSION.

2. International Student Admission

<https://www.uc.edu/about/international.html>

- In addition to the requirements above, international students have several testing options to prove English proficiency. Test scores are only valid for two (2) years.
**Please note that the College of Medicine requires higher minimum scores than the general Graduate School requirements. Additional Information about English proficiency requirements can be found at the following link:*
<http://grad.uc.edu/fac-staff/handbook/graduate-admission/international-admission/english.html>
- Before admission to the University can be completed, all international students must fulfill U.S. Immigration Service requirements and register with the UC International Services Office.

College of Medicine minimum scores

- International English Language Testing System (IELTS)—7
- PEARSON Test of English (PTE)—68
- Test of English as a Foreign Language (TOEFL)
 - Internet-based—100
 - Computer-based—250

- Duolingo English Test – 105 (from 160-point scale)

II. Admission and Financial Support

1. Admission Decisions

All decisions concerning admissions to our graduate program rest with the Graduate Committee and/or Program Director. The Committee has the authority to set application deadlines, to require certain pre-admission examinations, to require satisfactory completion of certain course work prior to admission, and to establish other pre-admission requirements.

The University of Cincinnati does not discriminate on the basis of disability, race, color, religion, national origin, ancestry, medical condition, genetic information, marital status, sex, age, sexual orientation, veteran status or gender identity and expression in its programs and activities. View UC's complete Notice of Non-Discrimination at <http://www.uc.edu/about/policies/non-discrimination.html>.

Decisions to admit or deny are final unless it can be demonstrated that the Program violated a Graduate Division policy or failed to apply fairly and consistently the criteria established by the Program.

2. Financial Support

Students receive a 12-month minimum stipend of \$30,000 and an award that covers individual health insurance. All students in good academic standing in the Cancer and Cell Biology Graduate Program also receive tuition scholarships (Graduate Assistant Scholarship, referred to as a GAS) or university graduate assistantship (referred to as UGA) throughout their training, up to a maximum of 5 years. After 5 years, additional financial support will be at the discretion of the research mentor and with approval from the Graduate Committee. Regular student fees may or may not be provided (refer to your offer letter to verify what fees you will be responsible for paying, if any). Although there are opportunities to serve as teaching assistants, these services are not required of Ph.D. students in the Cancer and Cell Biology Graduate Program. Under ordinary circumstances, assistantships (Stipends) and tuition scholarships will not be awarded to students who have accumulated 174 or more graduate semester credit hours. Students are required to devote full-time to their academic and research training and thus **outside employment is prohibited**. Please see Specials Rules and Provision Section IV Part F for information on co-op and internship policies.

The standard graduate student stipend will be \$30,000 per year. Higher stipends may be allowed with consent from the Graduate Committee. In general, higher stipends will only be approved for students who obtain a substantial individual fellowship (typically greater than 75% of the standard stipend level). If the granting agency sets a stipend level that is higher than the standard stipend, then this level will be honored. If the level is not set by the agency and represent >75% of the standard stipend level, then the student may be eligible for a \$2,000 stipend increase for the duration of the fellowship. The research stipend is available to all students for 5 years if they maintain satisfactory progress in the program as judged by their advisor, thesis committee and the Graduate Committee. Stipend support beyond 5 years is common, but will be determined by consultation with the advisor, student, the program director and the graduate committee, based on continued satisfactory progress toward completion of the doctoral dissertation. "A student is not eligible for funding beginning with the

semester in which said student will reach 174 graduate credit hours, with 34 graduate credit hours deducted from the 174 for a previous master's degree earned at another institution. Any student ineligible to receive state funding is not eligible to receive university general funds financial aid, i.e., a stipend and/or tuition."

At any time, the Program may elect to provide monetary incentives to students. All students receive student health insurance. The Graduate Program (and/or mentor) will cover the cost of individual student health insurance coverage if the students apply for the Graduate Student Health Insurance Awards A & B in the Fall & Spring Semester. These awards provide partial payment for health insurance for those semesters. **Payment in the amount of the Award will be the responsibility of the student if the student fails to apply for these awards by the deadline.** The remainder of the student health insurance funds not covered by the GSHI Awards will be covered by the Graduate Program in the first year and by the research mentor in subsequent years for up to 5 years. The student will be responsible for covering the cost of health insurance for any family members. After 5 years, or for students who register as part time in the Fall and/or Spring semesters, coverage of the costs of health insurance will be at the discretion of the research mentor and with approval from the Graduate Committee. Semester fees (reflecting the number of accompanying dependents) will be assessed at each registration period. <http://med.uc.edu/uhs/>

Miscellaneous expenses: students who choose to do a rotation in a laboratory at Cincinnati Children's Hospital Medical Center (CCHMC) sometimes incur costs that are not covered by CCHMC or the University of Cincinnati student health insurance plan. Such costs may include TB tests or vaccinations that are required as "employees" of CCHMC. These costs are the responsibility of the student.

3. Exemption from OPERS/Medicare for Student Employees

Graduate students, while officially being paid a stipend to support them during their graduate training, are administratively paid like employees of the University of Cincinnati. Generally, all UC employees contribute, through payroll deduction, to the Ohio Public Employees Retirement System (OPERS) and to Medicare. Students who are enrolled for at least 6 credit hours in a semester are exempt from these payroll deductions. Under some circumstances, such as **during summer sessions** or if you have already accumulated the maximum allowable credit hours, **you may be registered for less than 6 credit hours. Therefore, OPERS and Medicare contributions will be deducted from your stipend payment in accordance with State Law (i.e. every summer semester other than your first summer semester in which you are registered for 6 credit hours).** Please plan accordingly for these expenses.

C. Vacation/Leave Policies

Students receive a 12-month stipend with an expected 12-month commitment toward their studies and research. There is no formal provision for an annual vacation for graduate students outside national holidays observed by the university and UC's Winter Season Days when the university is officially closed. However, short leaves for a limited period (e.g., 10 working days in a year, non-accumulating) will be considered for students who are advanced in their dissertation research project and whose supervisors agree that a short leave of absence is warranted. In the case of serious, immediate family illness or personal emergency, immediate leave will be considered quickly by the Graduate Committee. For first year students, written request for temporary absence

(vacation) must be initiated by the graduate student and submitted to the CCB Graduate program through the Program Manager. If the student has already selected a dissertation research advisor, the advisor's approval of the request for a vacation period must accompany the request. This request should be submitted as far ahead of the desired leave time as possible to facilitate reassignment of activities and to afford as much consideration to the request as possible. In the event that a long-term leave is required, graduate students may apply for leave of absence from full-time study at the University for a specific period up to one year. Qualified leaves include but are not limited to personal or family medical conditions, call to active military duty, maternity leave, or death in immediate family. In the event that a student is granted international travel leave and due to visa and/or other issues, is away for more than 3 days beyond the pre-approved leave, the student's stipend may be suspended until such time that the student can fully return to the training program. Graduate assistants do not accrue vacation, sick leave, or other paid time-off. All CCB graduate students are provided days off that align with UC's observed holidays and Winter Season Days (see links below for approved days for the AY 2021-22). Hence, the CCB Graduate Program does not observe a typical "Spring Break" as is common to undergraduate studies. Graduate students must adhere to attendance policies as indicated by the Graduate School Graduate Handbook, dissertation mentors (Program Director for first-year students), and/or financial source (e.g., F31 or T32) that supports their studies.

For additional information, refer to the Graduate School Graduate Handbook and approved dates from the Board of Trustees:

UC Graduate School Handbook

<https://grad.uc.edu/fac-staff/handbook.html>

Winter Season Days Policy

https://med.uc.edu/docs/default-source/radiology-docs/radiology-intranet/hr-policies/winter-season-days.pdf?sfvrsn=c39df08c_2

UC Academic Calendars <https://www.uc.edu/about/registrar/calendars.html>

II. DOCTORAL DEGREE PROGRAM

A. Our Philosophy

Our philosophy of Ph.D. education encompasses two important dimensions:

First, we provide detailed training in modern techniques and concepts of cancer and cell biology. When you graduate, you will have a thorough and broad knowledge of cancer and cell biology and you will have become a world expert in your sub-discipline, be it cell cycle, signal transduction, transcriptional regulation, apoptosis, autophagy, metastasis, etc.

Even more importantly, we will teach you how to identify important questions, plan long-range strategies for resolving these questions, interpret outcomes rigorously; and present your plans and findings clearly and persuasively. You will become an expert in grant writing. These skills are not specific to cell or cancer biology. Acquiring these abilities will allow you to succeed in a wide range of professional positions in basic research, industry, and the public sector.

B. Overview of the Course of Study

During your first year, you will carry out 2-3 lab rotations – approximately 12 week stays in different laboratories – with the primary goal of securing a thesis research advisor, but with the important secondary goal of becoming exposed to different research areas. Students must inform the Administrative Program Director (Program Manager) and/or Program Director in advance of each laboratory rotation and are expected to commit for the full duration of each rotation in the approved lab. Any rotations after the 3rd and/or changes must be made in advance in consultation with the Program Director. The Administrative Program Director (Program Manager) and Program Director will assist you in these decisions during this first year. You will also complete a series of required courses designed to provide you with a strong foundation in modern cancer and cell biology. By the end of this year (typically on or before June 30th), you must secure a thesis advisor and begin research work in your advisor's laboratory.

At the end of your first year, you are required to complete an Individual Development Plan (IDP). A source of the IDP can be obtained via the FASEB/AAAS site at <http://myidp.sciencecareers.org/>. You will need to meet with your advisor to discuss future career aspirations and lab expectations. You will both sign a program form to indicate you met. While you are not required to discuss the specifics of your completed IDP, it can be a good starting point for discussion. Both the certificate of completion for the IDP and the signed form should be returned to the Program Manager to add to your record. IDPs must be completed by the first semester of the second year and should be updated annually.

During your second year, you will initiate thesis research and take elective courses to complete your course requirements. During this year, you must prepare for and take your Qualifying Exam, demonstrating your preparedness to pursue the Ph.D. degree. Within 4 months of successfully passing the Qualifying Exam, students are required to have a thesis committee in place and to have their first thesis committee meeting (the first thesis meeting should typically occur by October 31st of the Fall Semester after the Qualifying Exam).

In the last 2-3 years, you will devote full-time to research with formal reviews by your thesis committee required during each Fall and Spring Semester. The culmination of your graduate career is the preparation and defense of a dissertation.

The particular course of study you pursue for the doctoral degree can be discussed with the Program Director. After the first year, your thesis advisor will help plan your studies. In all cases, the aim of the doctoral program will be to help you develop competence in research, scholarship, teaching, and professional performance in general, and a knowledge of Cancer and/or Cell Biology as it applies to allied branches of learning. A Masters Degrees may be awarded under some specialized circumstances, described later.

C. Arriving and Beginning the Program

We anticipate that all incoming students to start on the July date indicated by the program unless prior arrangements have been approved by the program director or graduate committee. Arriving in July gives you the opportunity to find housing, arrange for transportation and/or parking, establish your payroll cycle, obtain an ID badge, and begin a research rotation in a laboratory. It is best to have this accomplished before classes begin in the fall. It is anticipated that all students will start by the beginning of Fall Semester.

To help you plan the initial stages of your graduate career, you will meet with the Program Manager. The Program Manager will help you navigate the schedule for your first-year courses and will provide information regarding laboratory rotations. The Program Manager and/or Program Director will process any advanced standing requests, or the transfer of credits for graduate courses you may have previously earned. Additional course requirements and other exceptions designed to tailor the program of study to each student's needs and interests may be recommended by the Admissions Director, Program Director, Qualifying Exam Committee, or Thesis Committee and must be approved by the Graduate Committee. Students also have the right to appeal any course requirement decisions to the governing board for the Program, the Graduate Committee.

D. General Information

For the first year of graduate study, you will concentrate on course work and laboratory rotations to familiarize yourself with the research programs and faculty in the Cancer & Cell Biology Graduate Program. Comprehensive (doctoral qualifying) exams are taken after core courses are completed successfully. The remainder of your graduate study is focused on completion of course requirements and dissertation research as developed between you and your thesis advisor in concurrence with your Thesis committee in order to complete all degree requirements in 5 years or less.

All students must complete an updated CV upon the request of the Graduate Program Manager, at least annually.

Good Academic Standing is defined as completing each of the Program's Academic Requirements (Section G) in a timely manner.

Academic Probation: If at any time a student fails to meet a Program Academic Requirement (didactic and/or program guidelines/timelines), the student will be placed on Academic Probation for a period not less than one semester. A Letter of Probation will be sent to the student and to the student's advisor. The Letter of Probation will describe the action that the student must take to return to Good Academic Standing with the program. A copy of the letter of probation will be added to the student's record. The Graduate Committee has the authority to extend Academic Probation if it deems the student has not made adequate progress toward rectifying the Academic Probation. Upon a student's reinstatement to Good Academic Standing, a Letter of Reinstatement will be added to the file.

E. Dismissal

Students may be dismissed for misconduct, violation of University rules, or failing to maintain Good Academic Standing. If at the end of the first year a student fails to secure a laboratory and advisor for their thesis research, the student will be subject to dismissal.

A student, who is placed on Academic Probation for more than one issue or has failed to successfully achieve the required action stated in the initial Letter of Probation, will be subject to immediate dismissal from the program. The student may petition the Graduate Committee for waiver of this rule (see below).

A student who has been dismissed due to academic standing may appeal to the Graduate Committee for waiver of this rule if sufficient reason for consideration exists. If the appeal is successful, a decision regarding financial aid will be made independently (i.e., waiver of

dismissal upon appeal does not assure continued financial support). A student granted a waiver will be reinstated into the program on a probationary basis for up to one year. A Letter of Probation will be sent to the student and to the student's advisor. The Letter of Probation will describe the action that the student must take to return to Good Academic Standing. At the end of the probationary period a decision to recommend removal from probation or dismissal will be made by the Graduate Committee. Documentation outlining "Graduate Student Grievance Procedures" and "Graduate Students Misconduct Procedures" is available online at http://www.uc.edu/conduct/Academic_Integrity.html

F. Lab Rotations and Selection of Thesis Advisor

During the first year, two laboratory rotations of approximately 12 weeks each are required, although three are recommended. You must secure a thesis advisor (mentor) by June 30 of your first year. Stipend support after the first year is dependent upon securing a thesis advisor that will provide the subsequent financial support (inclusive of stipend and fees) associated with the program through, at minimum, your fifth year in the CCB Grad Program. Failure to obtain a thesis advisor may lead to dismissal from the CCB program and will end your stipend support by the Program past June 30 of your first year.

Selecting a thesis advisor is the most important decision you will make during your graduate career. Your thesis advisor, more than any other person, course, or event in your graduate career, influences how much you will learn and how well you will perform. While you are exploring possibilities for your thesis advisor, you must keep in mind that the potential advisors are also evaluating whether you are well-qualified to pursue research in their laboratory. **Consequently, you should treat each rotation as an extended job interview. Because an advisor makes a significant financial commitment when accepting a student for PhD study, the advisor must be impressed by your work and inspired by your drive to justify the investment.**

G. Summary of Course Requirements:

The course requirements for the Ph.D. degree in Cancer and Cell Biology are:

- Pass all didactic courses (as listed) with a grade of B- or better.
- One semester of Molecular and Cellular Biology (GNTD7001)
- One semester of Ethics in Research (GNTD7003)
- One semester of Cancer Biology & Therapeutics (CB8080)
- One semester of Grant Writing (CB9025)
- One semester of Mechanisms of Signal Transduction (MG 7024)
- One semester of Biostatistics (BE7022 or BE7089 or BE7061 or MCP8050C or BIOL 8001C)

These courses must be passed with a grade of B- or better. If a student fails a course (a grade of "C+" or lower), they will be required to make up the course by taking it again, taking a remedial course (with the approval of the program director and/or the graduate committee), or taking an oral/written exam within three months after the end of the failed course, with permission from the course director. The precise course of action will be decided by the Course Director and/or the Graduate Committee. (Note that any grade of C+ or lower will result in the student being placed on Academic Probation. See Academic Probation.)

1. Three semesters of Data Critique (CB9023). These courses must be passed with a grade of B- or better
2. Students must take Seminar (CB9015) each semester throughout their graduate career. This is a graded course with metrics determined by weekly attendance and submission of required seminar evaluations. These courses must be passed with a grade of B- or better
3. Students must take Research (CB8081) each semester throughout their graduate career. This course must be passed with a grade of B- or better.
4. The Ethics in Research course (GNTD 7001), which is taken in year one. NIH mandates this short and important course. This is a pass/fail course. Students must pass this course. Ethics retraining may be required during later years in the program and/or depending on the student's financial support (e.g. F31/T32 requirements)
5. Any additional courses that are required by the Program Director, Admissions Director, the Qualifying Exam Committee, or Thesis Committee and approved by the Graduate Committee **must be passed with a B- or better**. Additional electives can be chosen on the basis of agreement between the student, the Advisor, and the Program Director.

Summary:

A minimum of 63 total units of the coursework described below are required:

<u>Minimum Required courses:</u>		<u>Credit Hours</u>
Molecular & Cellular Biology	(26 GNTD 7001)	4
Ethics in Research	(26 GNTD 7003)	1
Data Critique	(26 CB 9023)	6
Grant Writing	(26 CB 9025)	2
Biostatistics	(various options)	3
Cancer Biology & Therapeutics	(26 CB 8080)	4
Mechanisms of Signal Transduction	(26 MG 7024)	2
Seminar	(26 CB 9015)	8
Research	<u>(26 CB 8081)</u>	<u>33</u>
	TOTAL	63

NOTE: If you wish to register for any electives offered by Programs/Departments either within or outside the College of Medicine, you must receive approval from your Thesis Advisor and the Program Director.

1. Transfer of Credits

Some credit for courses taken at other institutions may be transferable, but limits are set on the amount of work completed at other institutions that can be included as fulfilling graduate degree requirements. Submit requests for transfer credit to the Program Manager. The Graduate Committee and Program Director will evaluate such requests.

**REQUIRED CURRICULUM
PHD PROGRAM IN CANCER AND CELL BIOLOGY**

(Numbers in parentheses following course title are course credits)

	Year 1	Year 2	Year 3	Year 4+
SUMMER (0-6 hrs)	Research/ Lab Rotation (1) <i>Provide ORCID #</i>	-QE/Dissertation Research Biostatistics Elective <i>Complete your Individual Development Plan (IDP)</i>	-Dissertation Research -1 st TC Meeting w/in 4 months of QE	-Dissertation Research <i>Dissertation Writing</i>
FALL (12 hrs)	-Molecular & Cellular Biology (4) -Data Critique (2) -Seminar Attendance (1) -Lab Rotation (5) <i>Submitt Updated CV</i>	-Grant Writing (2) -Data Critique (2) -Seminar Attendance (1) -QE/Dissertation Research (7) Biostatistics Elective <i>Submitt Updated CV</i>	-Research (9) -Seminar (1) -Seminar Presentation -TC Meeting <i>Dissertation Writing Submitt Updated CV</i> <i>Present at GSRF & Symposium</i>	-Dissertation Research (9) -Seminar Attendance (1) -Seminar Presentation -TC Meeting <i>Dissertation Writing and Job Search Submitt Updated CV Present at GSRF & Symposium</i>
SPRING (12 hrs)	-Cancer Biology & Therapeutics (4) -Data Critique (2) -Ethics in Research (1) -Signal Transduction (2) -Seminar Attendance (1) -Lab Rotation (2)	-Seminar Attendance (1) -QE/Dissertation Research (8) Biostatistics Elective <i>*QE 1-Aims Page ~mid-March *QE oral exam before end of May</i>	-Research (9) -Seminar (1) -Seminar Presentation -TC Meeting <i>Dissertation Writing</i>	-Dissertation Research (9) -Seminar Attendance (1) -Seminar Presentation (public defense prep 4 th year) -TC Meeting <i>Dissertation Writing and Job Search</i>

COURSE DESCRIPTIONS

Required Courses

CB8080 Cancer Biology and Therapeutics 4 gr. cr. This course is a one semester course that covers a broad spectrum of issues relating to the genesis, progression and treatments of cancer. Some topics that are covered include cell kinetics and cell cycle regulation in normal and cancerous cells, oncogenes and growth factors, tumor suppressors, the genetics of cancer, mutation and environmental exposure, signal transduction and the role of the immune system in cancer. The course includes also a series of lectures on experimental therapeutics, current treatments of specific cancers and mechanism of resistance. The course provides a platform for understanding biology of cancer from both basic science and clinical perspectives. At the conclusion of this course, students are expected to have gained sufficient background in cancer biology so that they can construct hypotheses and design novel approaches for their own graduate research in the field of cancer.

CB8081 Research 1-18 gr. cr. Laboratory research in cancer and cell biology, leading toward a doctoral dissertation.

CB9015 Seminar 1 gr. cr. Formal presentations of current research in Cancer and Cell Biology will be given by speakers from both UC and other institutions.

CB9023 Data Critique 2 gr. cr. The main goals of this course are to teach students critical data analysis and interpretation skills through discussion of specific examples of the current biomedical literature. Students also receive instruction in techniques for effective presentation of data to colleagues.

CB9025 Grant Writing 2 gr. cr. The goal of this course is to introduce students to successful grant writing strategies. Students receive instruction in grantsmanship and participate in grant writing exercises. Completed grants are critically reviewed by instructors and students.

GNTD7001 Molecular & Cellular Biology 4 gr. cr. Primarily a lecture-based course, topics include DNA replication, recombination, and repair; Cell cycle regulation; Transcriptional regulation; Translational regulation; Protein trafficking; etc.

GNTD7003 Ethics in Research 1 gr. cr. A lecture series addressing ethical issues in research including such topics as human experimentation, animal welfare, conflict of interest, and responsible authorship and publication practices.

Biostatistics Electives:

- **BE7022 Intro to Biostatistics course** 3 CREDITS
Offered: FALL, SPRING & SUMMER SEMESTER
Description: Students will learn basic statistics such as mean, median, mode, standard deviation, variance, etc. Topics include probability, parametric statistics such as t tests and one way analysis of variance, and nonparametric statistics including both Wilcoxon tests and Kaplan-Meier estimation of survival. Bayes theorem, discrete (eg Binomial) and continuous probability distributions (eg normal distributions and one variable regression and product moment correlation and rank correlation are covered.
- **BE 7061 Biostatistics in Research** 3 CREDITS
Offered: SPRING SEMESTER
Description: Assessment of diagnostic tests vis-a-vis gold standard procedures. Quantitative markers and ROC (Receiver Operating Characteristic) curves. One-sample and two-sample t-tests. Non-parametric analogues. One-sample and two-sample proportions. Contingency tables and chi-squared tests. Odds and odds ratios. Analysis of Variance. Kruskal-Wallis test. Confidence intervals. Multiple comparisons. Sample size calculations. R software. Descriptive statistics using R. Graphics using R. Data analysis using R. Binary logistic Regression. Model based odds ratios. Conditional logistic regression for matched case-control studies. Multinomial logistic regression. Proportional odds model. Poisson regression models. Multiple regression models and interactions.
- **BE7089 Experimental Design** 3 CREDITS
Offered: FALL SEMESTER
Description: Study of the designs for scientific experimentation including single factor models; models with two or more factors; interactions among factors; hierarchical (nested) models; split-plot designs; repeated measure and longitudinal designs; the effect of fixed and random factors on the analysis; the mixed model; calculation of power; the creation of an appropriate EMS table; and an introduction to multivariate analysis.

- **MCP 8050C Statistics & Experimental Design for the Biomedical Sciences** 3 gr. cr. This is a practical course designed to provide students with a solid foundation and intuitive understanding of statistics for the biomedical sciences. The course covers best practice in experimental design and statistical analysis, scientific rigor, and reproducibility. This course comprises both lectures and workshops.
- **Main Campus BIOL 8001C - Data Analysis** 3 CREDITS
Offered: FALL
Description: This graduate foundation course is an introductory course that takes students through the entire process from formulating biologically relevant questions through experimental design, data manipulation, statistical analysis, interpretation and presentation. No prior experience with statistics is required, but the pace and expectations can be demanding. Some lectures early give way to hands-on data analysis and critical evaluation of the primary literature. Students will work on problems in groups in a computer lab and report in oral or written form. Final independent projects are generally within each student's area of study. The course begins with underlying concepts of linear statistics, data types, hypothesis testing and assumptions. The course centers on univariate response variables and covers t-tests, contingency tables, correlation, basic regression, basic multifactor ANOVA, ANCOVA, General Linear Models, nonparametric tests and resampling. cursory introductions to more advanced topics are chosen based on class composition, and in the past included principle component analysis, logistic regression, or phylogenetic comparative methods.

MG7024 Mechanisms of Signal Transduction 2 gr. cr. Provides a research literature-based view of modern aspects of signal transduction and includes student driven discussions of seminal papers in the signal transduction field. Topics include receptor mediated signal transduction originating at the plasma membrane and covers major effector pathways including those leading to second messenger generation, kinase cascade assembly, and activation of transcription factors. We will be discussing signaling mechanisms related to cellular homeostasis, developmental biology, immunology, and cancer.

****Please note**** Students beyond their fourth year in the Program may be expected to take a 1 gr. cr. hour, in-person ethics course, **GNTD 8005 Scientific Integrity for Researchers**. This course is intended for students who have already completed a responsible conduct of research (RCR) course and serves to fulfill NIH requirements in respect of formal, periodic retraining. This course is typically offered in the spring semester, and you will need to monitor your email closely because the request to take the course will come from the Office of Research Integrity/COM Office of Graduate Education, not Cancer & Cell Biology.

H. Doctoral Qualifying Examination (QE)

During your first year in the Program, you will complete your major course requirements, begin work on your thesis research, and begin preparing for the Doctoral Qualifying Examination, which is administered in the spring semester of your second year in the Program. The Qualifying Examination represents one of the most careful evaluations by the Program of your intellectual development and capability and is a requirement of the University for the Ph.D. This section describes the rules and procedures by which the examination will be conducted by the Graduate Program in Cancer and Cell Biology. At the end of this section, there is also some advice on preparing for the exam.

Overview

The Qualifying Exam (QE) consists of the preparation of an NIH-style research proposal, followed by an oral examination. You will choose a topic for your proposal at the end of your first year and then begin developing your proposal during the “Grant Writing” class, which takes place during Fall Semester of the second year. This course is specifically designed to use the development of your QE proposal as a vehicle for teaching the vitally important skills of constructing a research proposal and presenting scientific information. A schedule of dates will be provided in the Spring of the 2nd Year.

Procedure and Rules

Timeline: The Qualifying Exam will be scheduled to be completed ideally by the end of May in the second year of the program. Under some very special circumstances, students can petition the Graduate Committee (via the Program Director) for an extension of the QE deadline beyond the end of May. (This provision is meant to be requested well in advance and is not intended as a last-minute extension).

The **Qualifying Exam Committee** will consist of three faculty members appointed by the Program as a standing committee who will sit for all student exams and two eligible faculty members that you select, generally in consultation with your advisor. One member of the Committee may be from outside the Program. Your advisor may not serve as a committee member, but generally will be present during the Examination. At its first meeting, the QE Committee will select a chair from one of the 3 standing committee members, who will communicate all decisions and instructions to you, in writing, after each meeting.

Topic: The topic for your proposal must fall within the fields of cancer and cell biology and may be related to the area of your thesis research, but must represent an original proposal developed and written by the student. While this proposal may be similar to your future research endeavors, you may not make use of any studies proposed or previously described by your thesis advisor or members of your laboratory. This or any other instance of plagiarism will be treated as academic misconduct. Your proposal must be original, with aims that you develop and write, but we encourage you to discuss your proposal extensively with your advisor and other faculty members prior to the Pre-Qual. Meeting.

Pre-Qual. Meeting: The prequalifying meeting will be scheduled for all 2nd year students in the spring semester (Details of the specific dates and format will be provided and discussed with the students early in the Spring Semester). Briefly, for the prequalifying exam meeting you are required to prepare a brief outline of your proposal, including background and specific aims (typically the Aims page for your proposal). This document must be provided to all committee members at least 1 week in advance of the meeting. At this Pre-Qualifying Meeting, which usually lasts about 30-60 minutes, Committee members will ask questions to satisfy themselves that your proposal is substantive, feasible, and distinct from prior studies written in your area. Members may also make comments or suggestions as to the scope of your proposal or any particular issues you should be careful to address in your full proposal. The Committee will approve your proposal, or ask you to prepare a modified version to be considered at a second Pre-Qualifying Meeting, or ask you to prepare a completely new proposal. Revised pre-qual proposals are typically due within a week of the original meeting, but specific instructions will be provided by the examination committee.

Required format of the Research proposal:

- The proposal must have a cover sheet that gives the title, the student's name and the date of submission. This same information must be on all subsequent pages.
- The proposal must follow the NIH format for an F31 pre-doctoral fellowship <https://grants.nih.gov/grants/how-to-apply-application-guide.html>
- The text below was extracted from this linked document for specific emphasis on the proposal format:

- **Specific Aims are limited to one page.**

- 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.
- 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 clinical practice, address a critical barrier to progress in the field, or develop new technology. [For the purpose of the qualifying examination, our program is focused on mechanistic research, thus we require that at least one of the aims of your proposal target mechanistic understanding of a cellular or cancer related process].

- **Research Strategy is limited to six pages.**

Organize the Research Strategy in the specified order using the instructions provided below. Start each section with the appropriate section heading — Significance, Innovation, Approach. Cite published experimental details in the Research Strategy section and provide the full reference in the Bibliography and References Cited section.

A. Significance

- Explain the importance of the problem or critical barrier to progress in the field that the proposed project addresses.
- Explain how the proposed project will improve scientific knowledge, technical capability, and/or clinical practice in one or more broad fields.
- 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. Innovation

- Fellowship applications should not include an Innovation section unless specified in the FOA. [For the purpose of the qualifying exams, innovative aspects of the proposal may be included].

C. Approach

- 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.
- Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims.

- If the project is in the early stages of development, describe any strategy to establish feasibility, and address the management of any high-risk aspects of the proposed work.

If an applicant has multiple Specific Aims, then the applicant may address Significance, Innovation and Approach for each Specific Aim individually, or may address Significance, Innovation and Approach for all of the Specific Aims collectively.

- Font must be Arial (11 point).
- Margins must be 0.5 to 1" all around and pages must be numbered.
- The Literature Cited section must include all authors and title of the papers. This section is not included in the 6-page limit.
- The page limitations are not negotiable, thus any Aims page or Research Strategy that exceeds the specified page limits (excluding references) will not be considered.

Oral examination: At the beginning of the oral exam, Committee members will generally ask you to leave the room for a few minutes while they confer on the strengths and weaknesses of the written proposal. You will then be invited back into the room to present your research plan, generally via a PowerPoint presentation. You must be prepared to rigorously defend the background data, hypothesis, and experimental plan (rationales, experimental design, predicted outcomes and anticipated pitfalls/alternatives) included in the written proposal. Committee members may question you on all aspects of the proposal and may also ask questions about related issues or fundamental concepts in any area of Cancer and Cell Biology. Your Thesis Advisor generally will be present during the examination, but must remain silent unless specifically asked questions by Committee members. The recommended length of the Oral Exam is 1.5-2 hours. Committee members will tell you when they have finished asking questions and will ask you and your advisor to leave the room during the Committee's deliberations.

Possible Outcomes of the Examination:

1. **Pass.** The student has demonstrated that they are qualified to move into candidacy.
2. **Incomplete/Insufficient.** This outcome is an option for the committee in cases where the student has been deficient in an area in which the committee agreed that some follow-up evaluation was needed to address the deficiency. This outcome can move to a final pass or fail grade depending on how well the student meets the expectations set forth by the committee to remediate the deficiency.
3. **Fail.** This outcome results when the committee believes that the student has not adequately demonstrated the expected level of knowledge and/or critical thinking to move into candidacy and would be required to repeat the qualifying exam process with a new proposal. The option to continue in the program and repeat the qualifying exam will be based on the recommendation for the qualifying exam committee and the student's mentor followed by an evaluation of the student's overall record in the program by the Graduate Committee. In the event the student is permitted to repeat the qualifying exam, the second examinations for candidacy will occur in the following Fall semester but within six months after the original exam. In this case, the student would be required to formulate and defend an entirely new proposal. Should the student fail to pass the examination on the second attempt, they will be dismissed from the program.

Advice on Preparing for and Taking the Qualifying Examination

The Research Proposal:

The most important part of your work on the proposal, and the part that may take the longest time for you to develop, is *the formulation of a plausible and testable hypothesis*. When you have a good hypothesis, the Specific Aims are easily developed, and the proposal will seem to “write itself” (we’re exaggerating, but only slightly).

It may be possible to prepare a fundable NIH research proposal that does not test a hypothesis, but **an acceptable qualifying exam proposal must propose and test a hypothesis.**

The Oral Defense:

The defense usually lasts 2 hours. You are primarily questioned on the proposal as written; however, you also may be asked about fundamental concepts underlying ideas in the proposal, or even about basic knowledge unrelated to the proposal. It is *strongly* recommended that you practice your oral presentation with your most critical peers such as graduate students or postdoctoral fellows. They will make sure your presentation is clear, concise and does not exceed one hour to leave ample time for questions. For clarity, it is highly recommended that you include a schematic that summarizes the hypothesis and explains how it will be addressed by each Aim.

The defense will begin with your presentation of a summary of the background and significance, followed by the central hypothesis and a brief overview of the aims. In this summary, you should first state succinctly what you are proposing, and then point out why it is important. You should then give a brief summary of your Specific Aims, pointing out how each will help test your hypothesis. (Most frequently, you will be repeatedly interrupted and never really finish this summary).

Then, Committee members ask questions. In evaluation of the grant proposal, we test whether you can present succinctly the significance of the problem selected; whether you have devised experimental approaches to resolve the questions posed; whether you are familiar with the techniques employed and other related techniques used to address similar experiments; whether you can critically evaluate the data you would expect to derive from the proposed experiments and whether you can identify the limitations of these methods and suggest alternative approaches. ***Some of the most important skills you must demonstrate are your ability to defend the rationale behind your hypothesis and choice of experimental systems (experimental design) to test your hypothesis. In addition, your ability to discuss and interpret the possible outcomes of your proposed experiments is necessary to evaluate your level of understanding of the experimental design.***

The Outcome: (see above for scoring information)

Naturally, most students pass, but more than half are asked to do additional work of one kind or another to address deficiencies uncovered by the exam committee before achieving a passing grade. For example, if the Committee felt that part of your proposal lacked sufficient experimental detail, you might be asked to re-write it and resubmit it for final approval. If you did not consider important alternative outcomes, you might be asked to expand on these possibilities. These additional requirements are an important part of the learning experience.

I. Thesis Research and Thesis Committee

Sometime during your second year, as your thesis research begins to take shape, you should form a Thesis Committee. **You are required to form this Committee and hold your first meeting in the subsequent semester (typically the Fall Semester) within 4 months after passing your Qualifying Exam.** The Thesis Committee monitors the progress of your dissertation research on a continuing basis and provides valuable advice on technical questions, new research directions, or alternative approaches. The Thesis Committee includes the Thesis Advisor, at least three additional faculty members from the Cancer and Cell Biology Program, and one faculty member from another program or from another University when appropriate. Details regarding the role and timeliness of thesis committee meetings can be found in section K. Evaluation of student progress is detailed below.

All thesis committee meetings are considered an official record for the student and any thesis meeting documents associated with such meetings need to be submitted to the program manager within 1 month of the meeting and placed in the student's official file.

J. Submission of Thesis

<http://grad.uc.edu/student-life/etd.html>

As your research progresses, meetings with your Thesis Committee will define your specific thesis work requirements for graduation. The minimum requirement for graduation is two manuscripts, one first-authored and one co-authored. At the time of the thesis defense, a first author manuscript must have been accepted for publication and the other manuscript must have been submitted. The papers must represent, in the view of the student's Thesis Committee, significant contributions to the scientific literature and must appear in peer-reviewed journals. Publications that do not meet these criteria include abstracts, brief notes, preliminary communications, book chapters, or review articles, although review chapters may be used to formulate the Introduction Section of the dissertation. Exceptions to these requirements may be granted at the discretion of the thesis committee.

Once given approval from the thesis committee, you should begin writing your thesis, or dissertation. The Program in Cancer and Cell Biology requires submission of the thesis in the form of a combination of published and supplementary material. The bound dissertation consists of (1) Introduction; (2) reproductions of work published or in press; (3) Conclusions; (4) Literature cited in the Introduction and Conclusion sections. Under normal circumstances, reproductions of scientific papers written or co-authored by the student and also additional material as deemed necessary will then constitute the dissertation.

K. Final Defense of Thesis

<https://grad.uc.edu/student-life/graduation/defense.html>

The final defense of your dissertation consists of the presentation of a seminar that is open to all members of the academic community and the public, followed by an oral examination by your Thesis Committee. All CCB graduate students, regardless of where their PI's laboratory is located, are required to defend in the Vontz's Rieveschl Auditorium. After the seminar, the general audience is free to ask questions and make comments. After the audience leaves the room, members of the Thesis Committee will ask pertinent questions of the candidate. At the conclusion of the defense, the student will withdraw, and the Thesis

Committee votes to accept or reject the dissertation and its defense. Then, you return to the room to receive the decision of the Thesis Committee. Because the Thesis Committee has closely monitored the thesis research throughout its course, acceptance of the thesis at this stage is generally a formality. Upon a favorable decision, the approval form is signed by the committee members and uploaded by the student to the Graduate School's site, as indicated in the instructions provided in the Graduate School's "Checklist" for graduation. At least 4/5 of the voting members of the dissertation committee must approve the dissertation.

L. Overview and Summary of Academic Requirements Listed Above

1. Complete at least two lab rotations and secure a thesis advisor by the end of the first year (by June 30). The program faculty and staff may assist the student during the year to choose beneficial lab rotations that are more likely to be of interest to the student, which have funding to take a student and which may ultimately be more likely to lead to lab placement. **However, it is ultimately the student's responsibility to find a lab and thesis advisor in which to finish out their program. Failure to procure an advisor may lead to dismissal from the program, based on the determination by the Graduate Committee.**
2. Pass the required Core Curriculum courses listed above, and any additional courses required as outlined with a **B- or better**. Any grade lower than a B- is subject to Academic Probation. If a student fails a course (any grade below a B-), they will be required to make up the course by retaking the course or will be provided a remediation plan as determined by the Program Director and/or the Graduate Committee. Failure to fulfill this requirement, or any alternative requirement outlined in the probation letter, is grounds for dismissal from the Program.
3. Participate in the series Data Critique/Presentation and Intro to Grant Writing/Review for the first two years;
4. Attend the Cancer and Cell Biology Seminars during all semesters offered;
5. Complete your Individual Development Plan (IDP) at the end of your first year of Graduate Studies at <http://myidp.sciencecareers.org/>.
6. Any grade of F will result in dismissal from the program, although the Graduate Committee may alter this to academic probation during the following semester, if there are extenuating circumstances. Any student who is placed on academic probation two times may be dismissed from the doctoral program unless there are extenuating circumstances as determined by the Program Director and the Graduate Committee.
7. Take the Qualifying Exam by the end of the second year. In special circumstances, extensions may be granted by the Program Director and/or Graduate Committee. If a student fails the first exam, a second exam may be scheduled, but students who fail to pass the second exam will be dismissed from the Program.
8. Present your research in years 3 and above at the annual Program/Departmental/College Symposium.
9. Present your research in years 3 and above at the annual Graduate Student Research Forum.
10. Form a thesis committee and hold the first meeting during the Fall Semester within 4 months of passing your Qualifying Exam
11. The thesis committee must meet subsequently during the Fall & Spring Semesters and complete thesis committee documents that the student will provide to the

Program Manager within the established semester deadlines. The student must maintain satisfactory progress in research or will be subject to Academic Probation.

12. Complete a total of 90 graduate credit hours for the doctoral degree within the specified time stipulated by the rules of the Graduate School of the University of Cincinnati
13. Submit and orally defend a satisfactory doctoral dissertation within 5 years after entering the Program. (Extension beyond 5 years requires approval of the student's Thesis Committee and the Graduate Committee).

M. Evaluation of Student Progress

1. Your overall progress in the program is monitored by the Program Manager and reviewed each semester by the Program Director and Graduate Committee. These reviews include:
 - rotation evaluations
 - grades in didactic course work
 - participation and attendance in the weekly Cancer Biology Seminar Series
 - your qualifying exam performance
 - your research progress
 - publications and awards

The purpose of these reviews is to identify and resolve any problems that might hinder your progression through the program.

2. During the first year, you will receive a grade and written evaluation of your performance from each rotation mentor. The "Rotation Review Sheet" should be completed along with you and/or discussed with you in detail in-person. These evaluations are added to your program files and may be shared with other faculty members, upon the faculty member's request, who have a legitimate educational interest in the information, such as a potential rotation mentor. You will be notified through email if your rotation evaluation(s) are shared with a faculty member.
3. Thesis Committee meetings. As outlined in section G, the role of the Thesis committee is to monitor student progress of their dissertation research, thus timely meetings are essential for an effective Thesis Committee. The first Thesis committee meeting can be held at any time that the advisor and student think is appropriate but must be held in the following Fall semester after successfully passing the qualifying examination (typically within 4 months of passing the exam and prior to Oct 31 of the Fall Semester). Thereafter, all students must hold a Thesis Committee Meeting during both the Fall and Spring semesters each year. **To ensure that students (and their mentors) are diligent about meeting these requirements, failure to have a meeting and/or to provide the proper documentation to the Program Manager before the end of each semester will result in a grade of Incomplete (I) for Research in that semester.** Students that receive an "I" grade will receive a warning letter and are subject to being placed on Academic Probation, should an "I" be received again. The Student/Advisor progress forms are available on the landing page of the CCB website in the lower right corner and must include a summary of the experimental progress during the previous six months, since the last Thesis Committee meeting. This summary will also include plans for the expected

- progress over the next 6 months as agreed to by the Committee. The summary must be signed by both the Advisor and the Student and returned to the Program Manager within 1 week of the Thesis Committee meeting. In addition, each Committee member must fill out forms that summarize their assessment of the progress and direction forward. These forms will accompany the Student/Advisor summary when returned to the Program Manager.
4. Second- through fourth-year students may present their research at the annual Program Symposium (when available), field questions on the research, and receive critiques from judges.
 5. Third year students and above must participate in the annual College of Medicine Graduate Student Research Forum and receive judges' comments and evaluations.
 6. Third year students and above present their research as part of the Vontz Center Cancer Seminar/Work in Progress Series.
 7. Within 1 year of passing the qualifying exam, the expectation is that students will write for and submit an independent fellowship/grant application. For domestic students, the expectation is submission of a F31/F30 (NRSA) proposal to the NIH. Extramural grants from societies, foundations and associations are also considered as fulfillment of this requirement. As international studies are not eligible to apply for F31/F30 proposal, additional opportunities should be sought out. Any request for an exception to this requirement should be made to the Program Director and/or Graduate Committee.

N. Other Requirements

1. Students must abide by the University's Student Code of Conduct http://www.uc.edu/conduct/Code_of_Conduct.html . As described in section VI, students who commit serious acts of academic misconduct or non-academic misconduct will be dismissed from the Program.
2. You are expected to spend full-time on the Program and should not seek employment outside the Program. Any student considering outside employment should first discuss this with their thesis advisor and the Program Director. Any outside employment must be approved by the Graduate Committee.
3. To provide a digital identifier to recognize your professional contributions, students should registrar to for an ORCID within two months of starting the CCB program.

O. Requirements for the Doctor of Philosophy Degree

<https://grad.uc.edu/fac-staff/handbook/doctoral.html>

1. The doctoral degree will be granted for no less than the equivalent of three years of full-time graduate study. All requirements for the doctoral degree must be completed within nine (9) consecutive academic years of the date of matriculation into the program. A doctoral student must be enrolled for at least 10 graduate credits in program in each of two semesters during a span of four consecutive semesters. (See Doctoral Degrees Policies and Procedures, Course of Study in the Graduate Student Handbook)

2. Satisfactorily complete all required course work by the end of the second year and accumulate 63 graduate credit hours, including at least 30 credit hours in CCB graduate courses.
3. Complete all doctoral course work and lab studies with a grade of B- or higher.
4. Successfully complete the oral and written portions of the qualifying examination for admission to candidacy by the end of the second year. You must be a candidate for the doctorate degree for at least seven months before the degree is granted.
5. Submit a dissertation based on an experimental investigation of considerable magnitude, giving evidence of originality and ability for independent research. Completion of two manuscripts of data is the expectation, although exceptions may be granted at the discretion of the thesis committee.
6. Public notification of the defense of the dissertation should be *not less than two weeks* before actual defense takes place.
7. Give a completed copy of the dissertation to every member of the Thesis Committee at least one week before the date of the public defense of the dissertation.
8. Successfully defend dissertation.
9. Satisfactorily complete all Graduate Program in Cancer and Cell Biology requirements.
10. All N and I grades must be removed from transcripts.
11. Graduate checklist. A comprehensive guideline for graduation is available on the Graduate Studies website: www.grad.uc.edu/graduation. (*Please refer to Guidelines and Procedures for Doctoral Students*)
12. Complete the online Graduation Application (you will receive a confirmation). (*Please refer to Deadlines and Online Application for Graduation*).
13. Complete and submit the online ETD Survey.
14. Submit your ETD file to Ohio Link by the deadline (for electronic dissertation). (*Please refer to Submitting your Thesis or Dissertation*)

Additionally, please refer to Appendices 1-4 under **Guidelines and procedures for Doctoral Students** on the Graduate Studies website for additional information and forms that are required as part of the graduation process.

P. Requirements for M.D./Ph.D. Degree in the Cancer and Cell Biology Graduate Program

1. For MSTP students, the medical courses taken in the first and second years will fulfill the requirement of taking the first-year graduate core curriculum courses.
2. MSTP students are required to take the Data Critique (2 cr.) and Grant Writing courses in the Fall of their first PhD year and the Cancer Biology and Therapeutics (4 cr.), Biostatistics* (3 cr.) and Ethics in Research (1 cr.) courses in the Spring. The seminar course is also required for all semesters.
3. Because of their advanced standing at entrance to the program, MSTP students should complete their Qualifying Exam prior to June 30 in the first year of their Ph.D. training.
4. All other non-course requirements are the same as for the Doctor of Philosophy Degree.

Q. Policy Regarding Master's Degree

The Program in Cancer and Cell Biology offers a curriculum leading to the Masters of Science Degree. In addition, the Graduate Committee recognizes that certain conditions may arise in which a student might not be able to complete the requirements of the Ph.D. Such conditions might include, but are not limited to, the following: 1) inability to pass the

Ph.D. qualifying examination and subsequent retesting; 2) relocation of a spouse to a site not easily accessible to Cincinnati; or 3) hardship, either financial or emotional. In contrast, inability to pass (with a grade of B or better) required course work disqualifies a student from seeking a Master's of Science Degree.

In the event that a student feels that they are unable to continue in the Ph.D. program, but does feel that significant time and effort have been invested in advanced studies, the student should petition the Graduate Committee requesting permission to seek the Masters of Science Degree. The petition should clearly state the reason or reasons for this action. The Graduate Committee will notify the student and Program Manager of its decision in writing as expeditiously as possible. Upon a positive recommendation from the Graduate Committee, the student should propose a Master's Thesis Committee, consisting of three members, all from the Program in Cancer and Cell Biology. The Graduate Committee must approve the request for a Master's Degree and approve the composition of the Master's Thesis Committee. If the Graduate Committee approves the request, the student will be told to begin writing a Master's Thesis. If the Graduate Committee denies the request, the student's program will terminate immediately.

The Master's Thesis may take either of two forms (at the discretion of the Thesis Committee). If the student has produced significant laboratory data that has tested a hypothesis, then this information should be used as the foundation for the thesis. The format should be similar to that for the Ph.D. dissertation. In the event that there is insufficient data to formulate a thesis, then the student may write a comprehensive review of a topic decided by their Master's Thesis Committee. It is anticipated that either of these manuscripts will form the basis for a publication. At least two of the three Master's Thesis Committee members must approve the thesis. The length of stipend support for students pursuing the Master's Thesis will be made on a case by case basis in consultation with the thesis advisor and approval by the graduate committee.

Summary of Requirements for the Master's Degree

1. Establish a Master's Thesis Research Committee and satisfy requirements of the Graduate Committee.
2. The minimum requirement for the master's degree is the equivalent of one academic year of full-time graduate study, consisting of at least 40 graduate credits, in one program or one field completed to the satisfaction of the candidate's Thesis Research Committee.
3. Review the requirements/guidelines for graduation as posted on The Graduate School website <http://grad.uc.edu/>
4. Submit a thesis based on an experimental research project. Under certain unusual circumstances, an alternative to the research project may be substituted.
5. Majority of Committee must approve the thesis.
6. All NG and I grades must be removed.
7. Fill out form for conferral of the degree in absentia (if applicable).
8. Submit online application for graduation <http://grad.uc.edu/>

UNIVERSITY POLICIES

(Program Requirements in Italics)

III. GRADUATE CREDITS AND GRADING PRACTICES

A. Course Load

1. Students should register for at least 12 credits (but not to exceed 18 credits) for Fall, and Spring Semesters exclusive of audit credits.
2. Graduate Research Assistants who are over 90 credits should register as instructed by the program for future semesters.
3. Part time status is not typically permitted but may be dependent on total credit hours toward the 174-rule.
<https://grad.uc.edu/fac-staff/handbook/financial-support/174-rule.html>
4. Generally, no outside work is permitted and if considered must be approved by the Graduate Committee. Please see Section VI, Part F for information concerning professional experiences such as internships or co-ops.

B. Graduate Assistants and University Graduate Scholarship Recipients

Students receiving Graduate Assistantship Scholarships (GAS) or University Graduate Assistantships (UGA) must carry a full-time course load (10 credits or more) each semester exclusive of audit credits. Under ordinary circumstances, assistantships and tuition scholarships will not be awarded to students who have accumulated 174 or more graduate credit hours (140 or more graduate credit hours for previous MS recipients). Students must register for a minimum of 12 graduate credit hours each semester for the academic year unless directed by the program otherwise. *First year students will register for summer classes during their first summer. Some students receiving training grants may be required to register for a summer class.*

If a student withdraws from a class funded by a GAS, the GAS is cancelled immediately and the student is responsible for the tuition balance, based on the date of withdrawal. Students may receive GAS support for audited courses only after the first 12 graduate credit hours.

C. Teaching Policy

1. Teaching Assistantship (TA) Policy

The Graduate Education Office will periodically advertise Teaching Assistantship (TA) opportunities to graduate students. TAs are offered to graduate students who are interested in broadening their scientific, communication and inter-personal skills in preparation for a variety of careers in academia, education, government and industry. TA's are expected to attend all class sessions of the course and play an active role in designing, implementing and (most likely) grading sections of the course. The time commitment per week would be negotiated with the relevant Course Director. The Graduate Education Office provides more information on application requirements when advertising opportunities.

A TA stipend is in lieu of the normal Graduate Assistant (GA) stipend in operation at the time; it is not a supplement to the GA stipend. In addition to the financial support for the semester, a TA opportunity is a great way to gain teaching experience, perhaps in conjunction with UC's Preparing Future Faculty (PFF) program.

<https://grad.uc.edu/development/pff.html>

Interested students must meet the following criteria:

- Be in Good Academic Standing with the program
- Obtain permission from your mentor and the Program Director and/or CCB Graduate Committee
- Submit in writing (email) to the Program Manager the desire to become a TA prior to completing any part of the TA application process

There are currently no TA opportunities offered through the Cancer Biology Department; however, there is a Graduate Fellow in Course Administration position offered each spring semester.

2. Graduate Fellow in Course Administration

The Graduate Program in Cancer Biology offers Fellowship(s) in Course Administration for select courses. These Fellowships will provide students with experience in administrative course management, including but not limited to instructor interactions, technology support, and exam logistics. The time commitment per week would be specific to the requirements of the relevant Course Director.

A stipend in an amount to be determined may be offered to partially offset graduate stipend support. The funds will not increase a student's total compensation. Students who receive support from Fellowships are encouraged to work with their advisors to repurpose laboratory stipend support funds for other aspects of graduate student development, such as experimental or travel support. The stipend amount must be used by May 31st of the same year.

Interested students must meet the following criteria:

- Be in Good Academic Standing with the program
- Be post-qualified
- Obtain permission from your mentor and the Program Director and/or CCB Graduate Committee

D. Grading Practices

Final grades may be viewed online through Catalyst, the university's student information system. (<https://catalyst.uc.edu>) approximately five business days after final exams. Students can access an unofficial transcript at any time through Catalyst as well as request an official transcript.

Grading Scales and Definitions can be found at
http://www.uc.edu/registrar/faculty_resources/grading_scales.html#grad

Graduate Division grades include:

Grade	Description	Quality Points
A	Excellent	4.0000
A-	Good	3.6667
B+	Good	3.3333
B	Good	3.0000
B-	Satisfactory	2.6667
C+	Failing in Cancer & Cell Biology Graduate Program	2.3333

C	Failing in Cancer & Cell Biology Graduate Program	2.0000
F	Failure	0.0000
P	Pass (Pass/Fail courses only)	N/A
T	Audit	N/A
I	Incomplete	0.0000
I/F	Failure	0.0000

If "I" grade remains on student record at the end of 11 months after term has ended, the grade will convert to I/F (Failure). No grade quality points during the first year after the "I" is incurred; thereafter, zero quality points and the "I" changes to I/F. A student who receives an F is subject to termination from the program.

IV. REGISTRATION <http://catalyst.uc.edu>

A. When to Register

While you may receive notifications from Catalyst for when you are eligible to register for courses, the Program Manager will email students with the specific courses and number of credit hours and a deadline to register each semester. If you are interested in taking elective courses or applying for a TA opportunity, you should contact the Program Manager as far in advance as possible. See information regarding TA (Teaching Assistantship) criteria if applicable. The Catalyst website allows students to view class offerings, register for classes, view and pay bills, check grades, and request transcripts.

B. Web Registration

All students are required to enroll themselves in classes each semester by the deadline provided by the Program Manager. Students should access the following link to view the most up-to-date information on using Catalyst, such as searching for classes, adding/dropping classes, viewing grades, paying bills, and viewing financial aid. This site also includes "How-to Guides" and "Quick Tutorials" for your reference.

<https://www.uc.edu/catalyst/resources/students.html>

C. Late Registration

Subject to change. Please check the Registrar's website for more information:

<https://www.uc.edu/about/registrar/registration.html>

Effective Summer Semester 2018, a \$25 per-class late registration fee will be assessed for each registration occurring after the last day to drop classes for the full semester (i.e., after day 16), and after the last day to drop classes for each session within the semester.

Please note: If you are assessed a late fee due to failure on your part to register on time, you will be responsible for paying the late fee; the graduate program will not cover that expense.

D. Registration Change Procedures

Subject to change. Please check the Registrar's website for more information:

https://www.uc.edu/registrar/policies_and_procedures/add_drop_withdrawal.html

Alterations to the student's schedule involving the addition of one or more classes, changes in class sections, or changes in credit status, may be submitted by logging in to the [web registration system \(Catalyst\)](#). The "Registration Change (Add/Drop) Form" may be found at <https://www.uc.edu/about/registrar/registration/registration-how-to-guide/submit-add-drop-form.html>.

From the eighth (8th) day of the term through the 16th day of the term, additions to a class schedule requires only the approval of the instructor. Thus, only the class instructor's signature is required on the "Registration Change (Add/Drop) Form" through the 16th day of the term. A college signature is not required.

Beginning with the 17th day of the term, however, both the approval of the instructor and the college are required, and so the "Registration Change (Add/Drop) Form" must be signed by both the instructor and a representative of the college offering the class.

E. Audit Regulations

Subject to change. Please check the Registrar's website for most current fee schedules at <http://www.uc.edu/registrar/calendars.html>

The audit option is intended for cases in which course work is desired or advised but in which a grade for credit purposes is deemed unnecessary by the student in consultation with their advisor. Admissions and conditions for participation in audit courses are at the discretion of the instructor, who is not obligated to accept a student for audit. Graduate students generally register to audit a course to obtain remedial/deficiency instruction in major or minor areas of their programs of study.

Audit hours do not count toward the credit hour limit (as a condition of eligibility for financial assistance), nor are they included in the determination of full-time status. Such hours may be charged to a tuition scholarship only if at least 12 graduate credits are taken that same semester and if the total is less than 19 credits. Also, no more than one audit course per semester should be charged to a tuition scholarship.

F. Pass/Fail

An instructor may request approval for pass/fail grading for an individual student in his or her class prior to the first day of class. A graduate student can take a course on a pass/fail basis when approved by his or her advisor and instructor. An instructor is not required to accept a student on such a basis.

V. ADMINISTRATION OF PROGRAM

A. Program Officials

The Program Director(s) is selected by the Chairperson of the Department of Cancer Biology from a slate of one to three candidates nominated by the Graduate Committee acting in the absence of the current Director. The Director must be a full-time faculty member in the Department of Cancer Biology.

The Graduate Committee consists of the Program Director(s), Admissions Director, Program Manager and 2-3 members of the faculty in the Program in Cancer and Cell Biology. Each year, the Graduate Committee members will be appointed from a slate of candidates nominated by the Director of the Program, Chair of the Department of Cancer Biology, or the Graduate Program Faculty. One student representative, who has full membership in the Graduate Committee, is elected by the Cancer and Cell Biology Graduate Student Association (GSA) for a one-year term.

B. Director of the Program

The Director of the Program represents the graduate program at the college, university, and national level. The Program Director is charged with appointment of the Chair of the Admission Committee, and the formulation of the Graduate Committee. The Program Director oversees all financial aspects of the graduate program, has ultimate responsibility for the program, reports to the faculty, and serves on the Committee for Graduate Education in the University of Cincinnati, College of Medicine.

C. Recruitment Committee

The Admissions Director oversees all aspects of graduate student recruitment and brings forth candidates to the Graduate Committee and Program Director for recommendation for admission to the Program. This Chair is the main contact for candidates until official enrollment into the program.

D. Graduate Committee

The Graduate Committee is the decision-making body of the graduate program. The committee is chaired by the Director of the Program, and is comprised of the Program Coordinator/Manager, the Director of Admissions, 1 graduate student representative (elected by the students for a 1-year term), and 2-3 additional faculty members from the program. The Program Coordinator/Manager is a nonvoting member of this committee. The Committee reviews the progress of students in the program on a frequent basis; approves Qualifying Exam and Thesis Committees for students; and oversees the administration of the Program, including the recruitment and admission of students, the curriculum and other requirements for the Ph.D. degree, student stipend levels, and other issues concerning the conduct of the Graduate Program in Cancer and Cell Biology. The Graduate Committee judges whether student academic performance is acceptable and can decide any disciplinary actions. The Graduate Committee also investigates and determines appropriate penalties in instances of alleged academic misconduct or non-academic misconduct in conjunction with University policies.

E. Graduate Student Representatives

One Graduate Student Representative, elected annually by the graduate students in the Program, serves as a member of the Graduate Committee with full voting power. The representatives have the responsibility to bring concerns of the graduate students to the attention of the faculty.

F. Qualifying Examination Standing Committee

A standing committee of examiners for the qualifying examination is appointed by the Program Director and approved by the Graduate Committee. Three examiners from this committee will sit for each qualifying exam to ensure consistency in the examination process for the group of students being evaluated that year. The overall size for the standing committee will be determined each year depending on the size of the student class to be evaluated. Alternate committee members from the graduate program faculty can be appointed by the Program Director as needed to overcome conflicts of interest and/or significant scheduling conflicts.

G. Grievance Committee

The Grievance Committee is responsible for dealing with student grievances according to University policy. The committee is appointed by the Director of the Program whenever an issue is brought to the attention of the Program.

H. Role of Administrative Support Staff

The Cancer and Cell Biology Graduate Program is based in the Department of Cancer Biology at the University of Cincinnati. The administrative support staff is comprised of employees of the Department of Cancer Biology with a portion of their duties being devoted to the Program. The Cancer and Cell Biology Program Manager is the main contact person for the Program. Major duties include but are not limited to assisting in recruitment and admission of new students, ensuring that students are properly registered for courses each semester, maintaining student records, and updating the Cancer and Cell Biology Graduate Program Handbook. Questions or concerns related to the Program should first be brought to the attention of the Program Manager who will forward them to the appropriate individual.

VI. SPECIAL RULES AND PROVISIONS

A. Academic Honesty

Scientific inquiry is a community endeavor founded on honesty, trust and cooperation. We expect all students participating in the Program in Cancer and Cell Biology to uphold the highest standards of behavior. All students must read and abide by the standards outlined in the University of Cincinnati's Student Code of Conduct. In addition, the Program in Cancer and Cell Biology provides instruction in appropriate scientific behavior as part of the Graduate Student Journal Club and the course in Academic Conduct.

Allegations of academic misconduct are investigated via a standard process described here <https://grad.uc.edu/fac-staff/handbook/institutional/conduct.html>

Acts of academic misconduct are considered extremely serious and, generally, any student found to have engaged in an act of academic misconduct will be dismissed from the Program in Cancer and Cell Biology.

The Student Code of Conduct describes Academic Misconduct as including, but not limited to):

CHEATING: Any dishonesty or deception in fulfilling an academic requirement, such as:

1. Use and/or possession of unauthorized material or technology during an examination (any written or oral work submitted for evaluation and/or grade), such as tape cassettes, notes, tests, calculators, or computer programs.
2. Obtaining assistance with or answers to examination questions from another person with or without that person's knowledge.
3. Furnishing assistance with or answers to examination questions to another person.
4. Possessing, using, distributing, or selling unauthorized copies of an examination, or computer program.
5. Representing as one's own an examination taken by another person.
6. Taking an examination in place of another person.
7. Obtaining unauthorized access to the computer files of another person or agency, and/or altering or destroying those files.

FABRICATION: The falsification of any information or citation in an academic exercise.

PLAGIARISM:

1. Submitting another's published or unpublished work, in whole, in part, or in paraphrase, as one's own without fully and properly crediting the author with footnotes, citations or bibliographical reference.
2. Submitting as one's own, original work, material obtained from another individual or agency without reference to the person or agency as the source of the material.
3. Submitting as one's own, original work, material that has been produced through unacknowledged collaboration with others without release in writing from collaborators.

AIDING or ABETTING ACADEMIC MISCONDUCT: Knowingly helping, procuring, or encouraging another person to engage in academic misconduct.

In addition, the Student Code of Conduct covers acts of non-academic misconduct that include a variety of inappropriate conduct, including theft, unauthorized possession of weapons, threatening others, etc. You should be aware that harassment, particularly sexual or racial harassment, is unacceptable. Acts of non-academic misconduct are subject to a wide range of penalties, but serious violations may lead to suspension or dismissal from the Program.

B. Sexual Harassment

The university does not tolerate sex discrimination, sexual harassment, or retaliation and takes steps to ensure that students, employees, and third parties are not subject to a hostile environment in university programs or activities. The university responds promptly and effectively to allegations of sex discrimination, including sexual harassment and retaliation. It promptly conducts investigations and takes appropriate action, including disciplinary action, against individuals found to have violated its policies, as well as provides appropriate remedies to complainants and the campus community. The university takes immediate action to end a hostile environment if one has been created, prevent its recurrence, and remedy the effects of any hostile environment on affected members of the campus community.

To report incidences of sexual harassment, sex discrimination, or retaliation:

Call the Title IX office - (513) 556-3349

Send an email - titleix@uc.edu

Make a report online via Title IX website www.uc.edu/titleix

Walk over to talk to the Title IX Office 3115 Edwards 1, 3rd Floor 45 Corry Blvd. Cincinnati, OH 45221-0158

Ask the Title IX Coordinator to come to you

Anonymously via Ethics Point

C. Non-Discrimination Policy

The University of Cincinnati does not discriminate on the basis of disability, race, color, religion, national origin, ancestry, medical condition, genetic information, marital status, sex, age, sexual orientation, veteran status or gender identity and expression in its programs and activities.

The university does not tolerate discrimination, harassment, or retaliation on these bases and takes steps to ensure that students, employees, and third parties are not subject to a hostile environment in University programs or activities.

The university responds promptly and effectively to allegations of discrimination, harassment, and retaliation. It promptly conducts investigations and takes appropriate action, including disciplinary action, against individuals found to have violated its policies, as well as provides appropriate remedies to complainants and the campus community. The university takes immediate action to end a hostile environment if one has been created, prevent its recurrence, and remedy the effects of any hostile environment on affected members of the campus community.

D. Right to Review Records

Students, once enrolled, have the right to review their educational records, except for those excluded by law, such as records maintained by a physician or psychiatrist, or parents' financial statement. Educational records are maintained in such offices as Student Records, the different College Deans' Offices, program offices, Student Financial Aid, Career Development and Placement, and Educational Advising.

In order to gain a review of such records, along with any appropriate explanation or interpretation, the student should first address the proper university, collegiate, or Program office. Should the student encounter any difficulty in obtaining a review of the student record they may appeal to the Family Educational Rights and Privacy Act Committee. It is the policy of the University of Cincinnati that the kinds of student records referred to in this statement will be reviewable by any qualified student at any reasonable time. Copies of any portion of the record will be provided at cost, except transcripts of students' permanent academic records for which the University's transcript policy will apply.

It is the policy of this institution that all student records, other than "Director Information," are to be treated with confidentiality so that the only access afforded University faculty or staff is on a "need-to-know" basis. The University considers the following information as "Director Information": The student's name, address, telephone number, college, class, major field of study, dates of attendance, registration status, and degrees and awards received. The office responsible for the maintenance of any particular student record will be responsible for seeing to it that such confidentiality is maintained.

E. Grievance Procedures

Any graduate student who believes that they have valid grounds for a grievance should prepare a written statement of the grievance setting forth the specific allegations with reasonable particularity and submit it as follows:

- a. To the Director of the Program for grievances against a faculty member or an agency associated only with that program with a copy simultaneously sent to the University Dean.
- b. To the college dean for grievances against faculty members in two or more programs of that college or a college-wide agency with a copy simultaneously sent to the University Dean.
- c. To the University Graduate Dean for grievances against faculty members in two or more colleges or a university-wide agency.

Program Review: Within one academic calendar week after the Program Director receives such a statement of grievance, they will appoint an ad hoc review committee consisting of three disinterested members of that college's graduate faculty (excluding them self) and two disinterested graduate students, all drawn from that program, and will inform the grievant and all other parties to the grievance of these nominees. The grievant and/or all

other parties to the grievance may challenge the disinterestedness of any nominee. When a committee acceptable to all parties to the grievance is appointed, this committee will convene within one academic calendar week after their appointment.

F. Internships and Co-op Opportunities

During your time in the Program, you may be interested in co-op/internship opportunities to enhance your career development. The Graduate Program does not actively offer these co-ops/internships, but supports the benefits of these opportunities as long as they adhere to the guidelines below.

Important: *Students must be in Good Academic Standing and committed to the CCB Graduate Program and the completion of their dissertation research to be considered for an internship. The outcome of the internship will always be secondary to completing and defending your dissertation research. For example, if you are offered a job through a co-op/internship opportunity, this will in no way negate your need to return to the program to complete your dissertation to the satisfaction of your Thesis Committee prior to being awarded your degree. Finally, the time away from your research while pursuing an internship will likely delay your graduation.*

- a. Any co-op/internship must be approved by your mentor, who is under no obligation to approve the opportunity.
- b. The co-op/internship opportunity should relate to your thesis research in some significant way.
- c. Any payments associated with the co-op/internship must adhere to the collateral employment guidelines of the CCB program (i.e., co-op payments must be in-lieu of the stipend payment rather than in addition to it).
- d. Concurrence from the majority of your Thesis Committee members is required.
- e. If there are significant concerns that need to be resolved, the opportunity will be referred to the Graduate Committee for further discussion and approval.
- f. Students on a training grant (T32) or individual fellowship (F30/31) will not be eligible for co-ops/internships because they cannot go on and off these fellowships.
- g. Students are limited to one co-op/internship opportunity during their tenure in the CCB Graduate Program.

G. Academic Misconduct Review Procedures Graduate Program in Cancer and Cell Biology

Summary

The Graduate Program in Cancer and Cell Biology has established the following procedures to deal with cases of alleged academic misconduct that may occur among students in the graduate program. These rules, based upon the existing University of Cincinnati Student Code of Conduct, are designed to protect the accused student's rights and to protect the rights of innocent students whose academic integrity and success depend upon association with a University, a College, and a Graduate Program that uphold high academic and ethical standards.

Instances of alleged academic misconduct must be reported to the Dean of the College of Medicine or the University Student Conduct Officer. Informal procedures described in

the Student Code of Conduct may resolve the matter. If not, the formal procedures described below shall be implemented. The result will be a recommendation for appropriate action, which may range from exoneration to dismissal from the University. Recommendations may be appealed as described in the Student Code of Conduct.

Academic Misconduct

Academic misconduct is defined by the University of Cincinnati's Student Code of Conduct and includes, but is not limited to, aiding and abetting academic misconduct, cheating, fabrication, plagiarism, and violating ethical or professional standards. Additional information from the Office of Student Conduct and Community Standards, including the university's Student Code of Conduct and policies on Academic Misconduct, can be found at the following link: <https://www.uc.edu/conduct.html>.

Allegations of Misconduct

First Level Resolution

Instances of academic misconduct may occur within the context of courses, laboratories, seminars or other academic settings. Therefore, allegations of academic misconduct may originate with faculty, students, or staff. The person suspecting misconduct must inform the student immediately and allow the student the opportunity to explain or respond. If the student is not informed or if no further action is taken within 10 days, the allegation shall be considered dismissed. If conversations between the student and person making the allegation do not resolve the problem to the satisfaction of both, further action is required.

In a course setting, a faculty member who has confirmed that academic misconduct has occurred may alter a grade or may assign a failing grade for the paper, exam or course. If such action is taken, the faculty member must notify the Dean of the College of Medicine and the Director of the Graduate Program in Cancer and Cell Biology within 10 days after informing the student. In settings other than courses, the person(s) bringing charges of academic misconduct may initiate appropriate disciplinary action by reporting the incident to a faculty member (in the case of a student accusing another student), the Director of the Program in Cancer and Cell Biology, and the Dean of the College of Medicine. Reports may also be made to the University Student Conduct Officer within 10 days of the alleged offense having occurred. The report should include:

- a. Date of the report
- b. Name(s) of individual(s) involved
- c. Location/activity/setting of incident
- d. Date and time of incident
- e. Description of incident
- f. Names of witnesses
- g. Name and phone number of person(s) submitting report

Any instance of alleged academic misconduct that is not resolved between the student and person making the allegation will be investigated by the Graduate Program in Cancer and Cell Biology Misconduct Review Committee. The Graduate Program in Cancer and Cell Biology Misconduct Review Committee will consist of two faculty members and two students in the Program in Cancer and Cell Biology and a chair appointed by the Director of the Program. No faculty member or student directly involved in the pending allegation may serve on the Cancer and Cell Biology Misconduct Review Committee.

The purposes of the investigation are to determine if the alleged misconduct occurred, to assess its severity, and to explore extenuating circumstances. Procedures to be used during the inquiry must be consistent with those described in the University Student Code of Conduct brochure under "Committee Procedures: Academic and Nonacademic Misconduct". All reports and documentation will be handled confidentially and in keeping with the manner appropriate for student records. Accused students should be given adequate time (generally, at least 48 hours) to prepare for the Misconduct Review Committee's inquiry. Should a student not wish to appear before the Misconduct Review Committee, the case will still be heard.

The Committee may recommend actions ranging from exoneration to expulsion of the student from the Program. This recommendation will be forwarded to the Director of the Department of Cancer and Cell Biology, who will review the incident and inquiry, may solicit additional information, and will recommend final action to the Dean of the College of Medicine.

Second Level Resolution

If First Level Resolution is not achieved, any party may request a Formal Hearing by the College Hearing Committee. Requests for a Formal Hearing must be made to the Dean, in writing. Such requests must be made within 5 days after the Dean has notified the parties that the First Level Resolution process is complete.

The College Hearing Committee shall consist of a Hearing Officer appointed by the Dean, two faculty representatives selected by the Faculty Forum President and two student representatives. The student representatives will be the two Co-Presidents of the OHSGS or their designated representatives. Either party may challenge "for cause" a specific member's presence on the Hearing Committee by notifying the Hearing Officer of the challenge. The Hearing Officer will decide if the challenge is granted. The College Hearing Committee shall be convened within 15 days of receipt by the Dean of a request for Formal Hearing and shall continue until the Formal Hearing is completed. The purposes of the hearing are to determine if the alleged misconduct occurred, to assess its severity, and to explore extenuating circumstances.

Procedures used during the inquiry must be consistent with those described in the University Student Code of Conduct brochure under "Committee Procedures: Academic and Nonacademic Misconduct". All reports and documentation will be handled confidentially and in keeping with the manner appropriate for student records. Should a student not wish to appear before the Hearing Committee, the case will still be heard.

The College Hearing Committee shall then determine what response is appropriate and recommend this action to the Dean. This recommendation will be based on a majority vote. All members must be present to have a quorum. The Hearing Officer will forward the Review Board's recommendation to the Dean, the student and the faculty parties within five days of the conclusion of the hearing. The Dean will notify all parties of the action taken by the Dean within five days of receipt of the Review Board recommendation.

Appeal

A decision by the Dean and any subsequent appeal by the student shall proceed as defined in the Student Code of Conduct.

Summary of Academic Misconduct Procedures

Allegations of Misconduct can be reported to:

Cancer & Cell Biology
Program Director
Susan E. Waltz, PhD 513-558-8675

Cancer Biology
Department Chair
Jun-Lin Guan, PhD 513-558-0114

Dean of the College of Medicine:
Andrew Filak Jr., MD
CARE/Crawley Building
Suite E-870
P.O. Box 670555
Cincinnati, OH 45267
513-558-7333

Student Conduct & Community Standards
2801 UC Mainstreet
Suite 745 Steger Student Life Center
Cincinnati, OH 45221
513-556-6814
conduct@uc.edu

Timetable for Action:

- Incident must be reported within 10 days.
- Possible First Level resolution. If not, Dean appoints Hearing Officer.
- Hearing Officer convenes College Hearing Committee within 15 days after failure of First Level Resolution procedures.
- College Hearing Committee must notify Dean of recommendation within 5 days after hearing is held.
- Dean must notify all parties of action taken within 5 days after receiving Hearing Committee's recommendation.

VII. FACULTY MEMBERSHIP GUIDELINES

A. Roles of the Cancer and Cell Biology Program Faculty

The Cancer and Cell Biology Graduate Program seeks to: (1) develop outstanding new scientists through guidance of graduate student thesis research projects, (2) provide formal courses, seminars, and journal clubs of exceptional quality to the Cancer and Cell Biology Graduate students and also to the University of Cincinnati academic community; (3) enhance the breadth and depth of scientific expertise of the Program faculty and students in fundamental issues in contemporary basic and biomedical science, and (4) increase awareness both within the University of Cincinnati academic community and elsewhere of the potential contributions to basic and biomedical sciences of the information contained in and the approaches used by the discipline of Cancer and Cell Biology.

The aspiration of the Program to excellence requires a vigorous and committed faculty. As membership in the Program is voluntary, it is clear that the goals of the Program can be met only through a high level of faculty involvement. Thus, faculty members must illustrate that they share aspirations of the Program by participating in the guidance of thesis/dissertation research, participating in Graduate Program committees, attending Program faculty meetings, attending Program seminars, and teaching in Program-sponsored courses and/or the Graduate Student core curriculum.

B. Nomination and Acceptance Procedures for new Faculty

To be considered for MEMBER status, the candidate should:

1. Be a full-time faculty member at the University of Cincinnati. (Members from outside the University may be considered under unusual circumstances.)
2. Have a demonstrable interest in Cancer and Cell Biology.
3. Be willing to assume teaching, administrative, and related responsibilities within the Program.
4. Have a previous history of training of students either as a mentor or a member of student committees (unless the applicant is an entry-level faculty member), and be able and willing to provide stipend support for students under their supervision.
5. For Junior faculty members seeking acceptance to the program, a recommendation from their division director/unit head is required and they may be asked to present their research during the Cancer Biology weekly seminar series prior to acceptance into the program.

The APPLICATION of a faculty member for admission to the Cancer and Cell Biology Program Faculty should include:

1. A **letter** indicating interest in joining the Program that defines their expectations from the Program and outlines contributions that they feel their expertise and background will provide to the Program
2. A **curriculum vitae**, that includes a:
 - a. summary of research interests and publication list, illustrating the candidate's interest in Cancer and Cell Biology
 - b. history of graduate student training
 - c. description of teaching experience
 - d. description of past and present research support.

The Program Director will evaluate applications and make recommendations to the Graduate Committee, which will vote on all applications at the next available meeting.

C. Reappointment of Current Faculty

All Faculty members in the Graduate Program have appointments of approximately 4 years. After a 4-year initial or renewed appointment, the Program Director may solicit a renewal application from each Program Faculty member that will consist of a letter that details the involvement of the Faculty member in the Program over the previous 4 years, and a curriculum vitae as described above for new applicants. The Program Director will review the applications and make recommendations to the Graduate Committee as to whether or not each reviewed faculty member should continue within the Graduate Program. The criteria for continued membership in the Program will be the same as those applied to the admission of new Faculty members and will be particularly concerned with the extent of involvement of the Faculty member in teaching, administration, and other related tasks in the Program.

Given that a primary criterion for Graduate Faculty status is demonstrating the financial means to support a graduate student, the Graduate Director can also make adjustments to the Graduate Faculty Roster based on annual review of financial status.

**VIII. PROGRAM FACULTY, STUDENTS, STAFF & FREQUENTLY USED NUMBERS
CANCER & CELL BIOLOGY Graduate Faculty**



2022 CCB Graduate
Program Faculty (up)

Name	Degree	Department	Phone #	E-MAIL
Abdel-Malek, Zalfa	PhD	Dermatology	558-6246	zalfa.abdel-malek@uc.edu
Alenghat, Theresa	VMD, PhD	Immunobiology	803-7498	Theresa.alenghat@cchmc.org
Andreassen, Paul	PhD	Experimental Hematology	636-3549	paul.andreassen@cchmc.org
Azam, Mohammad	PhD	Immunobiology	803-1413	Mohammad.azam@cchmc.org
Bogdanov, Vladimir	PhD	Hematology/ Oncology	558-6276	bogdanvr@ucmail.uc.edu
Boscolo, Elisa	PhD	Experimental Hematology	803-7267	elisa.boscolo@cchmc.org
Burns, Katherine	PhD	Environmental Health	558-1877	katherine.burns@uc.edu
Cancelas, Jose	MD, PhD	Experimental Hematology	558-1324	jose.cancelas@cchmc.org
Cunningham, Tom	PhD	Cancer Biology	558-1157	John.cunningham@uc.edu
Czyzyk-Krzeska, Maria	MD, PhD	Cancer Biology	558-1957	maria.czyzykrzeska@uc.edu
DasGupta, Biplab	PhD	Oncology	803-1370	Biplab.DasGupta@cchmc.org
Diao, Jijie	PhD	Cancer Biology	558-0234	Jijie.diao@uc.edu
Du, Chunying	PhD	Cancer Biology	558-4803	ducg@ucmail.uc.edu
Fan, Yanbo	MD, PhD	Cancer Biology	558-5343	yanbo.fan@uc.edu
Filippi, Marie-Dominique	PhD	Experimental Hematology	636-0991	Marie-Dominique.Filippi@cchmc.org
Greis, Kenneth	PhD	Cancer Biology	558-7102	greiskd@ucmail.uc.edu
Grimes, Lee	PhD	Immunobiology	636-6089	leighton.grimes@uc.edu
Gu, Minxia	MD, PhD	CCHMC		Mingxia.Gu@cchmc.org
Guan, Jun-Lin	PhD	Cancer Biology	558-0114	guanjn@ucmail.uc.edu
Guo, Ziyuan	PhD	Developmental Biology		Ziyuan.Guo@cchmc.org
Hershey, Gurjit (Neeru) Khurana	MD, PhD	Allergy & Immunology	636-7054	gurjit.hershey@cchmc.org
Kalfa, Theodosia	MD, PhD	Hematology	636-0989	theodosia.kalfa@cchmc.org

Name	Degree	Department	Phone #	E-MAIL
Kalin, Tatiana (Tanya)	MD, PhD	Pulmonary Biology	636-4900	Tatiana.kalin@cchmc.org
Kalinichenko, Vladimir	MD, PhD	Pulmonary Biology	636-4200	Vladimir.kalinichenko@cchmc.org
Kao, Winston	PhD	Ophthalmology	558-2802	winston.kao@uc.edu
Kasper, Susan	PhD	Environmental Health	558-2126	Susan.kasper@uc.edu
Kumar, Ashish	MD, PhD	Experimental Hematology	803-1631	Ashish.kumar@cchmc.org
Le Cras, Tim	PhD	Pulmonary Biology		tim.lecras@cchmc.org
Lu, Qing (Richard)	PhD	Experimental Hematology	636-7684	Richard.lu@cchmc.org
Lucas, Daniel	PhD	Experimental Hematology	803-7805	daniel.lucas@cchmc.org
Malik, Punam	PhD	Experimental Hematology	636-1333	punam.malik@cchmc.org
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Jacob Kurek	1	Rotating
Taylor Lange	1	Rotating
Zhixin Lu	1	Rotating
Paula Saez Raez	1	Rotating
Kate Von Handorf	1	Rotating
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Román Cáceres	2	Dr. Biplab Dasgupta
Levi Fox	2	Dr. Susan Waltz
Charlie Nims	2	Dr. Nicolas Nassar
Devyani Sharma	2	Dr. Marie-Dominique Filippi
Zhiqi Tian	2	Dr. Jun-Lin Guan
Xiaoqin Zhu	2	Dr. Andrew Volk
James Davis	3	Dr. Susan Waltz
Angelle Jones	3	Dr. Susan Waltz
Bibek Raj Karki	3	Dr. Tom Cunningham
Duc (Mary) Nguyen	3	Dr. Trisha Wise Draper
Timothy Nixon	3	Dr. Andrew Volk
Bianca Ruffolo	(3)	Dr. Susanne Wells
Dina Secic	3	Dr. Maria Czyzyk-Krzeska
Camille Stevenson	3	Dr. Chunyin Du
Emma Uible	3	Dr. Daniel Starczynowski
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Megan Bischoff	4	Dr. Maria Czyzyk-Krzeska
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Austin MacMillan	4	Dr. Tom Cunningham
Zhiyun Yu	4	Dr. Qing Richard Lu
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IX. STUDENT DOCUMENTS

Cancer & Cell Biology PhD Program Curriculum

<http://www.med.uc.edu/cancerbiology/graduate/curriculum>

Academic Calendars: <http://www.uc.edu/registrar/calendars.html>

Graduation Dates and Deadlines <http://grad.uc.edu/student-life/graduation.html>

Graduate School Link to Calendar of Events <https://grad.uc.edu/student-life/dates.html>

Grad Life and Student Resources <https://grad.uc.edu/student-life/resources.html>

Graduate School Funding and Awards <https://grad.uc.edu/prospective/funding.html>

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