

ACADEMIC EXPECTATIONS FOR Ph.D. STUDENTS IN MOLECULAR AND MEDICAL GENETICS

These Rules pertain to all students in the Department of Molecular and Medical Genetics (MMG) and 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, particularly the "Academic Guidelines for PMCB," the "By-Laws of the Graduate Council," and the "Guidelines and Regulations for Completion of Master's and Ph.D. Degrees." Additional important information is contained in the OHSU "Graduate Studies Handbook."

The Ph.D. program is organized as follows:

- Year 1:** Begin to complete course requirements.
Complete three laboratory rotations.
Prepare for and complete the 1st-year PMCB comprehensive qualifying exam. (Students scoring below 70% on the 1st year comprehensive qualifying exam will be required to take a course of action to remediate the deficiency. Remediation should be completed no later than Spring of year 2.)
Choose a dissertation advisor.
Note: During the first year, the student will be mentored by a PMCB advisor, appointed by the PMCB Advisory Committee.
- Year 2:** Complete required and elective courses.
Prepare for and complete the 2nd-year candidacy exam.
- Year 3 and up:** Undertake the research leading to the Ph.D. dissertation.
Attend and participate in Departmental Seminars and Journal Clubs.

I. REQUIRED GRADUATE COURSES IN MOLECULAR AND MEDICAL GENETICS

Fall Term 2nd Year:

Elective Courses	0-4 credits
MGEN 622 Eukaryotic Genetics	3 credits
MGEN 606a Journal Club	1 credit
MGEN 607a Departmental Seminar	1 credit
MGEN 611 Departmental Grand Rounds	1 credit
<u>MGEN 601 Research</u>	<u>6-10 credits</u>

Second Year Fall Term Course Total: 16 credits

Winter Term 2nd Year:

Elective Courses	0-4 credits
MGEN 606a Journal Club	1 credit
MGEN 611 Departmental Grand Rounds	1 credit
MGEN 607a Department Seminar	1 credit
<u>MGEN 601 Research</u>	<u>9-13 credits</u>
Second Year Winter Term Course Total:	16 credits

Spring Term 2nd Year:

Elective Courses	0-4 credits
MGEN 623 Mechanisms of Disease	4 credits
MGEN 610 Essentials of Molecular & Medical Genetics (optional elective)	
MGEN 606a Journal Club	1 credit
MGEN 611 Departmental Grand Rounds	1 credit
MGEN 607a Departmental Seminar	1 credit
<u>MGEN 601 Research</u>	<u>5-9 credits</u>
Second Year Spring Term Course Total:	16 credits

Summer Term 2nd Year:

<u>MGEN 601 Research</u>	<u>16 credits</u>
Second Year Summer Term Course Total:	16 credits

Fall/Winter/Spring Terms Through Completion :

MGEN 610 Essentials of Molecular & Medical Genetics (optional teaching)	
MGEN 606a Journal Club	1 credit
MGEN 607a Departmental Seminar	1 credit
<u>MGEN 601 Research</u>	<u>14 credits</u>
Course Total:	16 credits

Summer Terms Through Completion:

<u>MGEN 601 Research</u>	<u>16 credits</u>
--------------------------	-------------------

A. NOTES TO COURSE REQUIREMENTS

1. Students are required to:
 - a. Register for and attend MGEN 606a Journal Club Year 2 through all years. Give a 30-minute presentation on individual research once per year in all post-qualifying years. Senior students have the option of presenting their research in the Departmental Seminar. Senior students registered for Dissertation credit are not required to register for Journal Club, however attendance is encouraged.

- b. Register for and attend the Departmental Seminar, MGEN 607, held at 4 p.m. Wednesdays, Years 2 through end of program, including the term registered for Dissertation credit.
 - c. Register for and attend Departmental Grand Rounds, MGEN 611, held at 9 a.m. Thursdays Year 2 through advancement to candidacy. Attendance is strongly encouraged, but optional, for the remaining years in the graduate program.
2. 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 majority vote.
3. The School of Medicine requires that a student maintain a grade point average of 3.0. A student with a GPA below 3.0 is automatically put on academic probation, and has one term to improve the GPA to a 3.0 or above. If the GPA is not at 3.0 or above within one term, the student may be terminated from the program. (See Bylaws of the Graduate Council, page 10, "Standard of Performance."). Under certain circumstances, a student may be granted up to four academic terms to correct deficiencies that resulted in academic probation. Probationary students who fail to achieve a cumulative grade point average of 3.0 within four terms shall be recommended for dismissal from the graduate program for inadequate scholarship.
4. Only course work (required and elective), and not research credits, will contribute to the GPA. Students must receive a grade of A or B in the required courses specified in this document. The grade of 'B minus' is unacceptable. 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 the course is taken will result in dismissal from the program. The required courses for which this rule applies are CON 661, 662, 663, 664, 665, 667, 668 and MGEN 622, 623.
5. The grade of Incomplete is reserved for circumstances in which a student is unable to complete the course requirements by the end of the term in which the course is offered due to circumstances beyond his/her control (e.g. illness) **AND** it is possible to fulfill the remaining requirements within the subsequent term to earn a grade. If a graduate student is having difficulty with a course, he/she may consider formally withdrawing. If the graduate student opts to complete the course and the resulting grade is unsatisfactory, the student may re-take the course the next time it is offered, not register, and ask that the new grade be substituted for the old by the course director. Withdrawing and grade

replacement require approval by the course director and formal notification of the Registrar.

6. If a graduate student fails a semester of research credits (i.e. receives an 'NP - No Pass' 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 terminated from the Ph.D. Graduate Program in Molecular and Medical Genetics.
 - a. Pre-qualifying Graduate Students:
A pre-qualifying graduate student is required to notify and meet with his/her TAC advisor immediately upon receiving a failing grade on the research credits in any one term. The TAC advisor will suggest a course of action that the student must follow in correcting his/her academic performance.
 - b. Post-qualifying Graduate Students:
A post-qualifying graduate student, (in consultation with his/her mentor) is to schedule a Dissertation Advisory Committee meeting immediately upon receiving a failing grade on his/her research credits in any one term. This Dissertation Advisory Committee meeting must take place within two weeks of receipt of the failing grade on the research credits. The Mentor and Dissertation Advisory Committee will suggest a course of action that the student must follow in correcting his/her research program.
7. The courses MGEN 606a Journal Club, MGEN 611 Grand Rounds, and MGEN 607 Seminar require documentation of attendance in order to be considered for the grade of 'Pass.' Post-qualifying, a student and advisor may petition the MMG Curriculum Committee to substitute another formal journal club. However, no credit will be received for the departmental journal club. A total of 3 absences each are allowed per term. A graduate student missing more than 3 will receive a failing 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 receipt of the first 'No Pass,' a pre-qualifying exam student must immediately meet with his/her TAC advisor; a post-qualifying exam student must immediately meet with his/her dissertation advisory committee. A plan for insuring the attendance goal for the next term should be designed.

Two grades of 'No Pass' in any one of the three activities disqualifies a student from taking his/her qualifying exam, resulting in dismissal from the MMG Graduate Program.

Two grades of 'No Pass' in any one of the three activities for a post-qualifying exam student may result in dismissal from the MMG Graduate Program.

B. ELECTIVE COURSES

A total of 6 credit hours of elective courses are required to be eligible for the degree. Students are strongly encouraged to take at least one elective course during fall term of their second year.

The following are only a few of the popular electives taken by some of the graduate students in MMG. Other courses available are listed in the course catalog and graduate students are encouraged to speak to their TAC advisor or mentor when considering taking other courses. Some of the elective courses are offered every other year. To determine availability (if not listed), check with the MMG office.

MINF 571 Bioinformatics, Fall, 3 credits
CELL 616 Cancer Biology, Spring, 3 credits (every other year)
CON 654 Topics in Signal Transduction, Winter, 3 credits
MGEN 606b Mechanisms of Cancer Journal Club, any term, 1 credit
MGEN 606c Cardiovascular Genetics/Development Journal Club, any term, 1 credit
MGEN 620 Interviewing and Counseling Techniques for Genetic Counseling, Winter, 1 credits

II. PMCB/MMG QUALIFYING EXAMINATION

The purpose of the Qualifying Examination is two-fold. First, the examination will determine if the student has acquired sufficient knowledge and skills to pursue his or her Ph.D. dissertation work. Second, the exam will provide the student with an opportunity to practice the preparation of a research proposal. Before taking the candidacy examination, the student must have completed the PMCB and MMG course requirements. In the event that a required 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. However, the required course must be taken prior to the dissertation defense.

During the oral portion of the examination, the student will be expected to make a presentation of the research proposal that should be no longer than 30 minutes. This will be followed by questioning that may cover all areas of genetics and molecular

biology relating to the written proposal, as well as general knowledge of molecular and medical genetics.

The format, timing and all requirements for the qualifying examination may be found in the document "Academic Guidelines for PMCB."

III. Ph.D. DISSERTATION ADVISORY COMMITTEE GUIDELINES

Within three months of passing the Ph.D. candidacy exam, the advisor and student must submit a suggested dissertation advisory committee to the MMG Director of Graduate Education (DGE) for approval. The following guidelines for the composition of the committee should be followed.

- A. The committee should include the advisor and at least 3 other faculty members who represent expertise relevant to the student's dissertation project. The advisor will serve as the Chair of the committee and be responsible for moderating the discussions.
- B. All members of the advisory committee must be members of the OHSU Graduate Faculty. At least one member of the committee must NOT have an appointment in MMG.
- C. At least one member other than the advisor must be experienced in advising a Ph.D. dissertation student; that is, he/she must have been a mentor for at least one student who has successfully completed his/her Ph.D.
- D. The responsibilities of the Student are:
 - 1. to schedule the meetings in a timely fashion.
 - 2. to submit a summary of research accomplished and proposed to the GSC who will distribute it to committee members one week prior to each committee meeting. Electronic submission to the GSC is acceptable.
 - 3. to send to each committee member, the GSC, and the DGE a summary of the meeting and recommendations, and a tentative date for the next committee meeting. This must be done **within 2 days** following the committee meeting. Electronic submission is acceptable.
- E. The student must meet with the Committee at least once per year. Twice per year is strongly recommended. The student may meet more frequently on the recommendation of his/her Committee.
- F. The GSC and DGE will be responsible for monitoring adherence to these guidelines.

IV. MMG PREPARATION AND SUBMISSION OF DISSERTATION

A. The student will register for Dissertation Credit during the term(s) dedicated to writing the document and defending the dissertation. The hours for which the student registers should be decided in consultation with the mentor.

B. All instructions and guidelines adopted by the Graduate Council By-Laws shall be followed carefully.

C. In addition, the Department of Molecular and Medical Genetics requires the following actions in order for the student to present his/her dissertation:

1. At least seven weeks prior to the intended defense date, the student shall submit to the Graduate Student Coordinator (GSC), in person, as many copies of his/her dissertation in final form as necessary (one copy per Dissertation Advisory Committee Member). This shall not be a rough draft; all illustrations and legends need to be enclosed at this time. It is in the student's best interest to submit a well-thought out, prepared dissertation in order to prevent further time delays. It is recommended that the dissertation draft be reviewed thoroughly by the student's mentor prior to submission. The GSC will record the date of submission on the MMG Dissertation Submission Form and give a copy to the student, the student's mentor, and place a copy in the student's file. The GSC will then submit a copy of the dissertation to each of the graduate student's Dissertation Advisory Committee Members with an MMG Dissertation Approval form attached.

2. The Dissertation Advisory Committee Members shall have up to two weeks to review the dissertation and return it to the student with his/her comments and guidelines for revision. Some revisions are normally required and can include the necessity for further experiments. The Dissertation Advisory Committee members may sign off on the MMG Dissertation Approval form following the two-week review should they believe that the dissertation draft is in a form adequately on track to meet the intended defense date.

3. All members of the Dissertation Advisory Committee must sign the Dissertation Approval Form. It is the responsibility of the student to insure that each committee member has signed the form and that all forms are returned to the GSC. The student may proceed to defense with no more than one Dissertation Advisory Committee Member deeming the dissertation unsatisfactory. All Dissertation Approval Forms will then be submitted to the MMG Director of Graduate Education (DGE) via the GSC, thus indicating that the student may proceed to the next step toward the defense.

4. The Dissertation Advisory Committee will submit to the GSC at this time a list of members for the Dissertation Examination Committee, which may include some or all of the Dissertation Advisory Committee members, along with a suggestion for the Dissertation Examination Chairperson, in the area

provided on the Dissertation Approval Form. The Chairperson cannot be a member (or a joint appointee) of the Department of Molecular and Medical Genetics. Nor can the Chairperson be the student's mentor. In addition, the SOM requires appointment of an examination committee member **NOT** already a member of the Dissertation Advisory Committee. The suggested Chairperson may fill this role. The appointment of the Chairperson will be greatly facilitated by suggesting well qualified experts from outside of the Department who are capable of reviewing the dissertation in the respective time frame desired.

6. The DGE (or designee) will make the appointment of the Dissertation Examination Chairperson, upon the receipt of the Dissertation Approval Form from the GSC. The DGE will then notify the GSC of the Dissertation Examination Committee Members and the Dissertation Examination Chairperson. The GSC will inform the student who will then contact the Committee to select an available time for the Dissertation Defense. Once this information has been obtained the GSC will complete the Request for Oral Dissertation Examination Form and submit it to the DGE for approval. The DGE will then forward it on to the Associate Dean of Graduate Studies. **The submission of this form to the Dean's Office must be at least four weeks prior to the date of the exam.** It is recommended that at this time, the student submit a copy of his/her revised and approved dissertation to the GSC for distribution to the Dissertation Examination Committee. **The student must submit his/her approved dissertation no later than two weeks before the examination in order for the exam to take place as scheduled.** The GSC will record the date of submission and make sure that the student is in compliance with these guidelines. If the student is not in compliance with these guidelines, the GSC will notify the DGE. The DGE will then determine the proper course of action with the possibility of postponing the exam until the Committee has had at least two weeks to review the dissertation (dependent upon the Committee Members availability).

V. MISCELLANEOUS

A. GRIEVANCES

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

B. EXTRACURRICULAR EMPLOYMENT

The Department of Molecular and Medical Genetics considers enrollment as a graduate student in the Ph.D. program to represent full time employment. Students are strongly discouraged from seeking outside employment. Any student wishing to pursue outside employment must submit a written request to the TAC advisor and/or mentor, the Director of Graduate Education, and the Chairman of MMG. The student must receive written authorization from the above individuals prior to accepting employment.

C. **SICK LEAVE AND VACATIONS**

Graduate students with stipend support who are enrolled in Ph.D. programs in the School of Medicine may take up to 15 days of sick leave with pay per academic year (July 1- June 30). Sick leave accrues at the rate of 1.25 sick days/month. Additional sick leave or other "leave of absence" must be without pay. Extended leaves of absence must follow a formal petition and/or filing process through the MMG department and the SOM Associate Dean of Graduate Education office.

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 to 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. The student should request vacation time in writing to his/her mentor at least two weeks in advance.

For additional information see the **School of Medicine Graduate Student Vacation and Sick Leave Policy**.

D. **MASTERS DEGREE**

The OHSU Department of Molecular and Medical Genetics does not routinely offer a masters degree. Under special circumstances, a graduate student may petition the Graduate Education Committee in writing to allow the student to complete a terminal masters degree. Approval of this request by the Graduate Education Committee must be unanimous.

In the rare case where a masters degree is offered, the student is required to pass a candidacy examination, following the same procedures as outlined for a doctoral candidacy examination. The same rigorous standards apply to student performance in a master's candidacy examination as in a doctoral candidacy examination. Students failing a candidacy examination will not be candidates for a master's degree. A written thesis is required to earn a masters degree. In addition, a master's thesis defense examination must take place, with the same requirements as for the doctoral dissertation, except the number of credit hours required (45 vs. 135 credit hours). A thesis advisory committee is required, the composition of which is in keeping with section V of these guidelines.

revised 11/26/2008 sbo