

BIOCHEMISTRY AND MOLECULAR BIOLOGY GUIDELINES AND EXPECTATIONS FOR Ph.D. STUDENTS (Years 2+)

Overview

The goal of the Graduate Program in Biochemistry & Molecular Biology is to produce the next generation of highly trained, independent thinking scientists. We are very excited about our Ph.D. program and confident that the Department of Chemical Physiology and Biochemistry can offer you the education and graduate research experience that you will need to achieve your career goals.

These rules pertain to all students in the Graduate Program in Biochemistry and Molecular Biology (BMB). They are in partnership with the guidelines and requirements set forth by the Program in Molecular and Cellular Biosciences (PMCB), and the Graduate Council of the Oregon Health & Science University (OHSU) School of Medicine. All BMB students are responsible for reading this document.

General Timeline

The Graduate Program in Biochemistry and Molecular Biology (BMB) is organized as follows:

Year 1	Complete PMCB requirements
Year 2	Complete the PMCB Qualifying Examination
	Undertake the research leading to the Ph.D. dissertation
	Complete required and elective courses
	Attend and participate in Departmental Seminars and a Journal Club
Years 3 +	Create a Dissertation Advisory Committee (DAC)
	Advance to PhD Candidacy
	Continue research leading to the Ph.D. dissertation
	Attend and present research at Departmental Seminars and a Journal Club of choice closest to dissertation work
Year 5	Retake Ethics Course (CONJ 650) if on NIH Fellowship

Links

[Graduate Studies – Forms and Policies](#)

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Required Courses

Students are required to earn a minimum of 135 graduate-level term-hour credits. At least 100 hours must represent credit hours earned in the Graduate Program in Biochemistry and Molecular Biology (hours labeled BCMB).

REQUIRED BMB GRADUATE COURSES YEAR 2

Fall/Winter/Spring Term

BCMB 605	Journal Club	3 courses
BCMB XXX	Elective credits	1 course
BCMB 607	Departmental Seminar Series	3 courses
CON 665, 667 & 668	Two of these courses must be taken in Year 2 if they were not selected during Year 1 as part of the PMCB required courses	3 credits
BCMB 619	Molecular & Biochemistry Basis of Disease	1 credit*
BCMB 601	Research	11 – 14 credits/term

REQUIRED BMB GRADUATE COURSES YEAR 3

Fall/Winter/Spring Term

BCMB 605	Journal Club	3 courses
BCMB XXX	Elective credits	1 course
BCMB 607	Departmental Seminar Series	3 courses
BCMB 601	Research	11 – 14 credits/term

Summer Term

BCMB 601	Research	11 – 14 credits
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*If course not offered substitute one elective course

1st Year PMCB Courses

A major goal of the Graduate Program in Biochemistry and Molecular Biology is to provide its graduate students with a rigorous and complete education in the underlying principles and practice of modern biochemistry and molecular biology.

To do so, the program furnishes a thorough didactic education. In the 1st year, students take required conjoint PMCB courses in the Structure and Function of Biological Molecules (CON 661), genetic mechanisms (CON 662), Bioregulation (CON 663), and Molecular and Cell Biology (CON 664). BMB students also study the biophysical chemistry of macromolecules (CON 668). For more information about the PMCB Conjoint Courses, please click [here](#).

BMB Courses

BMB SPECIFIC COURSE REQUIREMENTS

Students are required to register for, attend and present their dissertation research annually in the Departmental Seminar Series, BCMB 607, held weekly, as well as attend a Journal Club, BCMB 605 (Years 2 through end of program).

If a student wishes to be excused from taking a required course, the student and advisor should jointly petition the Graduate Curriculum Committee stating their reasons for wishing to be excused from the requirement. The curriculum Committee will decide the issue by a majority vote.

Electives

A total of 3 elective courses are required to be eligible for the Biochemistry & Molecular Biology Ph.D. degree. Students are strongly encouraged to start taking at least one elective course no later than winter term of their second year. The following are only a few of the popular electives taken by the graduate students in BMB. Other courses available are

listed in the course catalogue and graduate students are encouraged to speak to their mentor and/or GPD when considering taking other courses. Some elective courses are offered every other year, relative dates are noted below:

BCMB 620	Biochemical & Biophysical Properties of Membranes	2 credits/Winter Term
BCMB 628	Protein Crystallography	2 credits/Winter Term
BCMB 625	Advanced Molecular Bio. & Nucleic Acid Biochemistry	3 credits/Spring Term
BCMB 618	Protein Design: How Structure is Related to the Function of Proteins	3 credits/Winter Term
BCMB 630	Intro to Biophysics (PSU/OHSU joint course)	3 credits/Winter Term
BCMB 631	Adv Biophysics (PSU/OHSU joint course)	3 credits/Spring Term

Research Credits

Students are required to register for at least 2 credits of BCMB 601. If a graduate student fails (i.e. receives a grade of NP – No Pass) a term of research credits (BCMB 601), the student is immediately placed on academic probation. The student is required to obtain a passing grade in the next term (and subsequent terms) of research credits or the student may be dismissed from the graduate program. The student is required to notify and meet with their Mentor and GPD immediately upon receiving a failing grade on the research credits in any one term. The Mentor will suggest a course of action that the student must follow in correcting academic performance.

Dissertation Credits

Ph.D. candidates that are approved to begin writing their dissertations are required to register for at least 2 credits of BCMB 603. If a graduate student fails (i.e. receives a grade of NP – No Pass) a term of dissertation credits (BCMB 603), the student is immediately placed on academic probation. The student is required to obtain a passing grade in the next term (and subsequent terms) of dissertation credits or the student may be dismissed from the graduate program. The student (in consultation with their mentor) is to schedule a DAC meeting immediately upon receiving a failing grade on dissertation credits in any one term. The DAC meeting must take place within two weeks of receipt of the failing grade on the dissertation credits. The mentor and DAC will suggest a course of action that the student must follow to correct their research program.

Seminar

Several seminars series on campus presented by students, fellows, faculty, and visiting speakers on contemporary topics provide opportunities for students to meet/discuss with researchers at the forefront of their research fields. Students are required to enroll in one seminar series course per term except for summer.

Journal Clubs

In addition to didactic coursework, which take approximately 1.5 years to complete, students participate in journal clubs and present their research results in a formal seminar setting every year. They are taught to think critically and independently and to write manuscripts and proposals in the NIH style. Students are required to enroll in one seminar series course per term except for summer.

Course Load

A total of 9-16 credit hours per term is considered to be a normal course load. A student is required to register for a minimum of 9 credits per term.

Course Waivers

Students who have completed one or more years of full-time graduate training at another institution may be considered for direct admission to the Graduate Program in Biochemistry and Molecular Biology. Recommendations for admission

of such students will be initiated by the appropriate Member Department and must be approved by a majority vote of the BMB Steering Committee, which will also determine which (if any) PMCB requirements will be waived.

If a student wishes to be excused from taking a required course, the student and advisor should jointly petition the Graduate Program Director for Biochemistry and Molecular Biology stating their reasons for wishing to be excused from the requirement.

Grading

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

If a graduate student fails a semester of research credits (i.e. receives No Pass (NP) on research), the student is put on immediate academic probation. The student is required to obtain a passing grade on the next term (and subsequent terms) of research credits or the student may be dismissed from the BMB graduate program.

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

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

The courses BCMB 605 Journal Club and BCMB 607 Seminar require documentation of attendance in order to be considered for the grade of 'Pass.' A total of 3 excused absences are allowed per term. A graduate student missing more than 3 excused absences will receive a grade of 'No Pass' and will be placed on immediate academic probation. The student must receive a 'Pass' the subsequent term and every term thereafter. Following the receipt of the first 'No Pass,' a pre-qualifying exam student must immediately meet with their mentor, GPD and GPC. A plan for insuring the attendance goal for the next term should be designed. Two grades of 'No Pass' in either of these activities disqualifies a student from taking their qualifying exams, resulting in dismissal from the BMB graduate program. If a student who has advanced to candidacy receives two grades of 'No Pass' in either activity they may be dismissed from the BMB Graduate Program.

Course Descriptions

BCMB 618 Protein Design: How Structure is Related to the Function of Proteins

Advanced topics that cover the structure, chemistry and function of proteins. Particular aspects of protein biochemistry include: the chemical properties of amino acid side chains, catalysis, levels of protein structural organization, purine metabolic pathways, rational drug design, membrane receptors, extracellular matrix, protein cofactors, kinase and phosphatase catalytic mechanisms.

BCMB 620 Biochemical & Biophysical Properties of Membranes

The composition of biological membranes and the functional aspects of their composition; models of membrane structure, membrane function, and mechanisms of membrane transport.

BCMB 625 Advanced Molecular Bio. & Nucleic Acid Biochemistry

Provide updated information and knowledge about biochemical and molecular activities on chromatin and nucleic acids; transcription initiation, activation, silencing, chromatin assembly and remodeling, DNA damage and repair, RNA processing and editing, and coupling of transcription to cellular events.

BCMB 628 Protein Crystallography

No description available

BCMB 630 Intro to Biophysics (PSU/OHSU joint course)

Biophysics involves the application of physical techniques to achieve an understanding of life processes at a molecular level. Physical techniques are central to the measurement of the atomic structure, dynamics and interactions of molecules that are a core foundation of modern molecular biology, while physical theory governs the predicted behavior of biomolecules and helps us achieve a mechanistic understanding of how they function. Thus, biophysics is a central science in the fundamentals of normal physiology, molecular pathology, and in the development of pharmaceutical remedies for a wide range of diseases.

This is the first of two lecture courses that will prepare graduate and advanced undergraduates for research and professional skills in Molecular Biophysics. It will cover macromolecular structure and underlying atomic interactions, and the thermodynamics and kinetics through which function is understood, using membrane proteins as an example. It will then introduce three of the experimental technologies used to elucidate structure and dynamics: Crystallography, Spectroscopy and Magnetic Resonance.

At the conclusion of this course, students will have the theoretical foundation to understand the properties of macromolecular functions, and understand the principles by which their actions are simulated. Students will be able to critically assess primary literature written for a general scientific audience in the area of macromolecular structure & function, understanding the experimental basis in crystallography, NMR and spectroscopy. Students will also be prepared for the Advanced Biophysics course which would be the entry point into practical application of biophysical techniques.

BCMB 631 Adv. Biophysics (PSU/OHSU joint course)

Biophysics involves the application of physical techniques to achieve an understanding of life processes at a molecular level. Physical techniques are central to the measurement of the atomic structure, dynamics and interactions of molecules that are a core foundation of modern molecular biology, while physical theory governs the predicted behavior of biomolecules and helps us achieve a mechanistic understanding of how they function. Thus, biophysics is a central science in the fundamentals of normal physiology, molecular pathology, and in the development of pharmaceutical remedies for a wide range of diseases.

This is the second of two primarily lecture courses that will prepare graduate and advanced undergraduates for research and technical expertise in Molecular Biophysics. It will cover the practical aspects of the elucidation of macromolecular structure and dynamics by NMR spectroscopy and x-ray crystallography, and the characterization of macromolecular interactions by electron microscopy, mass spectrometry and fluorescence methods. It will examine computational methods for interpreting structure, predicting properties and simulating mechanisms of action.

At the conclusion of this course, students will have a basic understanding of the primary experimental and computational methods by which the structure, dynamics and interactions of biomolecules are elucidated and their

actions simulated. Students will be able to critically assess primary research literature written for a general scientific audience that uses any of the common physical approaches to understand macromolecular systems. Students will understand the nature of advances that can be made with the principal techniques and their limitations. They will also be prepared for mentored practical research investigations that use the primary methods.

Academic Progress

In accordance with the guidelines for graduate students in the School of Medicine, BMB students must maintain a grade point average of 3.0 in all courses taken for credit. (A = 4; B = 3; C = 2; D = 1). Courses graded on a pass/not pass basis (P/NP) must be completed with a passing grade (P); however courses graded on a P/NP basis do not contribute to calculation of the grade point average. If a student's cumulative grade point average drops below 3.0, the student will be placed on academic probation, requiring that student bring up their grade point average to at least a 3.0 within one academic term. Note that academic probation may limit the availability of some kinds of student loans or other financial aid (for further information contact Registrar's office). A student that fails to do so may be recommended for dismissal for inadequate scholarship, at the discretion of the BMB Graduate Program.

Graduate students must make appropriate progress in research activities. A BMB student who receives a grade of not-passed (NP) for a research registration (BMB 601 or 603) will immediately be placed on academic probation. Academic probation status will be removed when a grade of passed (P) is received for a subsequent research registration. Students who receive a grade of NP for a total of two terms of research registration (BMB 601 or 603) will be subject to dismissal from the Program.

Following Advancement to Ph.D. Candidacy, students must meet with their Dissertation Advisory Committee (DAC) on a regular basis. Ideally, students should assemble and meet with their DAC within 6 months after completing their Qualifying Examination. Thereafter, students are expected to meet with their DAC approximately every six (6) months, until the committee decides that the student is ready to defend their dissertation. Students who do not meet with their DAC within six months of advancement to candidacy or within six months of a previous DAC meeting will be subject to disciplinary action, including dismissal from the program.

In accordance with the guidelines for graduate students in the School of Medicine, BMB students must successfully defend their dissertation research within 7 years. Under exceptional circumstances, students may request an extension of this deadline by petitioning the Graduate Program Director, who in turn may present the petition to the Committee on Graduate Studies. A successful petition will require a clear explanation of why the extension is required, and a specific plan (with timeline) for completion of the dissertation if an extension is granted. Students who fail to successfully defend their dissertation within this period will be subject to dismissal.

Training in the Responsible Conduct of Research

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

- Complete CONJ 650 The Practice and Ethics in Science during their first year
- Complete second ethics course (CONJ 650) in the 5th Year

Qualifying Exam

Overview

PH.D. QUALIFYING EXAMINATION

The purpose of the Qualifying Examination in BMB is two-fold. First the examination will determine if the student has acquired sufficient knowledge and skills to pursue their Ph.D. dissertation. Second, the exam will provide the student with the opportunity to practice the preparation of a research proposal.

Eligibility

Before taking the candidacy examination, the student must have completed the BMB course requirements. In the event that a course is not offered before the end of the second year, and the student is otherwise prepared to take the candidacy examination, the examination may proceed without completion of the course and with approval from the Graduate Education Committee. However, the required course must be taken prior to the dissertation defense.

Timeline and Description

Each student is expected to complete the Qualifying Examination by no later than the end of the summer term of their second year in the program, in compliance with the PMCB requirements.

On or before July 13 of their second year, students must submit two abstracts to the Graduate Program Coordinator.

July 19: The Graduate Program Director will select a Qualifying Examination Committee (QEC) responsible for conducting the student's qualifying examination. A chair of the QEC will be designated. The student is notified of the names of the panel members.

July 26: The QEC notifies the student in writing of selection of the examination topic and the acceptance or of any weaknesses or specific suggestions for improvement to their proposal.

August 6: Students must have their examination dates scheduled. Examinations must be completed at least ten days before the beginning of the Fall term.

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

Qualifying Exam Committee

The Graduate Program Director will appoint a 5-member examination committee for each student based on the topic to be presented by the student and, as they see fit, the nominations of the student involved. Names of the examiners nominated by the student should be submitted to the Graduate Program Director together with the abstracts of their proposals. The student's Mentor may not serve on the examining committee, and should not attend the examination as an observer.

Role of Advisor/Mentor

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

Format of Written Proposal

The proposal shall be written following current general guidelines of a NRSA application. It is the student's responsibility to check on the guidelines, which are available on the NIH website. It shall consist of a hypothesis-driven series of experiments bearing directly on the question or hypothesis of the proposal, with a discussion of probable outcomes, interpretations and alternative approaches. The proposal shall be no longer than 7 pages, excluding figures and references (single-spaced; 1 page for the specific aims section and 6 additional pages for the rest of the grant). Students may discuss topics and proposed experiments with all sources (fellow students, post-doctoral fellows, faculty, and visiting scientists), but none of them may be involved in any aspect of the student's written proposal. Students may also seek general assistance in scientific writing and proofreading. However, it must be remembered that the written proposal is an examination, and must represent the student's ideas and development of the research topic. Students are expected to adhere to established guidelines for professional ethical conduct in the preparation of their QE proposal topics.

Format of Oral Exam

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

Before embarking on preparation of a research proposal, the student will submit an approximately 300 word abstract to the Graduate Program Coordinator (GPC). The abstracts should describe specific research problems which have been designed by the student. Abstracts will be reviewed and the Qualifying Examination Committee (QEC) will select one topic for development. If the QEC deems none of the proposals suitable, the student will present additional proposals in a time frame designated by the QEC.

During the preparation of the proposal, the student is encouraged to seek constructive criticism by others, however excluding the dissertation advisor. During the oral examination, the student will be expected to make a 20-30 minute presentation of the research proposal, which will be followed by questioning that may cover all areas of biochemistry and molecular biology relating to the proposal.

Outcomes

Pass (Unconditional)

An unconditional pass may be given when both the written and oral components of the examination have no significant deficits identified by the committee.

Pass (Conditional)

A conditional pass may be given for either the written or oral components of the examination if significant deficits are identified. Students who pass the examination conditionally will be required to complete additional academic requirements (e.g. rewriting of the proposal, re-examination by the Examination Committee on basic knowledge). The additional academic requirements, and date by which it must be completed, will be specified in writing by the chair of the Examination Committee.

The chair of the student's QEC will be responsible for notifying the student, the student's dissertation advisor, and the PMCB office when the student has successfully completed the requirements of the conditional pass. Failure on the part of the student to complete the requirements within the prescribed time frame will be considered unsatisfactory progress, and the student may be subject to dismissal from the PMCB Graduate Program.

Fail

Upon the recommendation of the Examination Committee, a student who fails the candidacy examination may be given the option of taking a second examination. The second Examination Committee will either pass the student or recommend that the student not be admitted to candidacy for the Ph.D. degree. Within one week of the examination, the chair of the Examination Committee will provide a written statement to the student, the dissertation advisor and the PMCB office, describing the deficiencies that led to failing the qualifying examination. The student may petition the QEC to retake the qualifying examination (written and oral) again within the subsequent three months, or alternatively may resign from the graduate program. The QEC may also elect to offer the student the option to complete a Master's Degree, rather than re-taking the Qualifying Examination. In such a case, students will be obligated to complete all the requirements for the Master's Degree of their home graduate program. The QEC will counsel the student with respect to the most prudent course of action. If the student decides to re-take the Qualifying Examination, then he/she must submit a revised or new proposal to the QEC as summarized above; and will have five weeks to complete the full proposal.

Timeline for Re-examination

A student who is asked to repeat the candidacy examination will be expected to do so within 3 months of the initial examination.

Outcome for Re-examination

Students will be assigned a "pass," "conditional pass," or "fail" by the same criteria as summarized above. Failure to pass the QE after two attempts will automatically result in dismissal from the graduate program.

Advancement to Ph.D. Candidacy

Students will Advance to PhD Candidacy once they have passed their Qualifying Examination *and* have formed their Dissertation Advisory Committee.

Dissertation Advisory Committee

The purpose of the Dissertation Advisory Committee (DAC) is to advise and oversee the progress of the student's entire graduate education and training. The Committee should be composed of at least one primary faculty member of the Graduate Program of Biochemistry and Molecular Biology, and faculty members with primary appointments outside of BMB with appropriate research expertise, to total four members. The Chairperson of the committee cannot be the Student's Research Advisor (mentor). If the focus of the student's research changes, then appropriate changes of personnel in the DAC can be made. The DAC should advise the student in matters of curriculum requirements and research objectives. The DAC will determine whether the required course material has been taken and may recommend additional course material pertinent to the specific research goals. Members of this committee may also serve subsequently on the Dissertation Examination Committee. In this way, these faculty members will be familiar with research, and will have the opportunity to communicate possible concerns they may have about the student's research early to allow time to address these concerns. DAC meetings usually involve an oral presentation by the student of dissertation research goals and progress. Final approval of the DAC is up to the GPD.

DAC Formation

Immediately following passing the Qualifying Examination, students in consultation with their Mentor should construct a Dissertation Advisory Committee. Students must meet with their DAC within 6 months of passing the Qualifying Examination, and every 6 months following the first meeting. It is the responsibility of the student to organize and schedule these meetings

The First Meeting: Students are encouraged to form their DAC as early as possible, but the first formal meeting must be held by the end of Winter Term in the student's third year. At least one week prior to the first meeting, the student will be expected to send the Committee Members an updated half-page description of their immediate research goals, a copy should also be sent to the Graduate Program Coordinator (GPC) along with a list of the DAC members and the DAC meeting date. At the first meeting, the student will present a 5-minute introduction to the research problem and one member of the committee will be selected to serve as chair of the committee. *It is the responsibility of the student to schedule this meeting.*

Subsequent Meetings: The DAC will meet every 6 months, or more frequently if deemed necessary. The student will update the committee on the progress made toward the research objectives and the completion of required course material. At least one week prior to the meeting, the student will be expected to send the DAC members and the GPC an updated summary that should be no more than three pages. The meeting will begin with the student giving a 15-minute overview of his/her more recent results and future directions. Following each committee meeting, the Chair should prepare a brief memo evaluating the student's progress and send it to the GPC.

Final Meeting: Three to four months prior to anticipated defending their dissertation, the student will have a DAC meeting to obtain approval to begin writing of their dissertation.

Non-compliance: Non-compliance can and will result in the revocation of certain Departmental privileges (e.g. Student's Departmental e-mail account), academic probation and possible dismissal from the graduate program.

BMB Preparation and Submission of Dissertation: All instructions and guidelines adopted by the Graduate Council By-Laws shall be carefully followed. More information on submitting your dissertation can be found [here](#).

Terminal Master's Degree (for programs with M.S. degree option)

The OHSU Graduate Program in Biochemistry and Molecular Biology does not routinely offer a Master's degree. Under special circumstances, a student may petition the Graduate Steering Committee in writing to allow the student to complete a terminal Master's degree. Approval of this request by the Graduate Steering Committee must be unanimous. A written thesis and oral thesis defense examination are required to earn a Master's degree. A minimum of 80 completed credit hours is required for the Master's degree. A dissertation advisory committee is required, the composition of which is in keeping with these guidelines.

Ethical and Professional Behavior

Graduate students are expected to maintain high ethical standards. Graduate students should demonstrate honesty in all aspects of research activities. Student should learn about and avoid sources of error in scientific research. It is essential that student do not misrepresent scientific findings or misappropriate credit. All graduate students are required to take a course concerning ethics and science. Students should show cooperation, responsibility, and respect in their interactions with other students and faculty. Students should be considerate of the cultural and individual diversity of their colleagues.

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

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

See the [OHSU Code of Conduct](#) for further information.

Time Limit for Completing Degree Requirements

The current policy of the Graduate Council for the School of Medicine mandates that students must complete all requirements for the Ph.D. within 7 years of matriculation. Students that do not complete degree requirements within this deadline may be dismissed from the graduate program. Under unusual circumstances, graduate programs may petition the Graduate Council for an extension beyond this 7-year limit for specific students. Students, mentors, and the Dissertation Advisory Committee should consider this deadline when evaluating dissertation research goals and progress.

Extracurricular Employment

The Graduate Program in Biochemistry and Molecular Biology considers graduate studies in the Ph.D. program to represent full time effort. Students are strongly discouraged from seeking outside employment. Any student wishing to pursue outside employment must submit a written request to the 1st year advisor and/or mentor, and the Director of the Graduate Program in Biochemistry and Molecular Biology. The student must receive written authorization from the above individuals prior to accepting employment.

Sick Leave, Vacation, and Leave of Absence

Students and mentors are expected to be both reasonable and flexible in making decisions about the student's commitments of time to course and laboratory work as well as other training-related activities. Graduate students who receive stipend support will not accrue paid vacation leave. Students are entitled to the normal holidays in the academic calendar. The time between academic quarters is to be used as an active part of the student's training.

This policy applies to any student enrolled in a master's level or PhD degree granting program in the School of Medicine at Oregon Health and Science University, who is receiving a stipend to offset living expenses.

Vacations and Holidays: Students are entitled to the normal holidays for unclassified employees in the academic calendar. Even though classes are not in session in between academic quarters, students are expected to continue their research during these periods unless they take vacation or are on leave as outlined in this policy.

Leave with pay: Graduate students may take up to 20 days of paid leave each academic year (July 1 – June 30). Leave days may be used for any purpose including illness or vacation. Additional leave or "leave of absence" must be without pay. Leave days will be tracked by the student and mentor and will accumulate at the rate of 5 work days/quarter. Students may accrue up to a maximum of 30 days (i.e. 10 days can be carried forward each year). Students are not entitled to compensation for unused leave days at the time of graduation.

Scheduling: Students and faculty and programs are expected to be responsible, reasonable and flexible when scheduling leave. Using leave does not excuse the student from required course work.

Student must provide written notification to the Graduate Program director whenever:

1. The number of leave days exceeds 5 in any academic quarter.
2. The number of leave days exceeds 20 in one academic year.

The Program Director will determine whether the student is able to maintain his/her current course load. If it appears that the leave will interfere with satisfactory completion of current course work the student should request a formal "leave of absence".

Parental Leave: Academic Adjustments for Birth or Adoption of Child

POLICY STATEMENT

OHSU is committed to achieving a diverse graduate student body and facilitating participation of all students in research and their graduate studies. The birth or adoption of a child can be a demanding time for parents and may require unique academic adjustments in order to allow students the opportunity to continue progress towards their degree during such time. While not considered employees, OHSU graduate students are in a unique situation and need special consideration for the birth or adoption of a child, distinct from accommodation and leave including sick leave.

This policy establishes minimum adjustments that must be offered to a graduate student anticipating the birth or adoption of a child. Nothing in this policy is intended to deter advisors, academic staff, and departmental leaders from considering other options beyond the adjustments described in this policy.

This policy applies to all matriculated, registered, graduate students regardless of sex or gender.

ACADEMIC ADJUSTMENTS

Students who anticipate the birth or adoption of a child are responsible for informing their mentors, program and (if applicable) dissertation advisory committee as early as possible prior to the birth or adoption. Programs must provide the following options for students during pregnancy (before birth) and/or in the weeks immediately following birth or adoption of a child:

Academic Requirements: Students may postpone course assignments, examinations, and other academic requirements for up to one term (students will work with their academic advisors and instructors as soon as possible to determine whether interrupted courses will receive a Withdrawal or Incomplete designation).

Academic Milestones: Students will be granted an automatic one-term extension of departmental requirements and academic milestones including cumulative and qualifying exams. This extension is separate from and in addition to any extensions that students may petition for to complete their degree.

Stipend Support for 8 weeks: Graduate students supported by stipends or fellowships will be relieved of full time graduate responsibilities and modify their duties for 8 weeks to accommodate the birth or adoption of a child.

Students will maintain full-time enrollment at the minimum number of credits. By remaining on full-time status, student visa status and loan repayment schedules will remain unchanged and students will retain health insurance benefits. This policy is not a leave of absence.

Eligible students who are receiving stipend support would continue to receive this support throughout the 8-week period. Students will not receive a stipend or salary if none was received previously but are eligible for adjustments/extensions described under "Academic Requirements" and "Academic Milestones" above.

Students who are supported by fellowships or grants external to Oregon Health & Science University must adhere to the rules of the fellowship or grant source with respect to absences from academic and research work. Most granting

agencies provide for a short period of reduced activity due to health or personal issues. The student cannot be removed from research support for this 8-week period unless the granting agency requires such removal during such a period.

Leave of Absence

All students admitted to the graduate program must be continuously enrolled until graduation, except for periods in which they are absent for an approved leave of absence. Taking a minimum of 1 credit per term during the regular academic year (Fall, Winter and Spring terms) will constitute continuous enrollment. Registration during the Summer term is not required to meet the continuous enrollment requirement. Failure to register without an approved leave of absence will result in administrative withdrawal of the student's admission to a graduate program.

Additional Concerns: There may be additional restrictions or requirements for graduate students who receive stipend support from individual or institutional traineeship or fellowship awards from NIH or other sources. Students should consult their training program director and the awarding agency for additional information.

Dismissal

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

Grievances

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

Exceptions

No exceptions from the policies and procedures described in these guidelines can be made without approval by the primary faculty within the Graduate Program in Biochemistry and Molecular Biology. In matters related to courses, exceptions must first be approved by the BMB Graduate Studies Committee before review and consideration for approval by the BMB primary faculty.