

Cell & Developmental Biology

Graduate Program Student Handbook

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Introduction

Standards and Expectations for the CDB Graduate Student: CDB students are expected to maintain the highest possible standards of academic research and professional ethics. They are also expected to perform and publish research of high quality and of scientific biomedical significance. CDB students should behave professionally in the classroom and the laboratory and should remember that they represent the department, the medical school, and the university when traveling, attending conferences, or working off-campus in a professional capacity. By the time students have earned a Ph.D. in Cell & Developmental Biology they are expected, 1) to be knowledgeable of current research in cell & developmental biology and expert in current research in their specific subfield; 2) to be able to properly design, execute, interpret, and discuss experiments both their own and those of others; 3) to have maintained the highest standards of academic and scientific ethics; 4) to have made contributions to their field, both in research and teaching; and 5) to be able to competently present their research findings, both orally and in writing.

Rackham and PIBS Requirements: The CDB student must fulfill all requirements of the Rackham Graduate School and a PIBS student of the Program in Biomedical Sciences see Rackham Graduate School academic policies and the PIBS curriculum guide for current requirements. The CDB graduate program has additional requirements which are detailed below.

Preferred Timeline of Doctoral Study: In the first year, the student focuses on coursework and research rotations. At the end of the first year, the student joins a laboratory for dissertation research. The principal investigator of that lab becomes the student's thesis advisor. In the summer of the first year, the student takes the preliminary qualifying exam checkpoint 1, administered by CDB faculty. In the second year, the student, now a candidate continues with coursework while pursuing his/her doctoral research. The student takes the preliminary qualifying exam checkpoint 2 in the winter semester of the second year. Once all requirements, coursework, teaching, research, etc. have been met, the dissertation committee authorizes the student to write a doctoral dissertation. The candidate orally defends his/her thesis successfully and earns a Ph.D. in Cell and Developmental Biology. This should preferably occur by the end of the fifth year and must occur by the end of the seventh year. The student assembles a dissertation committee with the help of the mentor which will meet annually with the candidate to monitor his/her progress. From this point, the student will focus primarily on thesis research but will also assist in the teaching of at least one graduate course.

Proposing Changes to the CDB Graduate Program: Recommendations for changes to any aspect of the program are welcome from anyone, especially students. Proposed changes may be presented to the chair of the graduate program committee or to any faculty member. Adoption of changes will require approval by at least 23 of a quorum defined as 60 of the total departmental faculty roster.

The Graduate Program Committee (GPC)

The program of graduate study is designed and carried out by the entire faculty of the department, in compliance with the regulations of the Rackham Graduate School. The faculty delegates administration of the program to a Graduate Program Committee

Composition: The department chair annually appoints the members of Graduate Program Committee for one-year terms. These include six to ten CDB faculty members of whom one is appointed chair of the committee by the department chair. The chair of the committee is the director of the CDB graduate program. One student representative is selected each year by the CDB graduate students. The participation and voting rights of the graduate student representative are limited to matters concerning the graduate program at the discretion of the chair of the committee in addition to one or more

members of the CDB administrative staff. Generally, the CDB student services representative will serve on the committee in a nonvoting capacity to provide support and assistance. The department chair is also a nonvoting member of the committee. Committee members will absent themselves from discussion, debate, or voting concerning students. They are mentoring at the discretion of the chair of the committee. The graduate student representative will not typically be present when other students' progress is discussed.

Responsibilities of the Graduate Program Committee (GPC)

- To administer the regulations of the Rackham Graduate School and the CDB Graduate Program;
- To recommend changes to the CDB Graduate Program and its policies and requirements to the CDB faculty;
- To oversee the student's progress from the time that he/she joins the CDB Graduate Program until he/she reaches candidacy, then to annually review candidates' progress;
- To advise CDB students on coursework, teaching, and other requirements of the graduate program;
- To advise students who request a change of thesis advisor;
- To follow the progress of all graduate students and recommend action on requests for special programs, advanced standing changes in fellowship status, etc.;
- To administer the preliminary qualifying examination (prelim) during the summer of the first year, in general, examiners will be CDB faculty members who sit on the GPC at times when additional expertise in a student's chosen prelim topic is required, the GPC chair may ask additional CDB faculty with primary or secondary appointments to participate in a prelim exam. In this instance, at least two GPC members must sit on the prelim committee. The GPC chair is not required to sit on every prelim exam but will be present for a second exam if the student fails the first exam;
- To certify students for advancement to candidacy;
- To approve the membership of the dissertation committee;
- To hear appeals from students regarding any aspect of the graduate program. The student may select an Ad Hoc Ombudsperson from the CDB faculty to consult with about the appeal. The Ombudsperson may accompany and/or represent the student at an appeals hearing before the GPC.
- The administrative member of the GPC, the student services representative, is responsible for maintaining complete student records, preparing paperwork for assistantships, fellowships, etc. and acts as the liaison between CDB and Rackham, and between CDB and PIBS

The Graduate Admissions Committee (GAC)

Composition: The department chair annually appoints the members of Graduate Admissions Committee (GAC) for one-year terms. These include at least three CDB faculty members of whom one is appointed chair of the committee by the department chair.

Responsibilities of the Graduate Admissions Committee (GAC): The GAC is in charge of the admission of new students to the CDB Graduate Program. This includes cooperating with PIBS recruitment admissions efforts e.g. reviewing applications to PIBS

The Graduate Recruitment Committee (GRC)

Composition: The department chair annually appoints the members of Graduate Recruitment Committee (GRC) for one-year terms. These include at least three CDB faculty members of whom one is appointed chair of the committee by the department chair. CDB students additionally elect one student representative to sit on the GRC.

Responsibilities of the Graduate Recruitment Committee (GRC): The GRC is in charge of the recruitment of students to the CDB Graduate Program. This includes organizing the CDB departmental retreat and other departmental events.

Requirements for the Ph.D. in Cell & Developmental Biology

Note: in addition to the requirements listed below the student must fulfill all requirements of the Rackham Graduate School. See Rackham Graduate School Academic Policies. In case of a conflict, Rackham rules supersede CDB rules.

Enrollment Requirements

- Enrollment requirements are determined by the Rackham Graduate School. Currently, fulltime enrollment and registration is required for all fulltime students;
- Students in year one register for at least 9 credit hours per semester. Post candidacy, year two, and above students must register for at least 8 research credit hours and 801;
- Up to six credits may be transferred from another institution under conditions stipulated by Rackham. Students entering the program with a master's or doctoral degree in a biomedical field may petition the Graduate Program Committee to waive part of the credit requirement;
- Students are normally required to defend their dissertation within 7 years of their enrollment in the graduate school. The student may ask the graduate program committee to authorize an extension beyond the 7- year limit.
- For all CDB students, attendance of CDB801 is mandatory. There is a sign-up list, so please make sure to sign up each week. A satisfactory grade for CDB801, which includes 80% attendance, is required to be eligible for the \$1,000 dollar travelling award. Students attendance will be recorded and made available to members on the thesis committee.

Coursework Requirements: CDB students must pass the following courses or substitutes approved by the graduate program chair. Fall term: two courses - CDB 530 Cell Biology, CDB 560 Quantitative Cell Biology, CDB 581 Developmental Genetics.

Winter term: CDB 550 Histology. Substitutions for any of these course requirements must be approved by the grad chair, Roman Giger. We will make every effort to be flexible and to accommodate students from different training backgrounds or programs, for example, MSTP. The goal is to ensure that all students have sufficient background knowledge of molecular cell biology, genetics, and developmental regenerative biology, the central themes of CDB's research. The courses listed above are designed to meet this standard, but many other courses can fulfill the program's requirements.

Grades: The acceptable level of academic performance is "B" (5.0 on a 1-9 Rackham scale) from "C" to "A". Students whose average grade in any single term is below "B" will be sent a letter of warning by the graduate school, and should discuss their academic progress with the graduate program. Committee GPC students whose cumulative grade average falls below "B" will be placed on academic probation by Rackham. For the subsequent term, the student must then consult with the GPC. No degree can be awarded during a term of academic probation. Two consecutive terms of probation will result in a review by the GPC and may result in the loss of monetary support, or a request for the student's withdrawal from the graduate program.

Research Rotations: PIBS 600 - see the PIBS curriculum guide for complete rules regarding rotations. Students must do at least two research rotations and may do up to four rotations. Rotations are normally full-term or half-term. Contact faculty members as soon as possible to ask about doing a rotation in their lab. Students can set up an informal early research rotation for the summer half-term before their enrollment (July-August). 1-4 credits are earned for each rotation depending on its duration.

Prior to beginning a research rotation, the student and research mentor should meet to discuss the expectations of the rotation, e.g. time to be spent in lab, how to keep a lab notebook, is the student expected to attend all lab meetings? Is the student expected to orally present his/her research to the lab group at the end of the rotation? How much coursework does the student have that will detract from lab research? Etc. Research rotations tend to be more successful when all expectations are discussed openly and clearly understood by both the student and mentor.

Choosing CDB: On entering the CDB program, typically in May of year one for Ph.D. students and August for M.D./Ph.D. students, students will sign a commitment letter accepting responsibility for progress toward their Ph.D.;

Each student shall hold committee meetings at least once each year before April 30;

If the student is not making adequate progress the Ph.D. committee may require that the student hold a committee meeting six months later. If the student is still not progressing at that time the Ph.D.

committee may recommend to the graduate committee that the student leave the lab due to lack of progress. The grad committee will hear the recommendation and any rebuttal;

Each student will complete an [Annual Review/IDP Worksheet](#) that will be reviewed in May each year by the GPC.

The Thesis Advisor: The student selects a faculty mentor or thesis advisor at the end of the first year of graduate school. The thesis advisor must be a professor, associate professor, or assistant professor on the instructional track in CDB. This includes primary and secondary CDB faculty members. It is not permissible to select a non-CDB affiliated faculty as thesis advisor in the CDB program. If a student who has achieved candidacy in CDB changes to a non-CDB lab and the student wants to remain in the CDB program, this needs to be approved by the graduate program chair and the CDB department chair. In addition, the non-CDB mentor must provide a letter cosigned by the chair of the mentor's department committing support for the student until completion of the Ph.D. Otherwise, the student must transfer to that training program. The primary responsibilities of the thesis advisor are:

- o to train, mentor, and advise the student in biomedical research;
- o to prepare the student for a career in science; and
- o to set a professional example for the student by maintaining high scientific and ethical standards.

If a student who has achieved candidacy in CDB decides to carry out his/her Ph.D. research in a non CDB lab the new mentor must provide a letter cosigned by the chair of the mentor's department committing support for the student until completion of the Ph.D. and/or the student must transfer to that training program.

The Preliminary Qualifying Examination

CDB will switch from the current prelim format (taken at the end of year one) to a two stage (checkpoint 1 & 2) exam, beginning with the matriculating class of 2018.

Checkpoint 1: PAPER DISCUSSION

Timing and Eligibility: Students in good academic standing will take their preliminary exam in July or August at the end of their first year. The exam will be administered and graded by four members of the CDB prelim committee [Grad program chair (Roman Giger) or co-chair (Bing Ye) and CDB-affiliated faculty members serving on the Graduate Program Committee]. A student's dissertation mentor or co-mentor may not serve on their Prelim Committee.

M.D./Ph.D. students: Because the timeline for students enrolled in the MSTP program is shortened, there is some flexibility for when the exam will be taken. MSTP students will attend graduate level classes/courses and take checkpoint 1 (paper discussion) in July/August of year 1 (G1). Successful

students will advance to Ph.D. candidate. To schedule an exam at a different time, students need to meet with the graduate program chair/co-chair to discuss their prelim plans.

Exam Format: Approximately 3 weeks before the prelim exam, the Grad program chair/co-chair will meet with all first-year students and provide guidance on the format of the exam. The Graduate Program Committee will offer a selection of five primary research articles from which the students must CHOOSE ONE for their oral exam. These papers will represent a breadth of topics, covering subjects that have been taught in CDB/PIBS classes during the first year. Students will have 3 days to choose a paper and inform the Grad program chair/co-chair of their decision. The prelim exam will take place two weeks later.

Students are expected to prepare a slide presentation (approx. 30 minutes) to communicate the main findings to the prelim exam committee in the setting of a 60-minute exam session¹. Prelim committee members will ask questions to assess the student's mastery of fundamental principles and experimental methods in cell biology, developmental biology, biochemistry, and genetics.

Preparation: Students may discuss these research articles with anyone they wish prior to the exam, except members of the prelim committee.

During the oral examination the students will be expected to:

- Briefly summarize the main findings of the paper;
- Be cognizant of the literature related to the paper;
- Discuss the methods used, including strengths and weaknesses;
- Understand statistical methods used;
- Propose and justify experiments for a future study following up on these findings;
- Be cognizant of fundamental principles in cell biology, developmental biology, biochemistry and genetics (even if some these topics may not be used in the paper selected by the student).

Evaluation: The prelim committee will prepare a written report on the strengths and weaknesses of each student's performance with a recommendation of "Pass", "Conditional Pass", or "Fail". Students who receive a "Pass" and meet all other candidacy requirements [link to handbook] will advance to Ph.D. candidacy. Students who receive a "Conditional Pass" will be given specific recommendations to obtain a passing grade.

Remediation: If the prelim committee determines that the student has failed to satisfy the six requirements listed above, s/he will be invited to submit and defend a second paper. If the student again fails to satisfactorily address the 6 requirements above, the student will have failed the prelim, with no additional opportunity for remediation.

Checkpoint 2: WRITTEN EXAM and ORAL DEFENSE

Timing and Eligibility: Students in good academic standing who have advanced to candidacy will take their "checkpoint 2 exam" in the winter semester of their second year.

Committee: In the fall of their second year, the student will, in consultation with their dissertation mentor, assemble a Dissertation Advisory Committee. The committee will administer the Checkpoint 2 exam and will regularly serve in an advisory role throughout the student's graduate career.

Exam Format: Students will prepare a written proposal consisting of one page of Specific Aims and six pages of Research Strategy (similar to to an [NIH F31 Predoctoral Individual National Research Service Grant Award](#) on their dissertation project. Students are encouraged to discuss their research project with their mentor. The Specific Aims page needs to be approved by the mentor. However, the 6-page written

proposal must be prepared by the student, without any rewriting or editing by the mentor, co-mentor, or any faculty member. Students are encouraged to solicit feedback from their student peers.

Written Proposal: Use 0.5-inch page margin, Arial font 11, single-line spacing. Figures are included in the 6-page limit. Additional pages may be used for references. The proposal must be sent to members of the dissertation committee two weeks prior to the Oral Defense.

Oral Defense: The student will present background and preliminary results of the proposal, using slides and/or the whiteboard, and introduce the hypothesis that will be tested. The student is expected to explain the design of experiments to test the hypothesis, discuss how experimental outcomes will inform on the hypothesis, and discuss potential pitfalls and alternative approaches to test the hypothesis. The student is expected to be cognizant of the relevant literature and to explain the potential scientific and/or health impact of the proposed work. The student's mentor will be present during the exam, but may not ask or answer questions.

Evaluation: The chair of the dissertation committee will prepare a written report on the strengths and weaknesses of the student's performance with a recommendation of "Pass" or "Fail". If a student fails the exam, the exam can be retaken once. In addition to members of the dissertation committee, the Grad committee chair or co-chair will attend the retake of the exam.

For students who fail the retake but have accumulated 24 credit hours, there is a path to earn a master's degree which includes the writing of a master's thesis (a scholarly written summary of the work accomplished in the mentor's lab). The time frame for writing of the master's thesis and any other requirements will be determined by the Grad Program chair in consultation with the mentor. The thesis will be evaluated by the mentor, co-mentor if any, and the Grad Program committee chair or co-chair.

The Dissertation Thesis Committee

Once the preliminary examination is passed, the student in consultation with his/her dissertation advisor should select the members of a dissertation committee. The dissertation committee monitors the progress of the student's research and offers guidance and advice, decides when the student may defend the dissertation, reads and critiques the written dissertation, and oversees the dissertation defense membership. Members of the thesis committee are chosen according to Rackham guidelines and are subject to approval by Rackham. The following is adapted from the Rackham graduate school academic policies.

The thesis committee must be composed of at least four members, including at least three tenured or tenure-track members of the instructional faculty affiliated with a Rackham doctoral program. Eligible faculty include those holding a regular or unmodified i.e. not research, clinical, visiting, adjunct, emeritus, etc. appointment as professor, associate professor, or assistant professor. At least two committee members must hold primary or secondary appointments in CDB. The committee must include a cognate non-CDB member who holds at least a 5.0 appointment in a Rackham doctoral program other than CDB. This member may not serve as chair or co-chair. The committee must have a chair selected by the Graduate Program Committee. For new committees formed in 2012 or later, the chair of the dissertation committee cannot be the student's thesis advisor. A co-chair is also allowed meetings.

The student should have her/his first thesis committee meeting no later than the winter semester of the second year. The thesis committee is required to meet with the student at least once per year, although more frequent meetings are strongly encouraged. Before the first thesis committee meeting the candidate must present a written dissertation plan to the members of the thesis committee. Although there is not a standardized format for the dissertation plan, it should include: a brief discussion of the

background and significance of the work, a concise description of the preliminary results, the proposed research, its specific objectives, and the methods to be employed. It is the responsibility of the thesis advisor to expedite the completion of the research and writing before each thesis committee meeting, except the first. The student must send a brief written summary of research progress to the members of the thesis committee.

After each dissertation committee meeting, a [thesis committee meeting summary form](#) must be filled out by the committee and signed by the student and all members of the committee. This form is then submitted to the CDB student services representative, where it becomes part of the student's permanent record. This form serves as an official record of the student's progress and recommendations to the student by the committee. See the appendix for a link to the new CDB dissertation committee meeting summary form updated in 2012.

If the committee believes that a student is not making sufficient progress they may require another meeting to be held in six months. At that time, if progress continues to be insufficient, the committee can recommend that the student leave the CDB training program.

Teaching – GSI: Students will serve as a Graduate Student Instructor (GSI) for at least one CDB course. Teaching assignments are made by the department chair and, whenever possible, in accordance with the student's preferences. When possible, students' teaching will be supervised by a faculty member who will submit an evaluation available to the student to the graduate program committee at the end of the term. Teaching orientation is mandatory for all new GSIs. If a student is planning to serve as a GSI in the coming term he/she must attend this training. The orientation is offered twice a year. Details for registration can be found here: <http://www.crlt.umich.edu/gsis/gso>.

Research Seminars: Departmental seminars and special guest lectures comprise an important part of CDB graduate education. All students without course or teaching conflicts are expected to attend. It is especially important that new students who are searching for areas suitable for their dissertation work attend informal seminars and journal clubs. Each student is required to give at least one half-hour presentation each year to the group of his/her choice. After the second year, each student should give at least one presentation per year in the Departmental Graduate Seminar Series; CDB 801. The doctoral thesis defense fulfills the seminar requirement for the terminal year.

Doctoral Dissertation and Thesis Defense: Before a student defends their doctoral thesis, it is expected that s/he will have published at least one first-author paper. The dissertation must meet Rackham's style and format requirements, which are numerous and strictly enforced. The thesis defense is a presentation and defense of the candidate's thesis research before the dissertation committee, and also acts as a departmental seminar. It is held no less than 10 working days after submission of the unbound dissertation to the committee members and to the dissertation secretary of the graduate school. All members of the committee, except possibly one substitute examiner approved by the dean must be present. Consult the [Dissertation Handbook](#) available from Rackham for further details. The committee is the ultimate judge of the quality of the dissertation. A unanimously favorable report is required for a successful defense. The student will submit to the dissertation secretary of the graduate school:

- The report on the form provided by Rackham, and
- One bound and one unbound copy of the revised and corrected dissertation. A bound copy of the dissertation is to be provided by the student for the department's permanent collection.

Post-defense Requirements: Consult Rackham for details concerning the post-defense meeting, revisions to the dissertation, final paperwork, and deadlines.

Dissertation Embargo: The doctoral student and mentor may ask Rackham to place a temporary embargo on public access to the dissertation to allow for separate publication of data in professional journals. Instructions for embargo requests are posted at: <http://www.rackham.umich.edu/current-students/dissertation/the-dissertation/dissertation-embargo-request>

Graduate Student Support

Departmental Support: Students accepted though PIBS are financially supported by PIBS for the first ten months of graduate school, typically September 1st through June 30th. At the end of this period of PIBS support, the responsibility for financial support shifts to the student's thesis advisor, typically beginning July 1st but see the following section. In cases of financial need, a student can apply to the chair for a teaching assistantship.

Sources of Travel Support: The Department will cover expenses for travel to a scientific meeting at which the student presents his/her research results (oral talk or poster) and/or to attend a course or workshop which will benefit their research and training. The Department will provide up to a total of \$1,000 per student over the course of their doctoral studies in the CDB Graduate Program. A short written request should be submitted to the Department Chair and cc'ing the Department Administrator (Karen Lang), Kristen Hug, and your mentor – include the specifics about the event, travel plans and costs (specifically, what has already been paid & how it was paid; and future costs & how those will be paid). The funds can be direct deposited into the student's bank account if that's how s/he currently receives their stipend. If the funds are needed to book travel, the request must be made 30 days prior to making travel arrangements. Otherwise, the student will be reimbursed for expenses. A travel expense report must be filled out and receipts provided. If the mentor used his/her UM funds to pay for the travel, reimbursement will be made to the mentor's account.

The Rackham Travel Grant is set up to provide opportunities for Rackham graduate students to become familiar with, and take part in, the life of their academic professions. As part of its University-wide commitment to advancing international research and training, the International Institute provides Rackham with a portion of the funding for these awards. Eligibility: Awards are available only to Rackham students who have responded to a formal call for abstracts and whose abstract has been accepted for either poster or paper presentation at a conference. Applications must be received in the Rackham Fellowships Office prior to the conference. Completed applications will be reviewed on a first come, first served basis. Rackham will accept an incomplete application and will encumber the appropriate funds, if funds are available, to be released once the required documentation is received (the current transcript and the confirmation/copy of program). No application will be considered for funding retroactively. A student may receive only one travel grant award during the fiscal year (July 1-June 30).

Master's Degree Requirements

Note: The graduate program is specifically designed to lead to the Doctoral Degree. Under certain circumstances, students who terminate their study early, may then be eligible for a master's degree if they have satisfied the following requirements, in addition to Rackham requirements:

- The student must complete 32 credit hours with a cumulative average grade of B or better, and have successfully completed the preliminary exam;
- Rackham has its own credit requirements for conferring a master's degree. Additional credit hours beyond those needed to advance to doctoral candidacy may be required, see Rackham graduate school academic policies;

- A written thesis is required, and a final oral examination may also be required at the discretion of the GPC;
- The student must complete all work toward a master's degree within six consecutive years from the date of first enrollment in the program;
- The student must submit the formal application three-part blue form to the office of academic records and dissertations of the graduate school.

Leave of Absence and Readmission

Personal leaves of absence may be granted by the Graduate Program Committee (GPC) to students who have compelling personal circumstances that are temporarily impeding their academic progress. The total time spent out of registration on leave of absence will not exceed one year unless specifically approved by the GPC.

On an annual basis, financial support, if any, ceases when the leave of absence begins and may resume in the first term of readmission. Students who have not been enrolled in the CDB graduate program for one year must apply for readmission.

Exceptions include: doctoral students admitted to candidacy, and students returning to the university at the end of a certified period of detached study. Readmission is dependent upon approval by the GPC and upon the availability of resources for the term in which readmission is requested.

Policy for academic progress, probation and dismissal guidelines

Satisfactory Academic Standing Requirements during Pre-candidacy:

The expectation is that CDB graduate students achieve a cumulative GPA corresponding to a "B" or higher (3.0 on a 4.0 point scale) at the end of the first year. Additional requirements are:

1. to accumulate a minimum of 18 credits (9 per semester) during the first academic year;
2. to regularly attend CDB801;
3. engage in laboratory rotations from the first week of September through April 15th;
4. to rotate in at least 2 PIBS laboratories;
5. to hold at least one meeting with CDB Program leadership;
6. to find a dissertation laboratory by June of the first year;
7. to pass the stage 1 exam (checkpoint 1).

Preliminary Exam, Checkpoint 1: At the end of year 1, students must successfully complete the first stage of the preliminary examination and advance to candidacy in order to remain in good academic standing. Details about the prelim exam are provided in the CDB graduate student handbook. After the prelim exam, the CDB prelim committee will prepare a written report on the strengths and weaknesses of each student's performance with a recommendation of "Pass" or "Fail". Students who pass the exam will advance to Ph.D. candidacy. In select cases, a "Conditional Pass" may be given, with specific recommendations made for the student to obtain a passing grade.

Remediation: if the prelim committee determines that the student has failed checkpoint 1, one retake of the exam, i.e. presentation of a second article from the literature, is allowed. If the student fails again, s/he will have failed checkpoint 1 with no additional opportunity for remediation. The student will be dismissed from the graduate program.

Satisfactory Academic Standing Requirements for Candidates:

1. to conduct research and demonstrate satisfactory “S” progress (CDB 995), as assessed by the mentor;
2. to form a dissertation committee within one year of joining the thesis laboratory;
3. to pass the stage 2 exam (checkpoint 2).
4. to meet at least once a year with all members of the dissertation committee and obtain a satisfactory progress report from the dissertation committee;
5. to regularly attend CDB801;
6. to have an advisor; students without advisor for more than 1 month will be placed on academic probation.

Preliminary Exam, Checkpoint 2: In year 2, students must successfully complete the second stage of the preliminary examination to remain in good academic standing. Within two weeks following the exam, the chair of the thesis committee will prepare a written report on the strengths and weaknesses of the student’s performance with a recommendation of “Pass” or “Fail”. If a student fails the exam, the exam can be retaken once. In addition to members of the thesis committee, the Grad program chair or co-chair will attend the retake of the exam. Students who fail the retake will be dismissed from the graduate program. For students who fail the retake but have accumulated 24 credit hours, there is a path to earn a Master’s degree. Requirements for a Master’s degree include a written summary of the work accomplished in the PI’s lab. The document will be evaluated by the PI and Grad program chair or co-chair.

If a student receives an “U” for “unsatisfactory” progress towards their degree CDB 995, as determined by their dissertation advisor, or if a student receives a “U” from the thesis committee, the student will be placed on academic probation and given one term to return to good academic standing. The CDB graduate program committee will place students on academic probation in writing. A period of academic probation is normally required before CDB recommends that a doctoral student is dismissed for academic reasons.

As an exception, and only with advance notice to students, program policy may allow dismissal without probation for a student who fails the prelim exams (CDB preliminary exam stage 1 or 2). A student in unsatisfactory academic standing may change programs and transfer credits only with permission of the CDB graduate program chair.

If a student decides or is asked to leave their mentor’s lab, the student will be placed on academic probation. The student and the CDB grad program chair or co-chair will develop a timetable for identifying a new research mentor. The expected timetable should be no longer than one term. If the student is unable to identify a research mentor, within the specified timetable, the student will be dismissed from the program.

Placing a Student on Academic Probation: The thesis advisor, the graduate program chair, and/or the chair of the thesis committee may recommend that a student be placed on academic probation. The decision to place a student on probation is made by a group of at least three faculty members to include, for example, the department chair, members of the graduate committee, and members of the student’s thesis committee.

Length of the Probationary Period: The probationary period may be no shorter than three months. The CDB graduate program chair will notify the student and Rackham OARD in writing before the probationary period begins, explaining the reasons and conditions of probation; the start and end dates of the probationary period; conditions, if any, for returning to satisfactory standing; and options for appeal.

Funding a Student on Probation: The level of funding prior to probation will be continued through the probationary period and will be covered by the mentor.

Option to Appeal Academic Probation or Dismissal: CDB students have the right to appeal academic probation or dismissal in writing. The graduate program chair (or co-chair) will constitute a separate committee to review the appeal. Students may use the Graduate School's Academic Dispute Resolution process only for procedural issues of fair and equal treatment under the policy of the program, and not to appeal the academic reasons for the decision (provide hyperlink).

End of the Probationary Period and Dismissal: At the end of the probation period, and upon recommendation of the graduate program chair (or co-chair) and consent from the Graduate School, a student may either be reinstated to "good academic standing" or dismissed from CDB. The decision to dismiss a student will be made by a group of at least three faculty members to include, for example, the department chair, members of the graduate program committee, and members of the student's thesis committee. The graduate program chair (or co-chair) will notify Rackham OARD of a recommendation for dismissal.

Importance of Compliance with Standards of Academic or Professional Integrity: Students who fail to meet standards of academic or professional integrity or who have been found responsible for violations of other University standards of conduct may be dismissed in accordance with separate procedures, see a detailed description see [Rackham Academic and Professional Integrity Policy](#).

Policy for academic Progress, Probation and Dismissal Guidelines

Satisfactory academic standing requirements during pre-candidacy:

The expectation is that CDB graduate students achieve a cumulative GPA corresponding to a "B" or higher (3.0 on a 4.0 point scale) at the end of the first year. Additional requirements are:

1. to accumulate a minimum of 18 credits (9 per semester) during the first academic year;
2. to regularly attend CDB801;
3. engage in laboratory rotations from the first week of September through April 15th;
4. to rotate in at least 2 PIBS laboratories;
5. to hold at least one meeting with CDB Program leadership;
6. to find a dissertation laboratory by June of the first year;
7. to pass the stage 1 exam (checkpoint 1).

Preliminary exam, stage 1: At the end of year 1, students must successfully complete the first stage of the preliminary examination and advance to candidacy in order to remain in good academic standing. Details about the prelim exam are provided in the CDB graduate student handbook. After the prelim exam, the CDB prelim committee will prepare a written report on the strengths and weaknesses of each student's performance with a recommendation of "Pass" or "Fail". Students who pass the exam will advance to Ph.D. candidacy. In select cases, a "Conditional Pass" may be given, with specific recommendations made for the student to obtain a passing grade.

Remediation: if the prelim committee determines that the student has failed checkpoint 1, one retake of the exam, i.e. presentation of a second article from the literature, is allowed. If the student fails again, s/he will have failed checkpoint 1 with no additional opportunity for remediation. The student will be dismissed from the graduate program.

Satisfactory academic standing requirements for candidates:

1. to conduct research and demonstrate satisfactory “S” progress (CDB 995), as assessed by the mentor;
2. to form a dissertation committee within one year of joining the thesis laboratory;
3. to pass the stage 2 exam (checkpoint 2).
4. to meet at least once a year with all members of the dissertation committee and obtain a satisfactory progress report from the dissertation committee;
5. to regularly attend CDB801;
6. to have an advisor; students without advisor for more than 1 month will be placed on academic probation.

Preliminary exam, stage 2: In year 2, students must successfully complete the second stage of the preliminary examination to remain in good academic standing. Within two weeks following the exam, the chair of the thesis committee will prepare a written report on the strengths and weaknesses of the student’s performance with a recommendation of “Pass” or “Fail”. If a student fails the exam, the exam can be retaken once. In addition to members of the thesis committee, the Grad program chair or co-chair will attend the retake of the exam. Students who fail the retake will be dismissed from the graduate program. For students who fail the retake but have accumulated 24 credit hours, there is a path to earn a Master’s degree. Requirements for a Master’s degree include a written summary of the work accomplished in the PI’s lab. The document will be evaluated by the PI and Grad program chair or co-chair.

If a student receives an “U” for “unsatisfactory” progress towards their degree CDB 995, as determined by their dissertation advisor, or if a student receives a “U” from the thesis committee, the student will be placed on academic probation and given one term to return to good academic standing. The CDB graduate program committee will place students on academic probation in writing. A period of academic probation is normally required before CDB recommends that a doctoral student is dismissed for academic reasons.

As an exception, and only with advance notice to students, program policy may allow dismissal without probation for a student who fails the prelim exams (CDB preliminary exam stage 1 or 2). A student in unsatisfactory academic standing may change programs and transfer credits only with permission of the CDB graduate program chair.

If a student decides or is asked to leave their mentor’s lab, the student will be placed on academic probation. The student and the CDB grad program chair or co-chair will develop a timetable for identifying a new research mentor. The expected timetable should be no longer than one term. If the student is unable to identify a research mentor, within the specified timetable, the student will be dismissed from the program.

Placing a student on academic probation: The thesis advisor, the graduate program chair, and/or the chair of the thesis committee may recommend that a student be placed on academic probation. The decision to place a student on probation is made by a group of at least three faculty to include, for example, the department chair, members of the graduate committee, and members of the student’s thesis committee.

Length of the probationary period: The probationary period may be no shorter than three months. The CDB graduate program chair will notify the student and Rackham OARD in writing before the probationary period begins, explaining the reasons and conditions of probation; the start and end dates of the probationary period; conditions, if any, for returning to satisfactory standing; and options for appeal.

Funding a student on probation: The level of funding prior to probation will be continued through the probationary period and will be covered by the mentor.

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